

Structural analysis and design of microstrip antenna for S-Band applications

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Abstract

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This paper presents the design and implementation of a Micro strip antenna which is suitable for S-Band applications. Different antennas are existed, but microstrip based patch antennas are used mostly in IC and PCB technologies which are required for the modern applications. Micro strip antenna consists of small conducting patch made of copper or gold which are placed on a dielectric material. The Microstrip antenna is fed by inset feeding technique and studies the effect of antenna dimensions length, width and the substrate parameters dielectric constant, substrate thickness on radiation parameters. The mode of operation is quasi TEM mode because the radiation is distributed in air and dielectric medium. This antenna is useful in applications over a frequency range of 2-4 GHz. The radiation characteristics are stimulated using Comsol Multiphysics 5.0 Software.

Document Sections

- I. Introduction
- II. Microstrip Antenna
- III. Design Methodology
- IV. Results and Discussion
- V. Conclusion

Authors

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Structural Analysis and Design of Microstrip Antenna for S-Band Applications

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Abstract—this paper presents the design and implementation of a Micro strip antenna which is suitable for S-Band applications. Different antennas are existed, but microstrip based patch antennas are used mostly in IC and PCB technologies which are required for the modern applications. Micro strip antenna consists of small conducting patch made of copper or gold which are placed on a dielectric material. The Microstrip antenna is fed by inset feeding technique and studies the effect of antenna dimensions length, width and the substrate parameters dielectric constant, substrate thickness on radiation parameters. The mode of operation is quasi TEM mode because the radiation is distributed in air and dielectric medium. This antenna is useful in applications over a frequency range of 2-4 GHz. The radiation characteristics are stimulated using Comsol Multiphysics 5.0 Software.

Index Terms—Micro strip Patch Antenna, Frequency bands, TEM mode, Antenna characteristics

I. INTRODUCTION

An antenna means a transporting signal from one end to other producing EM field consisting of electric field and magnetic field [1]. The physical radiation mechanisms can be obtained by using Maxwell's equations. The Micro strip patch antennas are present day Antenna designer's choice as it is very advantageous in weight, cost, size and its fabrication. The patch antenna is a one type of transducer that converts the electrical energy in the form of Electro Magnetic waves. These antennas are used by any radio receiver or transmitter to couple its electrical connection to the EM field. Microstrip Antennas are undeveloped until the current revolution of a miniaturized of an electronic circuits and large scale integration in 1970s. The early work of Bob Munson on Microstrip Antennas for use of low profile flush mounted antennas on missiles, rockets shows the usage in several antenna problems. In 1886 radio antenna at shorter wavelength was assembled by Heinrich Hertz and further improved over long distances by Guglielmo Marconi.

In modern applications a variety of array configurations such as rectangular and circular patches on a Microstrip Antenna using enormously than conventional antennas because They are bulky and costly [3].

II. MICROSTRIP ANTENNA

A Micro strip antenna consists of a small radiating patch on one side of a dielectric substrate which has a ground plane on one side. The radiating patch and feed lines is usually photo etched on a dielectric substrate [2]. The patch acts as a resonating cavity (short circuit walls on top and open circuit on the sides) made of copper and generally it is square, triangular, circular or elliptical in shapes [4]. The dielectric material used for design of Microstrip Antenna is FR4 whose dielectric constant varies from $2.2 \leq \epsilon_r \leq 12$. For a rectangular patch, the patch length L is usually $0.33\lambda_0 < L < 0.5\lambda_0$. The height h of the dielectric substrate is $0.033\lambda_0 < h < 0.055\lambda_0$ usually.

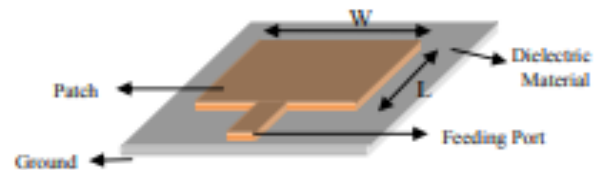


Figure 1: Basic Microstrip Antenna

In cavity, only certain modes exist at different resonant frequencies i.e. if an antenna is excited at a resonant frequency a strong field set up inside a cavity and strong current on surface of patch. This produces a significant radiation due to fringing fields exist between patch and ground for achieving good antenna performance. Microstrip Antennas is fed by inset feeding technique. The purpose of inset cut in patch is to match the feed line impedance without need for using any additional matching element. This can be achieved by controlling the position of an inset properly.

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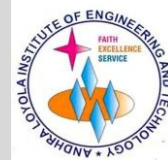
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Arduino Based Sophisticated Home Automation System for Electrical Appliances Using Bluetooth

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ABSTRACT

Automation systems are gaining lot of popularity now a days and are being used at various places such as shopping malls, toll gates, airports, etc. This paper represents a reliable, compact, fast and low cost smart home automation system, based on Arduino (Microcontroller) and Android app. Bluetooth chip has been used with Arduino Uno, thus eliminating the use of personal computers (PCs). Various devices such as lights, Fans, TV's, Washing Machines have been incorporated in the designed system to demonstrate the feasibility, reliability and quick operation of the proposed smart home automation. This system is based on Arduino Uno ATMEGA328 microcontroller board. Arduino Integrated Development Environment (IDE) is used for developing the necessary software. The Bluetooth technology for controlling the devices when we are at home. It uses a HC-05 Bluetooth Module and Bluetooth Controller mobile application for switching ON or OFF the Electrical Appliances. Relays and CFL Lights are used as a load to demonstrate the working of the system. This prototype design can be extended for several applications including surveillances, power monitoring, Fault monitoring, power control and security.

KEYWORDS: Interactive Home automation, Arduino Uno, C++language, Bluetooth Module, Relays, Smart Phone

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I. INTRODUCTION

With the recent development of mobile devices (smart phones), its demand is increasing day by day and because of its multi-dimensional functionalities and most enhanced technology, the demand for advance mobile application in daily life has also increased as today's generation is very busy, individuals sometimes may forget to switch off various home appliances or not sure about the device is ON or OFF. Sometimes it is also desirable for individuals to turn on few devices such as air conditioners, few lights etc. Most of the home

automation systems make use of different wireless communication standards such as Bluetooth, ZigBee, Wi-Fi, and the global systems for mobile communications (GSM) to exchange data and signaling between various components. Wireless home automations have the advantage of better system flexibility and scalability[2].with the advent of smart phone, android app and related technologies, it is know possible to practically implement all the desirable functions in a home automation system.

II. SYSTEM DESIGN

The above figure shows and Arduino UNO microcontroller [4].It has 14 digital input/output pins (out of which, 6 pins are PWM outputs).The HC-05 Bluetooth Module has been used for wireless communication. The HC-05 Bluetooth Module has 6 pins- Vcc, GND, TX, RX, Key, and LED the Bluetooth module can work in two modes: Master and Slave.

After the establishment of connection, the Bluetooth module can transmit and receive data regardless of the mode selected .The module has a factory set pin of "1234" which is used while pairing the module to a mobile via Android App. Android is a simple tool to control arduino Uno from android mobile via the HC-05 Bluetooth serial module.

The greatest advantage of arduino microcontroller is its ready to use feature .As arduino comes in a complete package with the 5V Regulator, a software burner, a micro controller, an oscillator, a serial communication interface, many LED's and headers for the connections; the designer do not have to worry about connections for the programming or any other interfaces[3].The designer just need to plug the arduino into usb port of the computer and that will sever the purpose of making a connection in between the computer and arduino to write program and upload or store it inside arduino. Another advantage of arduino is its automatic unit conversion capability. That's why, it can said that during debugging we do not have to worry about the units conversions. Designer is therefore, capable of using his/her all force on the main parts of the project without worrying about the side problems.



Fig: 1 Arduino Model

Therefore, it can be concluded about the advantage of Arduino that, the designer needs to concentrate about his/her innovative idea only and the remaining part will be taken care.



Fig: 2 Bluetooth Module

Fig: 2 represents the figure of the Bluetooth module [1] utilized in this project. If the module is set to the salve mode, it cannot initiate a connection to another Bluetooth devices rather than the intended Smartphone, but can accept connections. When it is in Master mode, the module can initiate a connection to other devices. The module contains two parts the black plane and the Bluetooth board. The implemented system is designed to operate in slave mode. Thus the system can be connected to arduino with Smartphone directly. Accordingly, the smart phone transmits the set of instructions to the arduino through which the arduino generates the set of output signals which in turn, controls different devices via drives.

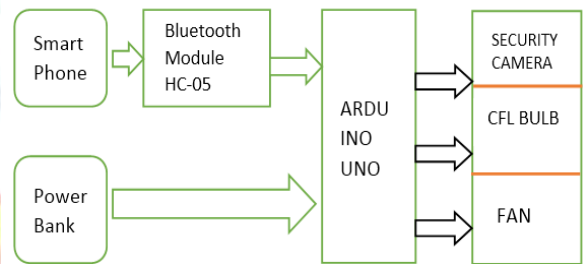


Fig 3 Block Diagram of Implemented System

Fig.3 given above represents the block diagram of the implemented system. A CFL bulb along with one Fan and a security camera are connected to the output ports of the microcontroller board. These components can be accessed and controlled via smart phone with fast response. Various signals can be generated by arduino and the intensity of the CFL bulb, Fan and the security camera can be controlled by pulse width modulation (PWM) technique.

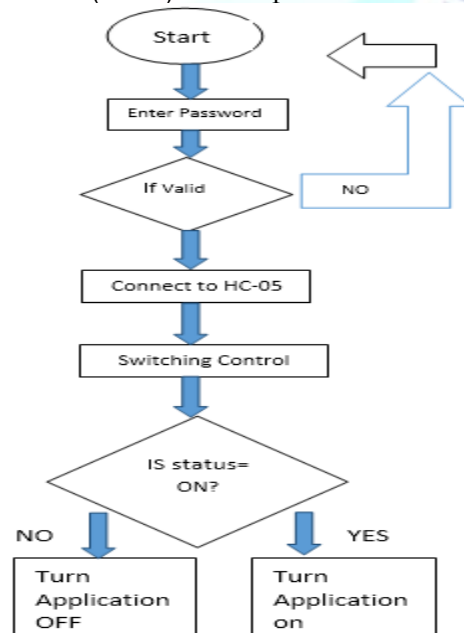


Fig: 4 Flow chart of the system operation

Operation: The designed system is password protected. If the user enters the proper and valid password, then only connection is build up and he/she can access the system.



Fig: 5 Different Hardware Components

A hardware implementation of the designed system has to been developed to verify the operation and short coming of designed system [5].

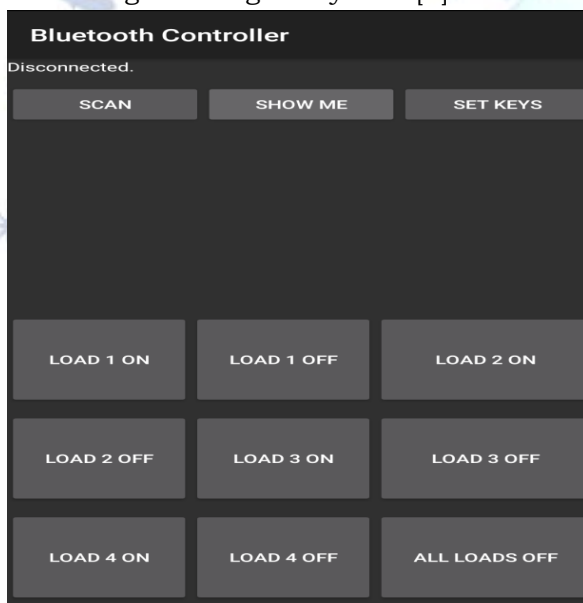


Fig: 6 Android App Preview

Fig 5 represents the different hardware component interconnection respectively. The hardware consists of an arduino Uno ATMEGA 328 along with input, ports (analog, digital, power), Bluetooth module, usb port, 7 to 12 volt DC input port etc. In the present project, Bluetooth module has been used to communicate the controller with the smart phone. The Bluetooth module has been sent to slave mode with the help of resistors Pin no.2,4,7,8,12 and 13 are the digital output ports and pin no3,5,6,9,10 and 11 are the PWM output ports.4 loads are connected to pins 9,10,11,12 and ON OFF control of them has been achieved One LED is connected to pin no 8 (PWM output port)

and intensity of the LED has been controlled smoothly with the android app which is an extra addition from the pre-existing Bluetooth based home automation systems. Pin number 13 (PWM O/P port) is connected with signal I/P of LOAD and with the help of android app. The designed system has been tested and run successfully.

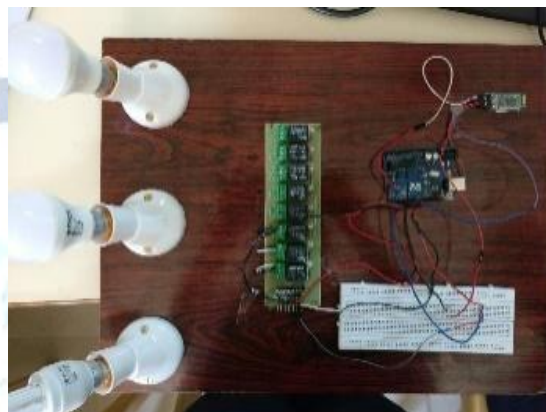


Fig: 7 System Inter-connection with Load

III. CONCLUSION

In this paper a reliable, compact, fast and low cost smart home system using arduino and android app has been proposed, implemented and tested. The proposed system utilizes Bluetooth module for fast and reliable communications in between the remote user and him devices. In order to provide safety protection to the user, a low voltage activating switches is replaced current electrical switches. Moreover, implementation of the wireless Bluetooth connection in control board allows the system install in more simple way. The control board is directly installed between the electrical switches where by the switching connection is controlled by relay. The complete application software has been designed using android, using C++ language.

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Arduino Based Two Axis Solar Tracking by Using Servo Mechanism

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ABSTRACT

The variation in the solar energy occur daily due to variation in day night cycle and also because of seasonal variations through out the year. Population of the world is increasing very rapidly. From past decade of years the non renewable energy sources like coal and oil are extinguishing and so it become serious problem for providing he reliable energy to the world. But solar energy plays important source of primary energy. In this project we propose dual axis solar tracking system by which it is possible to catch maximum amount of solar energy by using Arduino as main processing unit.

KEYWORDS: Dual axis solar tracker, Arduino, LDR Sensor, Servo motor.

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I. INTRODUCTION

In the present senerio the variation in the climatic changes have reached the critical level. The main reasons for climatic changes are due to natural causes and man-made destructions like global warming and green house gases are effecting the climatic conditions around the world.

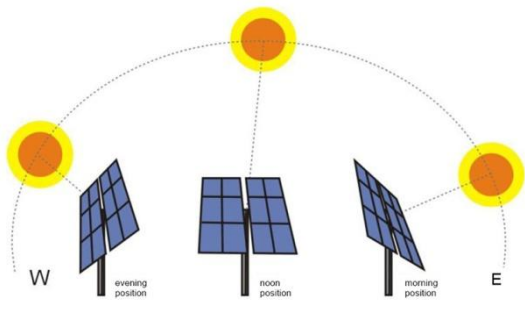
In the past decade of years there is increase in demand for reliable and abundant electrical energy derived from renewable energy sources renewable energy plays important role in energy crisis of country. The government started to decrease the usage of conventional energy sources and encouraging people to use renewable energy sources like hydro and solar. One such example of renewable energy is solar power. Solar energy is a very large, inexhaustible souce of energy.The reason is sun is only source we can find anywhere

it anywhere. The solar power received by the earth is approximately 1.8×10^{11} MW. The system will tend maximize the amount of power Absorbed by Photo voltaic systems. It has been found that making the use of a Dual axis tracking system, over a fixed system, can increase the power output by 40% - 60%. Solar energy systems have emerged as a possible source of renewable energy over the past two or three decades, and are now utilized for a variety of household and industrial applications. Such systems are based on a solar collector, it designed to collect the sun's energy and to convert it into either electrical power or thermal energy. In general, the power developed in such applications depends upon the amount of solar energy captured by the collector, and thus the difficulty of developing tracking schemes capable of following the trajectory of the sun throughout the course of

the day on a year-round basis has received significant coverage in this project.

II. SOLAR TRACKER

Solar tracker is a device which is used to collect the solar energy emitted by the sun. Solar tracking is Nothing but changing position of panel With respect to sun. usually photo voltaic module assembled in solar tracker is more powerful than critical irradiance in the fixed system. Solar trackers are classified on basis of performance, coast respectively. by tracking system we can catch 40-50% more efficiency compared to fixed panel. Among them dual axis provides increased efficiency of 48% as compared with single axis tracker. Advantage of Dual axis trackers are catching the position of the sun any where in the sky due to seasonal variations. The following figures represent solar tracking systems.



The main aim of this proposal is to implement high efficiency solar tracker.

III. HARDWARE REQUIREMENT

Since it is hard ware based project the main components are LIGHT DEPENDENT RESISTORS(LDR), Servo motors, Arduino as main controller.

A .Light Dependent Resistor(ldr)

Ldr are also named as photo conductors (or) photo resistors. Which works on the principal of photo conductivity. ldr resistance decrease with increase in light intensity and vice versa. Ldr s are mainly used for sensing purpose in order to catch the solar energy and provide analog input to arduino.



Light Dependent Resistor (LDR)

B .Servo motor

Servo motor is three wired dc motor which works on the principal of servo mechanism. servo motor can rotate upto maximum angle of 180degrees. In our proposed project 4.8V motor is used. Since it is dual axis system two sevo motors are used for east-west and north-south directions respectively. Servo motors are powerd by PWM output received from the arduino.



C .Solar panel



Solar energy is the photovoltaic cell which convert light energy received from sun into electrical energy. The name behind "solar" panel is they grab high powerful energy emitted from the sun. The solar panel finds its applications in street lights , domestic and industrial areas.

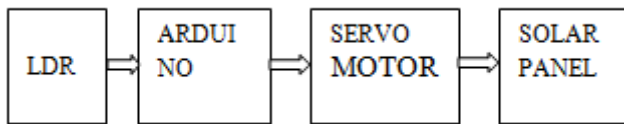
D .Arduino

Arduino is the type of microcontroller. The purpose of microcontroller is to control the position of motor. so *At mega 328p* microcontroller is used. Arduino consist of 6 analog inputs and 14 digital i/o ports out of them 6 acts as pwm signals. In addition to this it consist of 16 MHZcrystal oscillator, a USB cable through which program is dumped. And arduino get powerd by the power jack. Advantages of arduino is low cost, roubst construction and platform independent.



IV. IMPLEMENTATION

A. Block diagram



The principle of the solar tracking system is done by Light Dependant Resistor (LDR). Four LDR's are connected to Arduino analog pin A0 to A4 that acts as the input for the system. The built-in Analog-to-Digital Converter will convert the analog value of LDR and convert it into digital. The inputs are from analog value of LDR, Arduino as the controller and the DC motor will be the output. LDR1 and LDR2, LDR3 and LDR4 are taken as pair. If one of the LDR in a pair gets more light intensity than the other, a difference will occur on node voltages sent to the respective Arduino channel to take necessary action. The DC motor will move the solar panel to the position of the high intensity LDR that was in the programming.

B. Circuit diagram

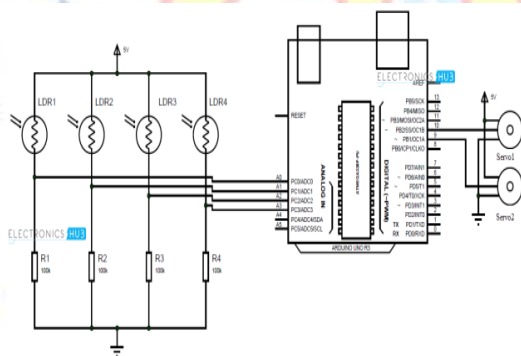
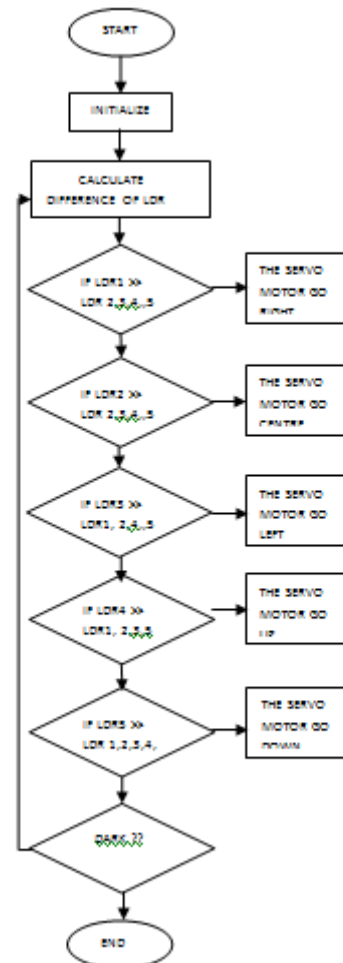


Figure: circuit representation

C. Algorithm

- Step1: start the program.
- Step2: initialize all the values.
- Step3: calculate the difference of ldr.
- Step4: if $ldr1 \gg ldr\ 2,3,4,5$ servo motor go towards right
- Step5: if $ldr2 \gg ldr\ 1,3,4,5$ servo motor go towards centre
- Step6: if $ldr1 \gg ldr\ 2,3,4,5$ servo motor go towards right.
- Step7: if $ldr1 \gg ldr\ 2,3,4,5$ servo motor go towards right.
- Step8: if $ldr1 \gg ldr\ 2,3,4,5$ servo motor go towards right.
- Step9: End the program.

Flow Chart



Flowchart representation

V. RESULTS

The following tables shows voltage drawn by solar panel with and without tracking respectively.

Time	Voltage without tracking	Voltage with tracking
11:00AM	4.955v	5.262v
12:00PM	3.467v	5.875v
1:00PM	3.447v	6.002v
2:00PM	3.447v	5.515v
3:00PM	3.15v	5.275
4:00PM	3.15v	5.015

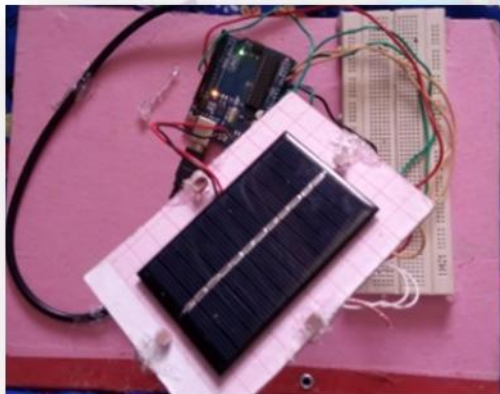
TIME	Power Generated with tracing	POWER Generated Without Tracing
11:00AM	3.682watt	3.467watt
12:00PM	4.112watt	2.452watt
01:00PM	4.2watt	2.39watt
02:00PM	3.86watt	2.307watt
03:00PM	3.692watt	2.205watt
04:00PM	3.5watt	2.205watt

Table 2: power generated with and with out tracking

Graphical View of Voltage Drawn By Solar Tracking



VI. EXPERIMENTAL SETUP



VII. CONCLUSION

The proposed dual axis solar tracker automatically tracks position of sun and maximise the solar power with help of arduino. As compared to single axis, dual-axis system provide high abundant electrical energy output when compared to the fixed mount system. The Dual axis tracker is having more efficiency. The main aim of this work is to develop two axis solar tracker system that uses four sensors(ldr s) to predict the sun position.

Secondly, program is dumped on to Arduino (ATmega 328 p) so that rotation of servo motor can be controlled by employing the microcontroller. The programming part consists of 5 cases which has been stated and analyzed. Thirdly, to investigate the voltage differences from the sensor (light depending resistor LDR) based on intensity of light received by the sensor. The output has plotted into a graph and compared with static system. And proposed system is eco friendly, and widely used.

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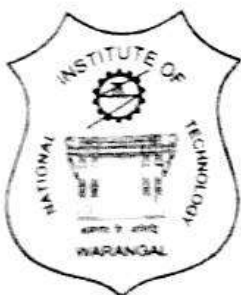
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Power Management Strategy in Grid Connected SPV System for Remote Areas

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Abstract: This project proposes the concept of energy management for grid connected hybrid system under islanding condition. Power management Control strategy used in this project enables photovoltaic/battery unit as a primary supply which employs a droop controlling of load sharing which is adaptive in nature by means of alternative source of energy such as charging of the battery. Additionally, this control technique is intended to switch the SPV in operation to equalize the load demand unconventionally every time the available photo voltaic power is beyond the load and also the total charging of the battery is done. Additionally, with islanding conditions of micro grid, for example regulation of voltages and frequencies and also deficiency of energy circumstances a battery will provide the various functions of operation with a separate unit for the purpose of storage.

Keywords: Micro-Grid, SOC, Battery, SPV and Island Condition.

I. INTRODUCTION

As electric distribution technology steps into the next century, many trends are becoming noticeable that will change the requirements of energy delivery. These modifications are being driven from both the demand side where higher energy availability and efficiency are desired and from the supply side where the integration of distributed generation and peak-shaving technologies must be accommodated [1]. Power systems currently undergo considerable change in operating requirements mainly as (DER). In many cases DERs include different technologies that allow generation in small scale (micro sources) and some of them take advantage of renewable energy resources (RES) such as solar, wind or hydro energy. Having micro sources close to the load has the advantage of reducing transmission losses as well as preventing network congestions. Moreover, the possibility of having a power supply interruption of end-customers connected to a low voltage (LV) distribution grid.

II. CONFIGURATION OF POWER MANAGEMENT STRATEGY

Figure 1 shows the management of power for grid connected systems which are of hybrid in nature in the microgrids which are islanded are discussed at this chapter. In this control strategy SPV/battery unit will operates as a controlled source of voltage which performs a droop control which is of the adaptive in nature for the sharing of the load along with some other energy sources mean while it charges the battery along with this [2]. The SPV/battery unit will performs tracking and gives SPV power which is maximum to the micro grid up to there is fully loaded is achieved. Or else, the unit which is of hybrid in nature will automatically match the changes in the load demand while it stores fully the battery with the excess energy. The main aim of this control methods is to meet the photo voltaic point of operation with the loads

automatically once there is a power from the SPV availability condition is greater than that of the load and the fully charged battery.

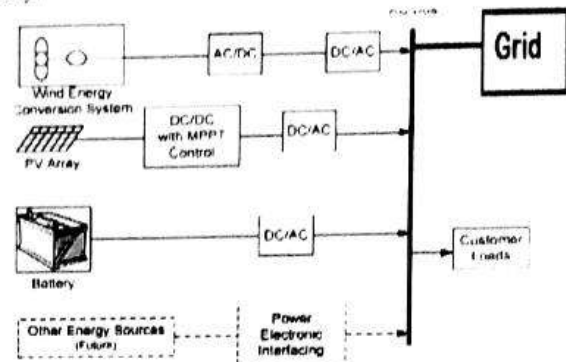


Fig 1 Basic architecture of Hybrid System

From the above Figure 2, the regulation of the DC link voltage can be obtained through a boost converter which is of the bidirectional in nature in the battery while the boost converter of the photo voltaic array [3] is maintained and used for controlling a regulation of voltage located at the terminals of the photo voltaic array. The reference for the voltage of the photo voltaic array $V_{SPV-ref}$ was obtained through the photo voltaic controller for the power depends on the state of charge of a battery, the highest power from a SPV module, and the power of the load. According to this conditions, the flow of power within the module can divided in to a couple of methods, first method is the MPPT scenario, and the second one is the curtailment of SPV scenario. At the time of the MPPT condition, reference voltages which is $V_{SPV-ref}$ will be obtained through the MPPT algorithm, which gives the assumption of the state of charge of a battery is less when compared with maximum limit SOC_{max} . At the time when state of charge moves greater than the determined SOC_{max} , A curtailment in the SPV loop controller (the PI loop in Figure 2) begins for the purpose of controlling the power of SPV by relocating the region of operation of SPV far to the maximum power point region towards the region where the voltage source of the SPV characteristic curve will be operated [4].

III. PHOTOVOLTAIC SYSTEM

In photovoltaic (SPV) system, solar cell is the basic component. SPV array is nothing but solar cells are connected in series or parallel for gaining required current, voltage and high power. Each Solar cell is similar to a diode with a p-n junction formed by semiconductor material. It produces the currents when light absorbed at the junction, by the photovoltaic effect. Figure 3 shows at an insulation output

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Solar Powered Induction Motor for EVs with Flexible Energy Control Functions

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ABSTRACT

Electric vehicles (EVs) give an achievable answer for diminish nursery gas emanations and along these lines turn into an intriguing issue for innovative work. Induction MOTOR (IM) is one of the guaranteed engines for EV applications. Keeping in mind the end goal to broaden the EVs' driving miles, the utilization of photovoltaic (PV) boards on the vehicle diminishes the dependence on vehicle batteries. In light of the stage twisting attributes of SRMs, a tri-port converter is proposed in this paper to control the vitality stream among the PV board, battery, and INDUCTION MOTOR. Most extreme power point following (MPPT) of the PV board and speed control of the IM are figured it out. In the stop charging modes, a framework associated charging topology is produced without a requirement for outside equipment. At the point when the PV board straightforwardly charges the battery, a multisession charging control procedure is utilized to upgrade vitality usage.

Keywords— Electric vehicles (EVs), photovoltaic's (PVs), control stream control, Induction Motor (Im), converter organize.

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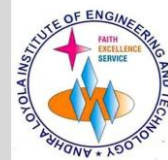
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Demonstrating and Simulation of Utility Interface PV and Hydro Hybrid Electric Power System

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ABSTRACT

Renewable vitality is gotten from normal procedures that are recharged always. Incorporated into the definition is power and warmth created from sun powered, wind, sea, hydropower, biomass, geothermal assets, and bio-fills and hydrogen got from renewable assets. Each of these sources has remarkable qualities which impact how and where they are utilized. This paper introduces the demonstrating the reproduction of sun powered and hydro half and half vitality sources in MATLAB/SIMULINK condition. It reproduces all amounts of Hybrid Electrical Power framework (HEPS, for example, AC yield current of the inverter that infused to the heap/network, stack current, lattice current. It additionally reproduces control yield from PV and Hydraulic Turbine Generator (HTG), control conveyed to or from network lastly control element of the inverter for PV, HTG and lattice. The proposed circuit utilizes quick p-q (genuine nonexistent) control hypothesis.

KEYWORDS: Photovoltaic Array, Hydraulic Turbine Generator, Electrical Utility (EU), Catchphrases Hybrid Electrical Power Supply.

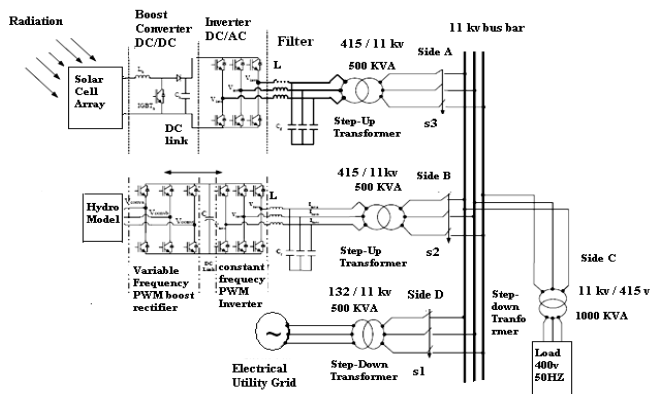
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I. INTRODUCTION

The vitality emergency amid 1970s made a relevant need to discover and create elective vitality sources, for example, fossil powers; coal, gas, atomic vitality and renewable vitality assets. Renewable assets recharge quicker than people expend them. Renewable vitality sources right now supply somewhere close to 15% and 20% of aggregate world vitality request.

H. H. El.Tamaly [centered in displaying and recreation of PV/Wind Hybrid Electric Power System interconnected to the electrical utility. A PC reenactment program has been intended to

recreate all amounts of HEPS. Yet, water is additionally another renewable asset, and after use, it gets pushed once again into nature through numerous ways. Hydroelectric power will assume a key part in the worldwide vitality supply in future. Upgrading and ad libbing existing hydroelectric power plants would likewise offer the possibility to run bigger plants in consonance with the earth.



Fig(1.1): Block diagram of PV/ HYDRO HEPS with EU

Delimustafic D clarifies that a mix of at least one assets of renewable vitality, called half breed, will enhance stack components and help saving money on upkeep and substitution costs as the renewable can supplement each other. High starting capital of the half breed is an obstruction to receive the framework in this way the requirements for dependable, solid and cost-viable framework. The outline of HRES indicates the operation of a pumped-stockpiling hydro control plant, a wind control plant and a sunlight based power plant.

Sunlight based vitality, brilliant light and warmth from the sun, has been outfit by people since antiquated circumstances utilizing a scope of steadily developing advancements. Hang-Seok Choi, Y. J. Cho [3] proposes a transformer-less PV inverter utilizing zero current exchanging (ZCS) PWM switch cell. By utilizing these systems, ZCS of the principle switches and the helper switches are accomplished. Since the proposed inverter works as a substituting buck converter, the exchanging misfortune and the yield current swell can be limited. It is controlled to concentrate greatest power from the sunlight based cluster and to give sinusoidal current into the mains.

Nowadays the establishment of half breed frameworks for the most part requires electronic power controllers, batteries and an inverter. Arulampalam et al. [4] portrays that a microgrid is a blend of era sources, burdens and vitality stockpiling, which is interfaced through quick acting force hardware? This blend of units is associated with the conveyance organize through a solitary PCC and appears to the power arrange as a solitary unit. Kusakana et al. [5] recreated utilizing the crossover advancement demonstrate for electric renewable (HOMER) with the stream, the sun based radiation and the framework parts costs as information sources; and after that contrasted and those of other supply alternatives, for example,

lattice augmentation and diesel era.

Mohibullah et al. [6] displayed the theoretical outline and improvement of a small scale hydro control plant. The general estimation and count of a 50 kW control plant has been completed. Gagan Singh and D.S. Chauhan played out the PC based recreations and examined by looking at changed models through reproduction in MATLAB/Simulink. The outcomes got give an understanding into the connection amongst electrical and pressure driven arrangement of hydro power plant represented by various representative settings, so that the framework may stay unaffected amid any aggravation.

Blaabjerg et al. gives a diagram of the structures for the DPGS in light of energy unit, photovoltaic, and wind turbines. What's more, control structures of the lattice side converter are exhibited, and the likelihood of pay for low-arrange music is additionally examined. Nehrir, M. H. et al. highlights some vital issues and difficulties in the plan and vitality administration of crossover RE/AE frameworks. Framework designs, era unit measuring, stockpiling needs, and vitality administration and control are tended to.

II. PROPOSED SYSTEM MODEL

The framework display demonstrated speaks to PV/HYDRO HEPS Associated with a 50 Hz, 11 kV EU. PV framework associated with EU through a DC/DC support converter, DC/AC inverter, LC channel and venture up transformer. HTG associated with EU through consecutive converter, LC channel and venture up transformer. The heap associated with 11kV Bus through a stage down transformer. The power acquired from PV framework is connected to an IGBT's inverter. The undertaking of the lift DC/DC converter empties the power out of the PV framework and nourish the DC interface capacitor. The factors which will be detected for the controller of PV framework are PV sunlight based cell exhibit current, IPV , DC interface voltage, V_{dcpv} , inverter channel yield current, I_{fpva} , I_{fpvb} , I_{fpvc} stack stage streams, ILa , ILb , ILc and stack stage voltages Va , Vb , Vc .

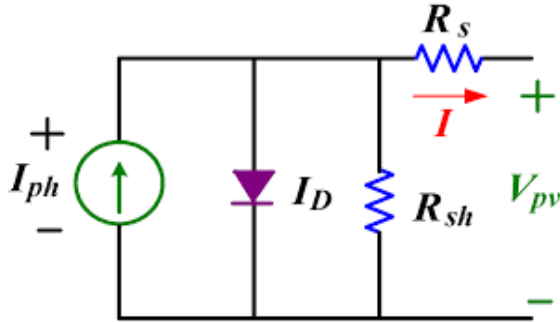
III. FRAME CONFIGURATION

A. Demonstrating of Photovoltaic Array

The mathematical equation describing the I-V attributes of PV sun based cells exhibit is given by (1): The electrical power created and terminal voltage of PV module relies on upon sun based

radiation and encompassing temperature. The proportionate electrical circuit portraying the sun oriented cells exhibit utilized as a part of the investigation is appeared in Fig. 2.

$$I = I_{ph} - I_0 \exp\left(\frac{qV + I R_s}{AKT}\right) - \frac{V + I R_s}{R_{sh}} \quad \dots\dots (1)$$



Fig(3.1): Equivalent circuit of PV cell

where, I is the yield current, Amp, V is the yield voltage, Volt, An is the ideality consider for p-n intersection, T is the temperature, Kelvin, K is the Boltzmann's consistent in Joules per Kelvin, and, q is the charge of the electron in Coulombs. the electron in Coulombs. I₀ is the invert immersion current and the created current I_{ph} of sun based cell cluster fluctuate with temperature.

B. Displaying of Hydraulic Turbine

A synchronous machine can be depicted by an arrangement of n+1 condition, n of which are electrical and one of which is mechanical. The number n of electrical conditions is equivalent to the quantity of autonomous electrical factors important to portray the machine. These factors can be either streams or flux linkages.

The machine's q axis is put at 90 electrical degrees (in a change is connected to the voltages and streams thus the image x is utilized to speak to volt or current. IRPT accept adjusted three-stage stacks and does not utilize the x0 term. counterclockwise bearing) concerning the machine's d-axis. At that point, the rotor position can be communicated by method for an edge, named θ, between the attractive pivot of the armature's stage an and the rotor's q hub.

The model considers the flow of the stator, field, and damper windings. The proportionate circuit of the model is spoken to in the rotor reference outline (qd outline). All rotor parameters and electrical amounts are seen from the stator.

They are recognized by prepared factors. The subscripts utilized are characterized as takes after:

d,q: d and q hub amount

R,s: Rotor and stator amount

l,m: Leakage and polarizing inductance

$$V_d = R_s i_d + d/dt j_d - \omega R j_q \quad \dots\dots\dots(2)$$

$$V_q = R_s i_q + d/dt j_q + \omega R j_d \quad \dots\dots\dots(3)$$

$$j_d = L_s i_d + L_{md} (i'_{fd} + i'_{kd}) \quad \dots\dots\dots(4)$$

$$j_q = L_q i_q + L_{mq} i'_{kq} \quad \dots\dots\dots(5)$$

C. Quick Reactive Power Theory

Change from the abc to the dq reference edge is given by the accompanying change network:

$$T = \frac{1}{\sqrt{2/3}} \begin{bmatrix} \sin\theta & \sin(\theta - (2\pi/3)) & \sin(\theta + (2\pi/3)) \\ \cos\theta & \cos(\theta - (2\pi/3)) & \cos(\theta + (2\pi/3)) \end{bmatrix} \quad \dots\dots (6)$$

The proposed framework control conspire for the framework under review for the most part uses the Instantaneous Reactive Power Theory, IRPT. The heap streams and load voltages are examined and changed into the two-pivot αβ-arrange framework and after that into the turning dq-facilitate framework. IRPT utilizes the recreation center change, as in (7) to produce two orthogonal turning vectors α and β from the three-stage vectors a, b and c. This change is connected to the voltages and streams thus the image x is utilized to speak to volt or current. IRPT accept adjusted three-stage stacks and does not utilize the x0 term.

$$\begin{bmatrix} X_\alpha \\ X_\beta \end{bmatrix} = \frac{1}{\sqrt{2/3}} \begin{bmatrix} 1/\sqrt{2} & 1/\sqrt{2} & 1/\sqrt{2} \\ 1 & -1/2 & -1/2 \\ 0 & \sqrt{3}/2 & -\sqrt{3}/2 \end{bmatrix} \begin{bmatrix} X_a \\ X_b \\ X_c \end{bmatrix} \quad \dots\dots\dots(7)$$

The quick dynamic and responsive forces p and q are figured from the changed voltage and current. At that point the reference remunerating streams have been resolved as in (8):

$$\begin{bmatrix} I_\alpha^* \\ I_\beta^* \end{bmatrix} = \frac{1}{V_\alpha^2 + V_\beta^2} \begin{bmatrix} V_\alpha & -V_\beta \\ V_\beta & -V_\alpha \end{bmatrix} \begin{bmatrix} P_{pv} + P_h \\ q_{pv} + q_h \end{bmatrix} \quad \dots\dots\dots(8)$$

In an adjusted three-stage framework with direct loads, the momentary genuine power p and nonexistent power q are steady and equivalent to

the three-stage ordinary dynamic power and responsive power individually. In this way, the opposite stop change is connected to and this gives the yield streams in standard three-stage frame, as in (9):

$$\begin{bmatrix} I_a \\ I_b \\ I_c \end{bmatrix} = \sqrt{2/3} \begin{bmatrix} 1 & 0 \\ -1/2 & \sqrt{3}/2 \\ -1/2 & -\sqrt{3}/2 \end{bmatrix} \begin{bmatrix} I_\alpha^* \\ I_\beta^* \end{bmatrix} \dots \dots \dots (9)$$

There are two methods of operation:

Mode 1: When the produced control from PV/HYDRO HEPS is lower than the heap request then the deficiency power will be provided from the EU. Apparently, the power component will be inside as far as possible.

Mode 2: When the produced control from PV/HYDRO more noteworthy than the heap request then the surplus power will be transmitted to the EU. In this condition, the power element of the air conditioner source will decay.

IV. SIMULINK MODEL FOR UTILITY INTERFACED PV/HYDRO HEPS

The power and control circuit of the proposed PV/HTG interconnected with EU of Fig. has been simulated using MATLAB/Simulink as shown in

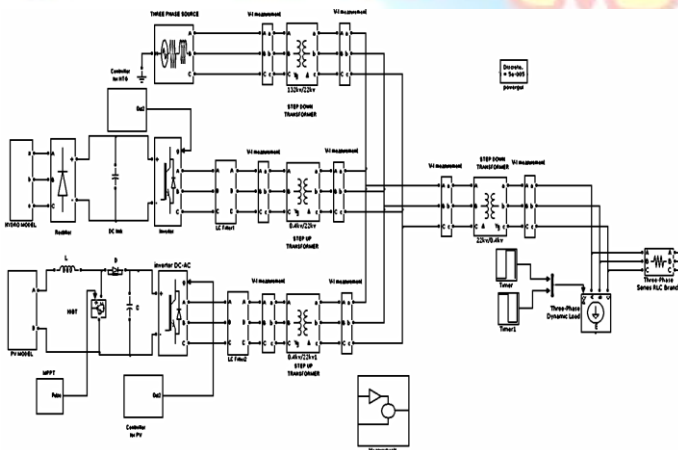
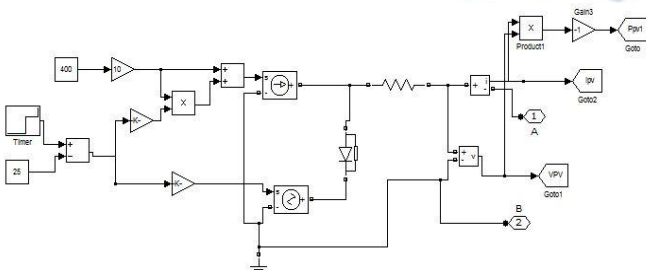
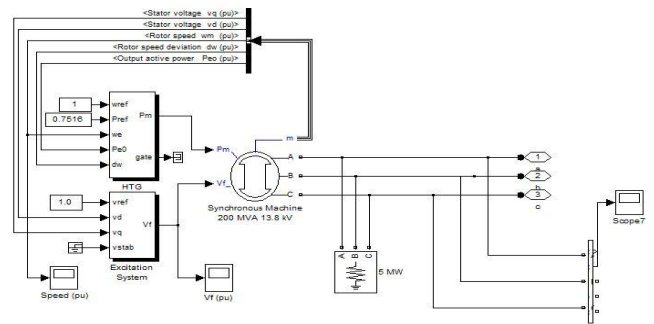


Fig.(4. 1):Mat lab/Simulink Model for Power and control circuit of PV/HTG HEPS Interconnected

V. SUB-SYSTEMS



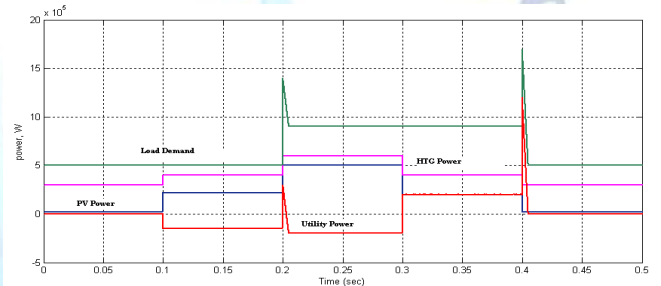
Fig(5. 1) sub system of pv cell



Fig(5.2)sub system of hydro block

VI. RESULTS

The aggregate power stack level is 500 kW with 721.68A for each stage stack current for length 0.2 sec. After 0.2sec the heap has been changed from 500 kW to 900 kW with 1299.03A for every stage stack current for term from 0.2sec to 0.4sec. At long last the heap is all of a sudden changed to 500 kW with 721.68A for each stage stack current for span from 0.4 to 0.5sec.



Fig(5.1):Generated Powers from PV/HTG, Load Demand Grid Power

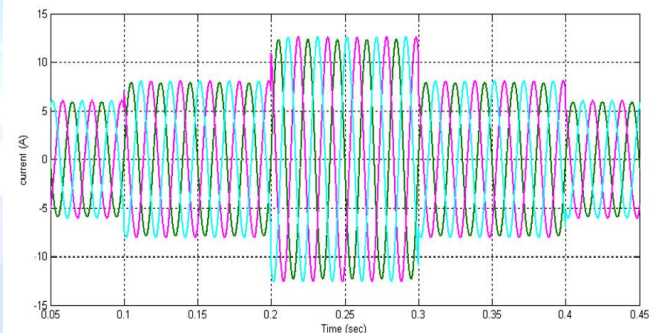


Fig (5.2): Inverter Line current from HTG to the Load/Grid

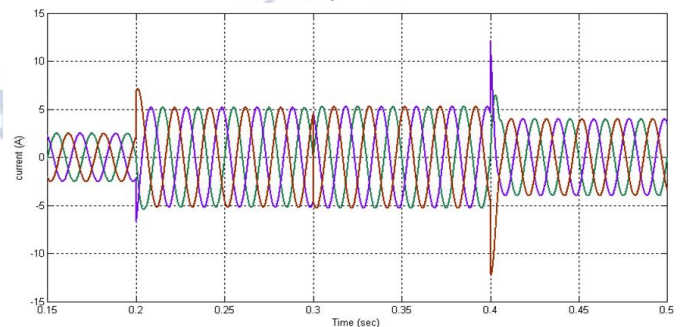


Fig (5.3): InverterLinecurrentfromPVtotheLoad/Grid

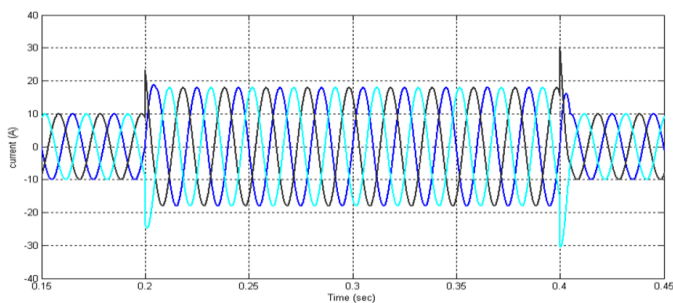


Fig (5.4): Grid Line Current

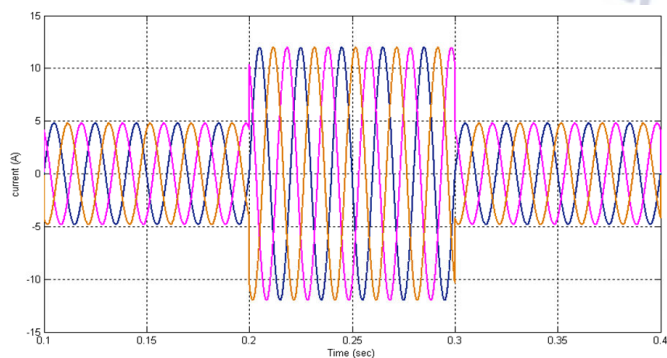


Fig (5.5): Load Line Current

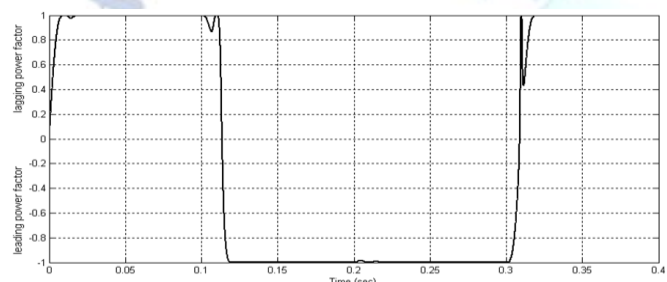


Fig (5.6): Power Factor of the Grid for the Hybrid PV/HTG system

V. CONCLUSION

The plan and make of exceedingly solid hardware made coordination of HEPS less demanding these days. In this paper PV/HYDRO HEPS interface with EU for tackling power emergency issues are reenacted by utilizing Matlab/Simulink condition. The control circuit for the converter for all radiation and water driven turbine speed has been effectively reproduced. The aggregate symphonious bending (THD) at the neighborhood transport is inside satisfactory points of confinement and came to 0.14% for the inverter current from HTG, 0.15% for the inverter current from PV and 0.20% for the lattice current.

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STUDY ON FUZZY GRAPHS AND APPLICATIONS

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Abstract

In this paper we study fuzzy graph is the generalization of the ordinary graph, here fuzzy graph is a simple fuzzy graph. A necessity of fuzzy graphs is introduced. Define regular fuzzy graphs, totally edge regular fuzzy graphs, partially edge regular fuzzy graph. We are using fuzzy logic in so many areas like as modeling traffic and transportation problems, telecommunications, job allocation and at ATM centers.

Key words: *Fuzzy graph, regular fuzzy graph, fuzzy bipartite graph, Eulerian graph*

1. INTRODUCTION

One of the remarkable mathematical inventions of the 20th century is that of Fuzzy sets by Lotfi.A.Zadeh in 1965. His aim was to develop a mathematical theory to deal with uncertainty and imprecision. Researches on the theory of fuzzy sets has been witnessing an exponential growth both within mathematics and in its applications, this ranges from traditional mathematical subjects like logic, topology, algebra, analysis, etc. to pattern recognition, information theory, artificial intelligence, operation research, neural networks and planning, etc. The advantage of replacing the classical sets by Zadeh's fuzzy sets is that it gives more accuracy and precision in theory and more efficiency and system complatability in applications. So in systems with imprecision, a fuzzy set model is more valuable than a classic model. The distinction between set and fuzzy set is that the set divide the universal set into two subsets, namely members and non-members while fuzzy set assigns a sequence of membership values to elements of the universal set ranging from 0 to 1. That is partial memberships are allowed in the latter. Also fuzzy sets can be used effectively to study quality variables like intelligence, beauty, consistency, etc., Zadeh's paper "Fuzzy sets" also proved the way to a new philosophical thinking of Fuzzy logic which now, is an essential concept in artificial intelligence.

Fuzzy graphs are useful to represent relationships which deal with uncertainty and it differs greatly from classical graph. The first definition of Fuzzy graph by Kaufman(1973) was based on Zadeh's fuzzy relations(1971). After that Rosenfeld(1975)[1] who considered fuzzy relation on fuzzy sets and developed the theory of fuzzy graphs. The author introduced fuzzy analogues of several graph theoretic concepts such as subgraphs, paths and connectedness, cliques, bridges and cut nodes, forest and trees, etc. During the same time, Yeh and Bang(1975) also introduced fuzzy graphs independently and studied various connectedness concepts such as connectivity matrix, reachability matrix, degree of connectivity, edge connectivity, vertex connectivity etc. These results are applied directly to clustering analysis include fuzzy trees, fuzzy line graphs, operations on fuzzy graphs, automorphism of fuzzy graph fuzzy interval graphs cycles and cocycles of fuzzy graphs, bipartite

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A Wavelet Approach To Reduce Noise In ECG By Using Genetic Algorithm

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ABSTRACT:

The Electrocardiogram (ECG) is a vital bio-medical signal recording the heart's electrical activity. Analysis of ECG results in other applications such as stress recognition, bio metric recognition etc. Any changes in filtering quality directly effects the medical diagnosis

.Using wavelet along with genetic algorithm will be devising to automatically search the QTCF parameters for different noisy signals .The following paper discusses about the smooth transient suppression by genetic algorithm and its adaptability for noise reduction in various signals.

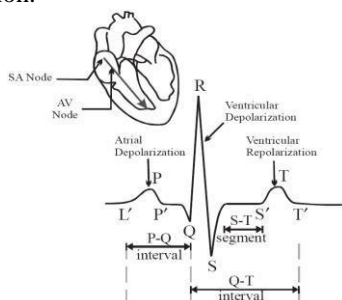
Keywords: Genetic algorithm, ECG, QCTF, TRANSCIENT SUPPRESSION, Wavelet filterin

I. INTRODUCTION

The ECG signal is a very important bio-medical signal that allows to monitor contractile activity of the heart. It is an important physiological signal for diagnosing the patients suffering from various cardiac related diseases. Basically ,ECG is a non-stationary signal i.e., random with small amplitude, usually of range 10µV~5mV and has very low frequency from 0.05Hz to

100Hz.

An ECG measure changes in electrical potential over time. The electrical potentials are caused by a group of specialized cells in the heart which control the heartbeat. These cells produce electrical impulses which spread across the heart causing it to contract. The heart's main pacemaker is placed at the Sinoatrial node (SA node) for ECG extraction.



shown in fig.1

P complex – caused by firing of SA node and the contraction of the atria (atrial depolarization)
QRS complex – caused by the firing of VA node and the contraction of the ventricles (ventricular depolarization)

T complex - caused by recovery of the ventricles

after contraction (ventricular re polarization) While these three main complexes may be sufficient for diagnosis purposes, more signal features are required to be able to differentiate individuals from large populations.

Therefore, the ECG signal is often affected by various types of noise such as power line interference, electrode contact noise, motion artifacts, EMG noise, and instrumentation noise.

The noise filtering is a crucial task before extracting medical features of ECG signals. Wavelet transform has been proven as a powerful tool for ECG signal analysis. It not only localizes the information of signals in the time-frequency plane, but is capable of trading one type of resolution for the other, which makes it especially suitable for the analysis of non-stationary signals such as ECG signals .Traditionally, various kinds of spatial filters have long been used for removing the noise in the signals. Using these filters usually reduce the noise by smoothing the data. But, in the process some of the original data is lost. In the recent years, several new techniques have been developed that improve on spatial filters by removing the noise more effectively while preserving the edges in the data having adaptability.

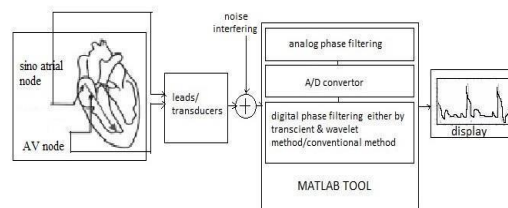


Figure1: ECG pulse complexes

The three main complexes of the heart beat are as

A Wavelet transform can be considered as a best technique for processing the non-stationary signals such as ECG, EEG, PCG etc as shown in fig.2. While there are different ways to apply wavelet transforms either by wavelet modulus maxima or wavelet thresholding. In modulus maxima, results are unstable even though process of calculation is great and hence wavelet thresholding's is used where signal with noise is analyzed in different coefficients which are divided to frequency bands. While Wavelet thresholding contains hard and soft thresholding, these have their own advantages and disadvantages i.e In soft thresholding, they are shrinkage's of large coefficients tending to bigger bias and hard thresholding can be unstable and tends a big variance, as it is sensitive to small changes in data.

However due to fixed transition curve threshold considered in the methods for processing shrinkage functions are not adaptable to different signals .To avoid the above situations optimal algorithms such as

Least Mean Square(LMS)
Algorithm Genetic Algorithm

Modified Memetic Algorithm

In LMS Algorithm, the tracking of changes in input of filter depends on step size, its disadvantage is to stuck at local minimal points. In MMA, global search techniques are combined within local search and each generation have the ability to adapt from neighbors to improve them. While Genetic algorithm is mostly preferable and is considered as optimal solution .Operators such as evaluation, selection, crossover and mutation are used in the algorithm pseudo code.

II. PROPOSED METHOD

In this paper there is a new approach to remove the noise in signal by decomposition and by means of transient suppression through certain levels in signal by identifying the components by genetic algorithm unlike additional parameter such as fitness function.

An input ECG is considered from MIT-BIH database. Assume some noise be added to the input while taking it through lead from nodes ex: sino atrial node. Noise maybe EEG, PCG or any power line interference effecting on the

Figure2: Block diagram of the ECG denoising algorithm discussion the genetic optimized wavelet thresholding for signal filtering can be described as follows:

1. Initialization
 - a) Decompose the noisy signal in sub-bands
 - b) Input parameters: iteration number Gm, code length L and population size N.
 - c) Randomly generate M individuals to form the initial population P in the parameter solution space.

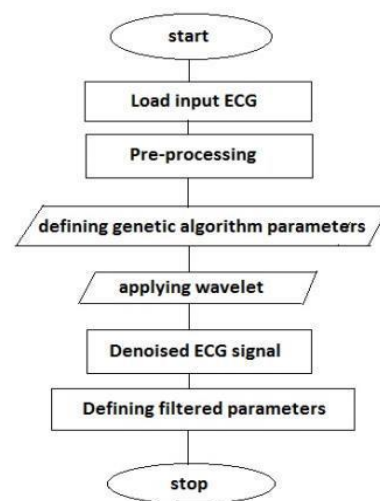


Figure3: Flow chart

2. Evaluation of individuals
 - a) Calculate the parameters of QCTF determined by each individual.
 - b) Filter the noise from the original signal through the QCTF decided by each individual and reconstruct the signal
3. Generation of new population by genetic operations
4. Termination discrimination
 - i.e. s_n be the ECG taken from patient as shown in Figure(5a) and d_n be the noise added as shown in the

Figure(5b) and the distorted signal formed be x_n

i.e., $x_n = s_n + d_n$ --Figure(5c)

Now, set the initializing parameters for the pre-processing of the signal as shown in fig.3 i.e. sampling frequency (fs), band width (BW) requirement, samples to be taken under pulse for analysis (M). Now, Calculating $x_n(1)$, $x_n(2)$, $x_n(M-1)$, $x_n(M)$. But, for a better analysis. Choose arbitrary initial conditions ($x[-1]$, $x[-2]$, $y[-1]$, $y[-2]$). $x_{-1} = 0 = x[-1]$; $x_{-2} = 0 = x[-2]$;

Then resultant initial transform arbitrary coefficients become $y_{-1} = 0 = y[-1]$; $y_{-2} = 0 = y[-2]$.

Number of initial samples to consider for the transient% suppression technique

$$y_n(1) = 0.5 * ((1 + a2) * x_n(1) - 2*a1*x_{n-1} + (1 + a2)*x_{n-2}) + (a1*y_{n-1}) - (a2*y_{n-2});$$

$$y_n(2) = 0.5 * ((1 + a2) * x_n(2) - 2*a1*x_n(1) + (1 + a2)*x_{n-1}) + (a1*y_n(1)) - (a2*y_{n-1});$$

Calculating for all output samples from 3 to N $n = 3: N$

$$y_n(n) = 0.5 * ((1 + a2) * x_n(1,n) - 2*a1*x_n(n-1) + (1 + a2)*x_n(n-2)) + (a1*y_n(n-1)) - (a2*y_n(n-2));$$

Now, the calculated parameters are to be maintained in matrix form tool analysis i.e. Constructing input data vector X and projection matrix P.

$$X = x_n(1:M)'$$

$$A(1:M,1) = \cos((0:M-1)*w0) \quad A(1:M,2) = \sin((0:M-1)*w0) \quad P = A * \text{inv}((A'*A)) * A';$$

Now, Calculating the M samples as (I-P) X

$$I = \text{eye}(M)$$

$$y_n = ((I - P) * X)'$$

the parameters of QCTF determined by each individual are obtained and then Filter the noise from the original signal through the QCTF decided by each individual and reconstruct the signal to be done. From $n = M+1$ to N, Calculate the output

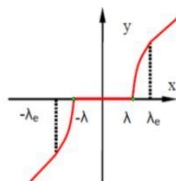


Figure 4: QCTF forming due to parameters

$$y_n(n) = 0.5 * ((1 + a2) * x_n(1,n) - 2*a1*x_n(n-1) + (1 + a2)*x_n(n-2)) + (a1*y_n(n-1)) - (a2*y_n(n-2));$$

The following output parameters are now processed through wavelet with a threshold level to reduce the noise in the ECG. Assume coiflet be wavelet used with a level = 5 for denoising the distorted ECG. If wavelet thresholding to be consider, to obtain a optimal response soft thresholding is preferable. Assume

$$\text{ThrSettings} = 5.0073$$

Now Comparing the filtering quality between normal conventional method and transient suppression method by means of RMSE (Root mean square error) and SNR (Signal to Noise ratio).

Root Mean Square Error: It is the standard deviation of the residuals (prediction errors). Residuals are a measure of how far from the regression line data points are; RMSE is a measure of how spread out these residuals are. In other words, it tells you how concentrated the data is around the line of best fit and it is also known as *Quadratic Mean*.

RMS value of a signal should be maintained low so as to obtain a efficient signal.

$$\text{RMSE} = \sqrt{y_n^2 - x_n^2}$$

Signal to Noise Ratio: The Ratio of input noise to output noise gives the SNR of the signal. Usually, SNR of a signal should be high so that original data of input signal is more compared to noise interfered in it.

$$\text{SNR} = \frac{p * \text{signal}}{p * \text{noise}}$$

Table.1 Filtering parameters

Type of Method used	RMSE	SNR
Conventional filtering method(notch)	35.5088	0.9703
Transient suppression method	34.0822	1.0000

The graphs simulated in the analysis are as

follows

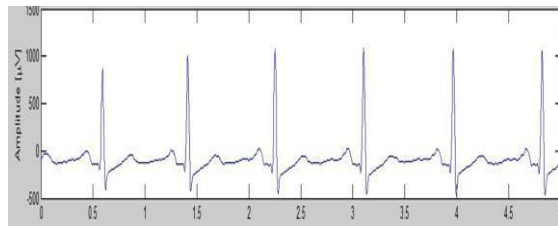


Figure 5a: Input ECG

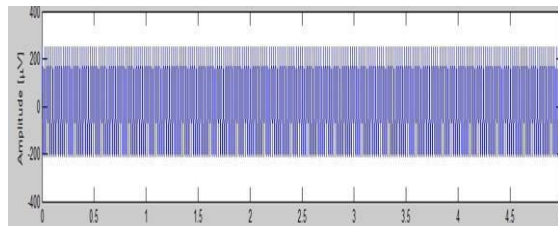


Figure 5b: Noise added to ECG

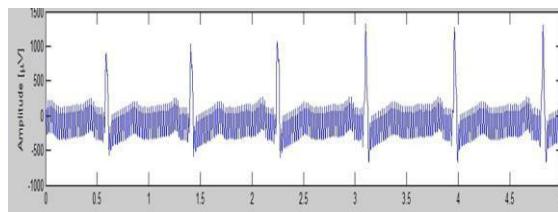


Figure 5c: Distorted ECG

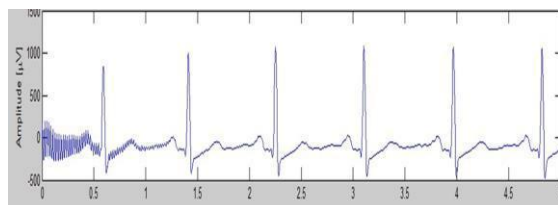


Figure 5d: ECG filtered by Conventional method

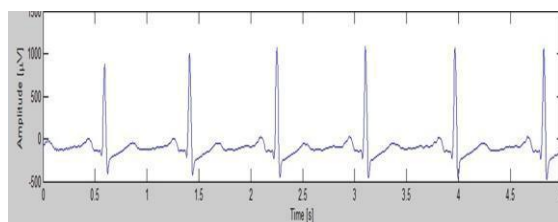


Figure 5e: ECG filtered by transient suppression

V. CONCLUSION

The ECG signal diagnosis plays a major role in the biomedical field for analysing of cardiovascular diseases. Therefore filtering it also plays a prominent role and as the wavelet thresholding filtering has become one of popular methods for ECG signal filtering providing the good performance in time-frequency domain. But, hard thresholding causes Gibbs phenomenon while using soft thresholding makes a constant bias to the filtered coefficients. Hence, Genetic Algorithm utilization to obtain a quadratic curve thresholding function (QCTF) is utilized to mimic the best connection between the cut off threshold point and the real coefficient curve by transient suppression is discussed in the paper. As discussed above following the procedure not only overcome disadvantages of hard thresholding and soft thresholding, but strengthen the adaptability of wavelet thresholding to various signals. The denoised ECG signals by the transient suppression through genetic algorithm are more suitable for feature extraction of medical diagnosis than those by hard thresholding and soft thresholding of wavelet as they provide better adaptability and filtering performance they will have good application prospect for other signal analysis in the future purpose

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Automated Blood Donating And Managing System Using Raspberry Pi B+

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Abstract:

This paper is to survive the people from the blood requirements. Upto now we have an android app to find the nearby blood bank but it take more time to fill the details and these are operated only with internet. But lot of people don't know how to operate the smart phones from village background even though if they know to operate we cannot assure that net may be available all the time. In order to overcome the past drawbacks in this project an SMS based accessing is done which is easy to access by all the people even from village background. The paper "Raspberry Pi Based Embedded project of Blood Donating" proposed to bring the voluntary student blood donors to one place. The mission of this paper is to fulfil every blood request by using an SMS based GSM module. My main aim to propose this project is to reduce the time span between the donor and recipient. By using Raspberry Pi B+ and GSM modem SIM900A, i collect all the data base of the voluntary students blood donor information from all the institution and fetch the given data as per message request from recipient. If blood is not available it send the recipient details to all the previous donors of that particular blood The vision of this paper is "To provide a better service of every person who is in search of blood"

Keywords:

Raspberry Pi , Management of Blood Bank, GSM Modem ,Blood , Hospital, Donor, Recipient,SMS.

INTRODUCTION :

Per annum the need of blood is drastically increasing, even though we are rich in technology but fails to bring communication between the donor and recipient on to the same platform. Per annum we require around 50million blood units but we have only a scanty 5million blood units are available. This is a main drawback particularly in case of emergency blood requirement .The main goal of this project is to liaison donor and recipients in required time frame. Accidents cannot be predicted.So, blood may be required at any minute. In present scenario both blood donors and blood banks are available but cannot capable to reach their information to the needy people. in the given time. A high-efficient, easily available and scalable system has to be developed to bridge the gap between the donors and the recipients and to reduce the time required to search for blood donors.

Factors to be considered for blood donation:

A donor should be a person who is between 18-60 years of age and not addicted to drugs and not contacted jaundice in the previous three years. And whose heamoglobin count is above 12.5 g/dl and

weight should not be less than 45 kgs.Body temperature and blood pressure must be normal at the time of donation. Donor must be free from all the diseases and make sure that has not taken any medicine in the last 48 hours.

Raspberry Pi B+ :

It look like a credit card but it perform as a mini computer .it used for many things that desktop PC does like video word processing,spread sheets,home automation server,parent detectors to weather stations,tweeting houses of birds with IR cameras etc.

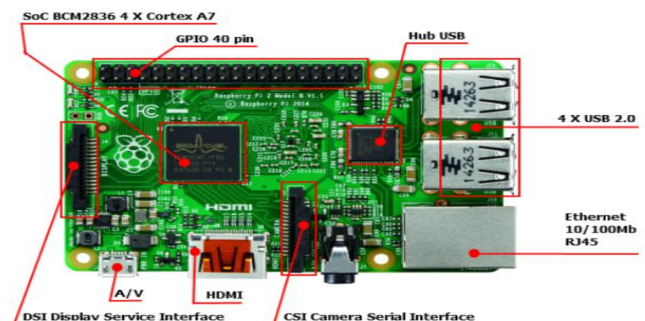


fig: image of raspberry-pi

The B+ board has also been designed with add-on boards in mind. This means that you can be more flexible with your projects and add the functionality that you need. The main core architecture used in the Raspberry Pi B+ is ARM11 device core. The Raspberry Pi B+ had an Processor chip BCM2835 and this processor is cpu type. A Hardware Attached on Top (HAT) board enables the B+ to automatically configure GPIO and driver setup for compatibility with any add-on-board, 128 MB was allocated by default to the GPU.

Compare to model A, model B has 4 USB ports. And in model B it also provide ethernet IEEE 802.3 connectivity. Here we use micro SD card in model B instead of macro SD card in previous model. It has 40 GPIO (general purpose input output). It has low power consumption i.e. 0.5W to 1W. The Raspberry Pi 2 is based on the Broadcom BCM2836 system on a chip (SoC), which includes an ARM cortex v7 900mhz processor, Video Core IV GPU, and was originally shipped with 256 megabytes of RAM. The Raspberry Pi 2, was released in February.

Automated blood bank:

Here I use GSM module in which SIM is placed which act as toll free number and GSM module is used to interface with a computer to transfer the information whenever the person who requires particular blood group sends SMS to the toll free number. So here the input is SMS.

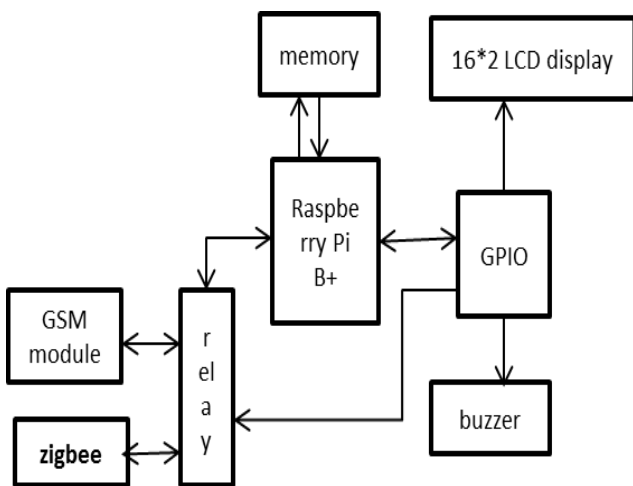


Fig: Server

Then GSM module transmit this request to the Raspberry Pi B+ which act as a minicomputer in this it act as a server or data base. Whenever the message is received the information is displayed in LCD through GPIO and buzzer is used for indication. Then the Raspberry Pi B+ respond to the request and it start searching in blood banks, here 8051 Micro Controller act as an blood bank and by using relay the Raspberry Pi communicate simultaneously with the GSM module and Zigbee. Here Zigbee act as an antenna it transmit information to the receiver antenna which is at blood bank. whenever a blood group request is accepted at the receiver antenna i.e. Zigbee it enables the 8051(AT89C52) MC.

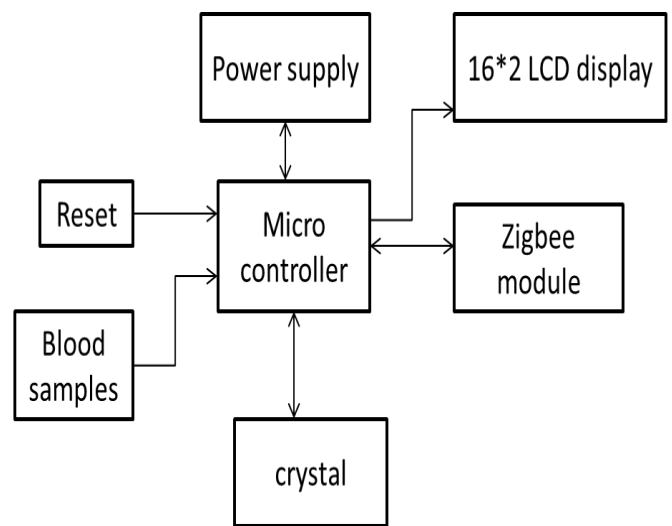


Fig: Blood Bank

In 8051 MC the blood samples are placed between IR LED. If blood is present it send that particular blood bank information to the person who requested for blood through GSM module via SMS output is also SMS and if blood is not present then it send the recipient details to all the donors who donates that blood previously.

Flexibility for operating:

Here I use GSM, it give flexibility for every one because it is an SMS based input and output so easy to communicate by all the citizens who need blood in emergency technology.

GSM modem :

In 1991 GSM was first launched in Finland. A GSM modem is a modem in which SIM card is accepted, in the mobile operator perspective it like a mobile phone. When a GSM modem is connected to a computer, that allows the system to use GSM modem to communicate over the mobile network. These GSM modems are used to provide internet mobile connectivity, most of them are used for sending and receiving SMS.

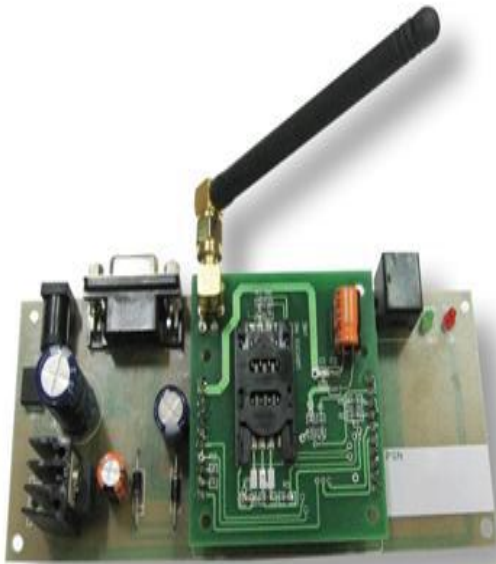


Fig: image of GSM modem

Software Tools:

Software used for this is keil compiler where the machine language code is compiled and written. After compilation, the machine source code is converted into hex code which is to be dumped into the microcontroller for further processing. Keil compiler supports C language code.

Outputs:

To install the Raspbian OS we have to copy the image file into the SD card, for this purpose we require Win 32 Discimager software. We can select the path where the imagefile was stored and also the device to which we require to copy image file and then select the write option.

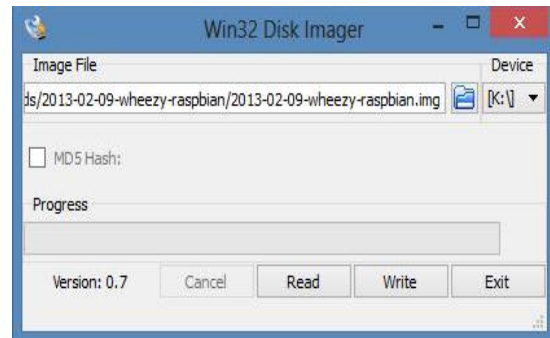


Fig 1.1: The screen shot of win 32 disc imager

After installing the Raspbian OS we can get the Raspberry pi desktop as shown in the fig 1.2 which is similar to our normal computer desktop.

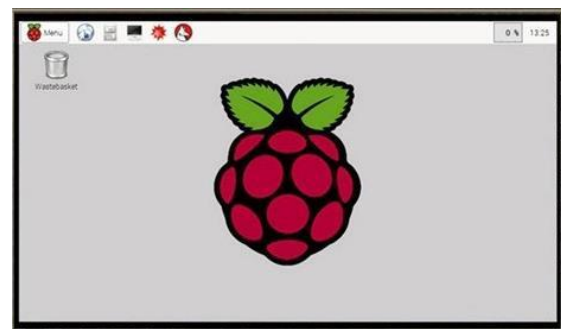


Fig 1.2:Screen shot of Raspberry Pi B+ desktop.

When we run the program initially it will display the all donors list stored in the database and it will wait for new SMS request as shown in fig 1.3.

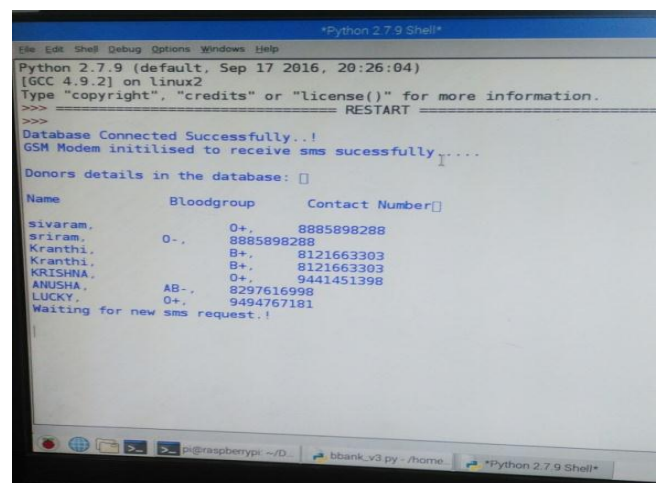


Fig 1.3: Screen shot of operations done in the data processing module

When ever a new SMS request was came it will check for the availability of the blood at blood bank. If blood is available at blood bank then it sends the contact details of blood bank otherwise he get the eligible donors list from the database as shown in the fig 1.4.

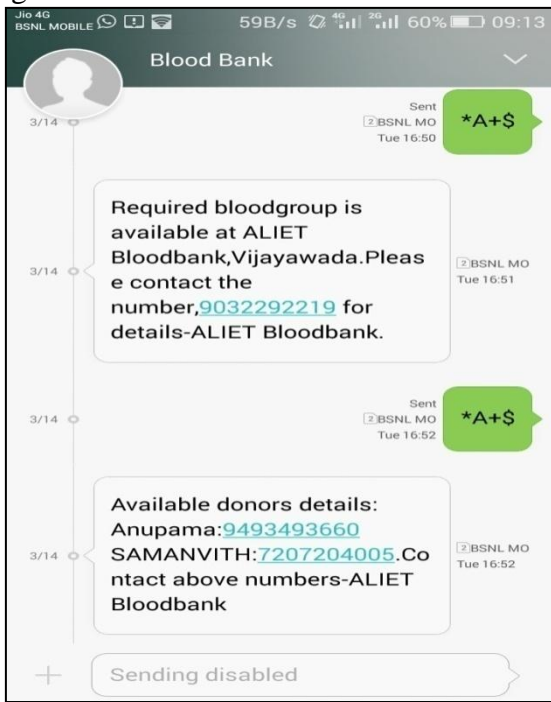


Fig 1.4: Screen shot of blood request by user and its response.

Conclusion:

Technology is introducing new innovations day by day, thus abate the time required to do things. The proposed system can be used to reduce the time required to deliver required blood to the needy in cases of emergency. It also provides them with the facilities of communicating with the nearby donors in emergency. The database is a vital aspect of the system. The database of the blood banks and the hospitals must be checked for consistency on regular basis for smooth running of the system. Blood is the primary necessity of life. There are different scenarios available for searching blood donors. This project will be a one step ahead from the other blood donation systems. Blood donors can contact the blood recipient directly by using this system.

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Last Date of Registration: 17th April 2017.
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Design Of Low Power 4bit Synchronous Counter Using Adiabatic Logic

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ABSTRACT—This paper provides a design of low power 4bit synchronous counter. In the designing of VLSI circuits power dissipation has become a major concern. So by reducing power dissipations we can attain our low power circuit. We have different techniques so as to reduce these power dissipations. In our project, we adopt adiabatic logic so as to design the counter circuit. In Adiabatic circuit the charge stored in the load capacitor is recovered while in conventional CMOS it is transferred to the ground which is wastage of energy. The circuit used in this project is a 4-bit Synchronous counter. By implementing this circuit in adiabatic logic the power dissipation can be minimized compared to conventional CMOS. The design is implemented by using TANNER EDA tools.

Keywords—Adiabatic logic, counter, power dissipation, D-flip-flop

I. INTRODUCTION

The power dissipation factor plays a critical role in VLSI designs especially in the high performance applications. These power dissipations are mainly of three types 1)Short circuit power dissipation 2)Leakage power dissipation 3)Dynamic switching power dissipation. In a logic circuit, whenever there is a direct flow of current exists between V_{DD} and ground it leads to Short circuit power dissipation. Leakage power dissipation is due to the sub threshold current in the transistor channel when it is turned off. Dynamic power dissipation refers to the power that is dissipated when the circuit inputs are high.

Adiabatic logic designs a circuit in such a way that it avoids the occurrence of the condition that both the PMOS and NMOS gets OFF and hence there will be no direct current flow between V_{DD} and GND by which we can avoid Short circuit power dissipation. Adiabatic computing decreases the Leakage power dissipation by restoring the energy at the nodes of the circuit. The power gating technique of adiabatic circuits which was done by shutting down the adiabatic units during idle states helps to reduce Dynamic power dissipation. Thus adiabatic logic circuits can achieve low power circuits by reducing all these kinds of power dissipations.[1,2,3]

II. RELATED WORK

CMOS technology which is the acronym of Complementary Metal Oxide Semiconductor Logic is designed by combining both PMOS and NMOS logics where

PMOS design is referred as Pull up Network and the NMOS design is referred as Pull down Network. Leakage power dissipation is the major factor for the downfall of CMOS circuits, which can be overcome by adiabatic circuits. In a CMOS circuit when both PMOS and NMOS gets switched on there will be a direct path between V_{DD} and GND which is succeeded by the adiabatic logic circuits. Counter which was designed in both CMOS and Adiabatic logics when compared, we can observe that the CMOS counter utilizes more and more power than that of counter designed using adiabatic logic.[4,5]

III. PROPOSED METHOD

In this project we are designing a synchronous counter circuit using adiabatic logic. Counter is a digital circuit which is used for counting the pulses and it is the widest application of flip-flops. We are designing this counter in different logics of adiabatic such as ECRL, PFAL, 2PASCAL and these are as follows. So as to design a counter firstly we need to design a flip-flop and here, we are designing counter using D-flip-flop.

3.1. Design of ECRL counter

ECRL is the acronym of Efficient Charge Recovery Logic. It consists of four phases. First phase is Evaluation phase which utilizes the necessary power required for the circuit and hence the name pre charge phase. Second phase is the Hold phase which holds the power that it consumes in the Evaluation phase. Third phase is Recovery phase i.e., out and out/ returns its energy to the clk. Fourth phase is the wait phase which is used just to produce delay for another cycle.

The schematic diagram of D-flip-flop is as shown in Fig.1 and the counter that was designed using this D-flip-flop is as shown in Fig2.

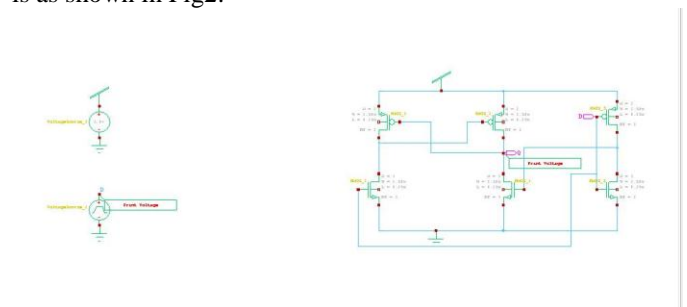


Fig1.schematic diagram of the D-flip-flop in ECRL

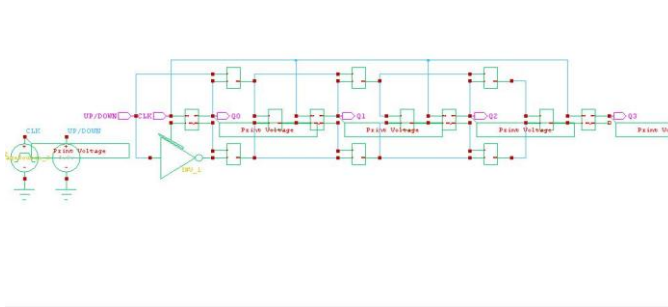


Fig2.schematic diagram of ECRL Counter

3.2 Design of PFAL Counter

PFAL is the acronym of Positive Feedback Adiabatic Logic. So as to improve the robustness against the technologies, in this logic we will use NMOS transistors between the output and power clock.

The schematic diagram of D-flip-flop in PFAL is as shown in Fig3.and the respective counter designed using this is as shown in Fig4.

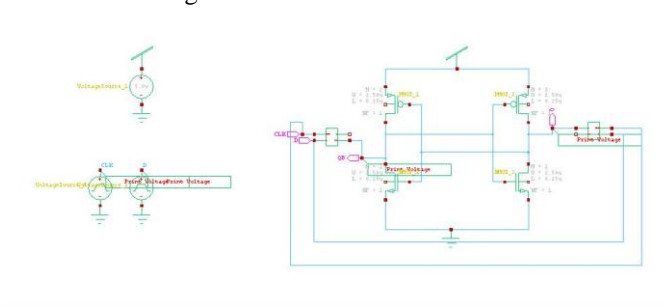


Fig3.schematic diagram of the D-flip-flop in PFAL

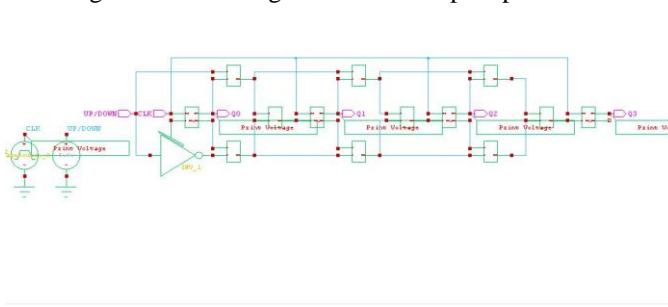


Fig4.schematic diagram of PFAL Counter

3.3. Design of 2PASCAL Counter

2PASCAL is the acronym of 2Phase Adiabatic Static Clocked Logic. It reduces dynamic switching activities compared to ECRL by reducing charging/discharging to occur after every clock cycle.

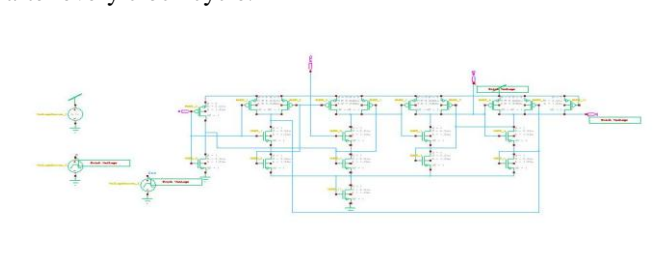


Fig5.schematic diagram of 2PASCAL D-flip-flop

The schematic diagram of D-flip-flop is as shown as shown in Fig5. and the counter designed with this D-flip-flop is as shown in Fig6. [6,7]

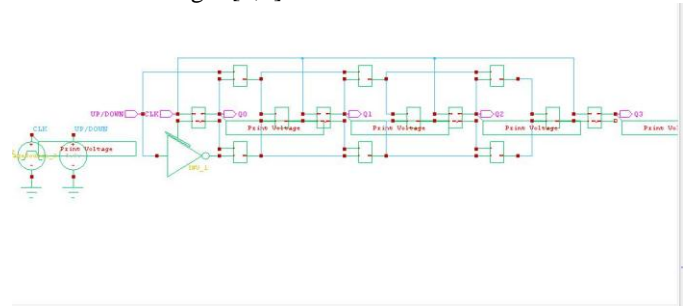


Fig6.schematic diagram of 2PASCAL Counter

Design of CMOS Counter

So as to observe the efficiency in power reduction by the adiabatic logic we have designed CMOS counter to compare the power results.

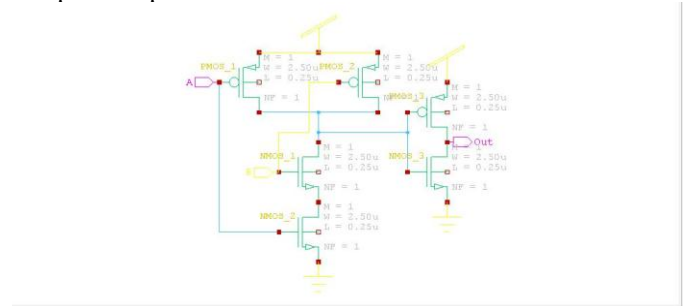


Fig7.schematic diagram of CMOS D-flip-flop

The schematic diagram of D-flip-flop in CMOS was as shown as in Fig7.and its respective counter that was designed was shown in Fig8.

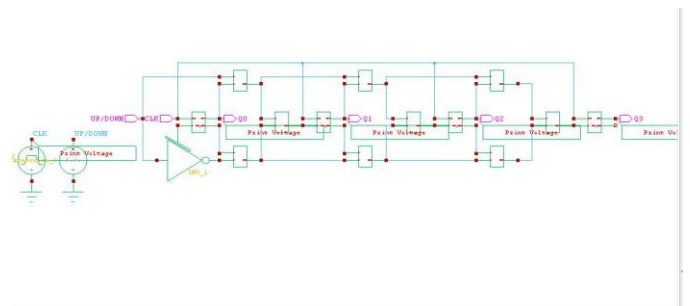


Fig8.schematic diagram of CMOS Counter

IV. RESULTS

The following table clearly shows the power dissipations of different logics which we have designed

Table 1: Comparison of results

S.NO	KIND OF LOGIC	NO. OF TRANSISTORS	POWER UTILIZED
1.	CMOS	180	7.57×10^{-2} watts
2.	ECRL	84	1.46×10^{-2} watts
3.	PFAL	132	1.73×10^{-2} watts
4.	2PASCAL	132	2.33×10^{-2} watts

From the above table we can clearly say that the designing of counter with adiabatic logic has reduced power compared to that of the CMOS counter and thus we have attained our low power synchronous counter.

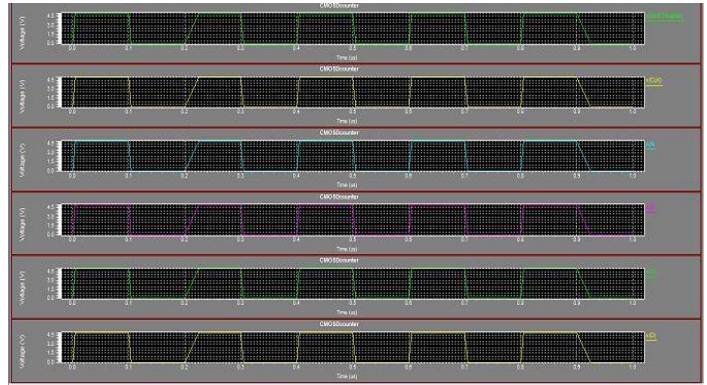


Fig9. Waveform result of a counter

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Detection of VT, VF Sounds Using SVM & Zero Crossing Rate

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(Department of electronics and communication engineering)

Abstract—Correct detection and classification of ventricular fibrillation (VF) and rapid ventricular tachycardia (VT) is of pivotal importance for an automatic external defibrillator and patient monitoring. Early detection of life threatening arrhythmias such as ventricular fibrillation and ventricular tachycardia is most essential for an automatic external defibrillator and remote cardiac patient monitoring. A wide variety of detection algorithms are in existence which are based on complexity parameters extracted from the ECG. However, these algorithms are mostly constructed by considering each parameter individually. Here we present a detection method which consists of four stages: 1. dft based noise removal 2. addition of random noise 3. zero crossing rate 4. detection rule. Here detection is done based on the addition of random noise and zero crossing detection rule. The method is tested from Meta data. Different types of noises including base line wandering, power line interface, muscle artifacts are removed in this test. The proposed method with additive random noise and single ZCR feature can achieve better detection rates compared with the existing methods which are based on combination of morphological, spectral, time-frequency, complexity features such as neural networks, support vector machine (SVM).

Keywords— Arrhythmias, ventricular fibrillation, ventricular tachycardia, defibrillator, random noise, zero crossing detector.

I. INTRODUCTION

SUDDEN CARDIAC DEATH (SCD) is defined as death which occurs within one hour of onset of symptoms due to cardiac causes. A sudden cardiac arrest occurs when the electrical impulse system of the heart malfunctions, disrupting regular heart beat. It is more dangerous than a heart attack because the rate of survival in case of sudden cardiac arrest is very low.

Among cardiac arrhythmias, life threatening arrhythmias such as ventricular fibrillation (VF) and ventricular tachycardia (VT) are dangerous arrhythmic events leading to sudden cardiac death. Early detection of VT/VF is most essential for an external defibrillator. Ventricular fibrillation (VF) and rapid ventricular tachycardia (VT) are dangerous arrhythmic events leading to inevitable death if no defibrillation shock is applied to the subject within a few minutes. Defibrillation is a procedure used to

treat life threatening conditions that affect the rhythm of the heart such as cardiac arrhythmia, ventricular fibrillation and pulse less ventricular tachycardia.

The procedure involves the delivery of an electric shock to the heart which causes depolarization of heart muscles and re-establishes normal conduction of the heart's electrical impulse. The machine used to deliver this therapeutic shock to the heart is called a defibrillator. The different types of defibrillators used include external defibrillators, transvenous defibrillators and implanted defibrillators.

In the last decades, a number of methods for detecting VF and VT have been proposed. These methods are based on temporal, spectral, time frequency, wavelet transform, and machine learning techniques such as fuzzy neural networks and support vector machines [1] – [10].

Though these methods had better detection rates, they are complicated for real time implementation. They are unsuitable for use in implantable devices. Here we attempt to present a simple robust detection method for detecting VT/VF events in the ECG signal.

II. LIFE THREATENING ARRHYTHMIAS

Sudden cardiac arrest (SCA) is a condition in which the heart suddenly and unexpectedly stops beating. If this happens, blood stops flowing to the brain and other vital organs. The heart has an electrical system that controls the rate and rhythm of the heartbeat. Problems with the heart's electrical system can cause irregular heartbeats called arrhythmias. There are many types of arrhythmias. During an arrhythmia, the heart can beat too fast, too slow, or with an irregular rhythm. Some arrhythmias can cause the heart to stop pumping blood to the body—these arrhythmias cause SCA. ventricular fibrillation and ventricular tachycardia are the life threatening arrhythmias which lead to sudden cardiac arrest.

Ventricular tachycardia is a fast heart rhythm that starts in the lower part of the heart (ventricles). If left untreated, some forms of ventricular tachycardia may get worse and lead to ventricular fibrillation, which can be life-threatening.

Ventricular tachycardia is a fast but regular rhythm. It can lead to ventricular fibrillation, which is fast and irregular. With ventricular fibrillation, the

heartbeats are so fast and irregular that the heart stops pumping blood. Ventricular fibrillation is a leading cause of sudden cardiac death.

Most of the cardiac arrhythmias are having the short and long PR interval and TP interval. In the previous studies, the threshold crossing sample count and mean absolute value for discriminating VT/VF from other pathological signals. Under different ECG noises and time varying PQRST morphologies these features have not detected in better detection rates.

In this work detection of VT/VF is done by addition of random noise to the noise free ECG signal. ECG signal comprises of internal noise which occurs due to muscle contractions and due to atrial variations. So in order to remove these internal noises random noise is added to the ECG signal. Zero crossing rates are estimated before and after adding the random noise. Noise free ECG signals have zero crossings that are not separable. After adding random noise to noise free ECG signals, it is noted that the VT/VF episodes are having much lesser ZCR values. This is the basis for the proposed method of detecting VT/VF episodes by adding random noise and measuring the zero crossing rates.

III. PROPOSED VT/VF DETECTION METHOD

Here, we attempt to present a simple robust detection method for accurately detecting the VT/VF episodes under resting and ambulatory recording conditions, wherein the ECG signals are often corrupted with different types of noise such as baseline wander (BW), power-line interference (PLI), muscle artifact and instrumentation noise.

While recording an ECG signal, it is subjected to different kind of noises which have different frequency ranges. The low-frequency range signifies baseline wander (BW), the medium frequency signifies the power line interface (PLI) and the high frequency (EMG) signals signify the electromyography noise. Power line interference (PLI) coupled to signal carrying cables is particularly troublesome in medical equipment. Cables carrying signals are prone to electromagnetic interference of frequency (50 Hz or 60 Hz) by supply lines. Sometimes the recordings (ECG or EEG) are totally dominated by this type of noise.

Variations in electrode-skin impedance and activities like patient's movements and breathe cause baseline wander. The range of frequency in which baseline wander is dominant is typically less than 1.0 Hz. It is caused by changes in electrode to skin polarization voltages, or by electrode movement, or by body movement.

The electrical equipment which issued in ECG measurements also contributes noise. Electrode probes, cables, signal processor/amplifier is the major sources of instrumentation noise. Instrumentation noise cannot be eliminated but it can be reduced

through higher quality equipment and careful circuit design.

The proposed detection method consists of five stages : (1) discrete Fourier transform(DFT) based filtering ; (2) moving average filtering ;(3) adding the random noise to the filtered signal; (4) estimating the number of zero crossings ; (5) comparing the estimated zero crossing rate(ZCR) with a predefined ZCR value for classifying into VT/VF and non-VTVF.

A. DFT-based BW and PLI removal

Discrete Fourier transform (DFT) converts a finite sequence of equally spaced samples of a function into an equivalent length sequence of equally spaced samples of the discrete time Fourier transform (DTFT) which is a complex valued function of frequency.

The DFT is the most important discrete transform, used to perform Fourier analysis in many practical applications. In digital signal processing, the function is any quantity or the signal that varies over time or sampled over a finite time interval. In this subsection, we implement the discrete Fourier transform (DFT) filtering approach for removal of baseline wander and PLI noises from ECG signal.

Let $x[n]$ be the input ECG sequence with length of N samples, then discrete Fourier transform (DFT) of $x[n]$ is computed as

$$X[k] = \sum_{n=0}^{N-1} x[n]e^{-j\pi 2kn/N}$$

Where $x[k]$ is the k th DFT coefficient. Here we implement the DFT filtering approach for simultaneous removal of BW and PLI noises. The design of digital high pass filter is difficult to remove PLI. The DFT coefficient indexes that are corresponding to the frequency ranges of the BW and PLI are computed as

$$k = \frac{N \times f_k}{F_s}$$

Where f_s are the sampling rate of the signal and f_k is the frequency of the k th DFT index. By zeroing the DFT coefficients of those frequency components and then finding inverse DFT of the coefficients.

All external noise which occur due to electrode skin impedance mismatch , propagation loss due to transducers , oxygen pump adjusting meter are removed after applying DFT. Features are extracted after applying DFT

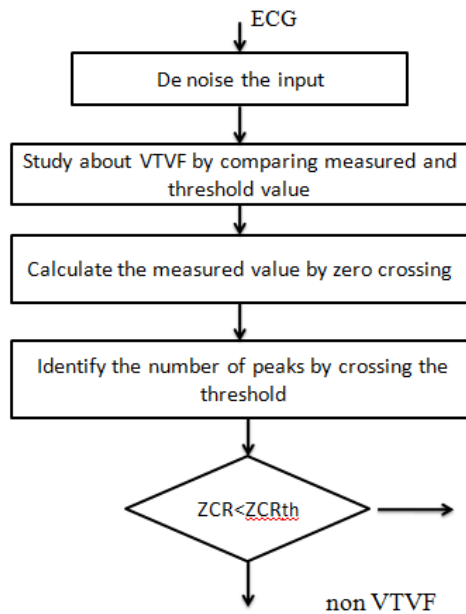


Fig: Algorithm of the proposed VTVF detection method

B. Noise smoothing filter

Savitzky-Golay smoothing filters are typically used to “smooth out” a noisy signal whose frequency span is large. This filter perform much better than standard averaging FIR filters ,which tend to filter out a significant portion of the signal’s high frequency content along with the noise.

$$Y = \text{sgolayfilt}(x, \text{order}, \text{framelen})$$

The above equation applies a savitzky-golay FIR smoothing filter to the data in vector x. if x is a matrix, sgolayfilt operates on each column.

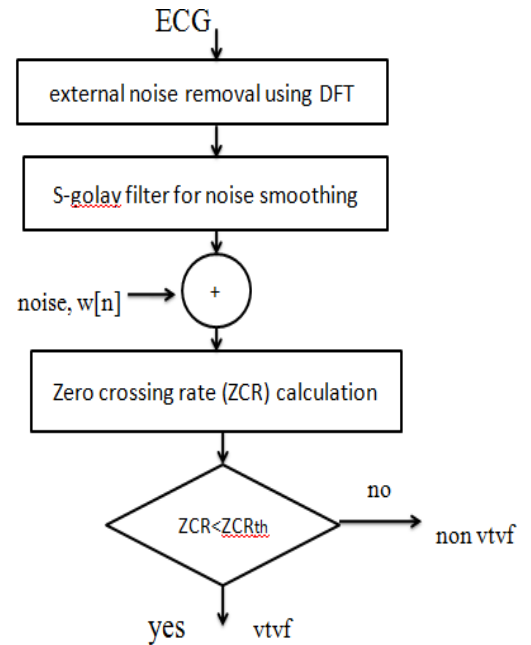


Fig : flow chart of the proposed VTVF detection method

C. Signal plus random noise and ZCR measurement

Random noise is the noise comprising large number of frequent transient impulses occurring statistically at random time intervals.

ECG signal comprises of internal noise which occurs due to atrial variations, due to muscle movements. EMG signals also add some amount of noise in ECG signal.

To remove the internal noise random noise is added to the input. Flow diagram shows the random noise w[n] is added to the input. This random noise gets added to the internal noise and this is given as input to zero crossing detectors. Zero crossing detectors differentiate the input which consists of internal noise and which does not consists of internal noise.

The zero-crossing detector object counts the number of times the signal crosses zero, or changes sign. The zero-crossing rate is the rate of sign-changes along a signal, i.e., the rate at which the signal changes from positive to negative or back .In some cases only the “positive-going” or “negative-going” crossings are counted, rather than all the crossings.

Here zero crossing rate is used as feature for discriminating the VTVF episodes from the other cardiac arrhythmias .the featured signal z[n] is computed as the additive mixture of the filtered signal s[n] and the random noise w[n] that are generated with higher zero crossing rate. The featured signal z[n] is given by

$$Z[n] = s[n] + w[n]$$

For the noisy ECG signal, the zero crossing rates are computed as shown below.

$$ZCR = \frac{1}{N} \sum_{n=0}^N |sgn(z[n]) - sgn(z[n - 1])|$$

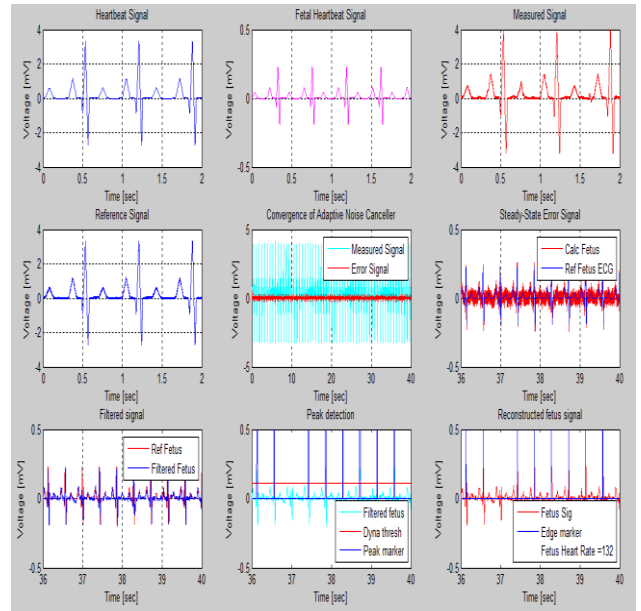
Where ‘N’ denotes the number of samples. The ZCR estimate for the input is as shown in fig. after adding the random noise to the filtered signal.

D. Detection of VTVF events

Here, the detection of VTVF is done by comparing the ZCR of the input with a predefined threshold value. In this work, the input ECG signal is classified as VTVF and non-VTVF by comparing ZCR value of the input with a pre defined threshold value. Detection is done by identifying the number of peaks that crosses the threshold. Here the threshold value is defined by using an adaptive filter.

The detection rule is defined as

$$\text{ZCRth Output} = \begin{cases} \text{VTVF episode,} & \text{ZCR} < \text{ZCRth} \\ \text{Non-VTVF,} & \text{otherwise.} \end{cases}$$



IV. RESULTS AND DISCUSSIONS

Here, the effectiveness of the proposed method is done based on the addition of random noise and zero-crossing rate feature.

The measured signal is obtained from heartbeat and fetal heartbeat signal. The error between the measured and fetal heartbeat signal is considered as the measured signal. The measured signal is compared with the reference signal. The error signal is shown in fig 5. The error signal thus obtained is considered as calculated fetus signal. The obtained calculated fetus is compared with reference fetus shown in fig 6. the obtained calculated fetus is filtered to identify the peaks. The filtered fetus and reference fetus are shown in fig 7.

A dyna threshold is defined by using an adaptive filter. The numbers of peaks in the filtered fetus crossing the dyna threshold are detected by peak detection.

The heart rate is calculated by edge marker and peak marker in the fetus signal. The calculated heart rate indicates 133 beats per minute indicating that it is a fetal heart beat signal and requires immediate treatment.

CONCLUSION

This is a simple robust method for detecting VTVF events by using random noise and zero crossing rate information. The proposed method consists of DFT based external noise removal, Sgoly smoothing filtering, addition of random noise, zero crossing rate (ZCR) estimation and detection rule. The existing detection methods are based on the

combination of morphological, spectral, time-frequency, neural networks, and support vector machines (SVM), fuzzy neural networks. The proposed method when compared with the existing methods can achieve better detection rates.

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Cantilever and circular disc structure based capacitive shunt RF MEMS switches

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Abstract

Document Sections

- I. Introduction
- II. Theoretical Analysis
- III. Finite Element Method Based Analysis
4. Conclusion

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Figures

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Keywords

Metrics

Abstract:

This paper mainly discuss the aspects in the design and simulation of rectangular cantilever and circular disk micro strip transmission line based capacitive RF MEMS switches. In both the designs the structure is placed on a silicon dioxide (SiO₂) dielectric material with dielectric constant of 4.5 and the thickness of 1 μ m. Here an analysis is done by taking different metals (Al, Au, Cr, Cu, Pd, Pt, Ti, W) of thickness 1 μ m as structural material and observed the deformation, capacitance variations, and switching time. It is good for aluminum metal as a Micro-strip material. And compared to circular disk structure, rectangular cantilever is giving good performance of better displacement of 0.9 μ m and capacitance variation of 0pF-5.5pF for the actuation voltage of 2.55 V. This paper extended the analysis by extracting the lumped circuit for the microstrip transmission line based RF MEMS Switch, after doing the lumped analysis, it is proved that aluminum based cantilever structure exhibiting negligible losses of 0.1dB.

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Cantilever and Circular Disc Structure Based Capacitive Shunt RF MEMS Switches

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Index Terms- RF MEMS Switches, FEM, Transmission Lines, Material Science.

I. INTRODUCTION

Switching devices has more importance in the design of electronic circuits which are having so many applications, but in special cases like satellite and aerospace applications require the lossless switches, to fulfill this requirement lot of research is advanced in last few decades. And given the solution with RF MEMS switches which can provide good performance when compared with CMOS, GaAs technology based switches, but still there is a scope to extend the performance of the RF MEMS Switches, by reducing the pull-in voltage, by increasing the reliability, and finally by reducing the switching time. This paper mainly discusses the ways to reduce the pull-in voltage, and compares the rectangular cantilever structure and circular disk structure micro-strip transmission line bases RF MEMS capacitive switches.

II. THEORETICAL ANALYSIS

In switches used in satellite and space communication need high reliability, low losses, less power consumption, and high operating frequency. The existing switches like CMOS technology based FET, GaAs technology based PIN

Diode are failed to provide good reliability, low power consumption and mainly the high frequency operation. So alternatively there exist MEMS technology using this there is a scope to design RF MEMS Switches based on transmission line. In this a transmission line is used to transmit radio frequency signal, and a switching action is created by applying addition pull-in voltage to the transmission line. There exist different types of transmission line but coplanar and microstrip are suitable to design RF MEMS Switches. In this paper, two different structure RF MEMS Switches are designed based on microstrip transmission lines shown in figure 1.

A. Microstrip Transmission lines:

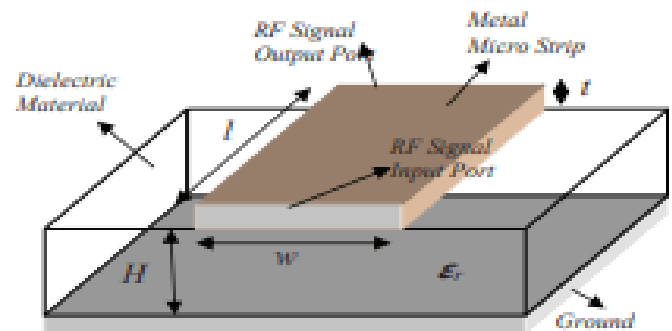


Figure 1: Microstrip Transmission Line

B. Lumped analysis of micro strip transmission line:

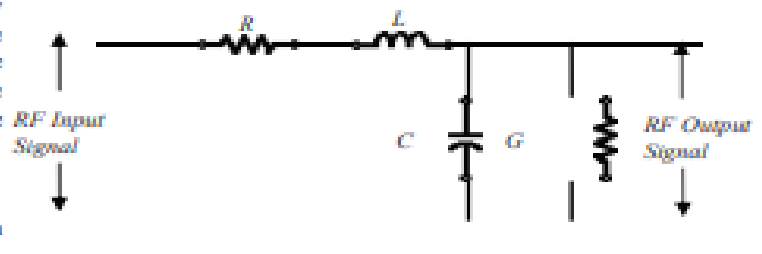


Figure 2: Lumped Analysis of Microstrip Transmission Line

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STUDY OF GRAPH COLORING - ITS TYPES AND APPLICATIONS

A. MUNEEERA

Abstract: Graph coloring is one of the best known, popular subject in the field of graph theory, having many applications. In this paper we present a survey of graph coloring as an important subfield of graph theory, describing various methods of coloring, and a list of problems associated with them. Graph coloring and its generalizations are useful tools in modeling a wide variety of scheduling and assignment problems. In this paper we review several variants of Graph coloring, such as vertex coloring, edge coloring, list coloring, multicoloring, generalized circular coloring and coloring rectangular paths. We discuss their applications in the scheduling and transportation problems by graph coloring.

Key words: Vertex coloring, Edge coloring, List coloring, Multi-coloring, Circular coloring and about scheduling.

Introduction: Graph coloring is one of the most important, well known and studied subfields of graph theory. An evidence of this can be found in various papers and books, in which the coloring is studied, and the problems associated with this field of research are being described and solved. Good examples of such works are [1] and [2]. In the following sections of this paper, we describe brief history of graph coloring.

Vertex coloring: A proper vertex coloring problems for a graph G is to color all the vertices of the graph with different colors in such a way that any two adjacent (having an edge connecting them) vertices of G have assigned different colors.

In terms of graph theory, a proper vertex coloring with k colors is a mapping

$$f: V(G) \rightarrow N \text{ such that for all } \forall (v_i, v_j \in V(G), i \neq j \exists (e_i, e_j) \Rightarrow f(i) \neq f(j).$$

Vertex coloring of graphs can represent a mathematical model of various resource assignments. For example the maths department is having difficulties scheduling courses A - G because of limited room availability. Make a graph with vertices A - G. Make an edge between vertices if the corresponding courses cannot be scheduled at the same time.

The chromatic number of a graph is the smallest number of colors needed to color the vertices of so that no two adjacent vertices share the same color. i.e., the smallest value of possible to obtain a k -coloring.

Fact: The vertex coloring problem is NP - complete.

So many types of vertex colorings are there like circular vertex coloring, equitable vertex coloring, Acyclic - vertex coloring.

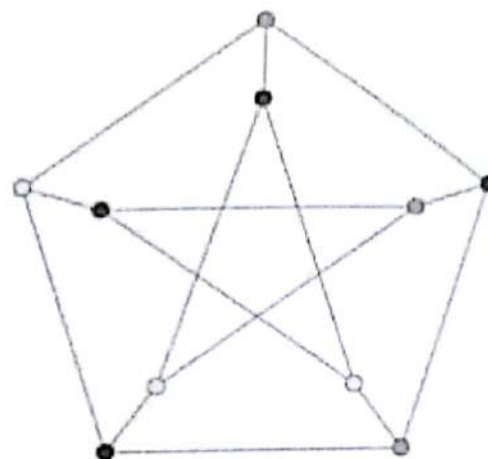


Figure 1: A proper vertex coloring

Edge coloring: The other well-known and intensely studied type of graph coloring besides vertex coloring is the edge-coloring. The edge coloring of a graph $G=(V, E)$ is a mapping, which assigns a color to every edge, satisfying condition that no two edges sharing a common vertex have the same color.

Mathematically, a proper edge coloring of a graph G is a mapping

$$f: E(G) \rightarrow N \text{ such that } \forall (e_i, e_j \in E(G), i \neq j \text{ } e_i, e_j \text{ are adjacent} \Rightarrow f(i) \neq f(j).$$

For example Time tabling problem involves factors such as teachers, classes and courses, various resources are rooms, time slots etc. Time tabling problem [6] is concerned with maximum utilization

The Rainbow Hues

P. Gopichand

P. Nagasuseela

- | | | |
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50. Sr. Candy D'Cunha

1. Through The Ecosophical Eyes

Mother Earth's deep bruises are bandaged all around,
Lovingly look upon her through the ecosophical eyes so profound.
Wounded and bleeding with the after-effects of globalization,
Selfish and careless 'developments' block her full realization.
Land, Ocean, Forest and Air are polluted and left with none to
care,

Biodiversity, Urbanization and Global warming leave her all so
bare.

O look upon the earth through the ecosophical eyes,
You will discover the blush upon her cheeks as she often sighs.
Ecosophy is the philosophy of ecology, a kind of deep wisdom,
Embrace it and you will be devoid of all boredom.

Ecosophy believes that every existing thing has an intrinsic
value,

Life will be beautiful and wonderful if all hold and live by this
view.

Shallow ecology offers temporary solutions to ecological crisis,
It must lead to a deeper approach to discover life's real nemesis.

Deep ecology stems from the grass root level of each entity,
Posing deeper questions about the premises of modernity.

When a holistic approach towards reality is one's quest,
Then lasting changes will begin and life will reach its best.

Questioning 'deeply' is to ask what the root cause of the problem
is,

Looking for ways that lead to harmony, equilibrium and inner
peace.

O look upon her through the ecosophical eyes so sound,
Let untold love, peace and joy in life so abound.

*Critical Readings
on the Fictional World of*
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Existential Dilemma in Manju Kapur's *The Immigrant*

Candy D. Cunha

Manju Kapur is an eminent writer of this century and she occupies a prominent and distinguished place in Indian English Literature. She was born in Amritsar, Punjab in 1948. She completed her graduation from the Miranda House University College for women and her M.A. from Dalhousie University in Halifax, Nova Scotia, and did her M.Phil. from Delhi University.

Manju Kapur teaches English literature at Miranda House, Delhi University. She has five novels to her credit, namely: *Difficult Daughters*, (1998) which won the Common Wealth Writers Prize (Eurasia), *A Married Woman* (2002), *The Immigrant* (2010), *Home* which was shortlisted for the Hutch Crossword Book Award in (2006), and *Custody* (2011).

Her literary works deal with various important themes. Many of her novels deal with women's sensitive nature from early young adulthood through her early middle years. She depicts the personal struggles of Indian women, those trying to cope up with social and cultural changes. Kapur has tried through her novels, by showing the vulnerability of modern man, by using the technique of literary art to explore the dimensions of the inner world. All her themes can be clubbed together under the theory of Existentialism.

Existentialism, in its broader sense, is an important aspect of modernism in art and literature. It is a philosophy of existence. Following the horror and chaos, despair and disillusionment of the First World War, the philosophy of existence emerged in Europe and spread through the West during and after the Second World War. It owes its development to



Exploring New Horizons



**Myriad Dimensions
in the Poetry of Manas Bakshi**

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Dr. P.V. Laxmiprasad

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Confessional Voice in Manas Bakshi's *In the Age of Living Death*

Sr. Candy D. Cunha

Manas Bakshi is a well-known contemporary Indian poet, writer, critic and philosopher. His famous anthology, *In the Age of Living Death* is a powerful reflection of confessional insights fabricated around the odds of life. Most of his poems in the anthology mirror his inner conflicts which appear to be a sincere confession to his readers.

Bakshi's vision evokes the beauty of truth expressed through the poetic verses using a rhythmic style. The poet explores his deep memories and ideas recollected in the tranquility of the various situations of his life. The poet is very transparent as he speaks about the diverse realities of life. Through his very experiences, he tries to encounter meaningfully the different aspects of reality. In a calm and serene manner, he pours out his inner feelings about the time and the circumstances of his experiences. It is easy to note that his poetry centers on various themes, such as the paradoxical aspects of life, the identical crises; confessional voice etc. This paper is an attempt to bring out the confessional note in Manas Bakshi's anthology *In the Age of Living Death*.

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**11th & 12th MARCH 2016
PROCEEDINGS OF THE NATIONAL SEMINAR**



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MANAGEMENT THEORY ON CELLULOID

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ABSTRACT

Films in today's age are a really powerful way of sharing information and not only one way information but two ways. Sharing one's opinions and ideas about particular are portrayed in an entertaining yet informative manner. Once the movie is made and released, the audience's reaction and opinion about it makes it a two way communication process. And especially with all the internet-social activities being so in these days, it is not at all difficult to share one's views about a movie. Wegner of U.S is the pioneer in using films as a medium of teaching organizational behavior as well as management theories and concepts. The unique qualities of films are described by the film theories and film studies literature. Film theory also describes how film can enhance the learning process in ways unavailable in other media. In this paper an attempt is made by giving examples from several film scenes as they offer a visual portrayal of abstract theories and concepts.

Keywords: *Employability, Industry ready soft skills, Effective communication.*

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Film theories and film studies, literature stress on the unique features of the film, which makes it as a powerful medium of teaching. Early film theorist, Siegfried Kracauer, captured the view of the film as a tool for teaching. He said:

A unique property of the film is its ability to make one see and grasp things which only the cinema is privileged to communicate.¹

The unique characteristics of film making with its communication power, Focusing techniques, editing, framing of shots, camera angles, sound, Lens techniques, camera movements and the like, helps a director make a powerful statement of the subject. These techniques make a director to create an experience which an ordinary vision cannot experience in reality and often goes beyond to this

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TEACHING LANGUAGE THROUGH LITERATURE:A STUDY OF JAYA SHREE MOHAN RAJ'S SHORT STORY "MORNING BELLS"

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ABSTRACT

N.Divya Krupa



G.Vijaya Swapna



Literature is a powerful tool which can be used to teach language to students of technical course to amplify their language skills (LSRW). Unfortunately; the present Engineering students are in short of the language skills and are not familiar with the term "Literature". Mick Farren Darklos, an English journalist and author has rightly stated that "We think literature is immortal, but even that decays and ultimately turns to dust." It fits in the present day Technical Education System. Literature which can make a man into a complete human is being totally ignored in the engineering m classroom. Language is a structure of conventional spoken and written symbols. Literary texts such as short stories, poems and plays lay the foundation for multi-cultural classroom experiences and can provide learners a rich source of linguistic input. This technique will make the learner to practice the language skills enhancing the grammatical structures and new vocabulary.

Keywords: *Language skills, Grammatical structures, New vocabulary, Linguistic input.*

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ESSENCE OF ENGLISH FOR EMPLOYABILITY (EEE)

Gandhi Babu Shanampoodi

(Assistant Professor of English, Andhra Loyola Institute of Engineering & Technology, Vijayawada)

ABSTRACT

Education is a determining factor that plays a major role in identifying whether a country is moving towards development. In India, English competency plays a pivotal role, especially in the service industry. The competency of English, especially the spoken and written skills in facilitating the employability of graduates into both the private and public sectors. However there have been recurring complaints from employers in India, especially in the service sector that business graduates on the threshold of employment lack proficiency in English language skills, especially the spoken skill. Graduates from Central universities in India have proved themselves to be workplace ready in respect of their subject knowledge but, when compared with their counterparts from state universities, are sadly lacking in their English proficiency. This leaves the employers with Hobson's choice in employing graduates from private universities, thereby causing a significant social impact in the population which results from unemployment. This paper which could be considered as a review of literature which focuses on the theoretical norms of the employability of graduates provides insight into how this crucial issue could be better addressed.

Keywords: Service Industry, Spoken Skills, Employability.

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INTRODUCTION

The need to enhance employability and English competency amongst graduates is an ongoing crisis that is being faced by employers and graduates alike. Many studies have revealed that there is a significant level of unemployment amongst graduates due to a lack of English skills and competency. English is considered as a stepping stone along the way to securing employment and English is essential for the acquisition of employment, power and status in a globalized society. Globalization in the 21st century has interconnected the world in every sphere, social, political or cultural, and opened up opportunities in every sphere. English language plays an important pivotal role in this unifying process. A global lingua franca in this unifying process. A global lingua franca is gaining momentum as being recognized as a unifying language and a bonding force in a variety of domains. The business world is no exception. The employers have a high demand for suitable English skills that graduates must possess upon completion of their course. Graduates must be at a high level in order to narrow down their choices. Many graduates are ill-equipped to face the challenges that lie before them in the competitive global market due to the fact that they lack proficiency in the English language. This serves as a barrier to securing a job as employers have preconceived notions of what potential candidates should possess by way of language skills for gainful employment.

ENGLISH COMBINED WITH

The fact is, while looking for graduates who possess leadership skills, computer literacy, motivation, enthusiasm and good academic credentials, employers often overlook graduates who possess good interpersonal skills together with strong written and spoken English skills, as well as the ability to communicate lucidly and effectively. Customers in English are an important part of the global market. English has been recognized as an international functional language and a diverse forms of literary



CONTEMPORARY DEVELOPMENTS IN ORGANIZATIONAL BEHAVIOR

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16

TEAM BUILDING – AN ESSENTIAL HRM PRACTICE FOR SMES IN INDIA

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Professor

Mrs. Ch. HEMA VENKATA SIVASREE
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INTRODUCTION

SME businesses are the biggest contributors to the economy of any country and the same goes with Indian economy. In fact, SME sector is one of the most crucial sectors of Indian economy as far as the number of employments generated. As more than 65 Percent of Indian population lives in rural and semi-rural areas, small business became a major source of income for many residing in these areas. After agriculture, small business in India is the second largest employer of human resources. In India, SSIs account for 95 per cent of the country's industrial units, 40 per cent of industrial output, 80 per cent of employment in the industrial sector, 35 per cent of value added by the manufacturing sector, 40 per cent of total exports and 7 per cent of net domestic product. Clearly, after agriculture, this is the single biggest group in the country's economic activities. Most of the small businesses are family owned and they use their own styles to run their business. It is widely accepted that good Human Resource Management is essential for successful running of

SMEs. A good SME must have a great HRM policy. And more over team building is essential HRM practice required by SMEs. Team building is a collective term for various types of activities used to enhance social relations and define roles within teams, often involving collaborative tasks. It is distinct from team training, which is designed to improve the efficiency, rather than interpersonal relations. Team building refers to the various activities undertaken to motivate the team members and increase the overall performance of the team.

NEED FOR TEAM BUILDING IN SMES

Team Building activities are of utmost importance as they help in the overall development of the team members and in turn improving the team's performance. It also strengthens the bond among the employees and they feel motivated to work and achieve the targets. Some kind of team building activities must be undertaken from time to time to encourage the team members to work hard and realize their dreams. Team Building activities are of utmost importance for employees at the workplace to start trusting each other and work as a single unit. Team building activities also reduce the chances of conflicts. Employees start enjoying their work and feel motivated to accept challenges and responsibilities. Bringing together employees on a common platform and extracting the best out of them is no easy task. One needs to constantly motivate his team members.

BENEFITS OF TEAM BUILDING FOR SMES

Following are the benefits of Teambuilding for SMEs in India

1. Creativity and Innovation

Creativity and innovation among team members results in better decision making and problem solving. Also the risk involved can be reduced while keeping an eye for detail.

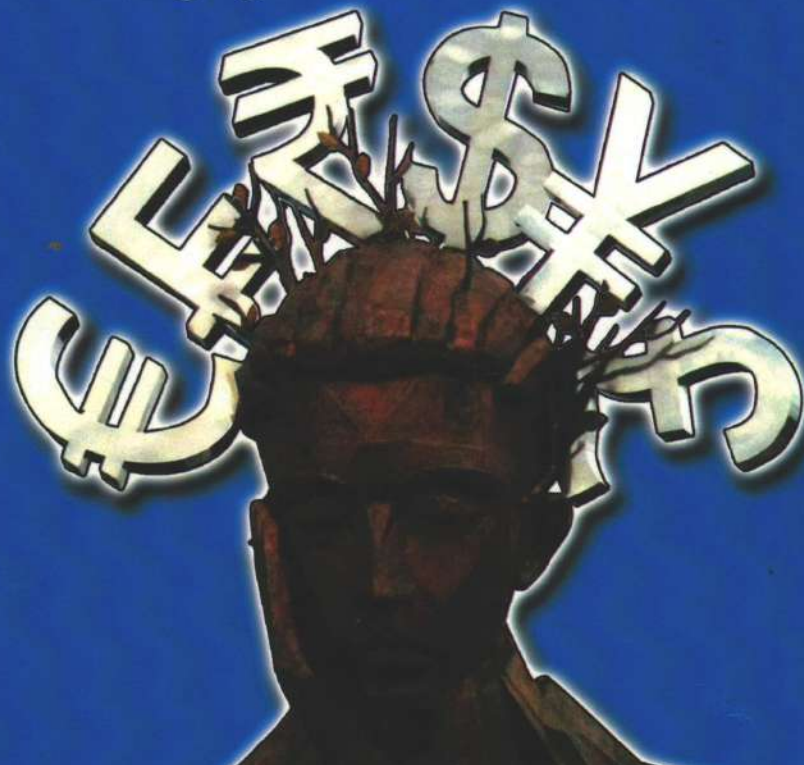
2. Result oriented

The true test of a team is its ability to deliver what is needed and when it is needed. A team is capable of achieving results beyond the sum of its individual members.

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ENTREPRENEURSHIP 2.0

– Changing Models in New Economic Era



Edited by

Dr.K.Sivaji Babu
Dr. P. Adi Lakshmi



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tion is not farfetched. World of entrepreneurial will provide an impetus vital information and effectively manage their activities.

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Entrepreneurial Culture

-Conceptualisation and Constituents

- Mr. N. Janardhana Rao

Abstract

Entrepreneurship is generally considered to be of great importance for economic development. entrepreneurship Culture is a catchy concept fronted by scholars and several governments in their bid to promote entrepreneurship for unemployment reduction via job creation. Entrepreneurial culture is here conceptualized as a society that depicts the exhibition of the attributes, values, beliefs and behavior associated with entrepreneurs by individuals in such a society which distinguishes them from others. The constituent of entrepreneurial culture as conceptualized in this paper may be understood as existing in the levels such as from the unconscious and invisible level, the semiconscious and semi-visible level which interacts together to form the culture.

Introduction

Entrepreneurship is the process of creating something new of value by developing the necessary time and effort, by accepting and acknowledging the necessary financial, psychological and social risks, and Finally receiving the resulting rewards be it monitoring and personal satisfaction and freedom to do what anybody want. In other words entrepreneurship is the process of creating something new and assuming the risks and rewards. UITM Entrepreneurship study Group defines entrepreneur as an individual who actively form (or) lead their own business and nurture them for growth and prosperity. Eston kimoris, MIT defined entrepreneur as a person who creates and manages change by the recognition of opportunities (needs, wants, opportunities, problems, and challenges) and develops people and manages resources to take the opportunities and creates a venture (profitable business)

Entrepreneur is an individual who bears risk and uses resources namely marketing resources, financial resources, operational resources and human resources (team) and makes the venture profitable. The following diagram explains the same.



Review of Literature

Birkinshaw(1998)defined entrepreneurial culture as an organizational context in which certain behaviors, including initiative are fostered in the same. Conrad(1998) and



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THEORITICAL ANALYSIS OF JOB SATISFACTION

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Andhra Loyola Institute of Engg. and Technology, Vijayawada

INTRODUCTION

The modern era of competition is so high which was never so in the past; hence, this dynamic nature of competitive business environment necessitate employees to work under constantly challenging business circumstances which have become an indispensable feature of today's organizations. Therefore, organizations will likely to have those individuals in their organizations who are willing to go beyond the delineated formal job obligations and perform extra roles for the success of their organisation, which is generally termed as Organizational Citizenship Behavior (OCB) (Somech and Drach-Zeahavy, 2004). Many researchers have studied OCB and their research has shown that these extra role behaviours facilitate in improve extra role behaviours facilitate in improving the performance of organization and individual performance (Podsakoff et al., 2000). There is unanimity that OCB addresses silent behaviours organisational enterprises (Barbuto et al., 2001). Employees often have opinion, information and ideas for constructive ways to improve work and work organizations. Sometimes these employees exercise voice and express opinion information and idea, and at other times they engage in silence and withhold their opinion, information and ideas, and at other times

they engage in silence and withhold their opinion, information and ideas. Misattributions for motives behind silence can lead to more incongruent consequences (both positive and negative) for employees (Van Dync et al., 2003). Organ (1977) widened the scope of job performance by making a distinction between quantitative and qualitative measures of work outcomes. Apart from this, Organ (1977) also reevaluated the relationship between job performance and job satisfaction to include behaviours which have positive effects on social, psychological and organization context of work.

DEFINITION OF JOB SATISFACTION:

The term job satisfaction figures prominently in any discussions on management of human resources. Job satisfaction refers to a person's feeling of satisfaction on the job, which acts as a motivation to work. It is not the self-satisfaction, happiness or self-contentment but the satisfaction on the job.

Job satisfaction is an individual's feeling regarding his or her work. It can be influenced by a multitude of factors. The term relates to the total relationship between an individual and the employer for which he is paid. Satisfaction does mean the simple feeling state accompanying the attainment of any goal, and the end state is feeling accompanying the attainment by an impulse of its objective. The term Job satisfaction was brought to limelight by Hoppock (1935). Hoppock describes job satisfaction as, "any combination of psychological, physiological and environmental circumstances that cause and person truthfully to say I am satisfied with my job."

IMPORTANCE OF JOB SATISFACTION:

The study of job satisfaction enriches management with a range of information pertaining to job, employee, environment, etc. which facilitates it in decision making and correcting the path of organizational policies and behaviour. It indicates the general level of satisfaction in the organization about its programmes, policies, etc. Secondly, it is a diagnostic instrument for knowing employee's problems, effecting changes and correcting with least resistance. Thirdly, it strengthens the communication system of the organization and management can discuss the result for shaping the future course of action. Fourthly, it helps in

JOURNEY OF WOMEN FROM HOME TO BOARD ROOM

Dr. P. Subbaiah



VIJAYA INSTITUTE OF MANAGEMENT SCIENCES FOR WOMEN

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Need for Soft Skills in Personal and Professional Life

N. Janardhana Rao

Head of the Department, Department of Business Administration, Andhra Loyola Institute of Engineering and Technology, Vijayawada-8, AP.

Abstract:

"You can tell the condition of a nation by looking at the status of its women"

- Pt. Jawaharlal Nehru

Why we talk about women empowerment only and not men empowerment? Why women need empowerment and not men? Women make almost 50% of the total population of the world. Then why this substantial section of the society needs empowerment? They are not in minority so as to require special treatment. Biologically speaking also, it is a proven fact that female race is superior to male. Then the question arises that why we are debating the topic 'Women Empowerment'.

Keywords: Women, Empowerment, society, Government, Legal.

INTRODUCTION

We all possess two types of skills, technical skills and other skills Like Honesty, Dedication, flexibility, Hardworking, team working, leadership qualities, willing to take initiative, willing to learn and unlearn, technical knowledge willing for additional responsibilities and above all positive attitude and communication skills (verbal and non-verbal) these two skills except technical skills are also called. Soft Skills (or) Interpersonal Skills.

SOFT SKILLS - DEFINITION

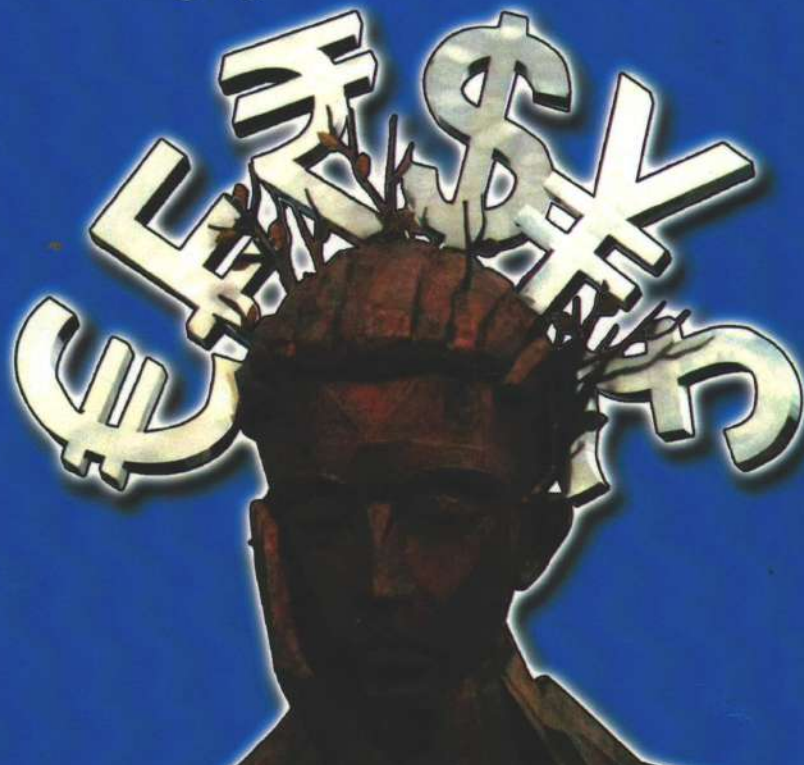
Softskills refer to the cluster of personality traits, social grace, facility with Language, personal habits, friendliness, and optimism that mark people to varying degree softskills. Complement hard skills, which are the technical requirement of a job.

In other words Soft Skills refers to Intrapersonal and interpersonal behaviours that develop and maximize human performance.

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– Changing Models in New Economic Era



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Innovative Performance through Entrepreneurial Marketing – A Case Study of SME Manufacturing in Guntur and Krishna Districts, Andhra Pradesh.

- Dr. C. Lakshmi Nath & Ms. J. Venkata Kalyani

Abstract

Merging two formerly distinct disciplines, the term entrepreneurial marketing is used to describe the marketing processes of firms pursuing opportunities in uncertain market circumstances, often under constrained resource conditions. The aim of the study is to identify the effect of entrepreneurial marketing on firm's innovative performance. The hypothesized relations between dimensions of entrepreneurial marketing and innovative performance are tested with data collected through structured questionnaires administered face-to-face to managers of 560 SMEs in the manufacturing industry. Analyses results revealed that pro-activeness, innovativeness, customer intensity, resource leveraging dimensions of entrepreneurial marketing are positively related with innovative performance. Finally, the limitations of the study and the suggestions for future research will be presented

Introduction

Merging two formerly distinct , the term entrepreneurial marketing is used to describe the marketing processes of firms pursuing opportunities in uncertain market circumstances often under constrained resource conditions (Becherer et al .,2006). Morris et al (2002:5) define the term "entrepreneurial marketing" as "the proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation". Entrepreneurial marketing is characterized as an organizational orientation having seven underlying dimensions, namely, pro-activeness, customer intensity, resource leveraging, and value creation (Morris et al., 2002).

Based on the idea that entrepreneurial marketing is appropriate for small scale enterprises, the aim of this study is to explore the relationship between entrepreneurial marketing and innovative performance of the small and medium sized enterprises (SMEs) in Guntur and Krishna Districts.

The article proceeds in the following manner. First, we briefly review the literature regarding entrepreneurial marketing and innovativeness. We develop hypotheses concerning the effects of dimensions of entrepreneurial marketing on SMEs innovative performance. Next, we test our hypotheses using data collected from a sample of 560 manufacturing SMEs using convenient sampling technique via a structured questionnaire derived from the literature. We explain in the detail the data collection method and analytical procedures. Finally, we provide the research findings and also managerial implications and future research opportunities will be presented.

Literature Review and Entrepreneurial Market

Firms operating in an er tools of "mainstream" ma may not fit established th benefits of "smallness" (J effectual action or adap business (Becherer et al marketing activities with (Kraus et al., 2010), it is v small business context (J to Bjerke and Hultman (2 growing through entrepre major customers, limited entrepreneurial, the lack and medium size enterpri entrepreneurial marketing for small or new ventures second one defines ent spirit(marketing by entrep marketing. Then it is arg might be two sides of the newness) seems to be a an entrepreneurial ,i.e. inn

Carson and Cromie (1989 opportunity is likely to exh to the overall organization and the small itself in Association (AMA) defini marketing: "entrepreneuria for creating communicating relationships in ways tha characterized by innovati without resources curren dimensions of entrepre innovativeness, opportunit creation. These dimensi marketing (Hills et al., 2 dimensions and last two an

The pro-activeness dimens competitiveness and includ and boldness. (Antoncic ar capabilities that allow im processes ahead of the cor an opportunity-seeking, for services a head of the cor

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A Novel Hybrid Keyword Set Approach in Multi-dimensional Datasets

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Abstract: Keyword-based search in text-rich multidimensional datasets facilitates many fresh applications and tools. In this paper, we ponder objects that are tagged with keywords and are embedded in a vector space. For these datasets, we perusal queries that ask for the tightest groups of points satisfying a given set of keywords. We propose a novel method called Promise (Projection and Multi Scale Hashing) that uses Irregular projection and hash-based index structures, and achieves high scalability and speedup. Our adaptability tests on datasets of sizes up to 10 million and measurements up to 100 for solicitations having up to 9 catchphrases demonstrate that ProMiSH scales directly with the Dataset estimate, the dataset measurement, the inquiry estimate, and the outcome measure. We show a Particular and an inexact adaptation of the calculation. Our experimental results on real and synthetic datasets show that ProMiSH has up To 60 times of speedup over state-of-the-art tree-based techniques. We are handling the spatial queries jointly and returns the only user specified number of optimal results; we implemented a cache based approach for efficient results.

Index Terms: Querying, multi-dimensional data, indexing, hashing

I. INTRODUCTION

In today's digital world the amount of data which is developed is increasing day by day. There is different multimedia in which data is saved. It's very difficult to search the large dataset for a given query as well to archive more accuracy on user query. In the same time query will search on dataset for exact keyword match

and it will not find the nearest keyword for accuracy. Ex: Flickr.

The amount of data which is developed is increasing day by day, thus it is very difficult to search large dataset for a given query as well to achieve more accuracy on user query. So we have implemented a method of efficient search in multidimensional dataset. This is associated with images as an input. Images are often characterized by a collection of relevant features, and are commonly represented as points in a multi-dimensional feature space. For example, images are represented using colour feature vectors, and usually have descriptive text information (e.g., tags or keywords) associated with them. We consider multi-dimensional datasets where each data point has a set of keywords. The presence of keywords in feature space allows for the development of new tools to query and explore these multidimensional datasets.

Our main contributions are summarized as follows.

- (1) We propose a novel multi-scale index for exact and approximate NKS query processing.
- (2) We develop efficient search algorithms that work with the multi-scale indexes for fast query processing.
- (3) We conduct extensive experimental studies to demonstrate the performance of the proposed techniques.

1. Filename: It is based on image filename.

2. CBIR (Content based picture seek): Content-based picture recovery (CBIR), otherwise called inquiry by picture content (QBIC) and substance based visual data recovery (CBVIR) is the utilization of PC vision systems to the picture recovery issue, that is, the issue of looking for computerized pictures in expansive databases. Contentbased picture recovery is against

customary conceptbased approaches (see Concept-based picture ordering).

3. TBIR (Text based image search): Concept-based image indexing, also variably named as “description-based” or “text-based” image indexing/retrieval, refers to retrieval from text-based indexing of images that may employ keywords, subject headings, captions, or natural language text. It is opposed to Content-based image retrieval. Indexing is a technique used in CBIR.

Table -1: Comparison Table

	<i>File name</i>	<i>CBIR</i>	<i>TBIR</i>	<i>NKS (Extended TBIR)</i>
<i>No. of Result</i>	<i>Highest</i>	<i>Low</i>	<i>High</i>	<i>Low</i>
<i>Accuracy</i>	<i>Low</i>	<i>High</i>	<i>Medium</i>	<i>High</i>
<i>Performance</i>	<i>Highest</i>	<i>Low</i>	<i>High</i>	<i>High</i>
<i>User Satisfaction</i>	<i><50%</i>	<i>90-100%</i>	<i>60-80%</i>	<i>90-100%</i>

2. LITERATURE SURVEY

We study nearest keyword set (referred to as NKS) queries on text-rich multi-dimensional datasets. An NKS query is a set of user-provided keywords, and the result of the query may include k sets of data points each of which contains all the query keywords and forms one of the top-k tightest clusters in the multi-dimensional space. Illustrates an NKS query over a set of two-dimensional data points. Each point is tagged with a set of keywords. For a query the set of points contains all the query keywords and forms the tightest cluster compared with any other set of points covering all the query keywords. Therefore, the set is the top-1 result for the query Q. NKS queries are useful for many applications, such as photo-sharing in social networks, graph pattern search, geo-location search in GIS systems and so on.

We present an exact and an approximate version of the algorithm. Our experimental results on real and synthetic datasets show that the method has more speedup over state-of-the-art tree-based techniques.

Other related queries include aggregate nearest keyword search in spatial databases, top-k preferential query, top-k sites in a spatial data based on their influence on feature points, and optimal location queries. Our work is different from these techniques. First, existing works mainly focus on the type of queries where the coordinates of query points are known. Even though it is possible to make their cost functions same to the cost function in NKS queries, such tuning does not change their techniques. The proposed techniques use location information as an integral part to perform a best first search on the IR-Tree, and query coordinates play a fundamental role in almost every step of the algorithms to prune the search space. Moreover, these techniques do not provide concrete guidelines on how to enable efficient processing for the type of queries where query coordinates are missing. Second, in multi-dimensional spaces, it is difficult for users to provide meaningful coordinates, and our work deals with another type of queries where users can only provide keywords as input. Without query coordinates, it is difficult to adapt existing techniques to our problem.

Finding closest neighbors in expansive multi-dimensional information has dependably been one of the examination interests in information mining field. In this paper, we introduce our nonstop research on similitude seek issues. Previous work on exploring the meaning of K nearest neighbors from a new perspective in Pan KNN. It redefines the distances between data points and a given query point Q, efficiently and effectively selecting data points which are closest to Q. It can be applied in various data mining fields. A lot of genuine informational collections have immaterial or impediment data which enormously influences the viability and proficiency of discovering closest neighbors for a given question information point. In this paper, we show our way to deal with tackling the likeness seek issue within the sight of hindrances. We apply the idea of deterrent focuses and process the comparability look issues in an unexpected way. This approach can help to enhance the execution of existing information examination approaches. The closeness between two information guides utilized toward be founded on a likeness capacity, for example, Euclidean separation which totals the distinction between each measurement of the two information focuses in customary closest neighbor issues.

In those applications, the closest neighbor issues are illuminated in light of the separation between the information point and the inquiry point over a settled arrangement of measurements (components). Likewise early techniques experience the ill effects of the "scourge of dimensionality". In a high dimensional space the information are typically meager, and generally utilized separation metric, for example, Euclidean separation may not function admirably as dimensionality goes higher. Late research [8] demonstrates that in high measurements closest neighbor questions end up noticeably insecure: the distinction of the separations of most distant and closest indicates some inquiry point does not increment as quick as the base of the two, along these lines the separation between two information focuses in high dimensionality is less significant. Some methodologies are proposed focusing on fractional likenesses. However, they have limitations such as the requirement of the fixed subset of dimensions, or fixed number of dimensions as the input parameter(s) for the algorithms. Keyword-based search in text-rich multi-dimensional datasets facilitates many novel applications and tools. We consider objects that are tagged with keywords and are embedded in a vector space. For these datasets, we study queries that ask for the tightest groups of points satisfying a given set of keywords. We propose a method that uses random projection and hash-based index structures, and achieves high scalability and speedup. However, none of these algorithms considers detecting outliers simultaneously with clustering process. As a rule, anomalies are as essential as bunches, for example, charge card extortion location, disclosure of criminal exercises, revelation of PC interruption, and so on. Dissecting the information circulation with the thought of snags is basic for some informational collections.

As of late, different general strategies for investigation of development information and human exercises specifically were proposed. Distinctive methods for 3D geo-perception of space-time examples of individuals' travel involvement and portability is displayed in .Two sorts of calculations for mining intriguing examples from directions gained by GPSEnabled gadgets are proposed. In the first type, the trajectories are converted into a sequence of stops or important parts (regions in which an object stayed more than a predefined time interval) before the algorithm for mining interesting

patterns is applied. In the second type, the identification of important parts in a trajectory is part of the algorithm for mining patterns. Progressive clustering of trajectories of moving objects is presented. The authors combined clustering with visual interaction to let the analyst apply different distance functions based on the particular characteristics of trajectories under investigation. Visualization techniques (aggregations, ring maps) of daily repeating activities like travel, work, shopping are presented. An algorithm for finding interesting places and mining travel sequences from GPS trajectories is proposed. The algorithm detects frequent sequences on different scales, taking into account the interestingness of the visited place and the experience of a user. Research on movement data is usually done on trajectories acquired by GPS-enabled devices. However, large scale GPS datasets, which would allow us to perform qualitative analysis on the level of a city or country, are still not available. On the other hand, geo tagged photo collections could be obtained on the world scale, which makes them a valuable resource for the analysis of people's activities. Concentration and movement of tourists at the scale of a city is analyzed using Flickr geo tagged photos. For this, the identified tourists in the city of Rome using user profiles and built heat maps to visualize regions of high tourist concentration. The heat maps were created by dividing a region into cells, counting then number of people who took photos in every cell and smoothing the visualization by interpolating between values of every cell. Nonetheless, no point by point examination of the technique, its favorable circumstances and detriments was given. Moreover, stream maps were utilized to imagine traveler development between went to places. These spots were associated by lines whose widths were relative to the quantity of vacationers. Mean-move, a non-parametric bunching calculation, was utilized as a part of to locate the most appealing spots on Earth on a neighborhood and city scale utilizing Flickr photographs. The spoke to cases of maps with developments of individuals. In any case, no point by point examination of the development was introduced.

Photograph sharing sites, for example, Flickr and Panoramio contain a large number of geo labeled

pictures contributed by individuals from everywhere throughout the world. Qualities of these information posture new difficulties in the area of spatio-fleeting examination. In this paper, we characterize a few distinct assignments identified with investigation of appealing spots, purposes of premium and examination of behavioral examples of various client groups on geo labeled photograph information. We perform investigation and examination of transient occasions, rankings of touring spots in a city, and study versatility of individuals utilizing geotagged photographs. We adopt an efficient strategy to finish these errands by applying versatile computational systems, utilizing factual and information mining calculations, consolidated with intuitive geo-representation. We give exploratory visual examination condition, which permits the expert to recognize spatial and fleeting examples and concentrate extra information from expansive geo-labeled photograph accumulations. We exhibit our approach by applying the techniques to a few locales on the planet.

Gigantic measure of information have been produced in many teaches these days. The similitude seek issue has been considered in the most recent decade, and numerous calculations have been proposed to comprehend the K closest neighbor look. Previously proposed Pan KNN which is a novel technique that explores the meaning of K nearest neighbors from a new perspective. It redefines the distances between data points and a given query point Q, and selects data points which are closest to Q efficiently and effectively. In this paper, first a brief introduction about previous work on Pan KNN and discuss the Fuzzy concept; then, we propose to use the Fuzzy concept to design OPan KNN algorithm that targets solving the nearest neighbors problems in the presence of obstacles.

3. EXISTING SYSTEM

In this paper, we propose ProMiSH (short for Projection and Multi-Scale Hashing) to enable fast processing for NKS queries. In particular, we develop an exact ProMiSH (referred to as ProMiSH-E) that always retrieves the optimal top-k results, and an approximate ProMiSH (referred to as ProMiSHA) that is more efficient in terms of time and space, and is able to obtain near-optimal results in practice. ProMiSHE uses a set of hash tables and inverted indexes to

perform a localized search. Based on this index, we developed ProMiSHE that finds an optimal subset of points and ProMiSH-A which searches near-optimal results with better efficiency. ProMiSH is faster than state-of-the-art tree-based techniques, with multiple orders of magnitude performance improvement. Tree-based indexes, such as R-Tree and M-Tree have been extensively investigated for nearest neighbor search in high-dimensional spaces. These indexes fail to scale to dimensions greater than 10 because of the curse of dimensionality. Random projection with hashing has come to be the state-of-the-art method for nearest neighbor search in high-dimensional datasets. Data retrieval used random vectors constructed from p-stable distributions to project points, computed hash keys for the points by splitting the line of projected values into disjoint bins, and then concatenated hash keys obtained for a point from m random vectors to create a final hash key for the point. Our problem is different from nearest neighbor search. NKS queries provide no coordinate information, and aim to

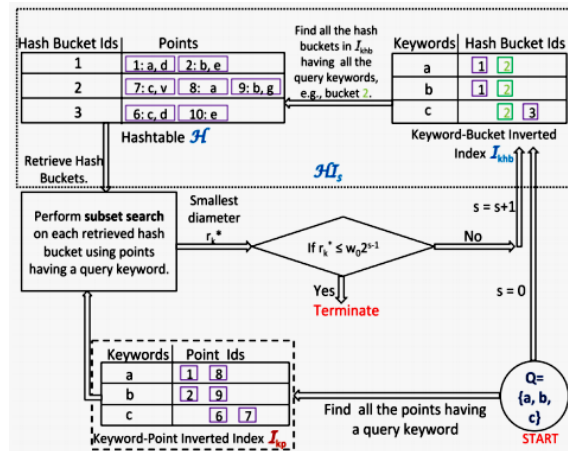


Fig 3: Index structure and flow of execution of ProMiSH.

Find the top-k tightest clusters that cover the input keyword set. Meanwhile, nearest neighbor queries usually require coordinate information for queries, which makes it difficult to develop an efficient method to solve NKS queries by existing techniques for nearest neighbor search. In addition, multiway distance joins for a set of multidimensional datasets have been studied in tree based index is adopted, but suffers poor scalability with respect to the dimension of the dataset. Furthermore, it is not straightforward to adapt these algorithms since every query requires a multi-way

distance join only on a subset of the points of each dataset. Scored based on distance between points and weights of keywords. Furthermore, the criteria of a result containing all the keywords can be relaxed to generate results having only a subset of the query keywords. We plan to explore the extension of ProMiSH to disk. ProMiSH-E sequentially reads only required buckets from Ikp to find points containing at least one query keyword. Therefore, Ikp can be stored on disk using a directory-file structure. We can create a directory for Ikp. Each bucket of Ikp will be stored in a separate file named after its key in the directory. Moreover, ProMiSH-E sequentially probes HI data structures starting at the smallest scale to generate the candidate point ids for the subset search, and it reads only required buckets from the hash table and the inverted index of a HI structure. Therefore, all the hash tables and the inverted indexes of HI can again be stored using a similar directory- file structure as Ikp, and all the points in the dataset can be indexed into a B+-Tree using their ids and stored on the disk. In this way, subset search can retrieve the points from the disk using B+-Tree for exploring the final set of results.

IV. CONCLUSION

We proposed solutions to the problem of top-k nearest keyword set search in multi-dimensional datasets. We proposed a novel index called ProMiSH based on random projections and hashing. Based on this index, we developed ProMiSHE that finds an optimal subset of points and ProMiSH-A that searches near-optimal results with better efficiency. Our empirical results show that ProMiSH is faster than state-of-the-art tree-based techniques, with multiple orders of magnitude performance improvement. Moreover, our techniques scale well with both real and synthetic datasets. Ranking functions. In the future, we plan to explore other scoring schemes for ranking the result sets. In one scheme, we may assign weights to the keywords of a point by using techniques like tf-idf. Then, each group of points can be relaxed to generate results having only a subset of the query keywords.

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Voltage Stability Analysis using Voltage Dependent Load Model

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ABSTRACT

Load models play an important role in power system planning. They let us decide the reactive power requirements of a power system. Hence they are considered a requirement in power system voltage stability studies. Voltage stability defines the ability of a power system network to maintain stable voltages at all the buses under normal and abnormal operating conditions. The research presented as part of this paper, deals with analysis of Voltage Dependent load models for voltage stability studies. The precision of the results are directly related to the load models used in this analysis. The method is analyzed using continuation power flow routine backed by fast decoupled iterative computational approach. Thyristor Controlled Switched Capacitor is used to address the voltage instability caused by the load variations using search procedure. The stability analysis is performed through quantitative simulation on standard IEEE 14 bus system.

KEYWORDS: Continuation Power Flow, Search Procedure, Voltage Stability, Voltage Dependent Load

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I. INTRODUCTION

Load Stability or Voltage Stability is one of the concerns in power systems which are heavily loaded, faulted or having a shortage of reactive power [1]. Load imbalances are one of the many causes of reactive power shortages. During such system disturbances, system stability is imperilled. The probability of moving to the global instability increases [2]. This will usually result in a blackout unless some precautions are considered. The problem of voltage stability concerns the whole power system, although it usually has a large involvement in one critical area of the power system. Power System Load Modeling is a technique used to model the power system and

essential for stability assessments. In this paper, we are trying to analyze Voltage Dependent load model for voltage stability studies. Different load models would greatly affect voltage stability aspect of an interconnected power system. We are using continuation power flow backed by BX based fast decoupled load flow to analyze the effects of the above load model and compare the results. Flexible AC Transmission Systems in short FACTS controllers are used to control the variables such as phase angle and voltage magnitude at a given bus and line impedance where a voltage collapse is observed [4]. Introducing FACTS controllers is the most effective way for utilities to improve the voltage profile and voltage stability margin of the system. As the size and the cost of the FACTS

devices are high, an optimal location and size has to be identified before they are actually installed.

II. PROBLEM FORMULATION

Load modeling is essential for stability studies in order to address instability issues for any power system operating in long run. Load modeling has been addressed in [8] using cat swarm optimization for different static load models with a solution of UPFC in identifying its optimal size and location. Accurate modeling of loads continues to be a difficult task due to several reasons. Lack of precise information on the composition of the load, changing of load composition with time like day and week, seasons, weather, through time and more influence the load models. Electric utility analysts and their management need evidence of the benefits in improved load representation to justify the effort and expense of collecting and processing load data. Also to modify computer program using load models. The interest in load modeling has increased in the last few years, and power system load modeling has become a new research area in power systems stability [5]. Several studies have reported the critical effect of load representation in voltage stability studies. This leads to identify accurate load models than the traditionally used ones. Though ours is not the first paper to test various static load models for determining the voltage stability limits of a power network, it happens to readdress stability issues related to Voltage Dependent load model for voltage stability. We present a simple binary search procedure to locate and size Thyristor Controlled Switched Capacitor to address load instability caused by Voltage Dependent load model.

III. MATERIAL

A. IEEE 14 Bus Network

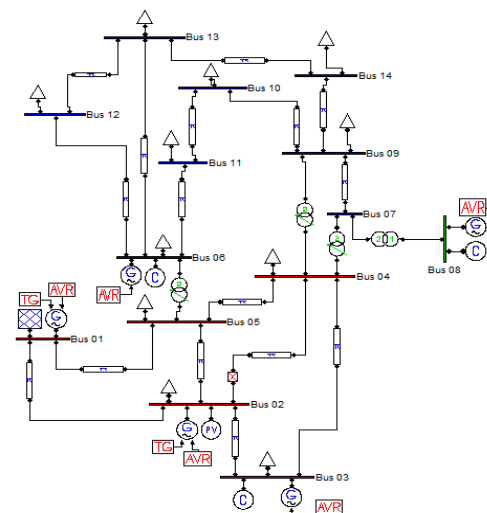


Figure 1: IEEE 14-bus Network

We are testing our load model on IEEE 14 bus power network as shown in Figure 1. The test system consists of twenty one branches, fourteen buses, eleven loads totalling 259 MW and 81.4 MVAR. The tolerance for bus voltages in P.U. was assumed to be 5%. Bus 1 is assumed slack. The analysis is performed in power system analysis toolbox [6]. We are applying continuation power routine with fast decoupled iterative approach [3]. The number of iteration limit in powerflow routine is set to twenty count.

B. Voltage Dependent Load model

A voltage dependent load is an electrical device whose power consumption changes with the voltage being supplied to it. Examples for these loads are the most common types of incandescent lamps, standard tungsten filament lamps, tungsten halogen and reflector lamps and motor load.

C. Thyristor Controlled Switched Capacitor

TCSC shown in figure 2 is series type compensator, used to reduce the possibility of voltage collapse. TCSC is used to improve power flow capability of the line as well as to enhance system stability. To reduce the series reactive impedance and to minimize receiving end voltage variation series capacitive compensation is used.

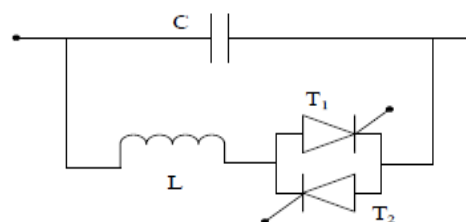


Figure 2: Structure of TCSC

D. Flow chart: Binary Search

The flow chart for binary search approach [7] is presented in figure 3.

IV. IMPLEMENTATION, RESULTS & DISCUSSION

The Voltage Dependent loads were installed at buses 9 to 14. Here we observe a decline in voltage magnitude as a result of reactive power deficit after installation of Voltage Dependent loads as compared to a case without these loads. As can be seen from table 1 and figure 4, we observe an improvement in bus voltage magnitude profile after the placement of TCSC using binary search approach. Also, observe similar kind of decline in maximum loading limit before and after placement of Voltage Dependent loads. The loading limit is enhanced using placement of TCSC in this case to improve the steady state stability limit at the heavily loaded power system buses. For pre-disturbance condition, the loading limit was 2.375 which were improved to 2.865. We observe an increase in steady state limit of the system.

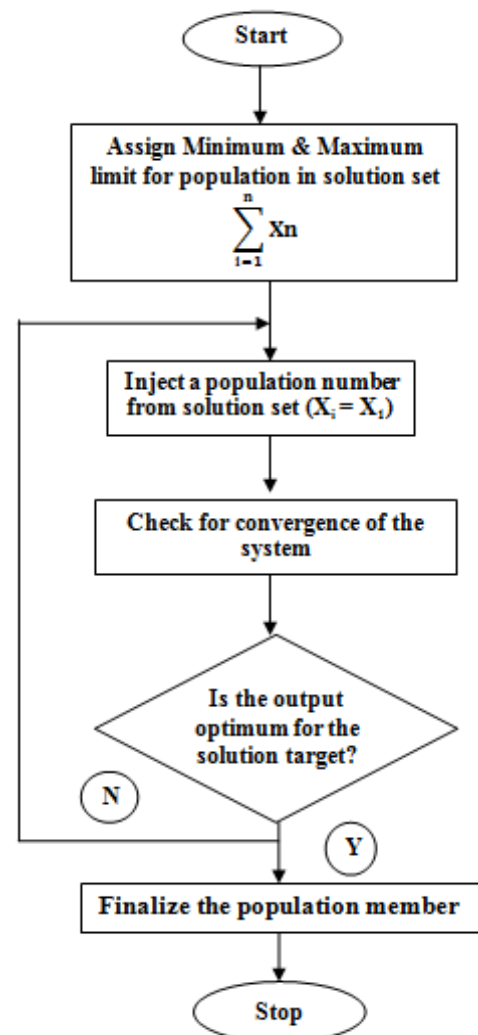


Figure 3: Binary Search Procedure

Table 1: Voltage Magnitude Profile

Bus No.	Voltage Profile	Voltage Profile with VD Loads	Voltage Profile with TCSC
1	1.0572	1.0572	1.0572
2	0.93175	0.88923	0.91217
3	0.85811	0.74095	0.76217
4	0.77903	0.74086	0.76347
5	0.79614	0.76757	0.76722
6	0.82196	0.83625	0.83433
7	0.79451	0.80221	0.81243
8	0.93818	0.94304	0.94882
9	0.72084	0.74587	0.75282
10	0.71213	0.74231	0.74699
11	0.75452	0.77959	0.78075
12	0.7663	0.79402	0.79131
13	0.7445	0.77805	0.77566
14	0.66135	0.71354	0.71458

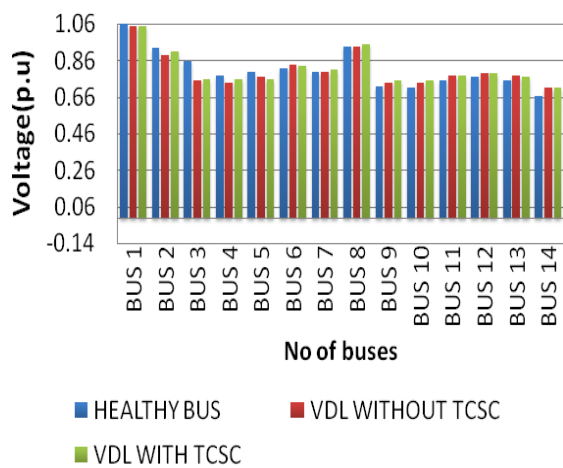


Figure 4: Voltage Magnitude Profile Comparison

V. CONCLUSION AND FUTURE SCOPE

The work presented here details a load model study for voltage stability using Search Procedure. The case study considered was modelled using Voltage Dependent static loads and analyzed for their performance in terms of voltage magnitude profile and maximum loading parameter. The inclusion of load models in the power system causes a decline in voltage profile as a result of reactive power deficit. A method is showcased for determination of the optimal location and size of TCSC to enhance the voltage stability. This method is based on Binary Search. This algorithm is simple in implementing compared to rigid Artificial Intelligence techniques. It is capable and flexible to make the final decision about the location of the FACTS controller. The future scope of this work deals with the testing of above techniques for higher order IEEE case studies and practical networks.

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Clinical Document architecture (CDA) Development and Assimilation for Health Information Exchange Based on Cloud Computing System

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Abstract—Successful deployment of Electronic Health Record helps improve patient safety and quality of care, but it has the prerequisite of interoperability between Health Information Exchange at different hospitals. The Clinical Document Architecture (CDA) developed by HL7 is a core document standard to ensure such interoperability, and propagation of this document format is critical for interoperability. Unfortunately, hospitals are reluctant to adopt interoperable HIS due to its deployment cost except for in a handful countries. A problem arises even when more hospitals start using the CDA document format because the data scattered in different documents are hard to manage. In this paper, we describe our CDA document generation and integration Open API service based on cloud computing, through which hospitals are enabled to conveniently generate CDA documents without having to purchase proprietary software. Our CDA document integration system integrates multiple CDA documents per patient into a single CDA document and physicians and patients can browse the clinical data in chronological order. Our system of CDA document generation and integration is based on cloud computing and the service is offered in Open API. Developers using different platforms thus can use our system to enhance interoperability.

Keywords— Health information exchange, HL7, CDA, cloud computing, software as a service.

1 INTRODUCTION

Electronic Health Record (EHR) is longitudinal collection of electronic health information for and about persons, where health information is defined as information pertaining to the health of an individual or health care provided to an individual and it can support of efficient processes for health care delivery [1]. In order to ensure successful an operation of EHR, a Health Information Exchange (HIE) system need to be implemented [2]. However, most of the HIS in service have different characteristics and are mutually incompatible [3], [4]. Hence, effective health information exchange needs to be standardized for interoperable health information exchange between hospitals. Especially, clinical document standardization lies at the core of guaranteeing interoperability.

Health Level Seven has established CDA as a major standard for clinical documents [5]. CDA is a document markup standard that specifies the structure and semantics

of ‘clinical documents’ for the purpose of exchange. The first version of CDA was developed in 2001 and Release 2 came out in 2005 [6]. Many projects adopting CDA have been successfully completed in many countries [7], [8], [9]. Active works are being done on improving semantic interoperability based on open EHR and CEN13606 [10], [11].

To establish confidence in HIE interoperability, more HIS’s need to support CDA. However, the structure of CDA is very complex and the production of correct CDA document is hard to achieve without deep understanding of the CDA standard and sufficient experience with it. In addition, the HIS development platforms for hospitals vary so greatly that generation of CDA documents in each hospital invariably requires a separate CDA generation system. Also, hospitals are very reluctant to adopt a new system unless it is absolutely necessary for provision of care. As a result, the adoption rate of EHR is very low except for in a few handful countries such as New Zealand or Australia [12]. In the USA, the government implemented an incentive program called the Meaningful Use Program to promote EHR adoption among hospitals [13].

When a patient is diagnosed at a clinic, a CDA document recording the diagnosis is generated. The CDA document can be shared with other clinics if the patient agrees. The concept of family doctor does not exist in Korea; hence it is common for a patient to visit a number of different clinics. The exchange of CDA document is triggered in the following cases: when a physician needs to study a patient’s medical history; when referral and reply letters are drafted for a patient cared by multiple clinics; when a patient is in emergency and the medical history needs to be reviewed. It takes increasing amount of time for the medical personnel as the amount of exchanged CDA document increases because more documents means that data are distributed in different documents. This significantly delays the medical personnel in making decisions. Hence, when all of the CDA documents are integrated into a single document, the medical personnel is empowered to review the patient’s clinical history conveniently in chronological order per clinical section and the follow-up care service can be delivered more effectively. Unfortunately for now, a solution that integrates multiple CDA documents into one does not exist yet to the best of our knowledge and there is a practical limitation for individual hospitals to develop and implement a CDA document integration technology.

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A Novel Technique To Prevent The Sensitive Data Using Non-Cryptographic Methods

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Abstract: Current approach in information, means, data mining, and security automation have gave rise to a new era of exploration, known as Privacy Preserving Data Mining (PPDM). Privacy conserve data mining has become progressively popular because it allows sharing of privacy conscious data for analysis aspiration. Several data mining algorithms, consolidate privacy preserving structure, have been matured that allow one to extract applicable knowledge from large amount of data, while disguise responsive data or information from acknowledgment or inference. Finally, we share assignment for future analysis. We provide a review of the state-of-the-art design for privacy and consider the model technique for isolation preserving data mining.

Keywords-Privacy-preserving data mining (PPDM), data mining, research challenges, privacy preserving techniques, slicing.

I. INTRODUCTION:

Technology on the rise has always appeal ease of use, easy access, scalability and most particularly retreat of user data .Privacy has been a involvement since the invent of internet. Every single development from booking tickets to making international economic transactions data is stored in electronic form. Computerized data is as accessible to as data in its physical form. Various algorithms past few years have been on the front to provide maximum conservation to private data and to overcome the conditions of existing algorithms etc. are some of the PPDM approach that have proved to be adequate to prevent data when it is being reserve. However independently the methods have few deficiencies, thus a different access for PPDM can be made. Connecting the PPDM techniques administer more robust, durable and secure algorithm. Thus in our research we have mainly attract on connecting two techniques of PPDM i.e. Slicing and Cryptography. Both techniques have demonstrated to provide best

separation to user data, thus this excite us to combine these techniques to achieves a new algorithm that administer a simple yet an efficient way of derive data without risking the confidentiality of data. The paper is coordinated as follows. In category I, we give the basic concept of PPDM and its capability. In Section II, we characterize the related work done in the range of PPDM. In section III, we have Specified the research objection in PPDM. Section IV consist of the proposed procedure that tries to affected the flaws of PPDM. And finally we complete in Section V.

II. RELATED WORK

Yehuda Lindell, Benny Pinkas [3], presented establishment to secure multiparty computing and its application to privacy-preserving data mining. The accepted errors that are traditional in the conserve data mining is achieve with secure multiparty calculation techniques and the issues complex in the efficiency are consider and also determine the difficulties in compose highly efficient covenant.

Sweety R. Lodha, S. Dhande [4], explained encryption algorithm resolve at three different levels in the paper Web table Security Algorithms in this paper Encryption is divided into three contrasting levels i.e. Storage-level encryption, Database-level encryption, Application-level encryption. Storage-level encryption encrypts the data in the stored in subsystem and hence assure the static data stored. From a database point of view, storage-level encryption is transpired thus any changes to current applications are escape easily. Database-level encryption provides guarantee when data is being inserted or recapture from database. Application-level encryption observe the encryption and reading process at application level where the data is generates Within the application that begin the data into the system encryption is achieve; the data is encrypted and then sent, thus consistently the

data is reserved stand encrypted data is retrieve which is finally decode again within the utilization.

Yuan-Hung Kao, Tung-Shou Chen and Jeanne Chen [5], expected a novel hybrid conservation scheme that conserve the privacy of information and the gather knowledge in data mining. The prospective scheme accommodate the privacy – preserving data mining technique with that of knowledge-protect anti-data mining capability. The given scheme allows user to adapt the amount of preservation on personal level.

Hanumantha Rao Jalla and P N Girija [6] , proposed an algorithm that direction the problem of respective customers related to their privacy concern. Authors expected a conversion technique. This basis of this technique has been attribute from Walsh- Hadamard conversion (WHT) and one of its fundamentals i.e. Rotation in their paper. An orthogonal matrix is achieve by the WHT, it transfers entire data into new sphere and also maintain the length between the data evidences. Techniques which are analytical based can be used to modernize the records, so by administer Rotation transformation this complication is resolved. Inverse matrix is one this capability

Sativa Lohiya and Lata Raha [7], proposed a hybrid capability in which randomization and abstraction is used in their paper. In this access the data is first randomized and then abstraction is performed on the modified or randomized data. This technique assures private data and regenerate original data with better efficiency and with no clues loss.

Tiancheng Li, Ninghui Li, Ian Molloy and Jian Zhang [1], presented a new access called slicing. Slicing is used to conserve privacy of micro data. The constraint of observation and took decision are overcome by this method. Advantage is preserved well in Insider Threats while conserve against threats associated to privacy of data. Analysis show that data utility is much better conserve by allowance than generalization and its ability is more than bucketization in case of assignment that involve the sensitive characteristic.

III. RESEARCH CHALLENGES

Now- a-days, Data Mining is used in much utilization. There are convinced areas where data mining if used without privacy may cause genuine affects .These areas are the main exploration objection and are mentioned below.

Internal and independent attacks, Cyber impence. One of the major intimidation people face today is Cyber Crime [9]. Since most of our report is stored on electronic publishing and a lot of data is also accessible on internet or networks. Aggression on such areas might be critical and destructive for an individual. For example, contemplate the Banking system. If operator attack a bank's instruction system and empty the explanation, the bank could lose gathering of dollars. Therefore guarantee of data is a analytical issue. There are two types of risk

–Outsider or assistant. An attack on Information System from someone outside the grouping is called foreigner threat, such as hackers, hacking Bank's analog systems and causing havocs. A more critical complication is the insider threat. Accomplice threat can be due to an squatter present in the grouping. Members of an system have studied their policies and business proceeding and know every bit of the intelligence so it can affect the organization's data assets.

B. Fraud in Credit Cards and Individual's continuation Theft Another area which desire consideration is disclose frauds and thefts. Frauds may be credit card pressure. These can be disclosing by analyze acquisition made of enormous amounts [9]. A similar and a more conscious theft is identity theft. Here one estimates to be an status of another person by connection that person's personal report and carrying out all types of concession under the other person's name. By the time, the owner finds out it is often far too late-the victims may already have lost millions of dollars due to presence theft.

C Flaws unparticular techniques

PPDM has a huge list of capability with different approach and thought. However every individual technique in its own has some flaws which development the challenge for scheming a better algorithm, the respective flaws are stated below.

- Anonymization: Since Anonymization generates translate data, its accuracy of applications on the data is reduced [8]. Available or unavailable characteristic in external table are difficult to resolve in k- anonymity model.
- Cryptographic Technique: For huge directory this algorithm doesn't proves to be a strong technique as this technique fails to protect the output of estimation [8]. Thus as a result mining the result may break the privacy of individual's record [9].

- Data Perturbation: conserve the original data becomes difficult in some anxiety access. Data mining technique is to be elected based on the design using which noise has been received in data [9].
- Randomization: Each records are treated individually heedless of their local density [8].
- Generalization: A appreciable amount of information is lost for high structural data in observation [1].
- Bucketization: enrollment confession is not stopped in this method and clear departure between sensitive characteristic and quasi-identifying attributes is a must for this method additional the method is inapplicable [1].

IV. PROPOSED METHODOLOGY

Our concept of merging contrasting techniques aims on linking cryptographic technique and slicing. Cryptography has different way to provide privacy. Authentication, Encryption, key transaction, etc is some of the basic techniques which when converted provide a high level of preservation thus making it nearly demanding to break into an individual's privacy. Cryptography has been one of the most used privacy hindrance technique in multiparty data estimation. This method prevents flow of computations. portion was one of the techniques imported that overcame the defect of generalization and bucketization. Membership exposure and preserving better data utility are the convenience of slicing. Slicing as the name says separation the data set or attributes diagonally as well horizontally.

Since cryptography aims at assure leakage of private computing result and slicing aims at preserving better data service each method holds some drawback. Thus our concept combine different level evidence and database level slicing. Connecting these two path ensures user level privacy and index level privacy. A robust algorithm is thus introduced in this paper

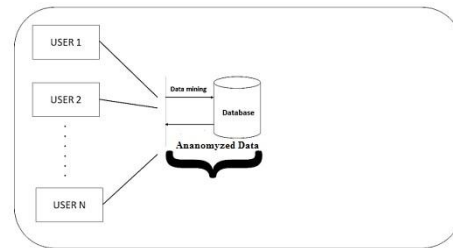


Fig. 1. Basic framework of the proposed approach

Data posted in database may have unknown capacity. Thus in order to handle all dimensions of data exclusively high –dimensional data slicing acts as a major backing factor. Since slicing slices the dataset on the bias and vertically, it aims at breaking cooperative across the files but at same time preserving the federation within each column. Slicing assure database level surveillance as sliced data may have least association with other records thus compressing the risk of leaking added private data which is not desired. As shown in figure 1, a request from user is prepared and thus the data highly correspond with the data requested are organize together using the slicing algorithm. Thus cryptography provide user level privacy whereas slicing ensures database matched privacy. Cryptography and Slicing form a robust hybrid technique for privacy conserve in data mining.

V. CONCLUSION

This paper has introduced a robust, stable and effective method for preserving data privacy at different platform. Since data online are the most vulnerable one this hybrid technique can be used over internet. Implementation of the algorithm guarantees security to a higher extent. However further research may make this technique much more unpredictable and difficult to break. The two level authentication proves to be an impact factor as a fresh approach of key exchange and authentication are used at the same time. Further research may reduce the overhead on the two level authentication algorithm. Slicing at the basic level supports cryptography in the given approach thus plays an important role at database level. Hybrid techniques have always proved to be a better approach for PPDm, thus overcoming different flaws and providing a better mean for preserving data privacy.

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Aggregation on the Fly: Reducing CPU time between MapReduce for Big Data

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Abstract— As a main structure for handling and investigating enormous information MapReduce [1], is utilized by many endeavors to parallelize their information preparing on conveyed registering frameworks. Sadly, the all-to-all information sending from mapper undertakings to reducer tasks in the conventional MapReduce system would produce a lot of system movement. The way the middle of the information created by map undertakings can be joined with huge movement lessening in numerous apps inspires us to propose an information total plan for MapReduce occupations in cloud. In particular, we outline conglomeration engineering under the current MapReduce system with the target of limiting the information movement amid the rearrange stage, Aggregators are place in between mapper and reducer. In this paper we are implementing intra machine data aggregation in this 3 aggregators are placed with mapper and 2 reducers will sufficient. Some trial comes about additionally demonstrate that our proposition outflanks existing work by decreasing the system movement essentially. By reducing CPU time under offline and online cases.

Keywords — Big Data, Cloud Computing, Distributed processing, Virtual Machine.

I. INTRODUCTION

Enormous information has turned out to be progressively famous with characterizing attributes on volume, velocity, verity, and speed. Numerous substantial organizations, social sites like Facebook lite, Google chrome, Yahoo!, and Amazon web sites create a lot of information consistently. Gartner predicts that 4.4 million occupations will be made around huge information by 2014. A few innovations are expected to take advantage of the developing amounts of information to help organizations improve, more educated choices. Like a previously structure actualized by free resourceHadoop [3] for parallel enormous information preparing in appropriated figuring frameworks, MapReduce can be generally received to adequately & rapidly break down information getting from TB to PB in size.

Ordinarily, a MapReduce work comprises of various parallel MapReduce, trailed by lessening undertakings that

union every single middle of the road result as key-value sets created byMap assignments to deliver last outcomes. This substantial volume middle of the road information conveyed from Map assignments to diminish undertakings possess exorbitant system transmission capacity assets, prompting system clog that can truly corrupt the execution of MapReduce employments.

Information collection has been appeared to be compelling in lessening middle of the road information. Its fundamental thought is the total key/value sets having the similar keys before sending them to diminish Reducers. In the WordCount app that tallies the quantity of words from multiple of content, a Map errand will create 1000 key/value sets<the, 1> if "the" appears 1000 circumstances in the given content. In the customary MapReduce system, all these key/value sets are specifically sent to the diminish reducer. At the point when information collection is connected, a basic key-value combine, <the, 100>, is made by summing up the number results and after that sent to the decrease errand, prompting just a single percent transfer speed control of the conventional plan. Take note of that information collection can be connected just when the moderate outcomes are commutative (i.e., $m + n = n + m$) and affiliated (i.e., $m + (n + p) = (m + n) + p$).

The guarantee of information accumulation was to begin with misused by the combiner work [4], which blends the middle of the road information created by a Map assignment. Afterward, it was stretched out to total the consequences of numerous Map undertakings inside a similar machine or rack.

Be that as it may, these works overlook the information repetition among parallel Map decrease streams of a similar employment. In our project, we introduce a new plan that completely misuses information collection opportunities to additionally diminish information activity inside MapReduce employments. In particular, we devise another module that can be consolidated into previous Hadoop design, known as aggregator, which can combine the middle of the road comes about from similar machines, as well as from various ones. To accomplish productive information total, we manage the difficulties of aggregator situation and information steering amongst Map and decrease undertakings.

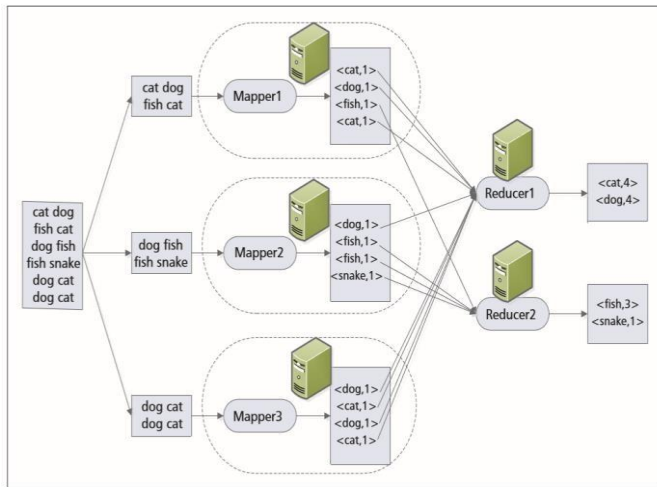


Fig 1: MapReduce internal Process

II.LITERATURE SURVEY

Backgroundprocess:

MapReduce is a product system for enormous information handling on huge groups comprising of lakh’s of machines. Clients present an information preparing demand, alluded to as an occupation in MapReduce, by determining a map and reduce Work at the point when an occupation is run, two sorts of undertakings, map and reduce, are made the information are separated into autonomous parts that are handled by the map assignments in same time. The created middle of the road brings about types of key/value sets might be rearranged & sorted by the structure, & after that brought by diminish errands to deliver last outcomes for a superior comprehension, we utilize a case of wordcount to demonstrate the procedure of MapReduce is appeared in Fig. 1, the information document is partitioned into 3 parts those are prepared by 3 Map undertakings, individually. for instance, the guide assignment will extricate 4 key/value sets from the main information split:

<dog, 1>, <fish, 1>, <fish, 1>, <snake, 1>. there are two reducer errands in our illustration, each of which is in charge of preparing 2 keys. After all key/value sets are send by the comparing reduce errands, they deliver the last outcomes by figuring the aggregate no.of eachwords.

III.EXISTING SYSTEM

MapReduce is a product structure for huge amount of data [2] preparing on substantial bunches comprising of lakh’s of machines. Clients present an information preparing demand, alluded to as a vocation in MapReduce, by indicating a map & reduce work. At the point when an occupation is executed, two sorts of undertakings, map and diminish, are made. The information are isolated into autonomous parts that are handled by map undertakings in parallel. The created middle of the road brings about types of key/value sets might be rearranged and ordered by the system, & afterward got by reducer errands to deliver lastoutcomes.

For a superior comprehension, we utilize a case of WordCount to demonstrate the procedure forMapReduce, as appeared in Fig: 1. the information document is isolated into 3parts that are prepared by 3 map assignments, individually.

IV PROPOSED SYSTEM

The Aggregator In our improved system, aggregators is situated middle of the Mapper & Reducer stages. Every Aggregator acknowledges the middle of the road comes about as info produced by a few MapReduces that are determined by aggregator administrator. Take a note of that mapper can sent its halfway outcomes straightforwardly to reducers without going through an aggregator, much the same as it does in the customary MapReduce system. In the wake of getting the middle outcomes from Map assignments, every aggregator plays out a major work to join the key-value sets with a same key, an extent that each key is incorporated into a solitary match with an amassed an incentive rather than different sets. From that point forward, every single amassed result with a similar key thought to be sent to a solitary reducer. In the framework engineering appeared in Fig. 2, the running of aggregators is directed by the TaskTrackerineach Virtual machine of the virtual pack. At the point when the TaskTracker gets a demand of making an aggregator from the aggregator chief living in the JobTracker, it quickly introduces an occurrence of aggregator & determines its related Map & decrease assignments utilizing the data appended in the demand. At last, the total is finished, the TaskTracker decimates the aggregator & sends a warning msg to aggregator manager.

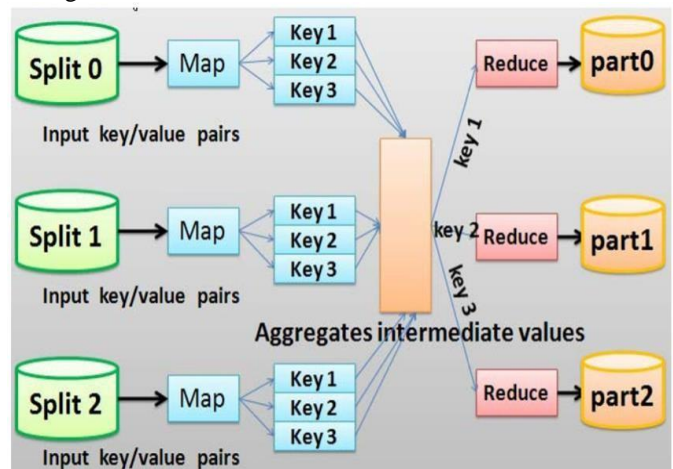


Fig 2: MapReduce with Aggregator

The clearest approach to decrease information movement is to total a similar key-value sets created by map assignments inside a similar machine before they are sent over the system. This is alluded to as intra-machine information total in this article. The WordCount illustration MapReduce with Aggregator is appeared in Fig. 2, where an aggregator is made to combine the transitional outcomes produced by each map errand. For instance, the quantity of key-value sets conveyed by the principal machine is reduced to 3 by totaling two sets of <cat,1> as a solitary

combine <cat,2>. Contrasted with the customary plan where 12 key- value sets are sent from map assignments to reduce undertaking, information accumulation can diminish the number to 8.

V.CONCLUSION

In our project, we talk about the significance of accumulation in cloud for activity decrease. To check our thought, we propose a collection engineering that can undoubtedly be joined into the current MapReduce system. We also examine the aggregator and plan a collection to limit the general system activity among map reduce undertakings of a major information work. Both model and recreation based tests have been conducted, and the trial comes about approve the productivity of our proposition in diminishing the movement. Our work is reduce time is only some percent of the previous mapreduce tasks in the fully distributed mode. If we take big data set it takes more time to process the data, so we need more Random AccessMemory.

VI.RESULTS

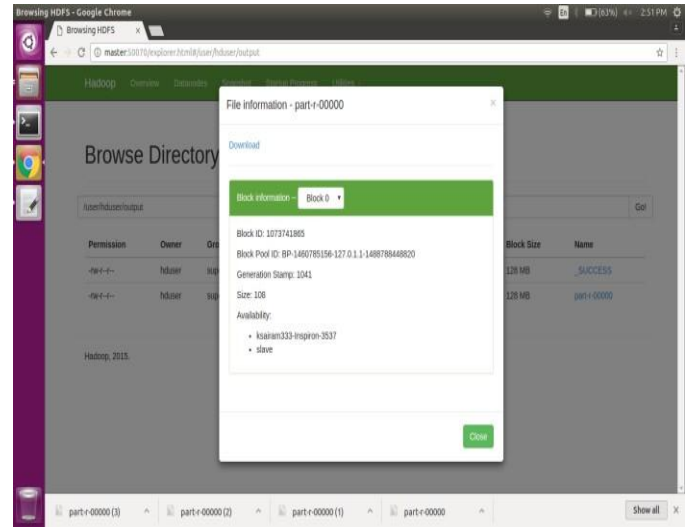


Fig: Download result file.

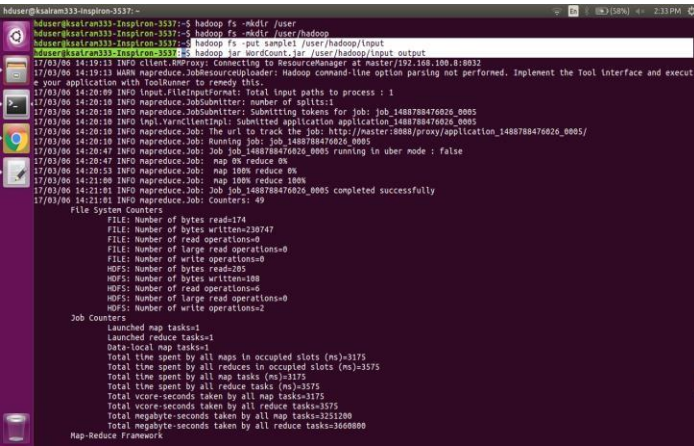


Fig: Executing MapReduce program

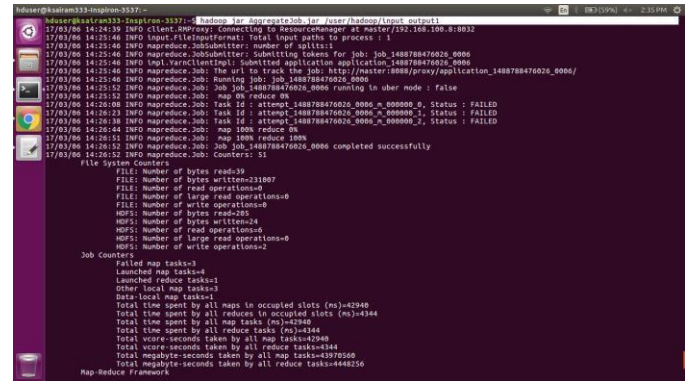


Fig: Map Reduce output.

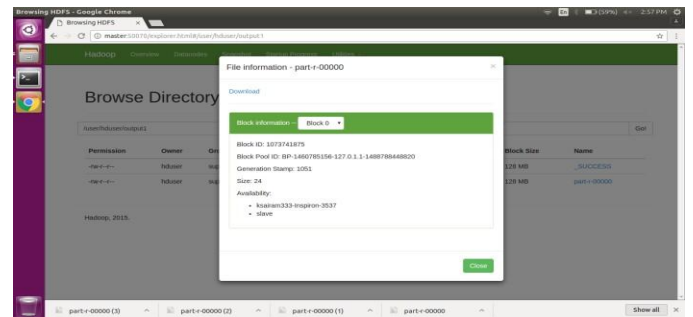


Fig: Download Result file

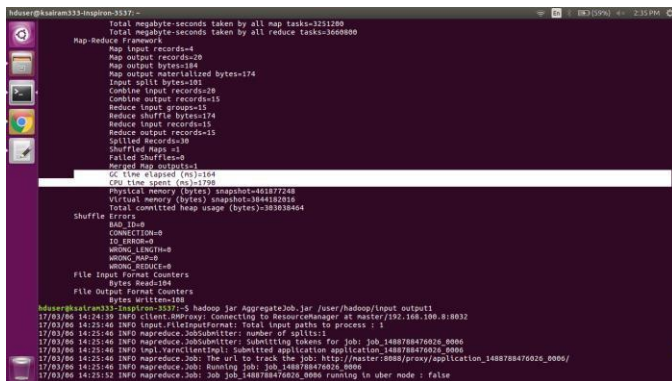


Fig: MapReduce with Aggregator output

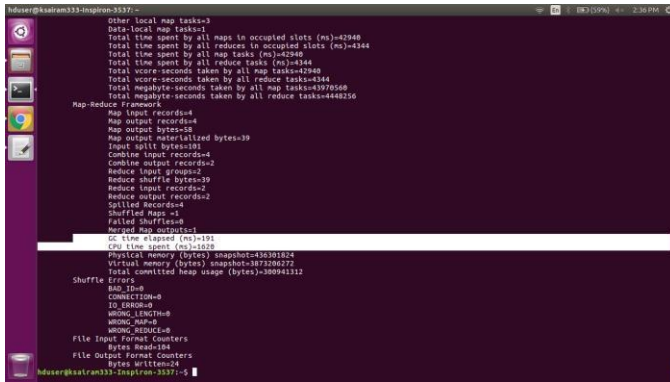


Fig: MapReduce with Aggregator.

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An Efficient Approach for Content-Based Image Retrieval Using Distributed networks

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Abstract: Peer-to-peer networking offers an adaptable answer for sharing media information over the system. With a lot of visual information circulated among various nodes, it is a vital yet difficult issue to perform content-based retrieval in peer-to-peer networks. While the majority of the current strategies concentrate on ordering high dimensional visual elements and have impediments of adaptability, in this paper we propose a versatile approach for content-based retrieval in peer-to-peer networks by utilizing the pack of-visual words display. Contrasted and concentrated conditions, the key test is to effectively get a worldwide codebook, as pictures are disseminated over the entire p2p system. What's more, a shared system frequently advances progressively, which makes a static codebook less compelling for recovery undertakings.

Along these lines, we propose an element codebook refreshing strategy by upgrading the common data between the resultant codebook and pertinence data, and the workload adjust among hubs that oversee distinctive code words. So as to further enhance recovery execution and lessen arrange cost, ordering pruning procedures are created. Our farreaching test comes about show that the proposed approach is versatile in developing and distributed p2p systems, while accomplishing enhanced recovery exactness.

1. INTRODUCTION

Advancement of digital media coding and Internet technology have enabled, Peer-to-Peer (P2P) networks to share files, transferring real-time video streams, and performing ContentBased Image Retrieval (CBIR) in recent decades. In the P2P networks, each connected peer serves simultaneously as a server and a client, which can distribute computation and network traffics to peers to provide efficient streaming and CBIR services.

The CBIR has been developed over the past decade since international image/video coding standards, such as JPEG, MPEG-4, H.264, and HEVC, have been

widely used and distributed over Internet. The CBIR engine can help to find user interested relevant multimedia contents, either through multiinstance query or relevance feedback control. Before the CBIR search engine being developed, text information is the only precise data used to perform content similarity retrieval, such as filename, creator, and content descriptions.

However, the text-based CBIR requires human annotation and content categorization, such that large scale retrieval is not feasible. In addition, the categorization and annotations would be different through different human labeling, which would bias the retrieval results.

To perform server-client CBIR, the server has to record addresses and feature characteristics of all client peers. To respond a query, the server helps the query peer, P, to forward the query message, Q, to all peers with relevant contents, which would perform retrieval and transmit relevant images toward P. This centralized approach suffers heavy network traffics in that unnecessary retrieval and transmission are involved. To eliminate the centralized traffic loading, P2P CBIR is proposed.

Multi-instance query is widely used by the CBIR search engine to improve retrieval accuracy and reduce retrieval processing time. As one image would demonstrate various types of features, performing multi-instance query with multiple feature (MIMF) types can yield more accurate and robust retrieval results, which can be achieved by assigning weighting to different similarity ranks corresponding to different feature types. Authors in [1] proposed to perform MIMF on the P2P paradigm for progressive and scalable retrieval. In this method, the query search time was high because of the network delay and image matching at each peer. We take this problem as our motivation and propose methods to optimize the query search time.

2. RELATEDWORK

Our work is identified with three noteworthy gatherings of research: substance based picture recovery, remove metric learning, and web based learning. In the accompanying, we quickly audit the firmly related agent works in each gathering.

A. Content-Based Image Retrieval:

With the rapid growth of digital cameras and photo sharing websites, image retrieval has become one of the most important research topics in the past decades, among which content-based image retrieval is one of key challenging problems [1], [2], [3]. The objective of CBIR is to search images by analyzing the actual contents of the image as opposed to analyzing metadata like keywords, title and author, such that extensive efforts have been done for investigating various low-level feature descriptors for image representation. For example, researchers have spent many years in studying various global features for image representation, such as color features, edge features, and texture features. Recent years also witness the surge of research on local feature based representation, such as the bag-of-words models using local feature descriptors. Conventional CBIR approaches usually choose rigid distance functions on some extracted lowlevel features for multimedia similarity search, such as the classical Euclidean distance or cosine similarity.

However, there exists one key limitation that the fixed rigid similarity/distance function may not be always optimal because of the complexity of visual image representation and the main challenge of the semantic gap between the low-level visual features extracted by computers and high-level human perception and interpretation. Hence, recent yearshave witnesses asurge of active research efforts in design of various distance/similarity measures on some low-level features by exploiting machine learning techniques, among which some works focus on learning to hash for compact codes and some others can be categorized into distance metric learning that will be introduced in the next section. Our work is also related to multimodal/multiview studies, which have been widely studied on image classification and object recognition fields.

However, it is usually hard to exploit these techniques directly on CBIR because (i) in general, image classes will not be given explicitly on CBIR tasks, (ii) even if classes are given, the number will be very large, (iii) image datasets tend to be much larger on CBIR than on classification tasks. We thus exclude the direct comparisons to such existing works in this paper. There

are still some other open issues in CBIR studies, for example, the effectiveness and adaptability of the recovery procedure that frequently requires a powerful ordering plan, which are out of this current paper's degree.

When all is said in done, P2P IR frameworks canbe ordered into a few gatherings (cf. [6]) 1. Systems of the first group follow a semantic query routing approach based on peer summaries. Routing Indices [9] are among the first approaches presented in literature belonging to this group. Based on summary information of neighboring peers that is aggregated along multiple hops, a peer routes queries towards the direction of peers potentially containing relevant documents w.r.t. the query. In order to restrict the size of peer summaries, topics are indexed rather than individual terms. As opposed to Routing Indices, which follow a multi-hop semantic routingapproach, PlanetP [8] and its scalable extension Rumorama apply single-hop semantic routing. Therefore, summaries are sent to all peers in a subnetwork.

A third class of P2P IR systems is represented by distributed indexing structures with distributed hashtables (DHTs) as its most prominent class member. Minerva [2] has been designed for the administration of text documents, where term statistics are indexed in a DHT. Every peer is responsible for a certain set of terms. Novak et al. have presented a large-scale CBIR architecture [23] based on a DHT. Within DHTs, indexing data of a peer's content is transferred to remote peers with every peer being responsible for a certain range of the feature domain of an individual feature. Presumably, for example, correlations between geographic information and image content are difficult to exploit. If we e.g. assume an image from the Sahara Desert with shades of beige sand and blue sky, different peers might be responsible for indexing the geographic and the image content information. In this way, while circulating the ordering information of the Sahara picture, questioning for it, or expelling it from the system, two distinct companions (in any event) must be reached. Indeed, even with just a single component sort being filed, the frequent joining and leaving of peers leads to an increase in network traffic as term statistics are transferred to or removed from remote peers.

3. PROBLEM STATEMENT

The P2P-CBIR system diagram proposed in [1] is demonstrated in Fig. 1, which comprises off- and on-line stages.

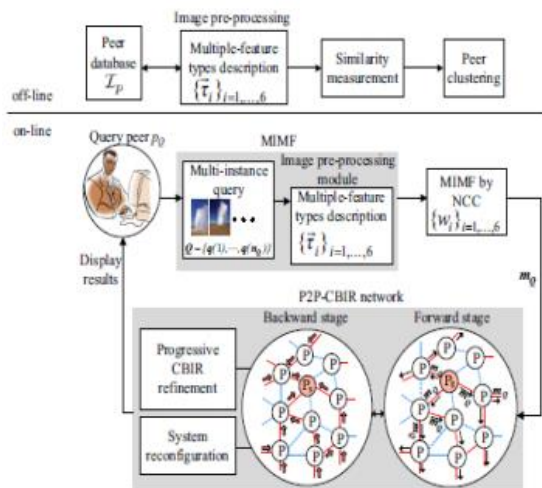


Fig. 1: The P2P-CBIR system diagram.

At the off-line stage, an image pre-processing module was integrated in each peer to extract descriptors of new images, such as color, texture, and shape. At the on-line stage, the query peer P that received the Q performs MIMF.

The problem in this approach is that the query feature is matched against each image in the peer during the online search stage. This results in bigger search time.

The existing systems adopt a global feature approach: an image is represented as a high dimensional feature vector (e.g., color histogram), and the similarity between files is measured using the distance between two feature vectors. Ordinarily, the element vectors are recorded by a dispersed high-dimensional file or Locality Sensitive Hashing (LSH) over the DHT overlay as opposed to brought together conditions, information in P2P systems is appropriated among various hubs, therefore a CBIR calculation needs to list and scan for pictures in a circulated way. P2P systems are under consistent beat, where hubs join/leave and documents distribute to/expel from the system, the record should be refreshed powerfully to adjust to such changes. Dexing and Locality-Sensitive Hashing. The high dimensional ordering based methodologies store the component vectors in an information structure, as a rule a tree or a chart, to accomplish successful hunt space pruning amid recovery. In organized P2P systems, the high-dimensional record is characterized distributedly over the P2P overlay, dexing and Locality Sensitive Hashing. The high-dimensional ordering based approaches store the element vectors in an information structure, as a rule a tree or a chart, to accomplish compelling inquiry space pruning amid recovery. In

organized P2P systems, the high-dimensional record is characterized distributedly over the P2P overlay.

4. PROPOSED SOLUTION

We introduce two additional concepts in offline phase of P2PCBIR which will help to achieve reduced search time.

1. Clustering of Peers
2. Constructing search index for Peer cluster

In the online phase, the way of searching is modified to achieve fast search time.

4.1 Clustering of Peers

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5. CONCLUSIONS

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An Efficient Approach for Content-Based Image Retrieval Using Distributed networks

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Abstract: Peer-to-peer networking offers an adaptable answer for sharing media information over the system. With a lot of visual information circulated among various nodes, it is a vital yet difficult issue to perform content-based retrieval in peer-to-peer networks. While the majority of the current strategies concentrate on ordering high dimensional visual elements and have impediments of adaptability, in this paper we propose a versatile approach for content-based retrieval in peer-to-peer networks by utilizing the pack of-visual words display. Contrasted and concentrated conditions, the key test is to effectively get a worldwide codebook, as pictures are disseminated over the entire p2p system. What's more, a shared system frequently advances progressively, which makes a static codebook less compelling for recovery undertakings.

Along these lines, we propose an element codebook refreshing strategy by upgrading the common data between the resultant codebook and pertinence data, and the workload adjust among hubs that oversee distinctive code words. So as to further enhance recovery execution and lessen arrange cost, ordering pruning procedures are created. Our farreaching test comes about show that the proposed approach is versatile in developing and distributed p2p systems, while accomplishing enhanced recovery exactness.

1. INTRODUCTION

Advancement of digital media coding and Internet technology have enabled, Peer-to-Peer (P2P) networks to share files, transferring real-time video streams, and performing ContentBased Image Retrieval (CBIR) in recent decades. In the P2P networks, each connected peer serves simultaneously as a server and a client, which can distribute computation and network traffics to peers to provide efficient streaming and CBIR services.

The CBIR has been developed over the past decade since international image/video coding standards, such as JPEG, MPEG-4, H.264, and HEVC, have been

widely used and distributed over Internet. The CBIR engine can help to find user interested relevant multimedia contents, either through multiinstance query or relevance feedback control. Before the CBIR search engine being developed, text information is the only precise data used to perform content similarity retrieval, such as filename, creator, and content descriptions.

However, the text-based CBIR requires human annotation and content categorization, such that large scale retrieval is not feasible. In addition, the categorization and annotations would be different through different human labeling, which would bias the retrieval results.

To perform server-client CBIR, the server has to record addresses and feature characteristics of all client peers. To respond a query, the server helps the query peer, P, to forward the query message, Q, to all peers with relevant contents, which would perform retrieval and transmit relevant images toward P. This centralized approach suffers heavy network traffics in that unnecessary retrieval and transmission are involved. To eliminate the centralized traffic loading, P2P CBIR is proposed.

Multi-instance query is widely used by the CBIR search engine to improve retrieval accuracy and reduce retrieval processing time. As one image would demonstrate various types of features, performing multi-instance query with multiple feature (MIMF) types can yield more accurate and robust retrieval results, which can be achieved by assigning weighting to different similarity ranks corresponding to different feature types. Authors in [1] proposed to perform MIMF on the P2P paradigm for progressive and scalable retrieval. In this method, the query search time was high because of the network delay and image matching at each peer. We take this problem as our motivation and propose methods to optimize the query search time.

2. RELATEDWORK

Our work is identified with three noteworthy gatherings of research: substance based picture recovery, remove metric learning, and web based learning. In the accompanying, we quickly audit the firmly related agent works in each gathering.

A. Content-Based Image Retrieval:

With the rapid growth of digital cameras and photo sharing websites, image retrieval has become one of the most important research topics in the past decades, among which content-based image retrieval is one of key challenging problems [1], [2], [3]. The objective of CBIR is to search images by analyzing the actual contents of the image as opposed to analyzing metadata like keywords, title and author, such that extensive efforts have been done for investigating various low-level feature descriptors for image representation. For example, researchers have spent many years in studying various global features for image representation, such as color features, edge features, and texture features. Recent years also witness the surge of research on local feature based representation, such as the bag-of-words models using local feature descriptors. Conventional CBIR approaches usually choose rigid distance functions on some extracted lowlevel features for multimedia similarity search, such as the classical Euclidean distance or cosine similarity.

However, there exists one key limitation that the fixed rigid similarity/distance function may not be always optimal because of the complexity of visual image representation and the main challenge of the semantic gap between the low-level visual features extracted by computers and high-level human perception and interpretation. Hence, recent yearshave witnesses asurge of active research efforts in design of various distance/similarity measures on some low-level features by exploiting machine learning techniques, among which some works focus on learning to hash for compact codes and some others can be categorized into distance metric learning that will be introduced in the next section. Our work is also related to multimodal/multiview studies, which have been widely studied on image classification and object recognition fields.

However, it is usually hard to exploit these techniques directly on CBIR because (i) in general, image classes will not be given explicitly on CBIR tasks, (ii) even if classes are given, the number will be very large, (iii) image datasets tend to be much larger on CBIR than on classification tasks. We thus exclude the direct comparisons to such existing works in this paper. There

are still some other open issues in CBIR studies, for example, the effectiveness and adaptability of the recovery procedure that frequently requires a powerful ordering plan, which are out of this current paper's degree.

When all is said in done, P2P IR frameworks canbe ordered into a few gatherings (cf. [6]) 1. Systems of the first group follow a semantic query routing approach based on peer summaries. Routing Indices [9] are among the first approaches presented in literature belonging to this group. Based on summary information of neighboring peers that is aggregated along multiple hops, a peer routes queries towards the direction of peers potentially containing relevant documents w.r.t. the query. In order to restrict the size of peer summaries, topics are indexed rather than individual terms. As opposed to Routing Indices, which follow a multi-hop semantic routingapproach, PlanetP [8] and its scalable extension Rumorama apply single-hop semantic routing. Therefore, summaries are sent to all peers in a subnetwork.

A third class of P2P IR systems is represented by distributed indexing structures with distributed hashtables (DHTs) as its most prominent class member. Minerva [2] has been designed for the administration of text documents, where term statistics are indexed in a DHT. Every peer is responsible for a certain set of terms. Novak et al. have presented a large-scale CBIR architecture [23] based on a DHT. Within DHTs, indexing data of a peer's content is transferred to remote peers with every peer being responsible for a certain range of the feature domain of an individual feature. Presumably, for example, correlations between geographic information and image content are difficult to exploit. If we e.g. assume an image from the Sahara Desert with shades of beige sand and blue sky, different peers might be responsible for indexing the geographic and the image content information. In this way, while circulating the ordering information of the Sahara picture, questioning for it, or expelling it from the system, two distinct companions (in any event) must be reached. Indeed, even with just a single component sort being filed, the frequent joining and leaving of peers leads to an increase in network traffic as term statistics are transferred to or removed from remote peers.

3. PROBLEM STATEMENT

The P2P-CBIR system diagram proposed in [1] is demonstrated in Fig. 1, which comprises off- and on-line stages.

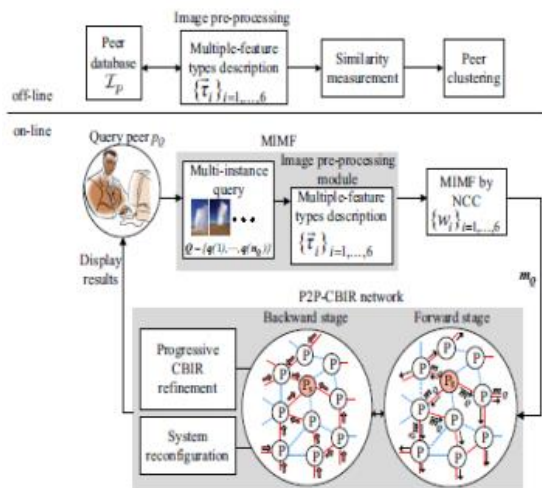


Fig. 1: The P2P-CBIR system diagram.

At the off-line stage, an image pre-processing module was integrated in each peer to extract descriptors of new images, such as color, texture, and shape. At the on-line stage, the query peer P that received the Q performs MIMF.

The problem in this approach is that the query feature is matched against each image in the peer during the online search stage. This results in bigger search time.

The existing systems adopt a global feature approach: an image is represented as a high dimensional feature vector (e.g., color histogram), and the similarity between files is measured using the distance between two feature vectors. Ordinarily, the element vectors are recorded by a dispersed high-dimensional file or Locality Sensitive Hashing (LSH) over the DHT overlay as opposed to brought together conditions, information in P2P systems is appropriated among various hubs, therefore a CBIR calculation needs to list and scan for pictures in a circulated way. P2P systems are under consistent beat, where hubs join/leave and documents distribute to/expel from the system, the record should be refreshed powerfully to adjust to such changes. Dexing and Locality-Sensitive Hashing. The high dimensional ordering based methodologies store the component vectors in an information structure, as a rule a tree or a chart, to accomplish successful hunt space pruning amid recovery. In organized P2P systems, the high-dimensional record is characterized distributedly over the P2P overlay, dexing and Locality Sensitive Hashing. The high-dimensional ordering based approaches store the element vectors in an information structure, as a rule a tree or a chart, to accomplish compelling inquiry space pruning amid recovery. In

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4. PROPOSED SOLUTION

We introduce two additional concepts in offline phase of P2PCBIR which will help to achieve reduced search time.

1. Clustering of Peers
2. Constructing search index for Peer cluster

In the online phase, the way of searching is modified to achieve fast search time.

4.1 Clustering of Peers

Peers must be grouped together based on any parameters like peers in a particular geographical area. Each peer will advertise the number of requests it has received till recent to all the neighbors in its geographical area with a distance of K hops. Once all the peers have exchanged the information, the peer node with maximum number of request till now will become the cluster head. All the other peers will come the part of the cluster. A peer node can also be part of two clusters. This occurs for the case of boarder peers. The cluster head peer will start a mobile agent. This mobile agent will visit all the peers in the cluster and visit the cluster head. The mobile agent will carry information of the image feature cluster information in each peer to the cluster head peer.

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An Message Oriented Security Service in Vehicular Ad-Hoc Networks

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Abstract - Vehicular Ad-Hoc Network is the Network Which is used to provide the communication between the vehicles Improving the security between the vehicles by having the communication between the vehicles. This communication is possible if the two vehicles are travelling on the same direction and also the vehicles should within the range to communicate with each other vehicles. The admin will calculate the distance which was given by the user. The sensor will sense the vehicles information and stores the information about the vehicles in the database. The System will send the information about the vehicle to the corresponding users by calculating the numerical calculations. The result shows that the security protection to the users in the real time to avoid accidents on the road.

Keywords — Ad-Hoc Networks, VANETS, MANETS, and Network Security .

I. INTRODUCTION

Ad-Hoc network is a decentralized type of wireless network. The network is Ad-Hoc because it does not rely on a pre existing infrastructure, such as routers in wired networks. Ad-Hoc networks are used to send the information by using wireless network. **Vehicular ad hoc networks (VANETs)** are created by applying the principles of mobile Ad-hoc Networks.(MANETs). The spontaneous creation of a wireless network for data exchange to the domain of vehicles is called Vehicular Ad-Hoc Networks.

VANET It is special form of MANET and it provides Vehicle - to - vehicle communications Vehicle-to-infrastructure communications. We propose a formalized methodology to especially quantify the security level in the real time. VANET promises safer roads, assures less or no accidents. The result shows that the proposed frame work is capable of capturing the real-time security level adaptively to the Vehicular context and provides a dependable decision basis to security protection. VANETs support a wide range of

applications from simple one hop information dissemination of, e.g., cooperative awareness messages (CAMs) to multi-hop dissemination of messages over vast distances. Most of the concerns of interest to mobile Ad-hoc networks (MANETs) are of interest in VANETS. Rather than moving at random, vehicles tend to move in an organized fashion. The interactions with roadside equipment can likewise be characterized fairly accurately. And finally, most vehicles are restricted in their range of motion.

In this application the user will provide his full details while the user when the user is login. The system will check the details of the user and the user will provide the range value from the front-end. The system will calculate the range value at back-end and provides the message to the user whether the user is in the range or out of range. In this application we are using the sensors and the Road side unit (RSU) for having the communication from one vehicle to the other vehicles. By having the communication from one vehicle to the other vehicles by using these sensors easily we can avoid the accidents those are happening on the road.

II. RELATED WORK

The proposed system consists of having the communications between the vehicles and the communication between the vehicles is possible by having the sensors on the Road Side Unit (RSU). By these Sensors on the road these sensors will sense the vehicles information and Send these Vehicles information to all the vehicles whose vehicles are in the sensors range. By sending the information to all the vehicles we can avoid the accidents.

A. Advantages

- i. **Avoid Accidents on the road:** The main advantage of the proposed system is to avoid accidents on the road by having the communication between the vehicles.
- ii. **Providing the information to all the vehicles:** This application mainly focuses on providing the communication between the vehicles about the vehicles which are nearer.
- iii. **Time Saving:** By having the communication between the vehicles. The users can easily understand the problem and the user saves the time
- iv. **Less Computation:** In this proposed system there will not be any computation like occurring of accidents on the road.
- v. **High Efficiency:** In this system the Efficiency of the Vehicles will be more and the vehicles will be communicating to the vehicles and the infrastructure will be high. By having the communication to each other we can easily avoid the accidents occurring on the road.
- vi. **High Security:** In this application there will be a high security to the vehicles because of communicating to the vehicles and having the information to the vehicles before itself before having an accident occurs.

B. System Behavior

Our system observes 2 key roles:

- i. **User** - The user will register the vehicles details and will check the vehicles around his range by giving his range to the admin. The admin will calculate the range entered by the user and checks with the sensors range value and then if the vehicle is in the sensors range then the admin will send to the around the users that the particular vehicles id is in the sensors range or not. If the sensors senses the vehicles information then there is an communication from one vehicle to the another vehicles.

- ii. **Admin** - In the admin phase the admin will store all the vehicles registration forms and they will store them in the databases. If the user gives the information to the admin then the admin will calculate the results in the databases .If the user wants to know the details then the user will enter must enter the range then the Admin will check the vehicles range and then admin will send the Message to the remaining vehicles which are in the same Range.

C. Methodology

In this methodology we are implementing the problems that we are to avoid accidents on the road. By the Existing system there is no communication from one vehicle to other vehicles. In this proposed system there is a communication from one vehicle to the another vehicle to avoid accidents on the road. The user will register the vehicles details and then user checks vehicle whether the vehicle is in the range or not.

In this application the user must register the details about the vehicles and store the details about the vehicles in the admin data base. The admin will calculate the distance between the vehicles and send this information about the vehicles which are in the sensors range.

III. ARCHITECTURE MODEL

- i. **User Operation** --The user will register the details about the vehicles and the details of the vehicles will be stored in the admin database.
- ii. **Calculating the distance between the vehicles** -- The Calculation of distance between the vehicles is done by using the sensors(RSU). The sensor will set the distance if the vehicle is in distance range and it is stored in database. The range will be fixed.

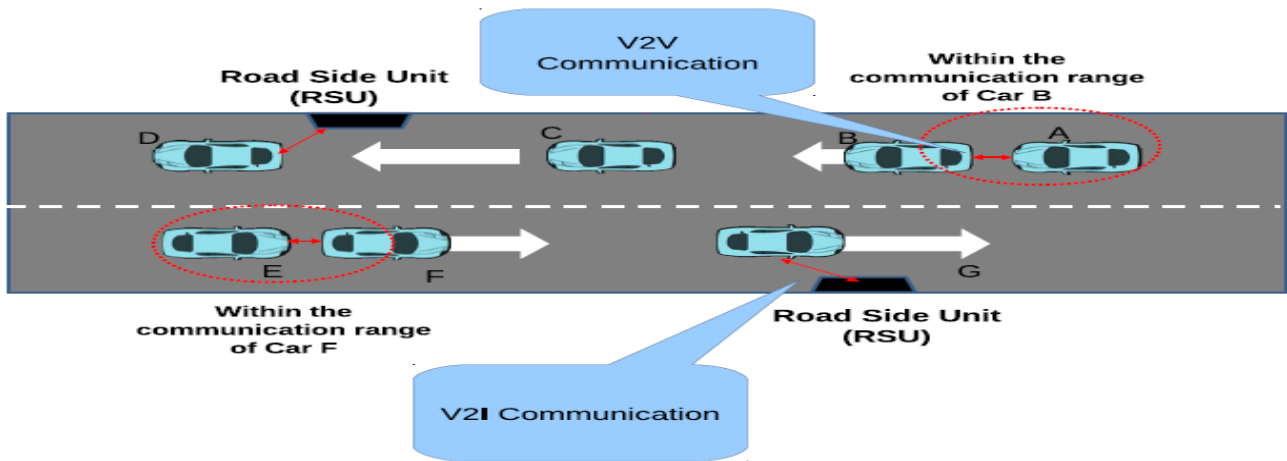


Figure 3.1(a) - System Architecture design

- iii. *Sending the messages to the user:* At the time of storing the distance in database the system will send the message to vehicles if vehicles are maintaining the range.

In this application we are using Jsp for the front for creation of user interfaces on which the user interacts with the admin. MySQL is used as the back end database where the all the data which is collected from the users are stored. By using both Jsp and MySQL we are creating this application where the user can give the details according to that particular issue and all the data is stored in Mysql server from where the calculations are done and the result is being produced.

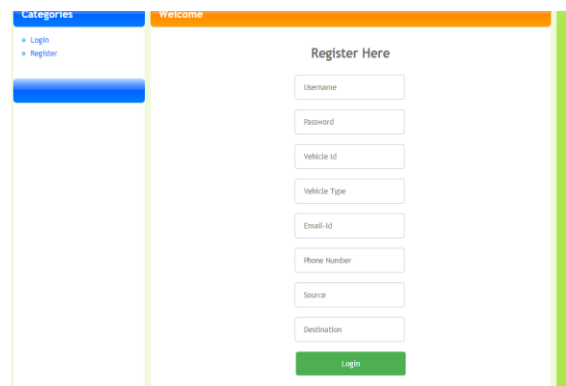


Figure 4.2- Registration page

IV. EXPERIMENTAL RESULTS

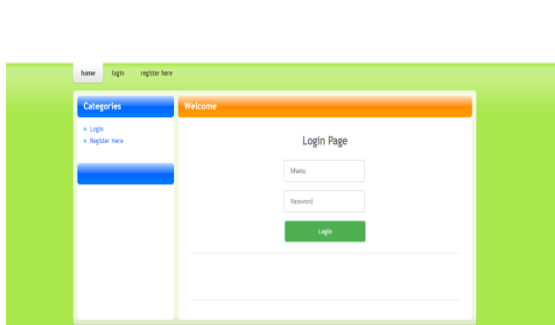


Figure 4.1 -All user details and login page

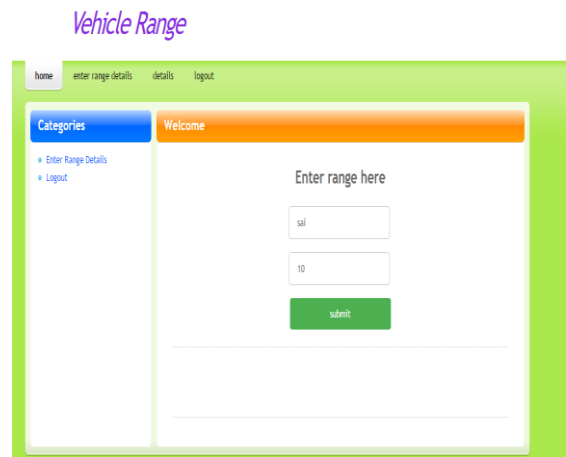


Figure 4.3 - Range

Vehicle Id	Vehicle Type	Range
ap12ap1234	car	20
ap12ap1234	BLIS	10
ap12ap1234	bus	0

Figure 4.4 - DETAILS

V. CONCLUSION

In this application We provided the security to the vehicles when the vehicles comes to the range of the sensors then the sensor will detect the vehicles information and stores the information of the vehicles in the database and retrieves the information of the user when the details of the information is required. Whenever the vehicle comes nearer to the sensors range The admin will calculate the distance and checks whether the vehicle is in the sensors .

VI. FUTURE SCOPE

In this application There are several possible directions for future research on this area. The most promising one we believe is a model in which more security is provided to the vehicles on the road. We can also extend our work to support security by sending messages about vehicles to email account and maintaining the for future reference. This application can also be extended to provide the security to the vehicles By doing this application in the Real time with the help of sensors.

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An Efficient Recovery Of Missing Events Using Np

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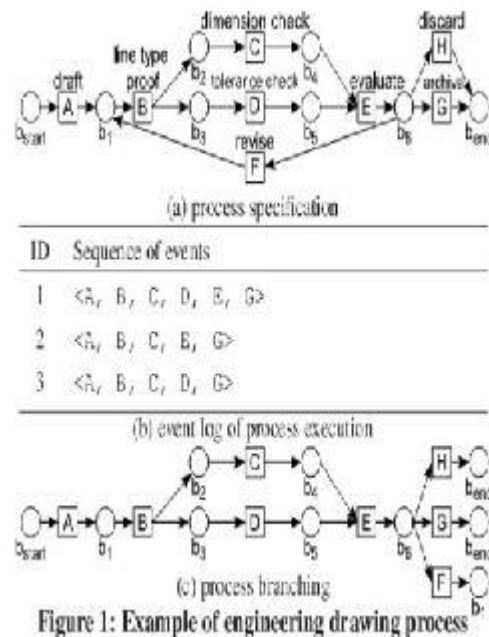
Abstract — When debugging An appropriate system, it may be at times urgent on illustrate the opportunity from claiming an occasion_ for occurrence, the reason An certain course is not available, alternately the reason a persuaded bundle didn't arrive. Genuine debuggers the table A percentage help to dissect the vicinity for events, as a rule Eventually Tom's perusing manage those proportional of a once more follow over Common debuggers, Anyway they would not extremely beneficial during replying "why not?" examination: there will be basically no beginning stage to An achievable once again follow. In this paper, we demonstrate that the methodology about negative sources camwood be used to demonstrate those opening about occasions to disseminated frameworks. Unfriendly provenience depends with respect to inaccurate thinking to distinguish those situations under which those lost situation Might need show up. W characterize An formal model for negative beginning to disseminated systems, that tracks both sure and negative inference Also could utilize them to address symptomatic queries.

Keywords-Dataminig, Branching, Pruning, Indexing.

I Introduction:

Business forms always produce immense volume of occasion information, extending from regular movement office computerization framework or logical work processes [14,5] to late web online changes[24].To deal with the occasion information provenance request [26] recognizes the fascinating occasion game plan from the information. While the complaint and mining upon occasion information are shown, the nature of occasion information itself draws less consideration. As indicated by our investigation genuine occasion information reported by a prepare maker, no less than 47.66% occasions are missed in the table. The missing occasions happen for various reasons, for example, neglected to submit when essentially recording occasion logs,

experienced framework disappointments, or wreckage after a mass the occasions from heterogeneous hanging condition. Without forward these missing occasions, the previously mentioned operation and mining over occasion information are not conclusive. Basically disregarding the missing mischance will yield fragmented root answers and prompt flawed occasion designs. As showed in [26], the initiation of an information thing is the variety of steps



used to create the information. Comprehensively, it can be considered as a diagram which trepidation the casual confirmation between elements confounding in procedures and inquiries of root as figuring Trans determinations of confidence. Attributable to the broken occasion log, the short occasions as well as their comparing basic may be truant in the temporary terminations of commencement. In this paper, we concentrate the issue of enhanced missing occasions, which can possibly gives (set of applicants of) more entire convenience. When all is said in done, it can

barely be figure with no earlier information. joyfully, most business mishap don't happen haphazardly. on the other hand, occasion information regularly take after persuaded business standards or weight, for example, prepare condition [11]. In this way, we concentrate on enhancing missing occasions in the light of process stipulation.

Case 1. Consider a genuine procedure condition in Figure 1(a) for delivering a development attracting a prepare enterprise. Each square (to be specific move) signifies an errand in the advancement detail, e.g., development A speaks to an assignment of drafting. Every one of bolts interface with a move means the similar streams ought to be proficient in parallel. For instance, both the degree checking (assignment C) and the tolerance checking (undertaking D) ought to be go to after line sort sealing (errand B) in the outline. Additionally, the improvement can convey on calculate the drawing (errand E) just if both C and D are consummate. Hovers in the figure are decision hubs, called places, which dependably seem limited by moves. It declare that just a single of the streams clamoring out a place can be expert. For example, put b6 prompts either look at the drawing (errand F), chronicling it (assignment G) or discard it (undertaking H) after assessment €. A hanging of the procedure cause a grouping of occasions, where every occasion comply with an errand in the process stipulation. We say that an arrangement fits in with the condition on the off chance that it effectively kill from the source put bstart to the sink put twist precisely taking after the stream weight in the stipulation. For instance, the principal movement <ABCDEG> in Figure 1 (b) indicates a whole execution of designing drawing numbering steps drafting, line sort sealing, angle checking, resilience checking, ascertain, chronicling from bstart to twist. On practice, owing with arranged information personal satisfaction issues, off chances logs would often insufficient. To instance, those second grouping <ABCEG> need a off chance d missed Throughout the accumulation about off chance logs starting with the database for perspective checking. Without moving forward the forgetting off chance D, it may be unrealistic to find this sourball venture. Moreover, whether such information transmission issues happen by in the measurement checking index, a absurd off chance example without extent examine venture in building drawing will be mined. It may be not uncommon that different recoveries exist for Also effective succession. Past investigations looking into Dealing with insufficient information need aid committed should characterizing constantly could be allowed planets about change [1]. For occasion data, however, limitless progression for occasions Might a chance to be create The point when loops exist over procedure state. For instance, with recoup those third show <ABCDG> clinched along side figure 1, those

comes about Might achance to be <ABCDEG>, <ABCDEFBCDEG>, <ABCDEFBCDEFBCDEG>, Taking after the least transform teach done Creating information nature [7,20], we could also examine those ideal recuperation from claiming uprooted occasions that minimally varies from the bonafide succession. It is a normal acknowledgement Previously, moving forward information caliber that group keeping attempt with aggravate those base mistakes, which may be also pertinent to lost occasions. The least recuperation security will accomplish those least number of occasions that need aid missing, e.g., no less than particular case occasion must make absent in the third grouping <ABCDG> Previously, figure 1. Without the least requirement, limitless comes about of workable recoveries might a chance to be come back. The point when managing loops. On discover those base recovery, the existing arrangement methodology [9] contemplated in the benefits of the business methodology oversaw economy Group enumerates every last one of substantial successions of occasions It tumbles short for effectiveness owing of the success altogher time permits of chance successions. To instance, will recuperate the grouping <ABCEG> On case 1, the outcomes <ABCDEG> What's more <ABDCEG> bring no Contrast w.r.t the transform specification, as c What's more d would executed in parallel then afterward b What's more preceding e. Concerning illustration summarized below, we could investigate chances around both done indexing Also pruning for moving forward those recuperation effectiveness. Commitness Our fundamental commitments in this paper need aid summarized Similarly as takes after. We recommend a straight occasion when opposite calculation to those recuperation of a smooth birch case, the place every last one of occasions are in coordinate execution without whatever decisions. We uncover those np hardness from claiming finding the base recuperation about absent occasions by and large settings (with choices). Of the best from claiming our knowledge, this may be those main investigation looking into examining the hardness of the absent off chance recuperation issue. We uncover the np hardness for discovering those least recuperation from claiming forgetting occasions as a rule settings (with choices). Of the best from claiming our knowledge, this may be those principal knowledge, study once examining the hardness of the absent occasion recuperation issue. We available a expanding structure to general cases. A expanding list together with propelled pruning strategies are formed with quicken recuperation. The expanding Further more pruning systems would enlarged further will help loops. We utilize those majority of the data for recuperation span Also off chance recurrence with Figure An rundown about Main k recoveries. We utilize the majority of the data from claiming recuperation

extent Also off chance recurrence to Figure An rundown about top banana k recoveries.Finally, we report card the far reaching test assessment with respect to genuine Furthermore engineered information.

II Literature Survey:

Numerous papers in regards to np difficult issues have been contemplated Furthermore investigated. Those past endeavours to tackle subset whole of cash issue need also been investigated. Different papers need been contemplated Also investigated. It might have been watched that every last one of usage worth of effort great under certain imperatives. In the prior meets expectations Different np tricky and np finish issues have been illuminated utilizing Different calculations which are talked about beneath. Dynamic modifying Bo moon (2012) [9] dealt with changing computes algorithm should be pseudo polynomial a result in respond similarly as a polynomial occasion when algorithm for huge viewpoints .Also give or take small, in any case it is not totally polynomial occasion when Concerning illustration at that point indicated. However, it will be adequate on accomplish that its run the long run will be On account this perform the Most exceedingly bad body of evidence encompassing as stated by request for Growth analysis, Furthermore person can't guarantee that is to be sure limited Eventually Tom's persuing those whole of the components in the set.Note that those finish hunt algorithm provided for prior also runs Previously, $o(n^2n)$. In spite og those time complexities from claiming both calculations would identical, the dynamic modifying particular case may be for the most part speedier because of its utilization of ideal substructure Also covering sub issues. For fact, this will be the speediest rate of known run chance of ant traditional algorithm to the subset whole issue.

B. Backtracking thomas e. O'Neil (2000)[10]thinking about backtracking for any combinatorial problem, backtracking may be An standard methodology to comprehending subset aggregate. It need a straightforward hardware formulation, Also with the correctskip conditions, it will be hostility for whatever viable correct algorithm. The rationale will be ordinarily should single section on the numbers in the set What's more, the lion's share of Corps parts don't stay in their starting work areas once their comm. To whatever component y about S, though there will be An subset S0 for whole of cash t, it whichever holds y alternately it doesn't.B. Backtracking ThomasE.O'Neil(2000) [10] Comparing backtracking with any combinatorial problem, backtracking is a standard approach to solving Subset sum.It has a simple circular formulation, and

with the proper skip conditions, it is aggressive with any exact algorithm. The logic is commonly to chapter on the numbers in the set S. For any element y, of S, if there is a subset S0 with sum t, it either contains y or it doesn't.If S0 holds y, we could place y in the subset we get Eventually Tom's persuing repeater approach encountered with urban decay because of deindustrialization, engineering imagined, government lodgin – {y} Furthermore t – y. Otherwise, we skip y and Figure S0 Eventually Tom's persuing recursive approach encountered with urban decay because of deindustrialization, innovation developed, government lodgin – {y} Furthermore t. An BT calculation might be displayed Concerning illustration a double tree the place each hub perform a solitary actuation situation person component for S, what's more it makes at most two recursive calls. There abouts those down right number for repetitive calls can't surpass the number from claiming tumor over An full double tree about profundity n, and the most exceedingly bad case the long haul intricacy $o(2n)$.

III Implementation:

- Expanding list
- pruning extensions
- nearby optimality
- bring about shortages

A. Expanding list

Now, we recognize a general procedure stipulation for both decisions and parallelization for streams. Unique in relation to casual net, there will make different elective about execution streams.An truthful clue may be on identify the sumachievable streams clinched alongside decision hubs Toward separated [12,22], the place each limb publish a imaginative net without whatever decision. By manage those previously stated hole algorithm once casual net, we could find a negligible change for every branch, Assuming that exista. Those base recuperation camwood a chance to be find Toward cross every last one of workable extensions. Clinched alongside actively there will be no compelling reason with attempting every last one of branches, only ahead the individuals not comprise of the occasions of the enter exhibit.

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B. Pruning Extensions

Inspite of expanding list fundamentally lessons irrelevant branches, there even now have some segment that Might not prompt any exact alternately base recuperation.In the following, we concentrate on compacting those hunt space Throughout the on the web registering from claiming negligible recuperation.

C. Nearby Optimality

Done general, to At whatevertransitional off chance e, we can't right those insignificant change on the limbs w.r.t.e until the greater part these area are completelyregistered.As stated by those instinctual of terminating [progression definition,however, the expanding handled by At whatever two terminating progression with those same post sets ought to be precisely the same. In the following, we examine the individuals t belongs T u([k]) that might prompt terminating coherence for the same post set, and substantiate that An nearby ideal bring about shortages Might make accomplish Eventually Tom's perusing best expanding ahead a standout amongst these moves.

D. Bring about shortages

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An Efficient Recovery Of Missing Events Using Np

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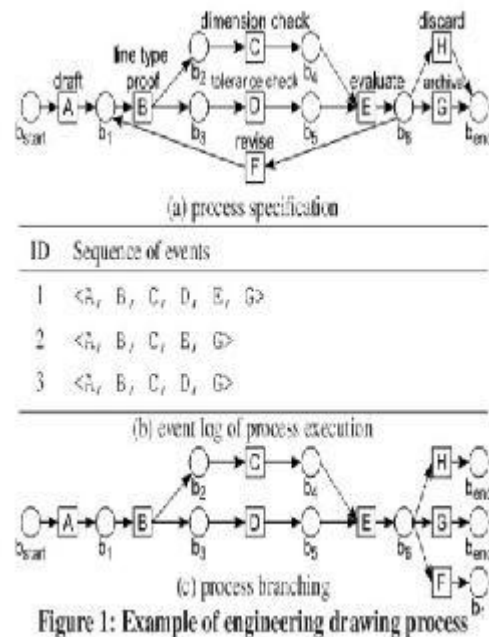
Abstract — When debugging An appropriate system, it may be at times urgent on illustrate the opportunity from claiming an occasion_ for occurrence, the reason An certain course is not available, alternately the reason a persuaded bundle didn't arrive. Genuine debuggers the table A percentage help to dissect the vicinity for events, as a rule Eventually Tom's perusing manage those proportional of a once more follow over Common debuggers, Anyway they would not extremely beneficial during replying "why not?" examination: there will be basically no beginning stage to An achievable once again follow. In this paper, we demonstrate that the methodology about negative sources camwood be used to demonstrate those opening about occasions to disseminated frameworks. Unfriendly provenience depends with respect to inaccurate thinking to distinguish those situations under which those lost situation Might need show up. W characterize An formal model for negative beginning to disseminated systems, that tracks both sure and negative inference Also could utilize them to address symptomatic queries.

Keywords-Dataminig, Branching, Pruning, Indexing.

I Introduction:

Business forms always produce immense volume of occasion information, extending from regular movement office computerization framework or logical work processes [14,5] to late web online changes[24].To deal with the occasion information provenance request [26] recognizes the fascinating occasion game plan from the information. While the complaint and mining upon occasion information are shown, the nature of occasion information itself draws less consideration. As indicated by our investigation genuine occasion information reported by a prepare maker, no less than 47.66% occasions are missed in the table. The missing occasions happen for various reasons, for example, neglected to submit when essentially recording occasion logs,

experienced framework disappointments, or wreckage after a mass the occasions from heterogeneous hanging condition. Without forward these missing occasions, the previously mentioned operation and mining over occasion information are not conclusive. Basically disregarding the missing mischance will yield fragmented root answers and prompt flawed occasion designs. As showed in [26], the initiation of an information thing is the variety of steps



used to create the information. Comprehensively, it can be considered as a diagram which trepidation the casual confirmation between elements confounding in procedures and inquiries of root as figuring Trans determinations of confidence. Attributable to the broken occasion log, the short occasions as well as their comparing basic may be truant in the temporary terminations of commencement. In this paper, we concentrate the issue of enhanced missing occasions, which can possibly gives (set of applicants of) more entire convenience. When all is said in done, it can

barely be figure with no earlier information. joyfully, most business mishap don't happen haphazardly. on the other hand, occasion information regularly take after persuaded business standards or weight, for example, prepare condition [11]. In this way, we concentrate on enhancing missing occasions in the light of process stipulation.

Case 1. Consider a genuine procedure condition in Figure 1(a) for delivering a development attracting a prepare enterprise. Each square (to be specific move) signifies an errand in the advancement detail, e.g., development A speaks to an assignment of drafting. Every one of bolts interface with a move means the similar streams ought to be proficient in parallel. For instance, both the degree checking (assignment C) and the tolerance checking (undertaking D) ought to be go to after line sort sealing (errand B) in the outline. Additionally, the improvement can convey on calculate the drawing (errand E) just if both C and D are consummate. Hovers in the figure are decision hubs, called places, which dependably seem limited by moves. It declare that just a single of the streams clamoring out a place can be expert. For example, put b6 prompts either look at the drawing (errand F), chronicling it (assignment G) or discard it (undertaking H) after assessment €. A hanging of the procedure cause a grouping of occasions, where every occasion comply with an errand in the process stipulation. We say that an arrangement fits in with the condition on the off chance that it effectively kill from the source put bstart to the sink put twist precisely taking after the stream weight in the stipulation. For instance, the principal movement <ABCDEG> in Figure 1 (b) indicates a whole execution of designing drawing numbering steps drafting, line sort sealing, angle checking, resilience checking, ascertain, chronicling from bstart to twist. On practice, owing with arranged information personal satisfaction issues, off chances logs would often insufficient. To instance, those second grouping <ABCEG> need a off chance d missed Throughout the accumulation about off chance logs starting with the database for perspective checking. Without moving forward the forgetting off chance D, it may be unrealistic to find this sourball venture. Moreover, whether such information transmission issues happen by in the measurement checking index, a absurd off chance example without extent examine venture in building drawing will be mined. It may be not uncommon that different recoveries exist for Also effective succession. Past investigations looking into Dealing with insufficient information need aid committed should characterizing constantly could be allowed planets about change [1]. For occasion data, however, limitless progression for occasions Might a chance to be create The point when loops exist over procedure state. For instance, with recoup those third show <ABCDG> clinched along side figure 1, those

comes about Might achance to be <ABCDEG>, <ABCDEFBCDEG>, <ABCDEFBCDEFBCDEG>, Taking after the least transform teach done Creating information nature [7,20], we could also examine those ideal recuperation from claiming uprooted occasions that minimally varies from the bonafide succession. It is a normal acknowledgement Previously, moving forward information caliber that group keeping attempt with aggravate those base mistakes, which may be also pertinent to lost occasions. The least recuperation security will accomplish those least number of occasions that need aid missing, e.g., no less than particular case occasion must make absent in the third grouping <ABCDG> Previously, figure 1. Without the least requirement, limitless comes about of workable recoveries might a chance to be come back. The point when managing loops. On discover those base recovery, the existing arrangement methodology [9] contemplated in the benefits of the business methodology oversaw economy Group enumerates every last one of substantial successions of occasions It tumbles short for effectiveness owing of the success altogher time permits of chance successions. To instance, will recuperate the grouping <ABCEG> On case 1, the outcomes <ABCDEG> What's more <ABDCEG> bring no Contrast w.r.t the transform specification, as c What's more d would executed in parallel then afterward b What's more preceding e. Concerning illustration summarized below, we could investigate chances around both done indexing Also pruning for moving forward those recuperation effectiveness. Commitness Our fundamental commitments in this paper need aid summarized Similarly as takes after. We recommend a straight occasion when opposite calculation to those recuperation of a smooth birch case, the place every last one of occasions are in coordinate execution without whatever decisions. We uncover those np hardness from claiming finding the base recuperation about absent occasions by and large settings (with choices). Of the best from claiming our knowledge, this may be those main investigation looking into examining the hardness of the absent off chance recuperation issue. We uncover the np hardness for discovering those least recuperation from claiming forgetting occasions as a rule settings (with choices). Of the best from claiming our knowledge, this may be those principal knowledge, study once examining the hardness of the absent occasion recuperation issue. We available a expanding structure to general cases. A expanding list together with propelled pruning strategies are formed with quicken recuperation. The expanding Further more pruning systems would enlarged further will help loops. We utilize those majority of the data for recuperation span Also off chance recurrence with Figure An rundown about Main k recoveries. We utilize the majority of the data from claiming recuperation

extent Also off chance recurrence to Figure An rundown about top banana k recoveries.Finally, we report card the far reaching test assessment with respect to genuine Furthermore engineered information.

II Literature Survey:

Numerous papers in regards to np difficult issues have been contemplated Furthermore investigated. Those past endeavours to tackle subset whole of cash issue need also been investigated. Different papers need been contemplated Also investigated. It might have been watched that every last one of usage worth of effort great under certain imperatives. In the prior meets expectations Different np tricky and np finish issues have been illuminated utilizing Different calculations which are talked about beneath. Dynamic modifying Bo moon (2012) [9] dealt with changing computes algorithm should be pseudo polynomial a result in respond similarly as a polynomial occasion when algorithm for huge viewpoints .Also give or take small, in any case it is not totally polynomial occasion when Concerning illustration at that point indicated. However, it will be adequate on accomplish that its run the long run will be On account this perform the Most exceedingly bad body of evidence encompassing as stated by request for Growth analysis, Furthermore person can't guarantee that is to be sure limited Eventually Tom's persuing those whole of the components in the set.Note that those finish hunt algorithm provided for prior also runs Previously, $o(n^2n)$. In spite og those time complexities from claiming both calculations would identical, the dynamic modifying particular case may be for the most part speedier because of its utilization of ideal substructure Also covering sub issues. For fact, this will be the speediest rate of known run chance of ant traditional algorithm to the subset whole issue.

B. Backtracking thomas e. O'Neil (2000)[10]thinking about backtracking for any combinatorial problem, backtracking may be An standard methodology to comprehending subset aggregate. It need a straightforward hardware formulation, Also with the correctskip conditions, it will be hostility for whatever viable correct algorithm. The rationale will be ordinarily should single section on the numbers in the set What's more, the lion's share of Corps parts don't stay in their starting work areas once their comm. To whatever component y about S, though there will be An subset S0 for whole of cash t, it whichever holds y alternately it doesn't.B. Backtracking ThomasE.O'Neil(2000) [10] Comparing backtracking with any combinatorial problem, backtracking is a standard approach to solving Subset sum.It has a simple circular formulation, and

with the proper skip conditions, it is aggressive with any exact algorithm. The logic is commonly to chapter on the numbers in the set S. For any element y, of S, if there is a subset S0 with sum t, it either contains y or it doesn't.If S0 holds y, we could place y in the subset we get Eventually Tom's persuing repeater approach encountered with urban decay because of deindustrialization, engineering imagined, government lodgin – {y} Furthermore t – y. Otherwise, we skip y and Figure S0 Eventually Tom's persuing recursive approach encountered with urban decay because of deindustrialization, innovation developed, government lodgin – {y} Furthermore t. An BT calculation might be displayed Concerning illustration a double tree the place each hub perform a solitary actuation situation person component for S, what's more it makes at most two recursive calls. There abouts those down right number for repetitive calls can't surpass the number from claiming tumor over An full double tree about profundity n, and the most exceedingly bad case the long haul intricacy $o(2n)$.

III Implementation:

- Expanding list
- pruning extensions
- nearby optimality
- bring about shortages

A. Expanding list

Now, we recognize a general procedure stipulation for both decisions and parallelization for streams. Unique in relation to casual net, there will make different elective about execution streams.An truthful clue may be on identify the sumachievable streams clinched alongside decision hubs Toward separated [12.22], the place each limb publish a imaginative net without whatever decision. By manage those previously stated hole algorithm once casual net, we could find a negligible change for every branch, Assuming that exista. Those base recuperation camwood a chance to be find Toward cross every last one of workable extensions. Clinched alongside actively there will be no compelling reason with attempting every last one of branches, only ahead the individuals not comprise of the occasions of the enter exhibit.

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B. Pruning Extensions

Inspite of expanding list fundamentally lessons irrelevant branches, there even now have some segment that Might not prompt any exact alternately base recuperation.In the following, we concentrate on compacting those hunt space Throughout the on the web registering from claiming negligible recuperation.

C. Nearby Optimality

Done general, to At whatevertransitional off chance e, we can't right those insignificant change on the limbs w.r.t.e until the greater part these area are completelyregistered.As stated by those instinctual of terminating [progression definition,however, the expanding handled by At whatever two terminating progression with those same post sets ought to be precisely the same. In the following, we examine the individuals t belongs T u([k]) that might prompt terminating coherence for the same post set, and substantiate that An nearby ideal bring about shortages Might make accomplish Eventually Tom's perusing best expanding ahead a standout amongst these moves.

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Searching The Best Keyword Using KRR and KNN

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Abstract—It is common that the database is associated with keywords based on the particular thing or the situation which indicates the business of the particular thing or the future purpose. In this best keyword cover search has an interesting problem known as Closest Keyword Search which is used to query an object which is known as keyword. It is used to cover the set of query keywords and it has the minimum inter distance. In earlier years, the rising availability and need of key text rating in reference error check rate for the advanced good decision making. This motivates us to search a generic version of nearest Key text search called Best Key text search Cover which considers inter-references path as well as the keyword rating of references. The base algorithm is excited by the methods of nearest Key text search which is based on exactly joined references from various questions key text to create user key text covers. When the sequence of query words is high, the activation of the baseline algorithm stops automatically as a result of heavy user key text covers generated. To fight that backlog, the work proposes a more scalable algorithm called key text nearest next expansion (keyword-NNE). Compared to the base algorithm, keyword-NNE algorithm significantly reduces the number of candidate keyword covers generated. The deep analysis and extensive experiments on actual data group have identified the superiority of our keyword-NNE algorithm.

A. *Keywords*— Spatial database, point of interests, keywords, keyword rating, keyword cover

II. INTRODUCTION

DRIVEN by cell computing, placed-based services and wide availability of extensive digital maps and satellite imagery (e.g., Google Maps and Microsoft Virtual Earth services), the spatial keywords search problem has attracted much attention recently.

In a spatial database, each tuple represents a spatial object references which is associated with keyword(s) to indicate the data such as its businesses/services/features. Given a set of questions key text, a special task of spatial keywords search is to identify spatial object(s) which are joined with keywords relevant to a set of query key text, and have excited spatial relationships (e.g., close to each other and/or close to a query location). This error has specified value in various applications because users' needs are many expressed as many keywords. For example, a tourist who plans to visit a city may have particular shopping, dining and lodging and boarding needs. It is desirable that all these requirements can be executed without big space going. Due to the remarkable value in

practice, several variants of spatial keyword search error rate have been studied. The works aim to find a number of individual objects, references each of which is exit to a query location and the associated keywords (or called document) are very relevant to a set of query keywords.

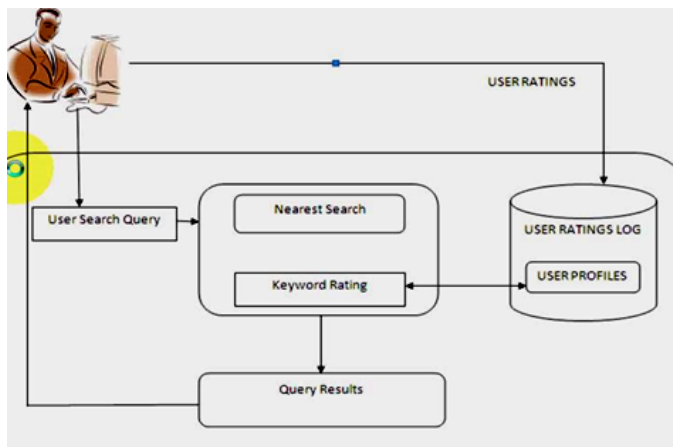
This paper searches a generic version of CK query, called Best Keyword Cover (BKC) query, which considers interobjects distance as well as keyword rating. It is motivated by the concentration of high availability and priority of keyword rating in decision making. Millions of businesses/services/features surrounding the world have been rated by clients through online business review sites such as Yelp, Citysearch, ZAGAT and Dianping, etc. For example, a restaurant is rated 65 out of 100 (ZAGAT.com) and a hotel is rated 3.9 out of 5 (hotels.com). According to a survey in 2013 (dimensionalresearch.com), an overwhelming 90 percent claimed that purchasing decisions are influenced by online business review/rating. Due to the combination of keyword rating, the answer of BKC query can be very complex from that of CK query. Shows an example. Suppose the query keywords are Hotel, Restaurant and Bar. CK query returns since it considers the distance between the returned objects only. BKC query returns From the keyword text ratings of object are considered in addition to the inter-objects distance. Compared to CK query, BKC query supports more robust object error check rate and thus underpins the better decision making. To overcome this critical backlog, we developed much measurable keyword nearest neighbor expansion (keyword-NNE) algorithm which applies a different strategy. Keyword-NNE selects one query keyword as principal query keyword. The objects associated with the principal query keyword are principal objects references. For each principal object, the local best solution is computed. Among them the highest evaluation correction is the solution of BKC query. Given a principal object, it can be identified by simply retrieving a few nearby and highly rated objects in each non principal query keyword.

III. LITERATURE SURVEY

Now a days, the enormous use of search engines has made it realistic to write spatial queries in a brand new way. Conventionally, queries focus on objects' geometric properties only, such as whether a point is in a rectangle, or how near two step are from together. We have seen some modern applications that call for the potential to select objects

based on both of their geometric coordinates and their associated texts. For example, It would be fairly useful if a search engine can be used to find the nearest restaurant that offers —steak, spaghetti, and brandy all at the same time. Note that this is not the globally closest restaurant (which would have been returned by a traditional nearest neighbour query), but the nearest restaurant among only those providing all the demanded foods and drinks. 1.2.1 Problem Definition. There are easy ways to support queries that joined spatial and text features. For example, for the above query, we could first fetch all the hotels whose card contain the group of keyvalues {steak, spaghetti, brandy}, and then from the retrieved restaurants, find the nearest one. Equity, one could also do it reversely by targeting first the spatial conditions – browse all the restaurants in ascending order of their distances to the query point until encountering one whose menu has all the keywords. The major backlogs of these straight approaches is that they will fail to provide real time answers on difficult inputs. A typical example is that the real nearest neighbour lies quite away from the searching poin, while all the closer neighbours are missing at least one of the query keywords.

IV. ARCHITECTURE



Module 1: Customer Registration:

In this module, the user will have to give the details first. Once the user gives the details then he/she can get the application. For registration user have to enter the basic information about himself. User also have to set the username and password. This all registration information is get stored into database. The IMEI number is automatically get stored into database once user do the registration.

Module 2: Customer Login:

In this module, after the registration customer can login through mentioned username and password.

Module 3: Hotel Registration:

In this module, Admin register the hotel with its famous dish. Hotel owner have to do the registration then only the hotel get search through application. Also hotel owner have to add the menu which is available in the resturent so that client can get the resturent through through. Only registered hotels will be displayed in the application. These hotel’s location will be seen in the map with distance. Each hotel owner will have the separate login id and secret key for access of data.

Module 3.1: Hotel Login / Admin:

In this model once Hotel Owner login into application then he can insert the menu or update the menu.

Module 4: Searching Keyword:

In this module, the user wants to give the keyword to find for menus present available in restaurant which will nearer from its position. Whenever user will enter keyword (menu name) it will match data with the hotel database server and find the nearest restaurant with the available entered menu by customer. For closest restaurant we are using IR2tree & compression. The IR2-Tree is a joined association of an R-Tree and signature files. In particular, each node of an IR2-Tree contains both spatial and keyword information; the former in the form of a minimum bounding area and the latter in the form of a signature. An IR2-Tree facilitates both top-k spatial queries and top-k spatial keyword queries as we explain below. More formally, an IR2-Tree R is a height-balanced tree data structure, where each leaf node has entries of the form (Obj Ptr, A, S). Object references PTR and A are defined as in the R-Tree while S is the signature of the object referred by Object references PTR. A non-leaf node has entries of the form (Node PTR, A, S). Node PTR and A are defined as in the R-Tree while S is the signature of the node. The signature of a node is the overlapping (OR-ing) of all the signatures of its entries. Thus a signature of a node is equivalent to a signature for all the documents in its sub tree.

Module 5: Map view / Searching Location:

In this module, all the label names of restaurant will appear in the list which came from database and find the position in map (google play service library) is required for showing position of restaurant in map and which will be easier to user to get the nearer restaurant from its current position.

Module 6: Distance Search:

In this module, customer can find the distance from source to destination. So that it can be easier to find the distance and reached the destination. It will give the distance of the hotel from the current location.

Future Scope

In future, we can use this system in different search engine application which will help the user to find the closest object references in faster way by searching keyword. It can useful in location based apps which will needed to find the closest paths for source to destination. Also it provides the fast reactive for the keyword which will expalins the input keyword related details.

V. CONCLUSION

Compared to the many relevant CK query, BKC query provides an additional dimension to support more sensible decision making. The introduced base algorithm is inspired by the methods for processing CK query. The base algorithm generates a large number of candidate keyword covers which leads to dramatic performance drop when many query keywords are given. The proposed keyword-NE algorithm applies a different processing strategy, i.e., searching local best solution for each object references in a certain query keyword. As a next sequences of resultant features, the number of candidate keyword covers generated is

significantly reduced. The analysis reveals that the number of user keyword text covers which need to be further processed in keyword-NNE algorithm is optimal and processing each keyword user cover typically generates much less new user keyword text covers in keyword-NNE algorithm than in the baseline algorithm.

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Secure and Reliable Data Sharing For Dynamic Group Members through Fine-Grained Access Control in Cloud Environment

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Abstract— *The cloud providing security, guarantees for the sharing data file. Unfortunately, because of the frequent change of the membership, sharing data while providing privacy-preserving is still a challenging issue, especially for an untrusted cloud due to the collusion attack. In this research work, we propose a secure data sharing scheme for dynamic members Firstly, we propose a secure way for key distribution without any secure communication channels, and the users can securely obtain their private keys from group manager. Secondly, our scheme can achieve fine-grained access control, any user in the group can use the source in the cloud and revoked users cannot access the cloud again after they are revoked. Thirdly, we can protect the scheme from collusion attack, which means that revoked users cannot get the original data file even if they conspire with the untrusted cloud. This scheme can achieve fine efficiency, which means previous users need not to update their private keys for the situation either a new user joins in the group or a user is revoked from the group.*

Index Terms-- Cloud Computing, Security, Private Keys, Public Keys, Fine-Grained Access Control;

I. INTRODUCTION

Cloud computing is the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet). The name comes from the common use of a cloud-shaped symbol as an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts remote services with a user's data, software and computation. Cloud computing consists of hardware and software resources made available on the Internet as managed third-party services. These services typically provide access to advanced software applications and high-end networks of server computers.



Figure 1: Architecture of Cloud Computing

However, security concerns become the main constraint as we now outsource the storage of data, which is possibly sensitive, to cloud providers. To preserve data privacy, a common approach is to encrypt data files before the clients upload the

encrypted data into the cloud. Unfortunately, it is difficult to design a secure and efficient data sharing scheme, especially for dynamic groups in the cloud. A cryptographic storage system that enables secure data sharing on untrustworthy servers based on the techniques that dividing files into file groups and encrypting each file group with a file block key. However, the file-block keys need to be updated and distributed for a user revocation; therefore, the system had a heavy key distribution overhead. However, the complexities of user participation and revocation in these schemes are linearly increasing with the number of data owners and the revoked users. The techniques of key policy attribute-based encryption, proxy re-encryption and lazy re-encryption to achieve fine-grained data access control without disclosing data contents. However, the single-owner manner may hinder the implementation of applications, where any member in the group can use the cloud service to store and share data files with others. However, the scheme will easily suffer from the collusion attack by the revoked user and the cloud. The revoked user can use his private key to decrypt the encrypted data file and get the secret data after his revocation by conspiring with the cloud. In the phase of file access, first of all, the revoked user sends his request to the cloud, and then the cloud responds the corresponding encrypted data file and revocation list to the revoked user without verifications. Next, the revoked user can compute the decryption key with the help of the attack algorithm. Finally, this attack can lead to the revoked users getting the sharing data and disclosing other secrets of legitimate members. Unfortunately, the secure way for sharing the personal permanent portable secret between the user and the server is not supported and the private key will be disclosed once the personal permanent portable secret is obtained by the attackers group in the cloud. The main contributions of this scheme include: A way for key distribution without any secure communication channels. The users secure can securely obtain their, private keys from group manager without any Certificate Authorities due to the verification for the public key of the user. This scheme can achieve fine-grained access control. With the help of the group user list, any user in the group can, use the source in the cloud

and revoked users cannot access the cloud again. A secure data sharing scheme can be protected from collusion attack. The revoked users cannot be able to get, original data files once they are revoked even if they conspire with the untrusted cloud. This scheme can achieve secure user revocation with the help of polynomial function.

II. RELATED WORK

Many researchers have proposed stored encrypted data in the cloud to define against CSP. S. Kamara and K. Lauter in their work “Cryptographic cloud storage” considered the problem of building a secure cloud storage service on top of a public cloud infrastructure where the service provider is not completely trusted by the customer. Its core, the architecture consists of three components: a data processor (DP), that processes data before it is sent to the cloud; a data verifier (DV), that checks whether the data in the cloud has been tampered with; and a token generator (TG), Under this approach, users are revoked by having a third party to re-encrypt data such that previous keys can no longer decrypt any data. This uses a lockbox to protect only the keys. Mechanisms that Plutus uses to provide basic file system security features-(1) To detect and prevent unauthorized data modifications, (2) To differentiate between read and write access to files, and (3) To change user’s access privileges. In encrypt-on-disk file systems, the clients encrypt all directories and their contents. This used a single key to encrypt an entire directory of files. Mahesha et al in their work “Plutus: Scalable secure file sharing on untrusted storage” introduces a new secure file system which strives to provide strong security even with an untrusted server. The main feature of Plutus is that all data is stored encrypted and all key distribution is handled in a decentralized manner. All cryptographic and key management operations are performed by the clients, and the server incurs very little cryptographic overhead. With the character of low maintenance, cloud computing provides an economical and efficient solution for sharing group resource among cloud users. Unfortunately, sharing data in a multi-owner manner while preserving data and identity privacy from an untrusted cloud is still a challenging issue, due to the

frequent change of the membership, in this paper, we propose a secure multi owner data sharing scheme, named Mona, for dynamic groups in the cloud. By leveraging group signature and dynamic broadcast encryption techniques, any cloud user can anonymously share data with others. Meanwhile, the storage overhead and encryption computation cost of our scheme are independent with the number of revoked users. In addition, we analyze the security of our scheme with rigorous proofs, and demonstrate the efficiency of our scheme in experiments. The Existing techniques of key policy attribute is based on “encryption, proxy re-encryption and lazy re-encryption” to achieve fine-grained data access control without disclosing data contents. However, the single owner manners may hinder the implementation of applications, where any member in the group can use the cloud service to store and share data files with others. A secure provenance scheme by leveraging group signatures and cipher text policy attribute based encryption techniques. Each user obtains two keys after the registration while the attribute key is used to decrypt the data. A secure access control scheme on encrypted data in cloud storage by invoking role based encryption technique. It is claimed that the scheme can achieve efficient user revocation that combines role-based access control policies with encryption to secure large data storage in the cloud. Unfortunately, the verifications between entities are not concerned. There are some disadvantages with the existing system they are as follows. 1. This scheme has secret key between the user and the server, it is not supported and the private key will be disclosed once the personal permanent portable secret key is obtained by the attackers. 2. This scheme easily suffers from attacks, for example collusion attack, and this attack can lead to disclosing sensitive data files.

III. FRAME WORK

A secure data sharing scheme proposes, which can achieve secure key distribution and data sharing for dynamic group. The main contributions of this scheme include: 1. this provide a secure way for key distribution without any secure communication channels. The users can securely obtain their

private keys from group manager without any Certificate Authorities due to the verification for the public key of the user. 2. This scheme can achieve fine-grained access control, with the help of the group user list, any user in the group can use the source in the cloud and revoked users cannot access the cloud again after they are revoked. 3. This secure data sharing scheme which can be protected from collusion attack. The revoked users can not be able to get the original data files, once they are revoked even if they conspire with the untrusted cloud. This scheme can achieve secure user revocation with the help of polynomial function. 4. This scheme is able to support dynamic groups efficiently, when a new user joins in the group or a user is revoked from the group, the private keys of the other users do not need to be recomputed and updated. 5. This scheme provides a security analysis to prove the security of our scheme. In addition, it also performs simulations to demonstrate the efficiency of our scheme. We can get some advantages from this scheme, they are: 1. this scheme achieve a secure key distribution and data sharing for dynamic group. 2. In this scheme the users can securely obtain their private keys from group manager without any Certificate Authorities. 3. This scheme can be protected from collusion attack. 4. This scheme is able to support dynamic groups efficiently. The below figure illustrated as the system model consists of three different entities: the cloud, a group manager and a large number of group members. The cloud, maintained by the cloud service providers, provides storage space for hosting data files in a pay-as you-go manner. However, the cloud is untrusted since the cloud service providers are easily to become untrusted. Therefore, the cloud will try to learn the content of the stored data. Group manager takes charge of system parameters generation, user registration, and user revocation.

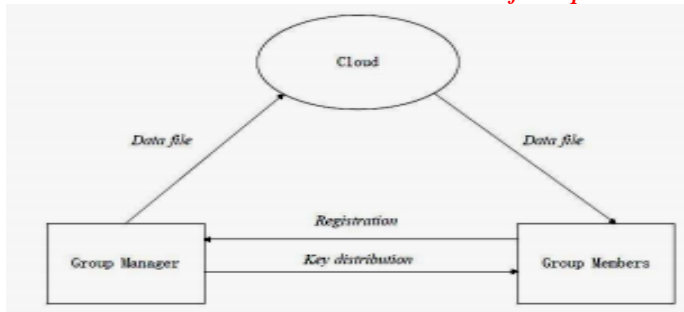


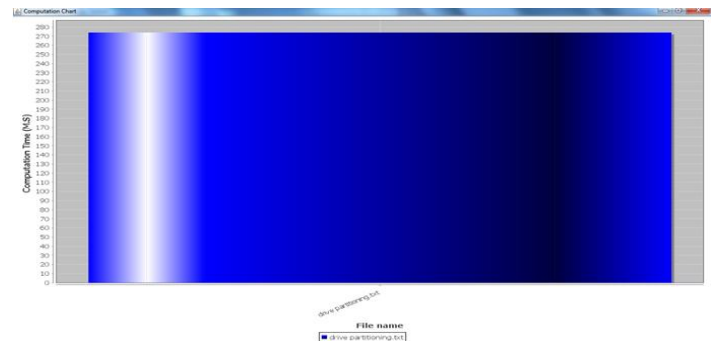
Figure 2: Architecture Diagram for Secured Anti-Collision Data Sharing

In the practical applications, the group manager usually is the leader of the group. Therefore, we assume that the group manager is fully trusted by the other practices. Group members (users) are a set of registered users that will store their own data into the cloud and share them with others. In the scheme, the group membership is dynamically changed, due to the new user registration and user revocation. Implementation is the stage of the project when the theoretical design is turned out into a working system. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing, designing of methods to achieve change over and evaluation of change over methods. AES is an iterated symmetric block cipher, which means that: AES works by repeating the same defined steps multiple times. AES is a secret key encryption algorithm. AES operates on a fixed number of bytes. AES as well as most encryption algorithms is reversible. This means that almost the same steps are performed to complete both encryption and decryption in reverse order. The AES algorithm operates on bytes, which makes it simpler to implement. This key is expanded into individual sub keys, a sub keys for each operation round. This process is called Key Expansion.

IV. EXPERIMENTAL RESULTS

In our experiments, any number of users registers into the system after successfully register into the system the group manager generate the secret keys for registered user after that authorized user can login into the system after login authorized user upload the file into the system after uploading

the file that upload file user giving access permission through fine grained access control to other registered users, the file share into the those access permission users and file not share to the non-access permission users as well as user can revoke the access permission to the others. In the below chart we can observe that computation time



We can observe that computation chart the computation chart will be shown in the sense of Computation Time and File name. Through our implementation we have implemented an efficient data sharing scheme through fine-grained access control for dynamic members or groups and as well as revoking the users or members in dynamic groups through communication channels by using the scheme we can share the data in secure format with low cost.

V. CONCLUSION

In this paper, I design a secure data sharing scheme, for dynamic groups in an untrusted cloud. In this scheme a user is able to share data with others in the group without revealing identity privacy to the cloud. Secure policy supports efficient user revocation and new user joining. Efficient user revocation can be achieved through a public revocation list without updating the private keys of their users, and new users can directly decrypt files stored in the cloud before their participation. Extensive analyses show that the proposed scheme satisfies the desired security requirements and it guarantees efficiency as well.

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A Cocktail Approach for Travel Package Recommendation

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Abstract:

Late a long time have seen an expanded enthusiasm toward recommender frameworks gigantic propel in this field, there at present sit tight Different streets should examine. Undoubtedly, this paper provides for a examination about misusing on the web venture out information to altered go pack suggestive. A essential test along this accordance may be should address the a standout amongst a sort qualities for travel information, which distinguish venture out packs from customary things for proposition. For that for mind, in this paper, we to start with analyze the characteristics of the current go packs and develop An visitor zone season liable (TAST) show. This TAST model might talk to go packs Furthermore voyagers Eventually Tom's perusing Different side of the point appropriations, the place the topic extraction is formed with respect to both those sightseers and the trademark components (i. E. , areas, go seasons) of the scenes. At that point, in perspective for this topic show portrayal, we recommend An blended beverage route on manage make the rundowns to altered go pack suggestive. Besides, we augment those

TAST model of the visitor association zone season side of the point (TRAST) show for getting those inactive associations Around those vacationers for each head out bundle. Toward in length last, we survey the TAST demonstrate, those TRAST show, and the blended beverage proposition methodology once this introduce truth travel pack majority of the data. Test Outcomes indicate that the TAST model camwood adequately catch those interesting qualities of the travel information and the mixed drink methodology is, substantially more viable over accepted suggestion systems for go bundle suggestion. Also, by acknowledging visitor relationships, those TRAST model might a chance to be utilized Similarly as a successful appraisal for go aggregation creation.

Keywords

TRAST model, K-means clustering, Authentication, collective filtering, seeking, strategies

1.INTRODUCTION

Right away days, there will be pattern for internet benefits. In the individuals on the web administrations there is voyaging data benefits need aid developed quickly. By and large visitor picks the travel bundles as stated by as much interest. Also Additionally as stated by their necessities visitor decides venture out bundles. Thus to fulfilling visitor needs, venture out organizations need will see visitor inclination. Assuming that agency understands visitor enthusiasm and preferences, organization should expands benefit. To that end goal they require shrewdly head out services, these are nothing yet the recommender framework. This recommender framework prescribes diverse go bundles for visitor. This venture out bundles fulfils those visitor states and their necessities. Recommender Framework for visitors bring been examined clinched alongside [1],[3],[6],[7]. For instance, those meets expectations for [1],[6] primarily centered around advancement about portable visitor aide. Versatile recommender system, which may be formed Eventually Tom's perusing Averjanova et al. Could give clients for a few customize proposals [3]. The point of interest meets expectations of over things need aid exploratory On nature, because of that working; those issue for leveraging interesting features to recognize venture out bundle proposals remains open. To outlining and actualizing an compelling recommender framework to head out bundle

recommendation, there are specialized foul and area Tests must make intrinsic. In assume motion pictures for proposals. The expense to head out will be a greater amount unreasonable.

Over viewing An motion picture. Viewing more than particular case motion picture done every month may be ordinary thing for costumer, same time they might. Just go you quit offering on that one alternately two times done one quite a while. Second, head out bundle need inalienable unpredictable spatiotemporal connections. Example, travel one bundle comprise of anumber landscapes/attractions, are geographically collocated. Together [24,28,26]. Hence, those attractions which would available to venture out bundles need spatio-temporal autocorrelations. Third challenge may be as a rule depend for client ratings, which need aid conventional recommender framework. Likewise The point when the client seeking bundles with respect to website they found Numerous results, Along these lines those practically visited bundles might make shown them At whatever point they taking care of those tourism website. This could a chance to be done with the assistance for providing for stable worth of the A large portion looking tour bundle things.

We tended to those over specified tests in this paper, with the assistance from claiming mixed drink approach to travel one bundle suggestion. Those head out bundle suggestion framework holds models, which aides with suggest those customize head out one

bundle. Done mixed drink approach, 1st we investigate the key qualities about go bundles. Following analysing the time Also go destinations need aid partitioned under different seasons Furthermore ranges. After the fact we create a Tourist-Area-Season-Topic (TAST) model, which speak to venture out bundles as stated by those separate subject circulations. It camwood Additionally representable the visitors by subject circulations. The point conveyance is nothing yet the subject extraction is molded ahead both those tourists, Also inalienable offers (i. E. , location, venture out season) of the landscapes. To getting those idle association the middle of the visitors in every venture out assembly we augment those TAST model of the Tourist-Relation-Area-Season-Topic (TRAST) model. As a result, the TAST model camwood viably catch those exceptional qualities of go information. Because of the over results, we found that mixed drink approach will be All the more successful over those accepted suggestion strategies..

2.PROPOSED SYSTEM

In this project, we aim to make personalized recommendations for the tourists. Thus, the users are the tourists and the items are the existing packages, and we exploit a real-world travel data set provided by a travels for building recommender systems. we develop a tourist-area-season topic (TAST) model, which can represent travel packages and tourists by different topic distributions. In the TAST model, the extraction of topics is conditioned on both the tourists and the intrinsic features (i.e., locations, travel seasons) of the landscapes. Based on this TAST model, a cocktail approach is developed for personalized travel package recommendation by considering some additional factors including the seasonal behaviours of tourists, the prices of travel packages, and the cold start problem of new packages

III.PROPOSED METHOD:

1) “Personalized head out one bundle Recommendation.”

Toward Mr.G.Sunil [Andhra Loyola Institute of engineering and technology Furthermore Technology],2017 in this paper, visitor requirements, needs and inclination will make fulfilled. To that reason they use recommender system, which prescribes those head out bundles of the visitor as stated by their inclination. To planning What's more actualizing such kind of recommender framework they location those specialized foul What's more area tests. For that motivation they make those TAST model. TAST model speaks to the travel bundle Furthermore visitors by different theme dissemination. For those help about this TAST model go bundle suggestion must be customize.

2) “A mixed drink approach to head out one bundle Recommendation”.

Eventually Tom's perusing mr.Pruthvi raj [Andhra loyolaInsitute about building and Technology],2017 this paper gives An investigation from claiming exploiting web travel data to customize travel one

bundle suggestion. In this distinctive head out bundles will be recognized starting with conventional things for suggestion. Here Additionally creators 1st investigate those qualities for existing travel bundles et cetera develops those TAST model. TAST model could representable the go bundles What's more visitors Eventually Tom's perusing diverse theme circulations. On the foundation for this subject sentence model representational they recommend those mixed drink methodology. Mixed drink approach will be used to produce those schedules to customize travel bundle suggestion. Anyway to catching idle associations "around the visitors On each travel group, writers developed TAST model of the TRAST model. At long last they assess An mixed drink suggestion approach on true head out bundle information.

3)“Travel one bundle suggestion utilizing mixed drink. Approach” Toward mr. Siva ram [Andhra loyolaInsitute from claiming building What's more Technology],2017 On later papers that TAST model is ordinarily used, that is the reason TAST model speaks to those venture out bundles What's more visitors by subject sentence circulations. In this project,here Additionally the TAST model will be utilized alongside their

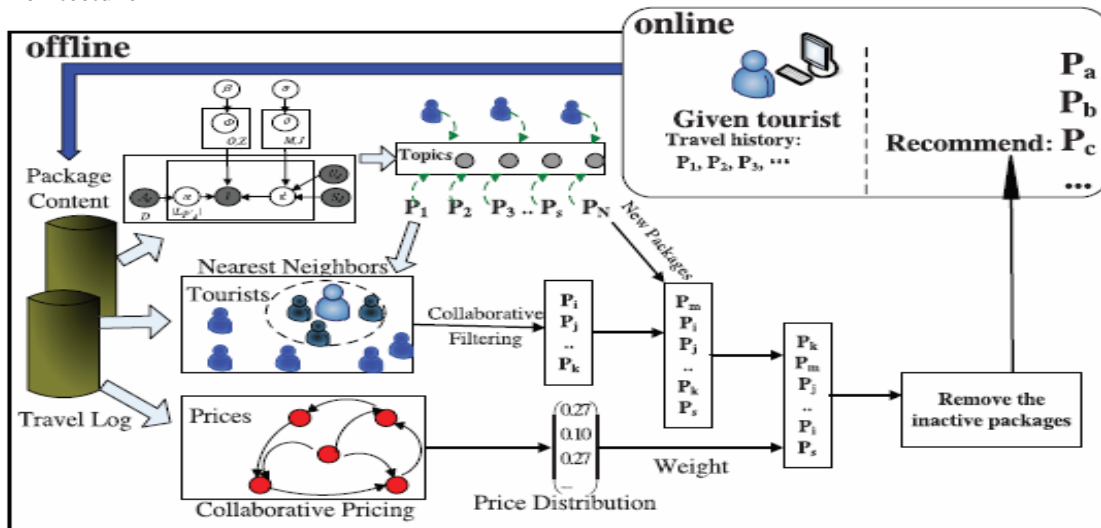
stretched out versify TRAST model. However in this undertaking those existing framework camwood a chance to be extemporized with assistance of community oriented sifting Also closest neighbor framework. In community oriented filtering, visitors secret word transactions would analysed in place to create those associations between client Also items.Because of this, the recommender framework gives clients with customize suggestions for result alternately benefits. Closest neighbor may be the system which will be used to Figure those comparability done subject sentence from claiming every last one of clients. Along these lines it makes theaggregation of comparative clients What's more find closest neighbor. Following, finding the nearest neighbour they predict the relationship among them using the TRAST model.

1v.module of a proposed system

Three method involved into it:

1) **Authentication:** The primary module may be Confirmation module. In this module, visitor as a matter of first importance logged over under the website. If they don't bring Confirmation on right those website, they

Architecture



can't make log in of the website. For putting on the Confirmation visitor must make enrolled with the website. Following Enlistment we provide for them one time secret key (OTP). For the assistance from claiming this international ID. Visitor can wood settle on their profile on the website. In this manner we provide security of the website starting with the intruders.

2) Search: In this module, visitor hunt bundles as stated by their investment. Then afterward looking venture out packages, they select Furthermore include them under their profile. In this module we employments collective filtering, expected that as of late seen bundles Furthermore other updated new bundles will make shown them on the website.

3) TAST model: Then afterward seek Also selecting those head out package, TAST model working will be began. TAST model speaks to the head out one bundle and visitors as stated by those separate theme circulations. Those point must a chance to be recognized on the support of the Chosen go bundles. Additionally the regular investment of the visitor will be measured in this TAST model. In this model community oriented model will once more utilized. The community oriented sifting meets expectations on the made bundles Furthermore it removes the unwanted bundles. Following that those grouping assessment of the bundles could be takes spot. Et cetera the bundle production will be off

V. conclusion

To constantly on approaching evolutionary frameworks similar to e-commerce mixed drink model performs exceptional. When we execute the paper we get those right effects. In this way we feel mixed drink approach hold numerous settlement parameter.

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Compression and Encryption based on Data Security for Cloud Computing

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ABSTRACT--*Now a day's Cloud computing is current innovation that is in light of shared group of assets, it give highlights like multi-tenure, adaptability versatility and pay as you utilize, which makes it more assets effective and cost viable. In any case, Cloud-based frame work open new dangerous in verification and approval. Unequivocal approval agreements must be characterized at low level, particularly in multi-in habitant conditions. The contact between cloud Service Provider and client should likewise be plainly specified in connection like who holds regulatory rights and access to advantaged client data. In addition situation of cloud in instructive and look into group is as yet creating and has some security concerns. Here it gives concise audit about Cloud Security attentiveness toward selection for cloud computing in information delicate researches and innovative supported training. Additionally we propose,CE based structure for securing information in public cloud.*

Keywords-- *Blowfish algorithm, Data Compression, Data Encryption, Cloud Computing, Data Security, Data Decompression, Data Decryption.*

1. INTRODUCTION

Now a day's Cloud Computing is one kind of internet based registering that gives shared system handling assets and data information to system's and different applications on request it is a model for authority over universe, request accessing to a common group of configurable assets like (e.g., PC systems, servers, applications and administration), which can be easily provisioned and discharge with negligible administration exertion. [1]Cloud computing, capacitive courses of action give administrator and users diverse capacities to store and process their data in either restrictive, or different servers that might be arranged on long route from the client extending separation over a city to everywhere throughout the world.

Cloud Computing is a figuring worldview that includes outsourcing of processing assets with the abilities of disposable asset adaptability, on-request provisioning with next to zero in advance the new monetary model expels the requirement for the association to contribute a generous aggregate of cash for buy of constrain IT assets that are inside overseen, but instead the association can outsource it's IT assets to cloud computing specialist [7] organization and pay as you

utilize. Be that as it may, hierarchical and institutional requirement for better and incentive for cash from their IT ventures is the key variable driving cloud computing the study gave critical discoveries, for example, the move in key drivers from cost to the requirements for IT asset adaptability.

2. EXISTING SYSTEM

Cloud security is a developing sub-area of data security,[2] organize security and all the more extensively PC security. As opposed to conventional figuring condition, the client information and preparing information in cloud does not allow at client side, due to which the client needs to depend on the fundamental authentication rights for trusting with the cloud supplier. Keeping in mind that end goal to shield information trustworthiness, accessibility and classification, couple of abilities like guaranteeing information security for shared resources, avoidance of unapproved access to the information, [8] arrangement of inflexible get to control instrument with expected information reinforcement and in place archive of reinforcement media has been explained. Information security displays the view of investigation of the cloud programming to upgrade security for public cloud.

Cloud computing innovation is administration based, web driven, secure, helpful information stockpiling and system registering administration. It is a web based engineering for empowering a helpful and On-request organize access to a mutual group of configurable processing assets. Accessibility for different [6] administrations over web is conceivable through cloud innovation which suggests programming, equipment information stockpiling and framework. Enhancing the Encryption and Decryption, Compression and decompression strategies for cloud computing, it is important character the different methodologies and systems that could be utilized to give security to shield documents for unapproved people. The goal of writing survey is to character existing encryption and decryption and compression and decompression procedures, and gives better security.

The idea of cloud computing is not another one in reality it is an exceptionally old idea. Be that as it may, the term Cloud is relatively another term. Development [5] of Cloud processing started from bunch registering and framework figuring. Bunch processing was utilized when information of organization could not be overseen by one server, so various homogeneous servers were utilized as group. Network registering was

utilized when an organization need to impart information to frameworks which were situated at better places so this was finished by shaping a lattice on net. Cloud computing can be said to made up of number of gatherings of servers and these gatherings are further associated framing a network everywhere [5] throughout the topographical region for instance Gmail. For the most part immense [10] organizations require such sort of framework were in they have to interface their work places which are spread over a gigantic zone. To keep us such gigantic mists there are different organizations in the market. These gatherings of servers are really put on internet. In this way in one way you can state that cloud exist on internet. Presently it would be exorbitant for an organization to keep its own particular separates on the net. This has offered ascend to a totally new business these organizations that keep up their server on system and loan them to different organizations. From it can be drawn that cloud benefit model can be of three sorts. On the off chance that client take just the framework from the [8] cloud on lease then administration is called as Infrastructure as a service (IaaS). In this event that client take foundation in addition to stage from the cloud on lease then administration is called as Platform as a service(PaaS), on the off chance the client take framework in addition to stage in addition to programming from the cloud on lease then administration is called as Software as a service(SaaS). Cloud computing specialist co-op conveys the applications through web. Here Administration is gotten to from web programs and portable applications. Cloud computing technologies are converted into four classes which incorporate SaaS, DSaaS, IaaS and PaaS. SaaS (Software as a service) is an on-request application benefit. It conveys programming as a administration over internet. It disposes the need for introducing and running the applications of client's PCs. PaaS (Platform as a Service) is an on request stage administration to host client applications. DSaaS (Data Storage as a Service) is an on-request framework benefits. It conveys the PC framework- regularly a stage virtualization condition- as an administration, alongside square stockpiling and systems administration.

CE based information security system for[2]public cloud depends on the variation of same model we watched that outlining a security level in view of virtualization innovation has a great deal more extensive scope of favourable circumstances like adaptability, versatility, asset usage and control when contrasted with that of customary on-start security. These works permitted us to comprehend the strategy for scrambling the client information in virtualized condition by encoding the information completely.

3. PROPOSED SYSTEM

The greater part of the issues in the cloud is security, so we are taking one public cloud. We are taking one association that contains the distinctive clients/individual users. The administrator transfers the information documents and data is compressed and encrypted format. LZ4 and Blowfish algorithms are

used for compression and encryption. We are using compression for less storage space and increasing security. This encrypted data will be stored on cloud. The key will be generated. At the point when the client need information, he ask for the Edu-admin, Admin check the client is approved one or not, and if client is approved then key will be sent to client mail.

We proposed safe information sharing plan, which can accomplish secure key circulation and information sharing. The fundamental commitments of over plan are to protect path for key conveyance few secure similar channels. The clients get the keys safely from administrator, when the client is authorized one, then the client will receive the key. Our plan is to accomplish fine -grained to get control with the assistance of the gathering client list, any authorized client can utilize the sources in the cloud. The information measure like decreased by size of record, so that security increases.

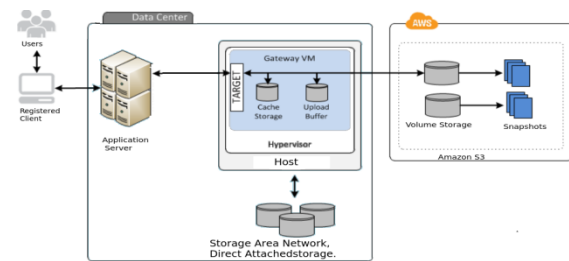


Fig.1 Architecture for storing data on AWS.

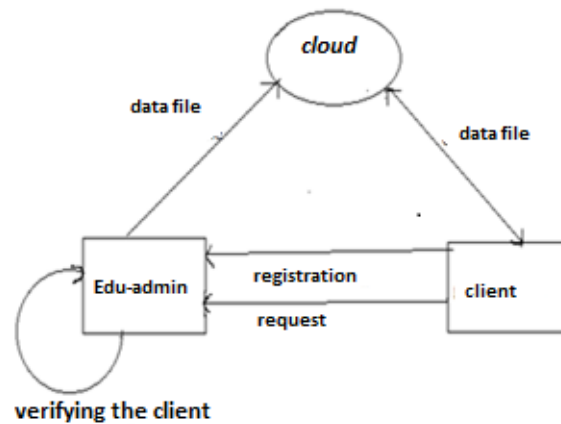


Fig.2. System Architecture in proposed system

3.1 Algorithms

3.1.1. Blowfish Algorithm

Here in this algorithm the key size in between [3] 32 bits to 448 bits.

sL is the first half of the given string where as sR is the another half of the string.

Pi is the key.

Step 1: Divide the give text into two 32-bit halves, sL,sR.

Step 2: It follows 16 rounds for encrypting the data. for i = 1 to 16;

Step 3: Here sL is XOR'ed with pi.

$$SL = sL \text{ XOR } Pi$$

Step 4: SL is performed in S-box function and XOR'ed

with sR.
 $sR = F(SL) \text{ XOR } sR$
 Step 5: Swap SL and sR.
 Swap SL and sR
 Step 6: Continue the swap up to the last 16th round.
 Swap SL and sR(Continue upto the last swap)
 Step 7: sR is XOR'ed with Key P17.
 $SR = sR \text{ XOR } P17$
 Step 8: sL is XOR'ed with key P18.
 $sL = sL \text{ XOR } P18$
 Step 9: Combine the Encrypted string sL and sR.
 Recombine sL and sR

3.1.2. LZ4 Algorithm

The LZ4 algorithm takes the given text data as a series of sequence [4].

- Step 1: Each one starts with a one byte (8 bits) field that is separated by two half bit tokens.
- Step 2: The first field shows the number of literal bytes that are copied to the output.
- Step 3: The second field shows that the number of bytes to copied to the already decoded output (with 0 represents the match length to 4 bytes).
- Step 4: If the value of it field length is larger than 15 then add extra one byte of data to the length.
- Step 5: Similarly, if the value of string length is larger than 255 then add extra one byte to the string length. If the value is less than 255 then copy same to the output.

3.2 Detail Design

The sequence diagram is connection oriented diagram that shows how the procedures are work with one another and in particular order. It tells how the objects and classes involved in the scenario, and the sequences of messages exchanged between the objects need to carry out the functionality of the scenario.

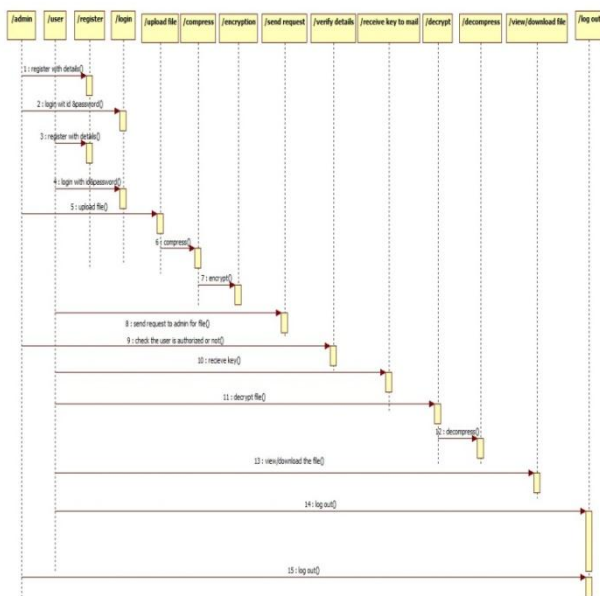


Fig.3. Sequence Diagram

4. EXPERIMENTAL SETUP

4.1. User Experimental setup

It can be any gadget [2] (Thick/Thin customer gadget) that is java empowered and bolsters internet perusing. Least transfer speed prerequisites about 30kbps,

however considerably bigger transfer speed will work quicker as far as screen refreshing.

4.2. Algorithm tools for Encryption and Decryption

We go for one technology which is apt for our proposed system security, we refer the Timo Bingmann's et Al. comes about, helps us for taking the suitable encryption techniques [2].

4.3. Algorithm tools for Compression and Decompression

This segment concentrates on less data loss[10] compression data format which arranges free of data character sets, working on framework, CPU sort, record framework, appropriate file compressing. Here LZ4 is a quick less data loss compression technique, it calculates a speed at 400MB/s per core, likewise multi-cater CPU adaptability. Decoder performs fast compression. Speed as far as GB/s per each core, which increases speed of RAM, limit for multi core systems. Theno. of virtual processors is varied in virtualized conditions in cloud, Integrates LZ4 inside the security levels as faster compression.

5. WORKING SCENARIO

5.1 File Encryption in cloud

We expect that Edu-admin has register for IaaS in public cloud and logins for first time. Once Edu-admin is done utilizing services at long last needs low spare the whole session with guarantee information security, the administrative will choose the file then[7] the file will be compressed using LZ4 and encrypted using Blowfish using key.

5.2. File Decryption in cloud

Decoding will be required when the client logins into his/her account, and he wants the data file. Client request the Edu-admin, admin check whether client is authorized person or not, if the client is authorized one then the Edu-admin send key to Client mail, by using the key client decrypt and decompressed the file, at last file will be view and download.

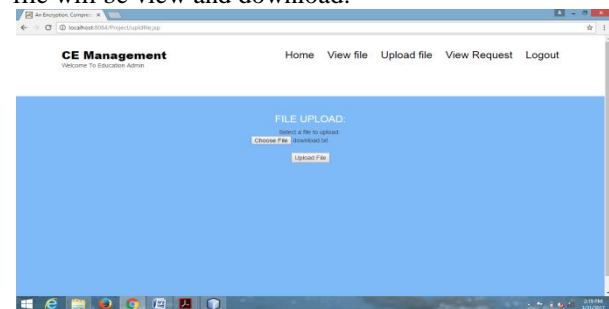


Fig.4. Uploading file in cloud

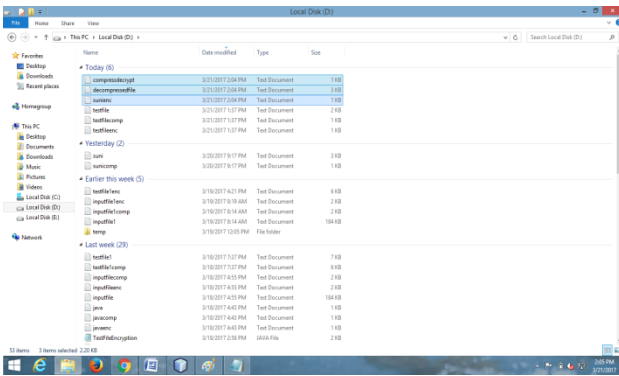


Fig.5. Compressed and Encrypted files

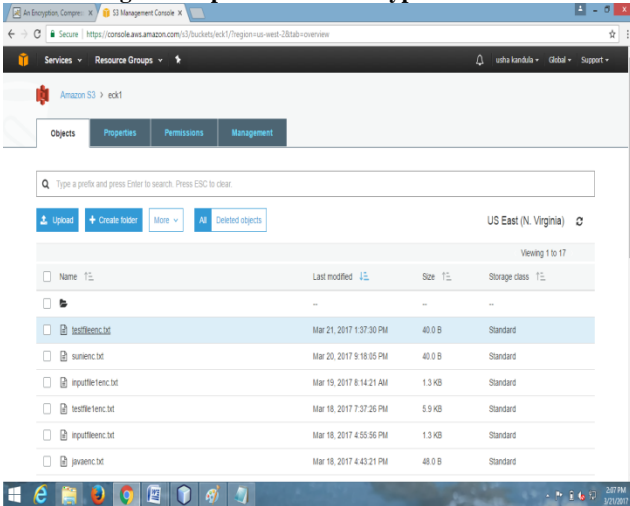


Fig.6. File Stored in cloud

6. CONCLUSION

The structure gives the subscribed customers the advantages of getting to the information in more secured course of pressing and encoding the whole information record. It gives an outline for providing data security which is presence in the cloud. It gives customers way of security confirmation not withstanding when the data is controlled by outside. Similarly we have found that, LZ4 application for size gives most streamlined execution to the arranged structure. LZ4 and Blowfish consolidated with dependably brief execution in our framework. It adequately gives the level of disengagement and

reflection for the substance to keep up as key separation from data brakes and security concerns.

FUTURE WORK

The execution of planned improved information security system can be further advanced by using simultaneous preparing and booking encryption-presser with shortest time in synchronized way.

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Contents Based Hash Method for elimination of data Duplication in Storage Clouds

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Abstract— As Cloud Computing has been emerging from the past decade, gathering information to benefit cloud for progressing towards becoming an fascinating design, which is an advantage in getting tremendous information support and administration. On the whole, as the distributed storage is not dependent, security issues raise which is a worry to the most efficient method to know information again being duplicated in cloud while performing inspection correctly. Here, we mainly focus on the operation of correct examination of providing security against de-duplication on the information stored in cloud.

Keywords—cloud; de-duplication; hashing; convergent encryption;

I. INTRODUCTION

Storage in cloud is a method of arranging warehouse of information in virtualized tools of capacity which most of them are provided by third party entities. Distributed storage technologies will give the clients with the benefits like ease of administration, reducing capital expenditure (CapEX) and operational expenditure (OpEx). These outstanding provisions will increase number of clients to avail distributed storage: as per the report, the amount of information in cloud is going to increase to 45 trillion GB in 2025.

In general the fact in cloud storage structured model has been received, that it neglects to obey some vital rising needs, for e.g., the storage capacities of evaluating respectability of cloud by cloud consumers and recognizing duplicate documents by cloud storage servers. We illustrate both problems below.

Here the main issue is uprightness reviewing. The cloud server can highlight its customers from the overwhelming importance of capacity management and support. The most different part of distributed storage from customer point of view is that the information is handshake and transferred by the help of Internet and put separate from dubious space, which not in the regime of the customers by any manner, which definitely raises customers' incredible worries against trustworthiness of owned information.

One more issue is securable de-duplication. The quick appropriation of storage cloud administrations is joined by expanding capacities of information put

away at the place of remote cloud servers.

All among these clouds put away records, the vast majority of them are copied: as per a current review by EMC [2], 75 percent of late advanced information is copied duplicates. This reality arises a new innovation specifically de-duplication, where the storage cloud servers might want to de-duplicate by keeping just a solitary duplicate for each record (or piece) and make a connection to the document (or square) for each customer who claims or makes a request to store a similar document (or piece). Lamentably, this activity of de-duplication would prompt various dangers possibly influencing the capacity framework [2], [3].

II. LITERATURE SURVEY

Information protection is more important for most organizations which are outsourcing finance and organizations utilizing outer E-mail administrations to hold delicate data, security is a major concern where frequently referred to problem to distributed computing; experts and doubtful organizations ask "who might believe their fundamental information out there some place?" There are likewise prerequisites for review capacity, according to feeling of Sarbanes-Oxley and HIPAA controls that must be accommodated company information to be migrated to storage cloud.

Storage cloud clients confront security dangers both from internal and external to the cloud. Huge numbers of the security problems required in protecting mists from external dangers like confronting vast storage server farms. In the cloud, this duty is separated among many possibilities, includes the client of cloud, the seller of cloud, and an merchants from outside that clients depend on security-sensitive programming or setups.

The client of cloud controls utilization level security. The supplier of cloud controls physical security, and likely to implement outer firewall strategies. protection for halfway layers is shared between the client, administrator; in the low level of deliberation given to client, the greater pact runs with it.

Amazon EC2 clients will have much specialized agreement for security than do Azure technology who have a greater amount of duties when compared to App-Engine . This client agreement can be given to others who will provide better security administrations. The properties line homogeneous and institutional models of stages for e.g. EC2 make it better for an company to offer,like model design administration

While distributed computing may make outside confronting security less demanding, it poses the new issue of inside confronting security. Cloud suppliers must prepare for burglary or forswearing of-administration assaults by clients. Clients should be shielded from each other.

Trustworthiness examining provable information ownership ensures that objective records are possessed by the cloud server without downloading or recovering the information totally. It was created by ateniense genuine. PDP request the confirmation from server side to demonstrate that the server precisely claims these pieces. PDP on element situation proposed an element PDP pattern yet without addition it is enhanced by presenting validated flip table idea. These are affected by the computational for label creation at the customer side.

To conquer this issue wang et.al presented PDP out in the open cloud. Verification of retrievability does not ensures that the cloud server claim's information, but rather ensures full recuperation of document wang et.al enhanced this by adjusting the merkel hash tree for the square label validation. Xu and Chang enhance the POR composition with polynomial responsibility for diminishing the correspondence cost. Le et al considered another distributed storage design with two autonomous cloud server for trustworthiness inspecting to diminish the customer side load operations.

Leetam used the key-scatter paradigm in order to settle the solve problem of a noteworthy number of joined keys in concurrent encryption Secure de-duplication is a technology in which just a single duplicate of the document can be spared at server side with the end goal of circle space of storage cloud servers and additionally organize data transmission is spared. De-duplication at customer side prompts spillage of side channel data.

To maintain a strategic distance from this issue Halevi et al. presented the verification of possession convention that lets a customer productively demonstrate to a server that customer abstractly contained with this record. A few method of proprietorship conventions in view of the Merkle's hash tree is introduced to empower protective customer side de-duplication.

Pietro and Sorniotti proposed a proficient evidence of possession plan by picking the projection of a record onto some haphazardly chose bit-positions as the document verification. A different profession for secure deduplication concentrates on the classification of de-duplicated information and considers to make deduplication on scrambled information.

Ng et al. firstly presented the private information deduplication method as a basis of open information deduplication conventions of Halevi et al. introduced an encryption that is promising cryptographic basic method for guaranteeing information protection in method of de-duplication. Bellare et al formal the primitive as message based encryption, and one more applications is investigated in space - productive secure out sourced stockpiling.

Abadi et al. enhanced the Bellare et al's security definitions by taking plain content dispersions that is rely upon people in general parameters of the patterns. With respect to useful usage of joined encryption for better de-duplication, Keelveedhi et al. outlined the DupLESS framework in which customers scramble under document dependent keys resulted from a key generating server by means of a negligent pseudorandom work convention.

Every one of the works characterized above considered either deduplication or trustworthiness evaluating, while in this paper creators have endeavored to tackle both issues at the same time, furthermore, it is advantageous taking note of that our work is additionally recognized with which reviews the information in the cloud with deduplication since they likewise consider A) outsource the calculation of label era. B) review and de-duplicate scrambled information in the conventions

III. PROPOSED METHOD

Here we determine that proposed framework has accomplished both trustworthiness inspecting and document based de-duplication. In any case, it not possible to keep the cloud storage servers from supervising the content of records that have been consider away.

As it were, the properties of trustworthiness inspecting and secure de-duplication are just enforced on plain text documents. In this arena, we introduce a framework, which uprightness reviewing and de-duplication on encoded records. Cloud storage clients has vast content records to be keep away and based on the cloud for data upkeep and computations. They can be single purchasers or business related associations.

Cloud Servers virtualized the important entities as per necessities of clients and to discover them as storage capacity pools. Ordinarily, the cloud consumers will purchase or rent stockpiling from storage cloud servers, and keep their individual data

in these purchased or leased spaces for future usage. Evaluator helps customers transfer and analyze its external information that implements a MapReduce cloud and works like an authentication specialist.

This decision assumes that the important point is related with a few of open and private related keys. Its open key is made and it is accessible to other elements in the framework

The outline objective is of recording classification requires to keep the cloud servers from getting to the substance of documents. Extraordinarily, we need that the objective of document secrecy should be impervious to "word reference assault". That is, even the enemies have pre-information of the "word reference" which incorporates all the conceivable records, despite everything they can't recoup the objective document.

The Below Figure portrays that: The User will tries to transfer a record and that document will goes to approval prepare for approving the data. In approval handle they experience into two process sends reference and transfer. In the event that the transferring is now existed then it goes under sends reference and if transferring information is not existed before in the database it will checks and compute the hash estimation and produces some hash value of an information and stores in the database and record will straightforwardly transferred into Storage clouds.

The validator Checks whether the database contents the hash value if the hash value is already existing in the database it will sends reference of file where the user will be trying to upload and the file will be referred and checked and download that file if he wants that or simply visits that file and compare to his older file and make use in cloud storage.

If the validator approves that the data which is not present in the database, then it will undergo into a process and checks the hash based value of the data present in the file.

The new hash based value which is calculated while the file uploads into the database is calculated and it will store in a table in our database and the file will directly upload into the cloud storage.

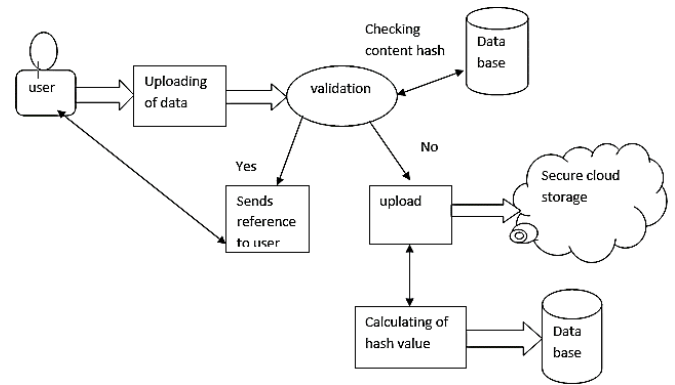


Figure 1: Architecture of Proposed system

IV. RELATED WORK

Installing Dropbox (storage cloud) and Create an account in Dropbox (storage cloud) Login to that account and make an App in dropbox API. it will give one App key, Secret key and Token to permit into dropbox without the entrance of dropbox account.

From that point we are utilizing these App Key, Secret Key, and Token those are permitting client to do all operations from front end like upload, delete, download and view operations.

We made front end by utilizing HTML and CSS and associations through PHP. By utilizing wamp server we are running our PHP scripts and made one database to store values in the table.

Running our **wamp server** in any web program that feels comfort for us and attempting to run our primary application in web server it results to home page where we can upload, view and so on., when we are transferring a record which contains a few information to the cloud, it will check the hash value and checks whether the hash value of this document were at that point show in information base or not.

If the hash value is as of now present in the database then the document would not be transferred and make an impression on the client the record is as of now existed and if the hash value was not found in database then the document is transferred into the cloud, then the client gets the notice that the document is transferred to the cloud and the hash value is put away in database.

Now the user will get access to the file and make usage of data that is present in the cloud storage server

V. RESULTS

The following snapshots will contain the brief description of a project i.e., from where we have to start how to start our project it will contain Home page, Upload page, View page and About Section in our Snapshots



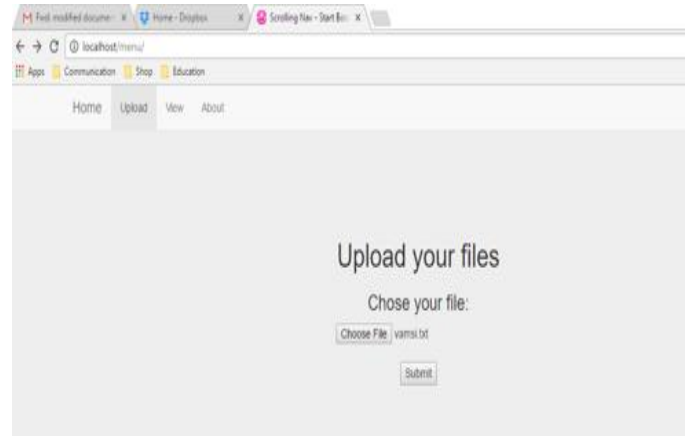
Dropbox is a technology company that builds simple, powerful products for people and businesses.

3,300,000,000 sharing connections have been created with Dropbox.

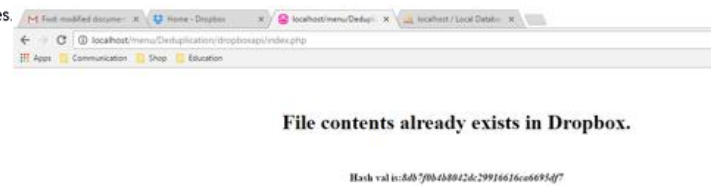
1,000,000,000 files are saved on Dropbox every day.

Click Me to Scroll Down!

Output 1: Home Page

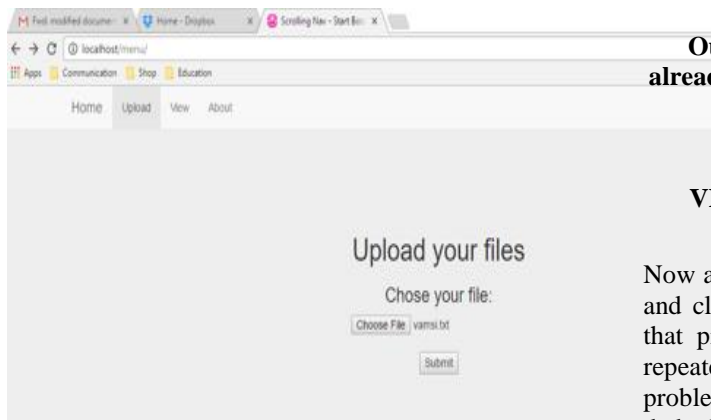


Output 4: Now again trying upload same file which is already present



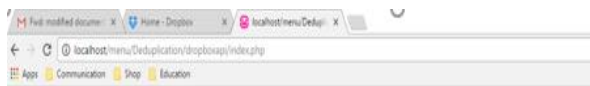
File contents already exists in Dropbox.

Hash val is:8db7f0b4b8042dc29916616ca6695df7



Output 2: Uploading File

Output 5: Displays a message file contents already exist in Dropbox that means we achieved de-duplication



File is uploaded into Dropbox.

Hash val is:8db7f0b4b8042dc29916616ca6695df7

Output 3: The file is uploaded into dropbox and hash value for the content of the file

VI. CONCLUSION AND FUTURE WORK

Now a days usage of cloud is increasing day by day and cloud becomes more precious to store data. In that precious memory we are uploading our files repeatedly by our mistake, by that deduplication problem occurs for that we are achieving deduplication in our project by using hash value of the file content. If the file content once uploaded it will not be uploaded again and again.

In our project we uploaded multimedia files also. While uploading .3gp file it will take much time to upload into dropbox and file content with more than 10mb of size it will not be uploaded into dropbox.

A Limitation to our venture is the substance is hashed in record, if the document substance is 100% equivalent to another record content then just it won't permit to transfer document. For that, the future work is evading tab spaces and the substance which is close equivalent to the substance display in the other which is attempting to transfer.

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Control Cloud Data Access Privilege And Anonymity With Fully Anonymous Attribute Based Encryption

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Abstract— Cloud computing is a radically new enlisting perspective, which engages versatile, on-demand, and simplicity usage of figuring resources, however the data is passed on to some cloud servers, and diverse security concerns ascend out of it. Distinctive configurations in light of the quality based encryption have been proposed to secure the disseminated storage. In any case, most work focuses on the information substance protection and the get to control, while less consideration is paid to the benefit control and the personality security. In this paper, a semianonymous advantage control plot AnonyControl to address the data security, and the customer identity assurance in current get the opportunity to control arranges. AnonyControl decentralizes the central master to restrict the identity root and consequently fulfills semi mystery. Furthermore, it in like manner totals up the report get the chance to control to the event control, which regale of all operations on the cloud data can be administered in a limited sorted out way. We present the AnonyControl-F, which totally keeps the identity spillage and fulfill the full mystery. Our security presentation exhibits that both AnonyControl and AnonyControl-F are secure under the Diffie Hellman assumption, and our execution estimation demonstrates the feasibility of our arrangements.

Key words—Cloud computing, Anonycontrol, Access control, Privilege control, Semi anonymity, fully anonymity.

I. INTRODUCTION

Cloud computing is a whole figuring methodology, by which handling resources are given effectively through Internet and the information stockpiling is outsourced to some individual or some social occasion in a 'cloud'. It significantly pulls in consideration and enthusiasm from both scholarly community and industry because of the benefit making,

however it additionally has no less than three difficulties that must be dealt with some time recently going to our existence to the best of our insight. Most importantly, information

secrecy to be ensured. The information separation is not just about the information substance. Since the most appealing some portion of the distributed computing is the outsourcing of calculation, it is a long way sufficiently past to simply direct a get to control. More probable, customers need to control the benefit of data control over various customers or cloud servers. [1] [2] This is in light of the way that when touchy data or estimation is outsourced to the cloud servers or client, which is out of clients' control an extraordinary piece of the time, security perils would bring ceaselessly up in light of the way that the servers may unlawfully survey customers' data and get to fragile information, or diverse customers may have the ability to prompt careful information from the outsourced computation. Hence, the entrance as well as the operation ought to be overseen. Besides, individual data (characterized by every client's properties set) is at hazard since client's personality is validated in light of his data with the end goal of get to control. As everybody is winding up plainly more worried about their character security nowadays, the identity security also should be guaranteed before the cloud enters our life. In a perfect world, any master or server alone should not know any client's near and dear data. To wrap things up, the disseminated figuring system should be flexible by virtue of security break in which half bit of the structure is exchanged off by attackers.[1]

II. EXISTING SYSTEM

Different systems have been proposed to secure the information substance security by means of get to control. Identity based encryption was initially presented by Shamir [1], in which the message of a sender can indicate a personality such that lone a recipient with coordinating personality can decode it. Couple of years after, fuzzy Identity-Based Encryption [2] is proposed, which is also called as Attribute-Based Encryption. They are partners to each other in the sense that the choice of encryption arrangement is made by various parties is seen as an arrangement of engaging qualities, and unscrambling is conceivable if a decrypter's character has a few covers with the one indicated in the ciphertext. Before long, more broad tree-based ABE plans, key-policy attribute-based encryption[3] and ciphertext-Policy attribute-based encryption [4]. They are partners to each other

in the sense that the choice of encryption approach is made by various parties.

In the Key Policy Attribute Based Encryption [3], a ciphertext is related with a set of properties, and a private key is related with a monotonic get to structure like a tree, which portrays this client's personality. A client can unscramble the ciphertext if and just if the get to tree in his private key is fulfilled by the characteristics in the ciphertext. Be that as it may, the encryption strategy is portrayed in the keys, so the encrypter does not have whole control over the encryption strategy. He needs to trust that the key generators issue keys with right structures to right clients. Moreover, when a re-encryption happens, the greater part of the clients in a similar framework must have their private keys re-issued to access the re-encoded documents, and this procedure causes impressive issues in execution. Then again, those issues and overhead are altogether comprehended in the Cipher text policy Attribute Based Encryption [4]. In the figure content property based encryption, ciphertexts are made with a get the chance to structure, which decides the encryption system, and private keys are made by clients' properties. A client can translate the ciphertext if and just if his properties in the private key fulfill the find the opportunity to tree showed in the ciphertext. Along these lines, the encrypter holds a definitive ace about the encryption arrange. In like way, the beginning at now issued private keys will never be adjusted unless the entire framework reboots. Unlike the data arrangement, less effort is paid to guarantee customers' character insurance in the midst of those instinctive traditions. Customers' characters, which are portrayed with their attributes, are all things considered disclosed to key underwriters, and the benefactors issue private keys as showed by their qualities. In any case, it gives off an impression of being consistent that customers will keep their characters riddle while regardless they get their private keys. Accordingly, we propose AnonyControl-F to allow cloud servers to control customers' get to benefits without knowing their identity data. Their principle benefits are:

- 1) The proposed courses of action can ensure client's security against each single ace. Halfway data is uncovered in AnonyControl and no data is unveiled in AnonyControl-F.
- 2) We give quick and dirty examination on security and execution to show probability of the arrangement AnonyControl and AnonyControl-F.
- 3) We right off the bat execute the certified tool kit of a multiauthority based encryption contrive AnonyControl and AnonyControl-F.

III. IMPLEMENTATION

Execution is the status of the wander when the theoretical arrangement is changed out into a working system. In this way it can be expected to be the most fundamental stage in fulfilling a productive new structure and in giving the customer, affirmation that the new system will work and be convincing. [4] The use sort out incorporates correct planning, analysis of the present structure and it's restrictions on

execution, sketching out of procedures to finish changeover and estimation of changeover methodologies. [10]

MODULE DESCRIPTION:

In our system having the following modules:

1. Attribute Authorities
2. Data Consumers
3. Data Owners
4. Cloud Server

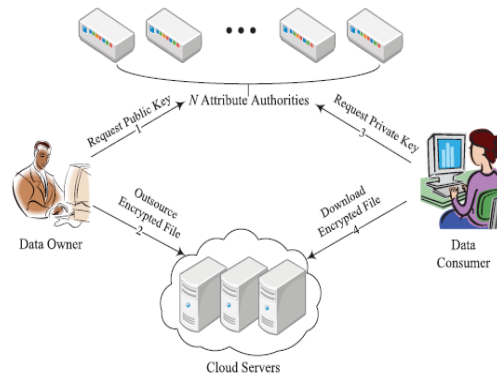


Fig: 1 Architectural Flow Diagram

1. Attribute Authorities:

Every AttributeAuthority is a self-sufficient trademark master that is accountable for entitling and renouncing customer's credits according to their part or identity in its territory. In our arrangement, every characteristic is connected with a single Attribute Authority, however every AttributeAuthority can manage a subjective number of characteristics. Every AttributeAuthority has full control over the structure and semantics of its qualities. Each AttributeAuthority is responsible for making an open quality key for every trademark it administers and a puzzle key for each customer reflecting his/her properties.

2. Data Consumers:

Every client has a worldwide character in the framework. A client might be entitled an arrangement of characteristics which may originate from various property specialists. The client will get a mystery key related with its qualities entitled by the comparing property specialists.

3. Data Owners:

Every proprietor first partitions the information into a few segments as indicated by the rationale granularities and encodes every information segment with various substance keys by utilizing symmetric encryption systems. At that point, the proprietor characterizes the get to approaches over

properties from numerous property experts and scrambles the substance keys under the strategies.

4. Cloud Server:

At that point, the proprietor sends the scrambled information to the cloud server together with the figure writings. They don't depend on the server to do information get to control. Be that as it may, the get to control occurs inside the cryptography. That is just when the client's qualities fulfill the get to strategy characterized in the figure message; the client can decode the ciphertext. Along these lines, clients with various characteristics can decode diverse number of substance keys and in this way get distinctive granularities of data from similar information.

IV. FULLY ANONYMITY

We have expected semi-fair experts in AnonyControl what's more, we expected they won't conspire with each other. This is an essential supposition in AnonyControl in light of the fact that each specialist is responsible for a subset of the entire properties set, what's more, for the characteristics that it is accountable for, it shows the correct data of the key requester. On the off chance that the data from all experts is assembled inside and out, the entire trait set of the key requester is recouped and hence his/her character is revealed to the experts. In this way, AnonyControl is semianonymous then incomplete character data is unveiled to every expert, except we can accomplish a full-obscure and furthermore permit the arrangement of the experts.

The key purpose of the personality data spillage we had in our past plan and in addition each current quality based encryption plans is that key generator issues quality key in light of the revealed characteristic, and the generator needs to know the client's credit to do as such. We have to acquaint another strategy with then the key generators issue the right property key without knowing what properties the clients have.

Algorithm 1: one-Out-of-two Oblivious Transfer

1: In cryptography, an absent transform convention is a sort of convention

2: In which a sender exchanges one of many snippets of data to receiver.

3: But sender remains oblivious as what snippet of data has been exchange to collector.

Algorithm 2: one-Out-of-many Oblivious Transfer

1: In our key generation algorithm, the key-requester accomplishes the right private key that he needs.

2: But the quality expert does not have any valuable data about what property is accomplished by requester.

3: The key requester accomplishes the full namelessness and regardless of what number of ascribe specialists come to mystery understanding his personality data is kept mystery.

V METHODOLOGY

Step 1: In this project we are not only providing data content privacy, we are also providing identity privacy by using anonycontrol. AnonyControl decentralizes the focal specialist to constrain the character starting point and subsequently accomplishes semianonymity. Subsequently, we introduce the AnonyControl-F, which completely keeps the personality spillage and accomplish the full obscurity.

Step 2: In our framework we utilize Attribute Encryption Standard (AES) calculation. This calculation is utilized to secure characterized data and is utilized by the aggregate world to scramble and decode delicate data. AES comprises of three piece figures. AES-128, AES-192, AES-256 and this each figure utilizes 128 bits of pieces utilizing cryptographic keys 128, 192 and 256 bits to scramble and decode sensitive information. So the figures utilizes same mystery key for encoding and decoding. There are distinctive rounds for keys. Each round comprises of various strides incorporate substitution, transposition and blending of plain content. At long last the plain content is changed into figure content.

Step 3: In our system, there are four types of systems: A client can be a Data Owner and Data Consumer simultaneously. Data proprietor scramble and transfers the records into the cloud server. Information buyer decodes and downloads the documents from the cloud server.

Step 4: To access and perform any operations on files the data owner and data consumer should first register in to the system. When they registered at a time password and unique id will send to their registered mail id.

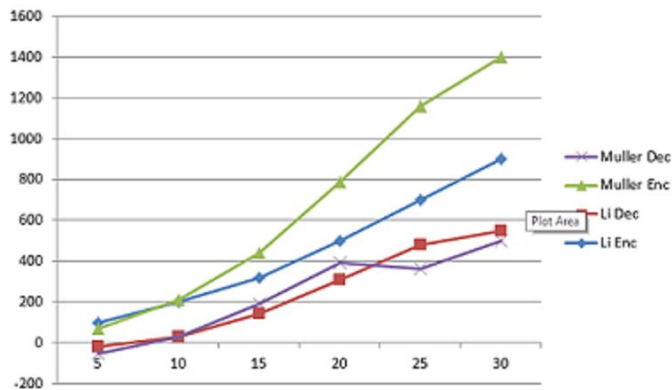
Step 5: To upload and download files by the user. The user may be a data owner and data consumer request the authority for permission. The authority provides public key to data owner and private key to consumer. Issuing keys by authority and authentication in our system is succeeding using attribute based encryption. [1] [5]

Step 6: Attribute based encryption is a sort of open key encryption in the unscrambling of a figure content is possible just if the arrangement of traits of the client key matches the qualities of the figure content. A basic security part of Attribute-Based Encryption is plot resistance. An enemy that holds various keys have the capacity to get to information if no less than one individual key get to.

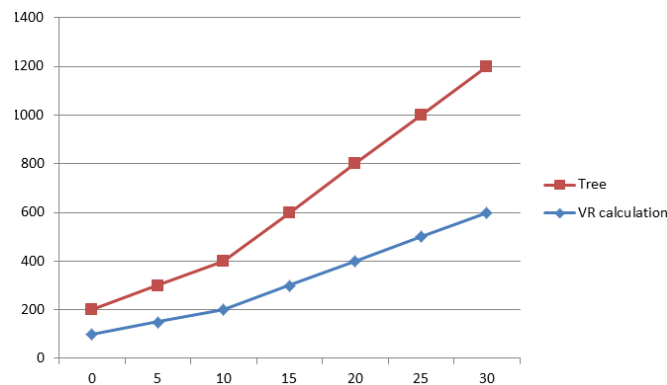
Step 7: Using the keys provided by authority the users (data owner and data consumer) access the files in to and from the cloud server.

VI. PERFORMANCE EVALUATION

We present the execution in light of our estimation on the completed model plan of AnonyControl-F. To the best of our understanding, this is the main execution of a multi-authority attribute based encryption plot.



(a) scrambling and unscrambling time with various traits number. Document size is 100KB



(b) To make time a benefit tree and decode a check parameter from it.

At the point when all is said in done, the estimation overhead of Li [13] is substantially higher than others in light of the fact that their arrangement incorporates various more exponentiations and bilinear mappings because of the obligation. The scrubling under different record sizes did not match demonstrate huge complexities when archive sizes are broad (greater than or equal to 20MB), Finally, simply our run times are plotted in Fig. (b) in light of the way that the advantage creation is the stand-out system in our arrangement.

VII. CONCLUSION

This paper presents a semi-mysterious trait based benefit control plot AnonyControl and a fullyanonymous characteristic based benefit control plot AnonyControl-F to shows the client protection issue in a cloud storage server. By using the different specialists in the disseminated registering system, our proposed plans achieve fine-grained advantage control and in addition character mystery while controlling advantage control in perspective of customers' identity information. More altogether, our system can recognize up to N=2 master deal. We similarly facilitate clear security and execution examination which shows that AnonyControl both compelling and secure for conveyed stockpiling structure. The AnonyControl-F particularly gets the security of the AnonyControl and along these lines is similarly secure as it. One of the best in class future works is to introduce the benefits to the customer framework on top of our Attribute Based Encryption. Supporting customer denial is an indispensable issue in the honest to goodness application, and this is an exceptional test in the use of ABE arrangements. [11] making our plans versatile with existing ABE plans bolster productive client repudiation is one of our future works.

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Developing A Cross Platform E-Business Website Design Comprising Data Visualization

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Abstract:

We demonstrate that the web based business region can give all the correct added substance to effective information mining. We describe a coordinated development for supporting this blend. The design can perilously lessen the pre-handling, cleaning, and information chivalrous exertion regularly detail to take 80% of the time in learning examination ventures. We state the requirement for information amassing at the application resulting layer (not the web server) keeping in mind the end goal to base logging of information and metadata that is critical to the disclosure procedure. We portray the information change spans required from the activity handling frameworks and client occasion current (e.g., click streams) to the information distribution center. We detail the boring workbench, which needs to give various perspectives of the information through scope, information mining calculations, choice, and OLAP. We close with an arrangement of difficulties.

1. Introduction:

In adjusting Web Achievement [2], the creators guarantee that "Pioneers will utilize sonnet to fuel personalization" and that "organizations require web readiness, not log investigation." Information mining devices help the divulgence of examples in data and Web based business is the executioner circle for information mining. It is perfect on the grounds that a significant number of the component required for gainful information mining are easily cheerful: information records are liberal, electronic assemblage gives solid information, judgment can without much of a stretch be transformed energetically, and profit

for commitment can be reliable. To truly take predominance of this space, be that as it may, information mining must be bound together into the web based business frameworks with the relevant information change spans from the action preparing framework to the information store and the other way around. Such joining can extraordinarily decrease the information plan time, known to set aside around 80% of the opportunity to whole an investigation [3]. A coordinated arrangement can likewise manage clients with a uniform client admix and consistent access to metadata.

2. Coordinated development:

In this segment we give an abnormal state investigation of a proposed getting ready for a web based business framework with bound together information mining. specifics of the most basic parts of the development and their strength show up in taking after segments. The portray framework is a perfect building in view of our experience at Blue Martini Programming. In our planned design there are three principle fixing, Business Information clarification, Client Association, and Examination. partner these element are three information expulsion spans, Organize Information, Fabricate Information Stockroom, and extend Results. The correspondence between the fixing and the information exchange stage is delineated in Figure 1. Next we describe each creating in the design and afterward the stage that associate these element. In the Business Information Definition essential, the web based business client characterizes the information and metadata join with their business. This information incorporates publicize data (e.g., items, combinations, and value

records), content guidance (e.g., website page layouts, email courses of action for battles, articles, pictures, and multimedia) and business rules (e.g., customized content principles, advancement standards, and tenets for strategically pitches and upsells). From an information mining viewpoint the way to the Business Information clarification segment is the capacity to characterize a rich arrangement of perspective (metadata) for an information. For instance, items can have quality like size, shading, and focused on age aggregate, and can be sort out in a chain of command speaking to division like men's and women's, and subcategories like shoes and shirts. As another case, site page game plan can have traits exhibit whether they demonstrate items, query items, or are utilized as a component of the checkout procedure. Having a disparate set of accessible perspective is vital for information mining, as well as for realize the client encounter. The Client correspondence segment gives the consolidate amongst clients and the internet business. conceding we utilize the case of a site everywhere on this paper, the term customer communication applies all the more ordinarily to any kind of association with customer. This association could happen finish a site (e.g., an advertising webpage or a web store), email promoting drive, client help (by means of communication or email), remote application, or a blocks and-weapons purpose of offer framework.

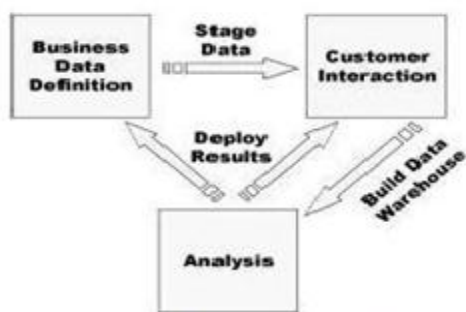


Figure 1: Proposed High-Level System Architecture

For viable investigation of these information specialist, an information authority should be an incorporated some portion of the Client Association forming.

To give most extreme utility, the information delegate ought log deal action, as well as log different sorts of client movement, for example, website page sees for a site, breachst of messages

conveyed as a feature of a battle, and so on. Additionally points of interest of the data compilation engineering for the unmistakable instance of a site are describe in Segment 3. To outline the utility of this brought together information accumulation let us consider the case of a web based business organization computing the adequacy of its web standard show on different destinations equipped at drawing in clients to its own particular website. A comparable examination can be connected when measuring the capability of publicizing or distinctive accumulations all alone site. The cost of a web pennant declaration is regularly in light of the measurement of "snap trough's." That is, there is an expense paid for every guest who hit into the flag business. Numerous online business organizations amount the adequacy of their web pennant commercials utilizing a similar metric, the quantity of click throughs, and along these lines neglect to consider the deals realize by each alluded guest. On the off chance that the objective is to offer greater item then the site needs to draw in purchasers instead of door. A Forrester examination report [2] expressed "Utilizing hits and site visits to expert webpage achievement resembles assessing a melodic accomplishments by its volume." We have seen the proportion of accomplish deals to click throughs change by as much as a conditions of 20 over an organization's web excellent notices. One commercial accomplish five fold the amount of in deals as another declaration, despite the fact that navigate from the previous show were one fourth of the snap streams from the last mentioned. The capacity to recompenses this kind of relationship requires combination of various information sources. The Investigation part gives a bound together condition to choice bolster fitting information changes, announcing, information mining calculations, perception, and OLAP devices.

The wealth of the accessible metadata gives the hunt part noteworthy strength over even sentiments bolster instruments, in both influence and usability. For example, the framework normally knows the kind of every angle, including whether a separated characteristic's qualities are organized, regardless of whether the scope of a broadened viewpoint is limited, and printed proclamation. For a site, the framework realizes that every client has web discussion and that each web session join site hits and

requests. This cause it a basic matter to process amassed insights for arrangement of clients, term, site visits, and requests consequently. We review the incorporated examination essential in more detail in Segment 4. The Stage Information connect relate the Business Information clarification part to the Client cooperative energy segment. This extension migration (or stages) the information and metadata into the Client Connection fundamental. Having an organizing procedure has a few comfort, including the capacity to test changes before having them accomplish underway, taking into account improvement in the information organizations and impression between the two segments for execution, and empowering online business organizations to have zero break. The Manufacture Information Distribution center scaffold connects the Client collaboration part with the Investigation making. This extension exchanges the information had inside the Client correspondence creating to the Investigation part and assembles an information distribution center for examination desire. The Manufacture Information Distribution center stage likewise exchanges the greater part of the business information describe inside the Business Information Definition segment (which was exchanged to the Client participation segment utilizing the Stage Information connect). The information gathered in the Client Cooperation segment is generally accomplish inside an On-Line movement Handling (OLTP) framework, commonly organize utilizing element connection base methods. OLTP frameworks are arrange towards productive treatment of a substantial number of little modernize and short questions. This is requesting for maintaining a web based business, yet is not advantageous for investigation [4, 5], which reliably requires full sweeps of a few expansive smorgasbord and a star construction outline which business clients can acknowledge. For information mining, we have to fabricate an information distribution center utilizing spatial demonstrating limit. Both the information distribution center outline and the information expelling from the OLTP framework to the information stockroom framework are exceptionally convoluted and tedious errands. Making the advancement of the information distribution center a fundamental piece of the design much diminishes the association of these errands. In augmentation to normal ETL (Extricate, Change and

Load) usefulness, the extension backing import and absorption of information from both outside frameworks and joined information suppliers (e.g., Acxiom). Since the graph in the OLTP framework is created by the engineering, we can consequently change over the OLTP construction to a multi-spatial star outline that is progress for examination. The last extension, Send Results, is the way to shutting the circle and making point by point comes about noteworthy. It suspect the capacity to exchange models (e.g., affiliation rules or communitarian sifting), scores or expect values (e.g., characterization or returning outcomes), and new qualities developed utilizing information transformation (e.g., lifetime esteem) once again into the Business Information Definition and Client collaboration segments for use in business rules for understanding.

3. Implementation: -

Information Gathering This segment describe the information accumulation part of the normal design. This fundamental logs clients' exchanges (e.g., buys and returns) and occasion stream (e.g., clickstreams). While the information accumulation vital is a piece of each client touch point (e.g., site, client benefit applications, and remote applications), in this segment we will interpret in detail the information gathering at the site. The vast majority of the ideas and strategies indicated in this segment could be effectively extensive to other client touch focuses.

Effective Sampling Techniques

One of the difficulties in gathering click stream and business occasions is the volume of information accomplish. It is not extraordinary for a site to have a huge number of page demands a day. Add to this the information had for particular occasions to trackconduct and the effectiveness of personalization and the measure of this information can without much of a stretch develop into horde of a huge number of records. Gathering this information might be ludicrous both from a capacity setting and the effect this may have on the lead of the site. One answer for this issue is to test the information at the purpose of gathering, and just gather a cluster of the information. Clear percent based inspect of solicitations be that as it may, has tragic ramifications, as this outcomes in the announcing of

inadequate sessions. Notwithstanding testing at the session level is not prescribed since this may bring about just a proportion of a client's sessions being recorded. This stay away from the following and investigation of rehash guests and their conduct in addition to other things. Our development underpins the inspecting of this information at the treat level.

4. Analysis:

This area characterize the examination segment of our engineering. We begin with a meeting of information changes, trailed by request methods including revealing, information tapping calculations, choice, and OLAP. The information distribution center is the expert information of examinations in our development. Albeit dimensional make is generally an essential for examination, our enterprise demonstrates that many thinking require included information changes that change over the information into structures more receptive to information mining. Reporting, Algorithms, and Visualization Models can be utilized for business understanding, producing scores and expectations (to be later utilized as a part of personalization) or can be specifically sent to the Client Cooperation segment to shape the premise of a constant personalization or suggestion motor. In light of our experience, notwithstanding mechanized information mining systems, it is important to give intuitive model adjustment apparatuses to bolster business knowledge. Models either consequently produced or made by intuitive adjustments can then be analyzed or calculate on test information. The reason for existing is to give business clients a chance to acknowledge their models before extend them. For instance, we have found that for administer picture measured, for example, confirmations, lift, and support at the specific run level and the individual acknowledged level are extremely helpful expansion to the general assurance of the model. Given that people are great at break down examples from pictured information, representation and OLAP apparatuses can enormously assist business clients with gaining understanding into business issues by supplementing revealing devices and information mining calculations.

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Encryption And Decryption – Data Security For Cloud Computing – Using Aes Algorithm

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ABSTRACT---Singular client and associations advantage from cloud computing services, which permit changeless online stockpiling of records. So we are likely to provide security and individual protection. It is exceptionally clear that cloud computing servers are profoundly secured against unapproved get to, however at some times these documents put away can be available by the support staffs. This paper proposes a framework that will utilize Advanced Encryption Standard (AES) encryption prepare utilizing USB gadget. The records might be gotten to in the cloud yet every one of the documents will remain scrambled till the USB gadget is connected to the PC. The purpose of applying such technique is to completely secure the records and abstain from utilizing one single secret code. The arbitrarily created secret keys are exceptionally unpredictable mixes along these lines client won't have the capacity to completely retain them. The proposed framework will recognize the USB that contains the private-key utilized for the records to be downloaded from the cloud..

Keywords---cloud computing security; USB; AES; Encryption; decryption; cloud sever.

1. INTRODUCTION

In the current years of Internet registering, the rising notoriety of cloud computing have pulled in a substantial sum of Internet clients. Cloud computing are characterized as a types for empowering[1] helpful, on-request organize get to a shared lot of configurable and solid figuring assets, alluded as ongoing system with an expansive number of associated gadgets. The associated gadgets might be PC, advanced mobile phones or tablets. Essentially, any gadget that has a legitimate Macintosh address of coordinated system connector is incorporated. The distributed computing is about sharing of assets among clients progressively. Constant alludes to the sharing of information to be unmistakable in a flash to different clients who has the verification to see it. One of the fundamental focal points of distributed computing is that it conveys applications and storage rooms as administrations over the Web for next to zero cost[6]. Clients have full get

to and control to their applications and information from anyplace at any time through web association.

The entrance of their records is not constrained to one PC, but rather different PCs can get to similar information, which permits clients to be unconfined to a solitary PC. Another essential favorable position is that distributed computing amazingly lets down the equipment cost of machines. Clients are not required to utilize any top of the line machines in light of the fact that the applications will be facilitated in the cloud and the PC will just show the consequences of what their applications are planned to produce. Other than all these, distributed computing has important variables, for example, organization, adaptability and radically lessened equipment and programming costs. The greater part of the components gives to a great degree appealing answers for individual clients and little or huge business holders. This proposed framework expects to fill this hole by giving a propelled level of record insurance. RSA is known to be the most grounded openly accessible encryption strategy. This calculation works with both private key and open key. The just method for decoding the documents which are encoded with people in general key is to utilize the private key. Clients' record will be encoded just before the transfer procedure to the cloud Server. Just the encoded record will be transferred to the Server. At that point, the private key to decode the record will be put away in the connected to a removable gadget[1]. A removable gadget must be available at the season of transferring procedure. Whenever the client asks for back the document from the cloud servers to his or her PC, the removable gadget must be connected to as well. The scrambled record is downloaded from the cloud Server and afterward consequently decoded by the private key which exists in the removable gadget. On the off chance that where clients do lose the removable gadget, a reinforcement include must be accessible. On the off chance that the client loses the removable gadget without having reinforcement, lamentably, the records won't have the capacity to be changed over to their unique shapes [7].

Security issues- Information security is one of the security issues in cloud Processing[8], It is favorable to any development, still it transforms into an important test when Software as an organization (SaaS) users need to rely on upon their providers for likely[3-5]security. In other words, the fundamental issue in cloud computing is the security spills, which forestall individuals to completely receive the cloud frameworks. Since every one of the records are put

away in the cloud servers and available at all circumstances, programmers have full time of working hours for splitting the document security dividers, for example, encryption what's more, verification. Taking after are the security issues in cloud specialist co-ops, which have been recorded and are specifically identified with document stockpiling. cloud computing is about systems administration which has genuine time correspondence direct with customers so as to send also, get information bundles. Be that as it may, these information bundles can be followed effortlessly on the grounds that the web is utilized for correspondence and it is powerless against assaults whenever. In this manner, the distributed computing specialist co-ops must ensure that the records, or the information document lump, are appropriately secured for full assurance Mists store colossal measure of information from their clients. A portion of the put away information may be critical for a few gatherings[9]. Mists store colossal measure of information from their clients. A portion of the put away information may be critical for a few gatherings. The end target kept in mind to manufacture user trust, cloud administrations must be exceptionally all around incorporated with information encryption and unscrambling. In all known cloud administrations, information are encoded and stored in the cloud servers. At the point when the client solicitations to see the information, the unscrambling key is connected to decode the information and afterward saw by the clients. Such document encryption and unscrambling is connected keeping in mind the end goal to secure unapproved access of clients into cloud servers. Another security calculates distributed computing is the openness restrictions of clients over other clients records and archives. A client is confirmed in the server when the remedy login qualifications are given. In any case, clients are not allowed to get to private documents or non-open records transferred by different clients. Clients ought to be clear of who has organization rights in the cloud specialist co-ops for information administration purposes in light of the fact that these individuals has the expert of getting to information put away in the mists[9].

2.RELATED WORK

There are numerous encryption calculations proposed since the accessibility of prior PC correspondences. Encryption calculations are ordinarily ordered diversely as per their working standards. The most widely recognized encryption calculations utilized is, for example, AES, WPA, RSA, Two fish what's more, DES[2].RSA uses public key for Encrypting the data[10].In existing framework encryption calculations are executed for getting to information utilizing one single secret key. Information security is one of the security issues in distributed computing. It is unfavorable toward any development, till it transforms into an essential test when Software as an organization (SaaS) customers need to rely on upon their providers for likely security. As it were, the principle issue in distributed computing is the security spills, which avert individuals to completely embrace the cloud

frameworks. Since every one of the records are put away in the cloud servers and open at all circumstances, programmers have full time of working hours for splitting the document security dividers, for example, encryption and validation.Using one single password with few number of characters can easily attacked by unauthorized persons.

Encryption and Decryption- As per, encryption is the change of any sort of information into a frame that is not reasonable. Decoding is the resistance of the encryption which changes over encoded information into justifiable frame. Encryption is generally utilized by governments and armed force related establishments which convey an abnormal state of private data. Keeping in mind the end goal to decode the encryption, a key which is frequently called decoding key is required for switch operations. Without a right encrypted key, a message may not be download. In such conditions, decoding must be extricated from the encryption designs be that as it may, lost the decrypted key for the most part result in loss of decoded message. In this way, an unscrambling key must be secured and ensured legitimately. The more convoluted the encryption calculation, the more troublesome it progresses toward becoming to break the figure for getting to the message without approval. There are numerous encryption calculations proposed since the accessibility of prior PC interchanges. Encryption calculations are ordinarily arranged contrastingly as indicated by their working standards. The most widely recognized encryption calculations utilized is, for example, AES, WPA, RSA, Two fish

what's more, DES. RSA calculation is in the classification of open key based on cryptography usage. The RSA calculation is in view of the scientific comparable, which is designed by the English mathematician Clifford Cocks. This proportionate is about calculating the expansive whole numbers and after that returning them back to their unique qualities with invert steps. This is called prime factorization of the chose prime numbers. The thought behind the RSA calculation is that, the information is encoded with a condition. This condition yields a number which is then utilized for the invert procedure. In the RSA, there are two numbers known are people in general key and private key. People in general key is open for circulation to any individual as it would have no effect of the scrambled information security. The private key is the one that conveys the high danger of information bargain if there should arise an occurrence of a misfortune.The expressions "cloud computing" and "working in the cloud" allude to performing PC assignments utilizing administrations conveyed totally over the Internet. cloud computing is a developed many days ago from using fields eagerly wait to tell on individual's systems for the necessities presently available on the net. More institutes and companies are gathering companies information from the cloud. Some remarkable situations started at 2010 in corporate to go somewhere with companion:

Google uses private cloud which uses for transporting various organizations to their users, this include of getting email to, hide implementation, map routes,

online examination, and a great deals so many of it. Microsoft- has Microsoft Share point web used companies that taking them to includes circle and business knowledge devices to make a move to cloud and this Microsoft as of now made their required works access through cloud. Salesforce.com- running their works for their users in cloud computing, and also theirs Force.com along with Vmforce.com things furnish people from level to manufacture modified cloud organizations. The segments getting to the companion scan cloud with cloud computing parts, models, sending design, favors, and disadvantages. Qualities that computing have an assortment of richness, with the fundamental ones being:

cloud Infrastructure- Uses a imaginative programs for system applications to increase the distributing of physical organizations, stockpiling, and also computers capability. This cloud organization, pays for arrangement demonstrates waiting for capitalize on accessing of framework among the different users.

Dynamic Provision- Allows to arrange the administrations regarding to present request required. All these completed easily using programming computerizing techniques, raising the increment and constriction of administration ability that needs. This dynamic increment should done during putting with more percent of dependence and secureness.

Network Access- Needs that they cross over the network from a wide range of gadgets, like personal systems, laptops, mobiles, uses measures from API. Arranging companies in cloud storage incorporate every necessity from uses business works to recently applied on new mobiles.

Managing Meters- Uses meters for overseeing along with improvinginstitute to presenting detailing and also charging information. Include with this, purchasers paying for companies where indicated the cost usually it needs for their work.

3. PROPOSED SYSTEM

In this, we are using RSA and AES encryption process using USB device with using randomly generated passkeys are very complex combinations.

The records might be gotten to in the cloud yet every one of the documents will remain scrambled till the USB gadget is connected to the PC. The purpose of applying such technique is to completely secure the records and abstain from utilizing one single secret code. The arbitrarily created secret keys are exceptionally unpredictable mixes along these lines client won't have the capacity to completely retain them. The proposed framework will recognize the USB that contains the private-key utilized for the records to be downloaded from the cloud.

When data provider uploads a data, it necessary to connect USB gadget so that person will be authorized and data successfully upload to cloud. If incase the USB gadget is unavailable then the person cannot upload the data and similarly can't download the data.

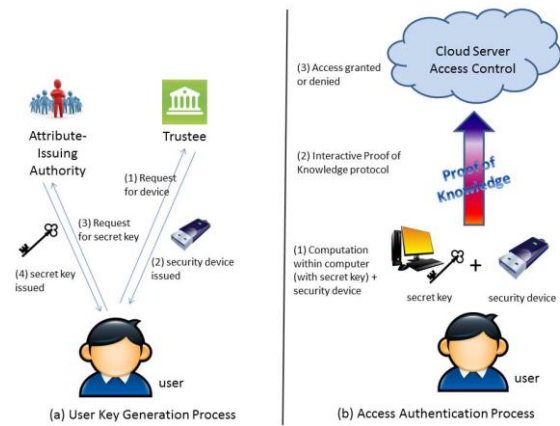


Fig 1: System Architecture

This provides security to the person to protect their information from others. If user needs to download any file they need to request that particular file, then this request will pass to auditor then automatically user get an secret key to their mail and during download verification will be required. The secret code sent to their mail will be given in the verification part, then the file will downloaded.

Advantages: The passkeys are very complex thus user will not be able to fully memorize them.

The point of applying such method is to fully protect the files by hiding USB gadget from others.

Algorithm

```

Cipher(byte inner[16], byte outer[16],
key_arrayroundkey[Nr+1])
begin
byte x[16];
state = inner;
AddRoundKey(x, roundkey[0]);
for i = 1 to Nr-1 stepsize 1 do SubBytes(x);
ShiftRows(x);
MixColumns(x);
AddRoundKey(x, round_key[i]);
end for SubBytes(x);
ShiftRows(x);
AddRoundKey(x, round_key[Nr]);
End
    
```

4. EXPERIMENTAL RESULT

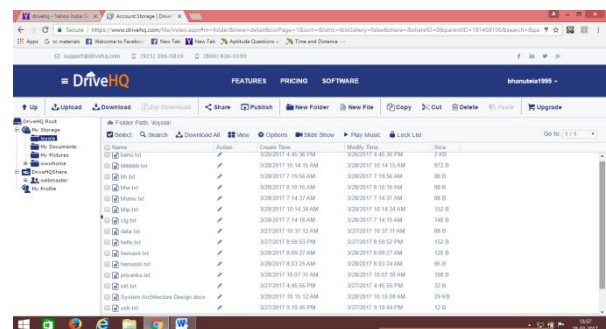


Fig 2: cloud server Account

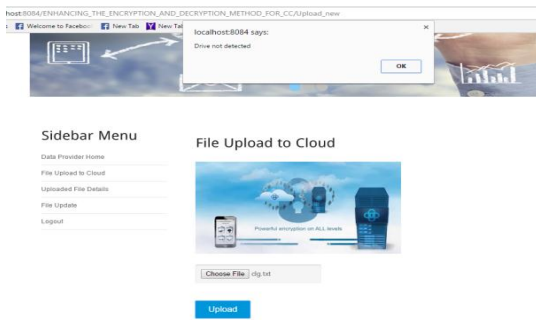


Fig 3: Drivers Detection

This picture shows that all the files upload are converted into encrypted format and stored in the cloud, here we are using the public cloud DriveHQ which contains all the uploaded files in it.

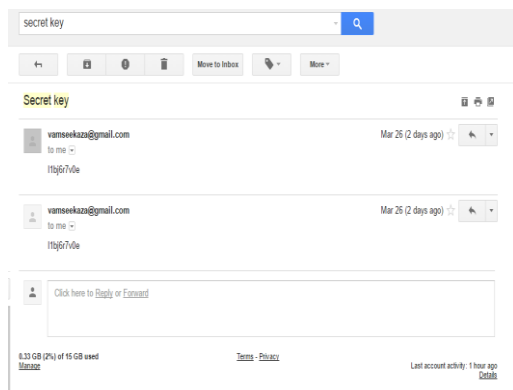


Fig 4: send key to mail

This picture shows that the secret keys are sent to mail when the user sends a request to download a particular file. After getting key to mail this key will be given in the verification step, so that file will be downloaded.

5. CONCLUSION AND FUTURE WORK

This paper exhibits a proposed framework actualizing the RSA and AES mix encryption handle utilizing USB gadget as a strategy to upload and download information. This paper additionally gives the spine structure to cloud storage frameworks where the security and individual protection is profoundly expanded The framework will identify the USB that

contains the private-key utilized for the documents to be downloaded from the cloud. Present we are working that text files will be upload and download and further we expect that this system will work on any application and all types of data like images, audio and video files are also to be encrypt and decrypted.

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Security Policy Arrangement Of Client Transferred Pictures On Substance Sharing Sites

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Abstract: As there is a huge increase of pictures shared by customer or clients in social districts, security has become an main task, as appeared by a present reports of the published events where customers shared their information. Therefore, clearly is proved that there is requirement of to help users to manage access to their common substance. For this requirement, we propose an Adaptive Privacy Policy Prediction (A3P) structure to help users for providing their own security settings for pictures that are shared by them. Here the social setting, picture substance, and metadata as possible pointers of customers' assurance slants are taken into consideration. We initiate two-tier structure which is demonstrated by the users open history on the site, prefers the best available security system for the users pictures that are being exchanged in substance sharing sites. The system relies on a photo portrayal structure for picture orders which may be connected with similar courses of action, also, on a game plan figure count to thus make a methodology for each as of late exchanged picture, in like manner as showed by customers' social highlights.

Keywords

— Privacy preserving, Policy Prediction, Distributed Data Mining, Security

I. INTRODUCTION

Photos play a strong role in the user's social network. Sharing will be taken place both among the gatherings of known individuals or groups of friends (e. g., Google+, Flickr or Picasa), and furthermore with individuals beyond the client's groups of friends, for motivations behind social revelation to help them distinguish the associates and find about the companion's interests and social environment.

The pictures that are being constantly shared may uncover content sensitive data. By taking an photograph of an student who completed the graduation, that picture of the student could be shared inside a Google+ circle or Flickr bunch, yet may pointlessly reveals the student's relatives and different companions. Sharing pictures on online

substance sharing sites, may rapidly head to an undesirable revelation and security infringement [3]. The persevering way of constant content sharing media makes it useful for different customers to gather rich accumulated data owner of the shared picture on the online media[3]. The totaled data brings out many unforeseen data of one's social information and that information may be misused.

Many substance sharing locales allow customers to enter their insurance slants. Surprisingly, late surveys have shown that customers fight to install and maintain such security settings. One of the standard reasons given is that given the measure of shared information this methodology can be burden and bungle slanted. Therefore, many have perceived the need of course of action recommendation systems which can push customers to successfully and properly outline assurance settings.

Regardless, existing suggestion for motorizing security settings seem to be insufficient to aim the unique security needs of pictures [3], [5], in light of the measure of information unquestionably passed on inside pictures, with their relationship with the on-line condition from where they are revealed.

Examine social setting, for example, one's buddy list. They may or may not be adequate to address objections brought by picture records for which security may change through and through accordingly of social setting and furthermore because of the credible picture content.

II. LITERATURE SURVEY

Lagers Sandro Acquisti Ralph Gross H. John Heinz [1] Online interpersonal organizations, such as, VK.com, or the Facebook have interviewed exponential advancement in participation as of late. These kind of systems present charismatic means for association and coherence, further boost protection and security concerns. They searched for fundamental statistic or behavioral contrasts between the groups of the system's individuals and non-individuals. They dissect the impact of assurance stresses on people's lead; differentiation

people's communicated aims and veritable direct; and they reported the modification in direct resulting to security related information presentation. Security involved individuals join the framework and expose fantastic measures of individual information. Some arrangement with their security stresses by expecting their ability to control the data they give and the foreign access to it. Nevertheless, we also find affirmation of people's confused judgments about the online gathering's bona fide size and structure, and about the detectable quality of people's profiles

Hong-Ming Chen, Ming-Hsiu Chang [2] Online photograph collections have been predominant lately and have brought about an ever increasing number of utilizations created to give advantageous functionalities to photograph sharing. They depicted a system named SheepDog to incorporate photos into fitting social events and recommend proper names for customers on Flickr. They got thought area to predict germane thoughts of a photo and test into the issue about get ready data gathering for thought portrayal. From the perspective of get-together planning data by web chasing, they introduced two instruments and look at their displays of thought recognizable proof. In light of some present information from Flickr, a situating based method is associated with gain tried and true get ready data, and additionally to give sensible social occasion/name proposals for information photos.

Munmun De Choudhury, Hari Sundaram[3] built up a suggestion system to interface picture content with groups in online web-based social networking. It is fundamental because customers are scanning for important contribution on their exchanged substance. Accordingly, in this methodology they depicted pictures through three sorts of segments: visual components, customer made substance marks, and social affiliation. A proposal structure in perspective of taking in an idle space depiction of the social occasions is made to recommend the more than likely totals for a given picture. They demonstrated that melding picture content, content labels with social cooperation highlights beats the instance of just utilizing picture substance or labels.

Dwindle F. Klemperer built up a tag based get to control of information [4] partook in the online networking locales. A system that makes get the opportunity to control techniques from photo organization marks. Each photo is solidified with to a structure for mapping pictures with the part's associates. Therefore, individuals may choose a sensible slant and get to the information. Picture marks or tags can be sorted as various leveled or useful in light of the customer needs. The count has no passageway to the one of a kind circumstance

and importance of names and no comprehension into the methodology the part expected when naming forget the opportunity to control.

Versatile/Adaptive Privacy Policy Prediction (A3P) [5] framework is presented by Anna Cinzia Squicciarini. Altered methodologies can be normally delivered by this structure. It makes use of the exchanged pictures by customers and a different leveled picture gathering is done. Pictures substance and metadata is managed by the A3P structure. It includes two sections: A3P Core and A3P Social. The photo will be first sent to the A3P-focus, when the customer exchanges the photo. When the meta data information is hard to reach it is difficult to create exact insurance approach. This is the obstacle of this structure. Insurance encroachment and furthermore off course portrayal will be the inevitable result of manual making of metadata log information.

Also, Yu et al. [6] proposed a modernized proposition system for a customer's photos to impose proper picture exchanging social events.

III. EXISTING SYSTEM

There are many existing systems which makes the users to select the available choice of preferences, but user has no choice to select the preferences of sharing his image this would lead to the privacy violation of the user. Due to not having the facility of user selecting the required privacies the common privacy preferences will be applied on each image uploaded and it may lead to violation of users privacy which is the main difficulty faced by the client.

IV. PROPOSED SYSTEM

We come up with an Adaptive Privacy Policy Prediction (A3P) system based on the age restriction which give customers a trouble free security settings experience by means of normally making tweaked procedures. The A3P structure handles users transferred pictures, and depends upon the following criteria of the user profiles:

1. The impact of social condition and individual qualities. The settings of the users, their account and the interconnection with peers may give profitable data concerning users slants. Considering an example, users connected by common interest like photography may get an opportunity to contribute their photos to other peers who are photographers.

2. Secondly we consider the content of the picture shared and pictures metadata. Generally the similar photos that are being shared consistently may practically cause identical privacy slants which effect the security of the owner. By considering an

example, one may interchange many photos of his peers and can select people by allowing the selected people to view the images.

A. System Architecture

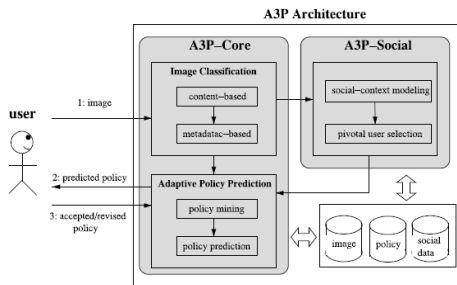


fig:1 System Architecture.

B. Modules of proposed system

1) Content-Based Classification

To obtain pictures that may be interrelated with near privacy slants, We use an levelled image arrangement which bunches photos at first in regard of content and after that each group is done into subcategory based on their picture metadata given by the user. Pictures for which the metadata is not provided will be assembled just by the use of content. That different levelled arrange reflects an importance for the picture substance and reduces the effect of unavailable tags or metadata. It is possible that an couple pictures can be joined into various classes or groups based on the substance parts or metadata of those orders.

2) Metadata-Based Classification

This classification of metadata based request clusters photos subcategories under beforehand said design classes. The method involves three crucial steps. The underlying first step is to focus tags of the metadata given with a photo. Metadata that is considered k are marks, tags, and comments. The next step is about deciding a specialist. The third important step is to find subcategory that a photo has been associated. This is considered as important internal step.

3) Versatile Policy Prediction

The approach estimate figuring gives an expected technique of an as of late exchanged picture to the customer. The expected procedure will provide possible adjustments of a customer's security. The expectation procedure comprises of three primary stages: (i) arrangement standardization; (ii) approach mining; and (iii) strategy forecast.

V. RELATED WORK

Our main effort is linked to tackles security environment setup in communication network regions, and safeguarding of shared online pictures

by the clients and other users.

A few late efforts have been taken to computerize the errand of security environments.

Bonneau et al. [7] have suggested the thought of security suites which endorse to customers security settings that "ace" customers or other credible mates have special set, so that customers can either particularly pick a setting or in a manner of speaking need a minor modification.

Danezis [8] proposed a expert system established approach to manage normally expel settings from the social setting form which the data is made. Apart from the work of Danezis. All the more starting late, Klemperer et al. considered paying little respect to whether the subtitles with which customers tag their photos can be helpful to customers to get the opportunity to control issues of their action. Their disclosures are within the line with our approach: names made for definitive objectives can be repurposed helping to make in exactly getting the opportunity to control rules.

The already specified methodologies focus on deciding course of action settings for their traits, they essentially scrutinize social settings for instance. While interesting, it may not be fair to dwell the challenges about the picture records for which security may change significantly also on account of the certified picture To the degree pictures, makers in have described an vernacular for pictures moved through social sharing sites.

Also, there is a far reaching grouping of pictures based on the content examination, for portrayal and comprehension, recuperation, and photo situating in like manner concerning on the web photo sharing regions, for instance, Flickr..

VI. RESULTS

Our outcomes demonstrate the protection strategy derivation of client transferred pictures on substance sharing locales where a client can share pictures safely to others.

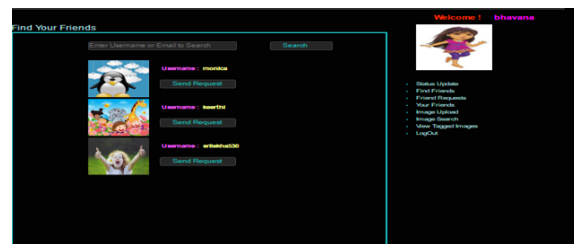


fig:2 user1 Sending friend request.

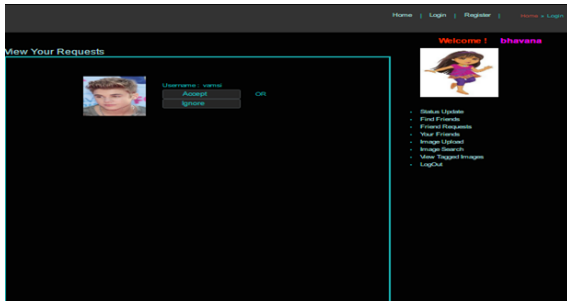


fig:3 user2 Accepting or ignore request

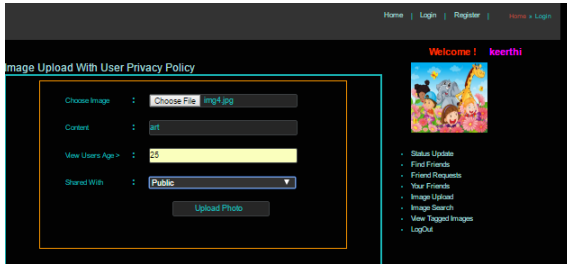


fig:4 Image upload by user1

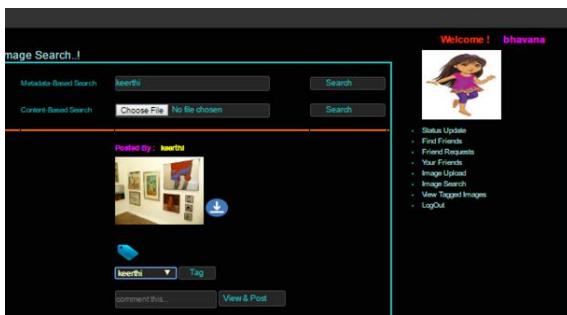


fig:5 user2 rights on image

VII. CONCLUSIONS

We designed an Adaptive Privacy Policy Prediction (A3P) structure which facilitates clients security strategy settings for their transferred pictures. A3P framework gives a far reaching structure to gather security inclinations in view of the data accessible for a given client. We additionally adequately handled the issue of frosty begin, utilizing social setting data. Our test examine validate our A3P is a commonsense apparatus which provides an noteworthy changes upon the current ways that deal with safety.

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Deleting Data With Encryption Standards

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Abstract:

Existing software methods for information deletion process are consolidated as a similar one bit return pattern in which implies the data erasure program performs information erasure and returns either achievement or disappointment. In any case, that type of one bit return method transforms the information deletion program into a discovery which implies the client needs to believe it but cannot easily verify it. In this method it will be doubtful when the cancellation program and the client cannot access the code inside the system. In this project we are providing a cryptographic solution that expects to make the data deletion become more straightforward and undeniable. As opposed to the existing system which gives the output success or failure we are providing a third supposition that sits in the middle of user and the system which checks the deletion is performed securely or not in which the data before uploading the file to the system it will get encrypted and it will be decrypted if user wants to access it without having knowledge about the encryption algorithm. At last we are providing a concept which deliberate answer for the secured information deletion process more secure.

Keywords : Encryption key, cipher text.

I. INTRODUCTION

Deleting the data securely and permanently from the persistent storage like hard disks that cannot be irrecoverable even if we use data recovery tools. This necessity assumes a basic part in every useful data administration frameworks, and in fulfilling a few government directions on information assurance. For as far back as two decades, this process has being broadly contemplated by analysts in both scholarly community and industry which results

in a rich body of literature. Process of data encryption is a very useful method for reducing the issue of secure information erasure to the issue of deleting the relating encryption keys. These keys are smaller to delete than data therefore they can be managed more easily and controlled that they are stored only on storage media that provide secure deletion. The safely erasing capacity medium is expected to have perfect qualities i.e, it never loses information, never uncovered information with the exception of through trade off, it generally effectively erases data and it is constantly accessible. These are strong and unrealistic assumptions to place on a storage medium. In addition, the danger of information misfortune is opened up by the proportion between the span of the key and the information it encodes. In particular design, a single encryption key is used to encrypt all data stored on the persistent storage. Generally no existing programming solutions can guarantee the complete deletion of data from the physical storage of the system in which data lies. To clarify the setting of this field, we will handle away execution procedures of enthusiasm of existing strategies, and center at a higher and more instinctive convention level. Existing information cancellation procedures can be portrayed utilizing basically the comparative convention, which we call the one bit return convention. In this convention the client sends an order more often than not through a host PC to erase information from a storage, and gets a one bit answer showing the status of the operation possibly it is achievement or disappointment.

II. LITERATURE SURVEY

In [1] expect to give users the capacity to check the result of secure information deletion. They propose a method called Proof Of Verifiable in which a host program erases information by overwriting the circle with arbitrary examples and the disk must give back an same patterns from evidence of erasability. Unmistakably, this alleged evidence is not cryptographically official, nor openly irrefusable, since the data storage devices may cheated by echoing the which are been received without overwriting the physical medium.

[2] Investigate the viability of the implicit information eradication instruments in a few business SSDs. They found that

the implicit erasing techniques in a few SSDs were totally incapable because of programming bugs. In Based on light of this information cancellation result. They propose a check strategy that functions as takes after. Most importantly, a progression of unmistakable examples are composed to the whole drive. At that point, the drive is deleted by calling the implicit disinfect order. Next, the drive is physically destroyed and a custom manufactured testing tools are used to peruse crude bits from the memory in look for any unerased information. This approach can be helpful the memory in look for any unerased information. This approach can be helpful for manufacturing plant testing. Be that as it may, it might demonstrate troublesome for conventional clients to perform.

[3] target the objective of making information that self-destructs or vanishes naturally after it is not longer helpful. Additionally, it ought to do as such with no express activity by the clients or any gathering putting away or chronicling that information, such that all duplicates of the information vanish all the while from all locals on the web or disconnected.

In [4] consider how to safely delete memory from a system, as a preparatory for refreshing the firmware in the system. They proposed a convention called Proof of Secure Erasure(PoSE-s). In this convention, the host program sends a string of irregular examples to the inserted device. To demonstrate that the memory has been safely deleted, the implanted system ought to give back a similar string of patterns. It is accepted that the installed gadget has constrained memory that is recently enough to hold the received random designs. This protocol works basically an indistinguishable route from the PoE in [5], yet with an extra supposition of bombarded storage.

[6]talks about secure information eradication issue and presents another Proof of Deletion method, which guarantees secure information erasure in a way that any autonomous outsider can confirm cryptographically

A. Cryptography:

Cryptography guaranteed secrecy maintenance in imperative interchanges, for example, those of spies, military pioneers, and representatives.

In late decades, cryptography has extended its transmit in two routes instruments for something beyond keeping insider facts: plans like computerized marks and advanced money, for instance. in far reaching use by numerous regular folks, and clients don't know about it. The investigation of how to evade the utilization of cryptography is called cryptanalysis, or code breaking. Cryptography and cryptanalysis are now and then assembled together under the umbrella term cryptology, enveloping the whole subject. Cryptography is these days a vital instrument for ensuring data in PC frameworks. It is vigorously connected to frameworks as differing as the Internet, business exchanges, taxpayer supported organizations, and remote correspondence frameworks. In the meantime, cryptography is a

standout amongst the most hypothetical regions of research in software engineering. It concedes a hypothetical system that permits the utilization of fitting models, manageable to numerical thinking.

i. Security Services Of Cryptography

Confidentiality

Secrecy is the crucial security benefit gave by cryptography. It is a security organization that keeps the data from an unapproved person. It is from time to time insinuated as security or puzzle. Privacy can be accomplished through various means starting from physical securing to the usage of numerical counts of data encryption.

Data Integrity

It is security advantage that arrangements with perceiving any change to the data. The data may get modified by an unapproved component deliberately or accidentally. Respectability benefit affirms that whether data is in place or not since it was last made, transmitted, or put away by an approved client. Information uprightness can't keep the modification of information, however gives a way to recognizing whether information has been controlled in an unapproved way.

Authentication

Confirmation provides the recognizable evidence of the originator. It asserts to the beneficiary that the data got has been sent just by a recognized and verified sender.

Authentication service has two variants:

Message validation recognizes the originator of the message with no regard switch or system that has sent the message. Entity authentication is affirmation that data has been gotten from a specific entity, say a particular website. Aside from the originator, authentication may likewise give affirmation about other parameters identified with information, for example, the date and time of creation/transmission.

Non-Repudiation

It is a security organization that ensures that a component can't decrease the obligation regarding past obligation or a movement. It is assertion that the main producer of the data can't deny the creation or transmission of the said data to are recipient or untouchable. Non-repudiation is a property that is most helpful in conditions where there are chances of a contradiction about the exchanging of data from one system to other. For example, once a demand is set electronically, a purchaser can't deny the purchase arrange, if non-repudiation administration is enabled in this exchange.

ii. Types Of Cryptosystems:

There are two sorts of cryptosystems based on the way of encryption and decryption is done in the system. They are:

- Symmetric Key Encryption
- Asymmetric Key Encryption

Symmetric Key Encryption: Encryption procedure will be done by using same keys for encrypting the data as well as decrypting the data is known as Asymmetric Key Encryption. The investigation of symmetric cryptosystems is referred to as symmetric cryptography. Symmetric cryptosystems are likewise at times alluded to as secret key cryptosystems. Some of the most common examples of symmetric key encryption techniques are: Digital Encryption Standard(DES), Triple-DES (3DES), IDEA,and BLOWFISH

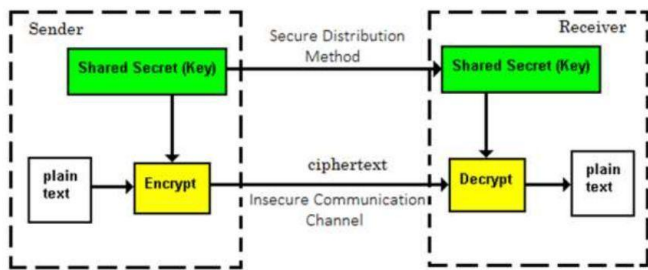


Fig:SymmetricEncryption

Asymmetric Key Encryption: Encryption procedure will be done by using different keys for encrypting the data as well as decrypting the data is known as Asymmetric Key Encryption. Despite the fact that the keys are distinctive, they are mathematically related and thus, extracting the plaintext by decrypting ciphertext is plausible. The procedure is depicted in the below illustration:

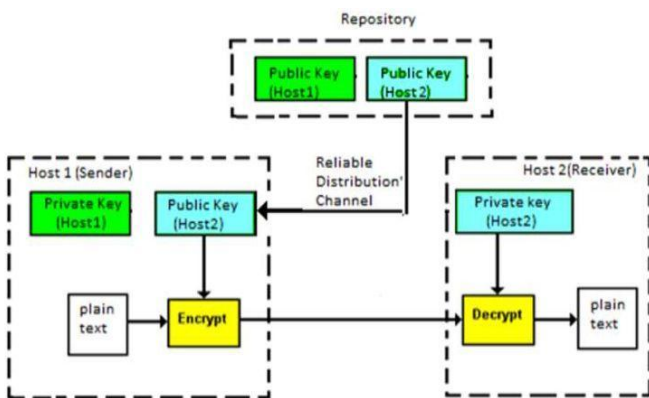


Fig: Asymmetric Encryption.

It requires to maintain the public key in public repository and

the private key as a well-guarded secret. Hence, this scheme of encryption is also called Public Key Encryption.

In spite of the fact that open and private keys of the client are connected, it is computationally not achievable to discover one from another. This is a quality of this method.

III. EXISTING SYSTEM

One Bit Return:

To eradicate the information safely is a non-unimportant issue. It has been for the most part concurred that no current programming based arrangements can ensure the total expulsion of information from the capacity medium. To clarify the setting of this field, we will extricate away execution purposes of enthusiasm of existing courses of action, and highlight at a higher and more intuitive tradition level. Existing erasure techniques can be depicted utilizing basically a similar convention, which we call the “one-piece return: convention. In this strategy, the customer sends a charge as a general rule through a host framework to eradicate data from a framework and gets a one-piece return exhibiting the of the operation either accomplishment of disillusionment which we cannot assume that data deleted effectively or not.

Deletion By Unlinking:

At the point when the client need to erase a specific document from the physical memory, the operating system don't delete the entire file from the physical memory instead it just removes the link from the underlying file system and returns a result either it is successfully deleted or not. But the file will reside in the system which we can extract using data recovery tools. A similar issue additionally applies to the default erasure program packaged in operation system like Windows, Apple, Linux.

Deletion By Overwriting:

The content of the file which we have uploaded will be overwritten with some random data. Constraint with overwriting technique is that they cannot ensure the complete removal of data. It is adequately not easy to clean storage areas by essentially overwriting them regardless of what number of overwrite passes are made or what data illustrations are formed. The data can be keep away in devices like attractive drives, tapes optical plates. An intruder equipped with cutting edge micro scoping instruments may recuperate overwritten information in light of the physical remanence of erased information left on the capacity medium. Despite the fact that overwriting information makes the recovery harder it doesn't

change the fundamental one bit return convention.

IV. PROPOSED SYSTEM

Deletion By Cryptography:

Cryptography based solutions works by encrypting all information we have uploaded before placing it to the disk and later erasing the data by deleting the key which is used to decrypt the data uploaded. This type of deleting process is particularly useful when replicated copies of data are backed up in centralised locations so that it becomes probably not possible to overwrite each and every copy. The utilization of cryptography basically changes the issue of erasing a lot of information to that erasing a key. Erasing the information includes overwriting the disk area where the key is placed. Once the key is deleted, the file which gets encrypted becomes futile. This method has the advantage of rapidly erasing data since just a small block of data (16 bytes for AES-128) should be overwritten.

A. Operations

Key Generation:

In this module, we create a secret key to enter so as to encrypt the data. In the wake of decrypting the information we will erase the key. In this we make an example of the customer C. It takes input a security parameter and the personality of the client C, creates a private key on-board and returns the relating open key. The client is allowed to make the same number of occasions as the client wishes, subject to the requirement of the most extreme industrious memory. For instance, with 160-bit n , 32-bit index C_i and client examples can be made. The client may utilize distinctive occurrences for encrypting diverse files.

Encryption:

occurrence C_i , a message m and gives output the encrypted message under people in public key. For the encryption process, we embrace the Advanced Encryption Standard Algorithm. In this client will give his own user defined key while transferring a record. This is to permit explicit key confirmation amid the next decryption step. The returned ciphertext will be stored in the mass storage device.

Decryption:

Restore takes as information the reference to a present client occasion C_i , the figure a content gained from the before encryption step, and return the decoded message if the checks on the key assertion string is visible. The system first approves that is a legitimate public key. It then processes and continues to decryption. The decryption technique follows subsequently. Upon the effective confirmation, the encrypted message will be restored the first plain content m will be returned.

Delete:

In this Delete module, instead of deleting the files we will delete the key given by the user to the particular file, all messages encrypted can no longer be decrypted.

V. EXPERIMENTAL RESULTS

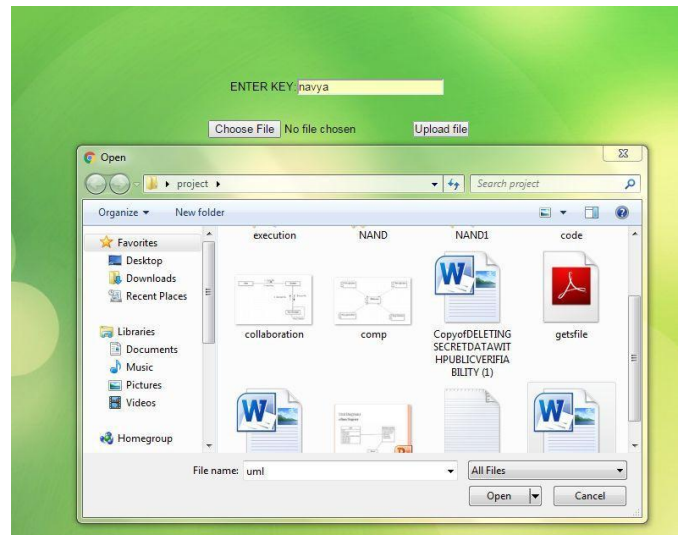


Fig: Uploading files providing a key.

The above figure shows how the user uploads the file providing a key for a particular file. The user can provide same or unique keys for the files they have uploaded.



Fig: Retrieving files based on key.

Based on the key provided user can retrieve files. If the user has given a key which not existed then an error will be raised showing there are no files with this key.

Name	Size (bytes)	
navya.docx	[12572]	DOWNLOAD
mail.docx	[17028]	DOWNLOAD

GO BACK

Fig: List of files based on the key.

List of files will be displayed based on the key provided by the user. The key may be same or unique for different files.

ID	Name	MimeType	Size (bytes)	Created
jav98	jav98.docx	application/vnd.openxmlformats-officedocument.word	12572	2017-03-11 12:47:06
jav981	jav981.docx	application/vnd.openxmlformats-officedocument.word	12589	2017-03-11 12:49:44

Fig: List of files displayed to delete

Based on the key list of files will be displayed from which we can delete the files.

VI. CONCLUSION

While the trust but verify worldview has been very much considered and built up in a few fields like e-voting, it has been totally disregarded in the field of deleting data securely. In this paper, we initiated an examination on the most ideal approach to apply the “trust-but-verify” worldview to make the data erasure process more straightforward and undeniable. We introduce a strong cryptographic solution, called Secure Storage and Erasure (SSE), which empowers the client to check the right execution of cryptographic operations without accessing its source code. The viable feasibility of our answer is validated by a proof of concept implementation.

VII. FUTURE WORK

Future work incorporates expanding the “trust-but-verify” method to other crypto primitives, especially, generating the secret random number. The issue of allowing users to review if an arbitrary number has been produced accurately in a TPM as major aspect of the encryption process (or a cryptographic method) has to a great extent unsolved and deserves further research.

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"Innovative Technologies and Data
Communication Engineering"
(NCITDCE-17)**

22nd April, 2017



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Disaster Management In IP Networks Using Automatic Node or Link Remapping

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Abstract: *Internet plays an important part in communication environment; the working procedure of approaches which are used for routing as soon as a network failure occurs has become a major issue. For a recovering of link or failed node existing in the networks, a fresh method can be used for recovery known as Link or Node Remapping (LNR) is used. It is implemented with some major changes to already existing methods. It is used for obtaining better scalability, backup path lengths, and distribution of load over each and every node after a failure. LNR is used to estimate the traffic demands within a network and thereby improve the distribution of traffic which was recovered reducing the congestion occurrence chance.*

Keywords: LNR, Networking, Link Node Remapping, routing protocols

I. INTRODUCTION

The inter net is being changed from time to time. The requests on Internet dependability and accessibility. An unsettling impact of a relationship in primary parts of a system can affect a huge number of telephone discoursed or TCP relationship, with clear antagonistic impacts. The ability to recover from mishaps has constantly been a focal diagram objective in the Internet. IP frameworks are naturally intense, since IGP coordinating traditions like OSPF are proposed to invigorate the sending information in light of the changed topology after a mishap. The re-union expect full dispersal of the new association state to all switches in the framework space. At the point when the new state data is conveyed, every switch separately computes new legitimate steering tables. This framework wide IP re-joining is a dreary methodology, an association or center dissatisfaction is usually trailed by a period of coordinating trickiness.

In the midst of this period, distributes dropped due to invalid courses. This wonder has been analyzed in the both IGP and BGP setting, and adversity influences nonstop applications. Events provoking

re-union have been seemed to happen frequently. Much effort has been given to overhauling the particular steps of the converging of IP coordinating, i.e., revelation, dispersal

of information and most concise way tally, however the joining time is still excessively sweeping for applications with continuous solicitations. A key issue is that since most framework frustrations are brief, too much speedy initiating of the re-union process can achieve course rippling and extended framework wobbliness.

A. Motivation

Directing occasions affect numerous ways in the Internet, yet current dynamic topology mapping methods screen ways freely. Distinguishing a guiding event on one Internet way does not trigger any estimations on different maybe influenced ways. This approach prompts out of date and clashing directing information. We portray directing occasions in the Internet and examine testing techniques to productively distinguish ways affected by a steering occasion. Our outcomes demonstrate that focused testing can help us rapidly remap steering occasions and keep up additional a la mode and predictable topology maps.

B. Problem Statement

Much exertion has been centered around streamlining the various strides of the joining of IP coordinating, i.e., recognizing verification, diffusing of data and most succinct way estimation, however the union time is still unreasonably huge for applications with unfaltering requests[6]. A key issue is that since most framework frustrations are brief, too much quick actuating of the re-joining technique can achieve course vacillating and extended framework flimsiness. The IGP meeting technique is immediate since it is open and around the globe. It responds to an oversight after it has happened, and it joins every one of the switches in the locale. In this paper we show another game plan for overseeing affiliation and focus point disappointments in IP structures. Connection or Node Rerouting (LNR) is predefined and nearby, which permits healing in the scope of milliseconds. LNR permits bundle sending to proceed over pre - designed option next-jumps promptly after the location of the setback. Using LNR as a first line of hindrance against framework misfortunes, the run of the mill IP union process can be put on hold. This methodology is then begun similarly therefore

of non-transient misfortunes. Since no overall rerouting is performed, brisk difficulty recognizable proof frameworks like fast invites or hardware alerts can be used to trigger LNR without bartering framework reliability [8]. LNR guarantees mending from any single association or center point misfortune, which constitutes a tremendous bigger piece of the mishaps experienced in a framework.

1) Problem Definition

In existing system we cannot recover or re-establish the multiple links or multiple nodes failure in a single connection which was established to the links or nodes.

2) Detailed Problem Description

Lately the Web has been transformed from an unprecedented reason framework to an all inclusive stage for a broad assortment of standard correspondence organizations. The solicitations on Internet resolute quality and availability have extended suitably.

An unsettling impact of a relationship in focal parts of a system can affect a gigantic number of telephone discoursed or TCP relationship, with clear negative impacts. The ability to recover from difficulties has reliably been a central arrangement objective in the Internet. IP frameworks are naturally overwhelming, since IGP guiding traditions like OSPF are proposed to revive the sending information I light of the changed topology after a misfortune. This re-joining acknowledges full transport of the new association state to all switches in the framework space. Right when the new state information is scattered, each switch only learns new generous coordinating tables. This system wide IP re-meeting is a dreary technique, and an affiliation or focus disappointment is normally trailed by a time of managing unsteadiness. Amidst this period, bundles might be dropped in light of invalid courses. This ponder has been considered in both IGP and BGP setting, and affliction impacts relentless applications. Events inciting a re-union have been seemed to happen in many cases, and are regularly activated by outer directing conventions . The essential thought of LNR is as per the following: Each source to goal transmission keeps up unique course. To begin with most limited way is taken as a unique course. These most limited ways are figured by utilizing the OSPF calculation.

At to begin with, data packs will be transmitted using this remarkable course. In this source to objective transmission, any sudden occasion of center point or association misfortune happens, indicate transmission is gave way. At this moment LNR uses the schedule vacancy segment. If a mishap is happened we will give the schedule opening, infers give somewhere in the range os a chance to misfortune recuperating before changing the course. Inside the schedule opening, if the mishap is recovered then data is transmitted by using the primary course just data is transmitted by using the fortification course and send the

testing for misfortune mending. In the midst of the support course transmission, if mishap is recovered, then fortification course transmission is ended and again reuses the main course. By reusing the main course we can improve the snappiness of directing, since the support course is longer than the primary course.

II. LITERATURE SURVEY

There was a enormous headway in the Internet prior decade and has now changed into the fundamental data foundation for the applications of individual and trade related. It is required to be constantly accessible as it is basic to our well ordered business, social and social activities. Benefit interruption for even a brief term could be disastrous in the realm of on line business, bringing about financial harm and additionally discoloring the notoriety of a system specialist co-op. Also, many developing administrations, for example, voice over IP and virtual private structures for back and other advancing business applications require stringent association accessibility and steadfast quality. Lamentably, setbacks are genuinely regular in the ordinary operation of a system because of different causes, for example, interface setbacks and so forth. The key considered LNR is to make a little course of action of fortification framework outlines using the framework chart and the related association weights. The association weights in these fortification setups are controlled so that the center that perceives the misfortune can safely forward the moving towards bundles towards the objective on a substitute association. LNR expect that the framework uses briefest way directing and objective based bob by-hop sending. The moving of action to joins bypassing the mishap can incite stop up and package incident-in parts of the framework. This limits the time that the predefined mending arrangement can be used to forward action before the overall coordinating tradition is taught about the mishap, and subsequently diminishes the gave that a transient difficulty can be managed without a full overall guiding re-design. Ideally, a predefined mending arrangement should guarantee organize after a difficulty, and in addition do all things considered in a way that does not realize an inadmissible load assignment. This essential has been noted as begin one of the primary troubles for per-processed IP recuperating plans. The association weights, if there ought to be an event of LNR are set automatically in each support setup. This gives exceptional flexibility in regards to how the recovered development is controlled. The fortification plan used after a mishap is picked in perspective of the misfortune event, and in this way we can pick interface weights in the support setups that are proper for only a subset of difficult examples. This procedure is then begun similarly as a result of non-transient thwarted expectations. Since no general re-coordinating is performed, quick disappointment

unmistakable evidence sections like smart welcomes or equipment alarms can be utilized to trigger MRC without trading structure security [8]. MRC ensures recuperation from any single affiliation or focus disappointment, which constitutes a broad lion's share of the misstep experienced in a structure [7]. The association weights in these support plans are controlled so that for every association and center point dissatisfaction, and paying little regard to whether it is an association or center frustration, the center point that perceives the mistake can safely forward the moving toward groups towards the objective on a substitute association. MRC acknowledge that the framework uses most restricted way guiding and objective based hop-by-hop sending.

The capacity to recoup from setbacks has dependably been a focal plan objective in the Net [1]. Networks are naturally vigorous, since OSPF was intended to refresh the sending data in view of the changed topology after a setback. appropriation of the new connection state to all switches in This re-meeting expect full the system space. At the point when the new state data is disseminated, every switch independently computes new legitimate steering tables. Thus system wide IP re-configuring is of tough collection of steps, and a connection or hub break down is generally pursued by a time of directing vulnerability. In the midst of the cost of time, parcels may be lost because of invalid; connections. This wonder has been mulled over in IGP [2] and BGP setting [3], and affliction impacts consistent applications[4].Instances triggered re-meeting have been assumed to happen regularly[5].The moving improvement to joins bypassing the slip-up can impel stop up and bundle hardship n parts of the system[9].preferably, a predefined recuperation mastermind ought not just ensure compose after a disappointment,this need has been noted as being one of the essential inconveniences for pre - found IP recuperation organizes[10]

The moving of development to joins bypassing the mistake can incite stop up and package hardship in parts of the framework [9]. Ideally, a predefined recovery arrange should not simply guarantee organize after a failure, This need has been noted as being one of the primary troubles for pre - discovered IP recovery arranges [10].

In this paper "Fast Recovery Approaches from Failures in IP Networks", according to P.Rajasekar :Internet is altered and contains high level requests on QoS and accessing similar networks which may be related to business entertainment along with some online apps,wireless data transfer etc.In a considerable lot of the applications, even little administration aggravations, happened because of route connecting can swing to be deplorable execution debasement. Numerous new strategies were created for recuperating from setbacks inside Ip systems with predefined reinforcement way counts and burrowing inside IP arrange.

The bundle to the following jump hub system can recouped from its first setback, as the parcel is directed over the insurance diagram relating to that assurance address.

Internet has changed and contains tough demands on strength and availability, like networks related to business, games which are played on line, wireless transmission, and video conferencing. In many of the applications, even small service disturbances occurred due to route linking can turn to be unbearable performance devaluation. Many new methods were developed only to heal from a failure within any networks along many backup route statistics and transfers within IP network. The method which was introduced primarily provided resilience. By passing the packet to the next-hop node network can recover from its first failure, because the graph is traversed with the packet which contains the secured address.

In this paper "Stability Issues in OSPF Routing", According to Riecke Bell.G: OSPF protocol is given more importance for stability. Mainly three measures of stability are considered. Much analysis was made under 3 different outlines:(a) some networks which locate OSPF along with traffic engineering add-ons ,(b) some networks which utilize substitute HELLO timers, and(c)on systems that utilization elective techniques for refreshing vertices-links data. These investigation was done on a network which contains 292 vertices and 765 links.

III. EXISTING SYSTEM

The already existing algorithms or methods which are introduced for working over load distribution in connectionless IGP networks were successful in some cases but not in all cases. They may concentrate on the failure free condition or checking weights which are to be checked when a link failure occurs.Large positions of the techniques enrolled in this class give rich and capable responses for snappy framework healing however LNR and Not-through burrowing is in every way the priciple two covering all surveyed requirements.In any case,LNR offers a similar usefulness with an easier and more strong approach, and utilized for better streaming as for load adjusting. Class give rich and predefined answers for quick system healing,however LNR and Not-by means of burrowing is from every angle the fundamental two covering all evaluated necessities. IN any case LNR offers a similar usefulness with a less difficult and more strong approach, and utilized for better streamlining concerning load adjusting.

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IV. PROPOSED SYSTEM

While the problems are being solved using the existing methods, the proposed method named as LNR scheme achieves Recovery in every possible single failure cases, by utilizing this strategy to deal with no of vertices as well as linking setbacks, and with no knowledge of underlying router of the setback. LNR is full sworn focuses just on destination based. LNR stores advanced routes information for routing and forwards packet in alternative route whenever a link is failed or a node is deactivated.

A. Basic Operations

- Link failure detection
- Node failure detection
- Shortest path calculation
- Backup maintenance of paths
- Identifying new paths
- Rectifying the failure links/nodes.

B. System Architecture

A framework configuration is a hypothetical model that depicts the structure, direct, and more perspectives of a framework. A framework outline is a formal portrayal and delineation of a system, dealt with a way that support examining the structures and practices of the structure.

A framework configuration can contain structure sections that will collaborate to execute the general system. There have been endeavors to formalize dialects to depict framework engineering, all things considered these are called design portrayal dialects.

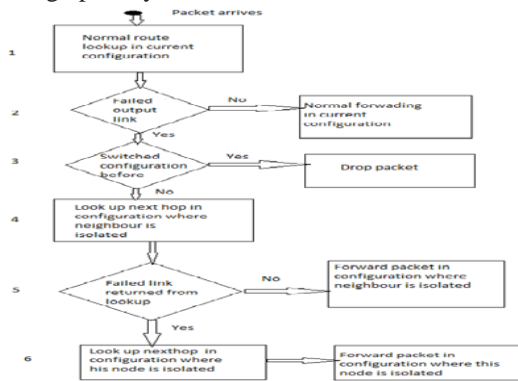


Figure 1: System Architecture

The above system architecture figure shows the complete flow of steps for routing.

V. OUTPUT



Figure 2: Transferring data in Client 1

In the above figure, client1 is initiated and starts data transmission as client1 acts as source of data.



Figure 3:Transferring Data Through Server

In the above figure the data is transmitted to the server (destination).

VI. CONCLUSION

Link or Node Remapping is a method used to elevate speed retrieval within networks. LNR is an enhanced routing configuration added to routers for efficient routing over failed routes or links. LNR precisely maintains recovery from link failure within a random network. LNR immediately responds on failure discovery, by means of different measures which are available locally.

VII.FUTURE WORK

This procedure can be implemented over other types of environments as well as with combination of other routing protocols.

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Advanced Detecting Malicious Facebook Applications

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Abstract: Together with 20 billion includes each day, 0.33-party Apps may be a critical purpose for the attraction not with standing addictiveness of Facebook. Unfortunately, cyber criminals get went to the acknowledgment the possibly of Applying Facebooks near scattering malware however spontaneous mail. Up to now, the examination close by corporation gives committed to revealing noxious substance but advertisements. On this file, a massive detail parents question the problem: delivered some form of Facebook programming, can real a massive element parents find out inside the event that it's miles noxious? Our very own fundamental percentage is in building FRAppE—Facebook's Thorough Request Evaluator—in all likelihood the vital tool dedicated to revealing vindictive Facebooks in Facebook. To create FRAppE, the extra part of us rent actualities received essentially through looking on the submitting conduct of 111K Facebooks decided in some unspecified time within the destiny of 2 billion clients in Facebook. Initially, the extensive majority human beings understand a few attributes which will help in reality each person separate pernicious Facebooks with the beneficial aid of no longer malignant individuals.

Keywords: Measurement, Security, Malicious Facebooks, Profiling Facebooks, Online Social Networks

I. INTRODUCTION

Online social networks (OSNs) empower and encourage 0.33-party applications (apps) to decorate the purchaser revel in on the ones levels. Such upgrades include charming or attractive techniques for offering amongst on-line companions and awesome carrying activities, for instance, playing recreations or tuning in to tunes. For example, Facebook gives engineers an API [2] that encourages utility becoming a member of into the Facebook patron encounter. There are 500K programs available on Facebook [3], and all topics considered, 20M packages are brought every day [1]. Moreover, severa programs have acquired and keep up a truely large patron base. For example, FarmVille and City Ville programs have 26.5M and 42.8M customers to date. As of late, programmers have started out exploiting the ubiquity of this outsider

packages stage and sending malevolent applications [4]–[6]. Malicious programs can supply a profitable commercial organization to programmers, given the prominence of OSNs, with Facebook the usage of the path with 900M dynamic customers [7]. There are severa techniques that programmers can income via a malevolent utility: 1) the software can collect huge quantities of customers and their partners to unfold unsolicited mail; 2) the software can collect customers' non-public records together with e mail deal with, home metropolis, and gender; and three) the software can produce through making specific malicious apps famous. To make subjects extra horrible, the association of malicious packages is stepped forward with the aid of prepared-to-rent toolkits beginning at \$25 [8]. As such, there's purpose and opportunity, and consequently, there are numerous pernicious applications spreading on Facebook constantly [9]. Despite the above troubling patterns, nowadays a customer has pretty confined information at the season of introducing an software program software on Facebook. As such, the hassle is the accompanying:

With 20 million installs a day, zero.33-birthday celebration programs area main purpose for the popularity and addictiveness of Facebook. Unfortunately, hackers have decided out the potential of the usage of Applications for spreading malware and direct mail. The problem is already considerable, as we discover that as a minimum 13% of applications in our dataset are malicious. So a protracted manner, the research community has targeted on detecting malicious posts and campaigns. In this project, Our key contribution is in growing FRAppE— Facebook's Rigorous Application Evaluator—arguably the first device centered on detecting malicious programs on Facebook. To increase FRAppE, we use data accumulated through using looking the posting conduct of 111K Facebook packages seen across 2.2 million customers on Facebook. First, we apprehend a set of functions that assist us distinguish malicious programs from benign ones. For example, we discover that malicious programs regularly percentage names with unique programs, and that they normally request fewer permissions than benign packages. Most research diagnosed with unsolicited mail and malware on Facebook has targeted on distinguishing noxious posts and social direct mail campaigns [10]–[12]. In the meantime, in an

seemingly in contrary stride, Facebook has disassembled its software application score usefulness as of overdue. A current-day art work examines how software program authorizations and group value determinations connect to safety risks of Facebook packages [13].

At long remaining, there are some company based completely input driven endeavors to rank programs, as an example, WhatsApp? [14]; but the ones might be intense in a while, thus far they are becoming little choice. We speak about past artwork in extra detail in Section VIII. In this paper, we create FRAppE, a tough and speedy of gifted grouping strategies for spotting whether or not or not an utility is malignant or now not. To gather FRAppE, we employ facts from MyPageKeeper, a safety utility in Facebook [15] that presentations the Facebook profiles of .2 million clients. We take a look at 111K programs that made 90 one million posts extra than 9 months. This is arguably the essential thorough evaluation concentrated on malicious Facebook packages that spotlights on measuring, profiling, and comprehension noxious programs and integrates this facts into a powerful popularity method. Our art work makes the accompanying key commitments.

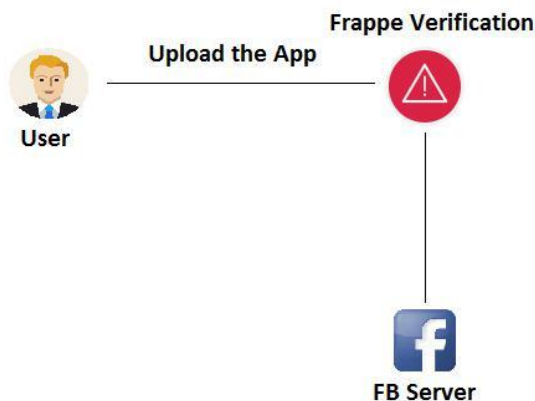


Fig: 1, Process of hackers using malicious apps.

Related Work:

FB provide a synopsis related MyPageKeeper (our primary statistics supply),together with compress your datasets we use internal this kind of file. 2. 1 Fb Blog Fb makes it ability for 1/3-birthday celebration builders to offer groups to assist clients with FbFacebooks. Rather than regular pc alongside with touch display cellphone Facebooks, installation of a Fb software software with the beneficial resource of approach for consumer does not require an character coexisting with doing an Facebook software twofold. As an preference, on every occasion a client gives a Fb software program to help her page, an character lets in the Facebook software body server: (a) concur to get proper into a subset within the information aspect with the useful resource of factor for the consumer's Fb net web page (e. G., your

customer's mail address), along (b) concur to execute decided on bodily video games for an man or woman (e. H., an opportunity to article for the consumer's divider). Fb reserves those form of authorizations to help any product basically thru giving an wonderful Oath 3. Zero [4] photo inside the path of the product server for every and each consumer who institutions the Facebook application frame. At that aspect, the Facebook application body can actually get entry to your facts at the aspect of carry out your explicitly-allowed sporting activities for a person. Speaks for your techniques intrigued thru your installation along approach of aFb programming. Operation associated with malignant Facebooks. Dangerous FbFacebooks generally run the accompanying. Step1: Online programmers urge purchasers to introduce your iPhone Facebook, for the maximum thing along some false guarantee (e. G., simply free iPads). Step 2: The minute a consumer establishments your iphone Facebook, that diverts a person to a internet site wherein the purchaser may be asked to execute occupations, for example, gambling out a survey, all another time at the same time as the use of draw related to faux rewards. Step:three The specific iphone Facebook a brief time later receives to individual information (e. G., beginning date) on the patron's net page, which the digital highbrow oppressor may also use to assist profits. Step four: The particular iphone Facebook makes malicious substance for a person to assist bait your customer's amigos to introduce indistinguishable iphone Facebook (or a couple of different pernicious iphone Facebook, thinking about we're able to see later). Along the ones traces your circuit keeps at the identical time as the usage of iphone Facebook and in addition interesting Facebooks reaching an ever growing quantity of customers. Data this is near domestic and moreover studies can be "offered" to assist outsiders [2] to assist in some unspecified time in the destiny sales your cyber-terrorist.

LITERATURE SURVEY

- 1) A technique for computer detection and correction of spelling errors
The approach described assumes that a word which can not be located in a dictionary has at maximum one mistakes, which might be a incorrect, missing or greater letter or a single transposition. The unidentified input word is in contrast to the dictionary all over again, attempting out whenever to look if the phrases healthy—assuming this kind of errors came about.
- 2) LIBSVM: A library for support vector machines

Lin LIBSVM is a library for Support Vector Machines (SVMs). The goal is to help users to easily application SVM to their application. LIBSVM has gained wide popularity in machine learning and many other areas. In this article, we present all implementation details of LIBSVM. Issues such as solving SVM optimization problems theoretical convergence multiclass classification probability estimates and parameter selection are discussed in detail.

3) Beyond blacklists:

Learning to encounter malicious Web web sites from suspicious URLs Malicious Web web sites are a cornerstone of Internet criminal sports activities. As a result, there has been extensive interest in developing systems to prevent the prevent individual from journeying such websites. In this paper, we describe an method to this trouble based mostly on computerized URL type, the usage of statistical techniques to find out the tell-tale lexical and host-primarily based absolutely properties of malicious Web website URLs. .

4) Design and assessment of a real-time URL junk mail filtering provider:

On the heels of the large adoption of web services including social networks and URL shorteners, scams, phishing, and malware have end up everyday threats. Despite big studies, e-mail-based unsolicited mail filtering strategies commonly fall short for shielding one-of-a-kind net offerings. To higher address this want, we present Monarch, a real-time gadget that crawls URLs as they may be submitted to internet services and determines whether or not the URLs direct to unsolicited mail. We compare the viability of Monarch and the vital challenges that upward thrust up because of the form of internet issuer unsolicited mail. We show that Monarch can provide correct, real-time protection, but that the underlying characteristics of unsolicited mail do now not generalize at some stage in net services. In unique, we find that junk mail concentrated on email qualitatively differs in extensive approaches from unsolicited mail campaigns targeted on Twitter. We explore the differences between email and Twitter junk mail, collectively with the abuse of public internet net web hosting and redirector services.

5) Detecting spammers on social networks.

Social networking has come to be a well-known way for clients to fulfill and have interaction on-line. Users spend a outstanding quantity of time on famous social network systems (along with Facebook, MySpace, or Twitter), storing and sharing a wealth of personal statistics. This statistics, in addition to the opportunity of contacting lots of clients, additionally attracts the interest of cybercriminals. For instance, cybercriminals might make the maximum the implicit believe relationships between users so as to trap sufferers to malicious websites.

EXISTING SYSTEM

1) So far, the studies network has paid little hobby to OSN applications specifically. Most research associated with junk mail and malware on Facebook has targeted on detecting malicious posts and social junk mail campaigns.

2) Gao et al. Analyzed posts on the walls of 3.Five million Facebook customers and confirmed that 10% of links posted on Facebook partitions are junk mail. They moreover provided techniques to choose out compromised payments and unsolicited mail campaigns.

3) Yang et al. And Benevenuto et al. Advanced strategies to understand money owed of spammers on Twitter. Others have proposed a honey-pot-based totally totally software program to discover unsolicited mail payments on OSNs.

4)Yardi et al. Analyzed behavioral patterns among unsolicited mail bills in Twitter.

5) Chia et al. Check out threat signaling on the privateness intrusiveness of Facebook programs and conclude that contemporary varieties of community rankings are not reliable signs and symptoms of the privacy risks associated with an software.

DISADVANTAGES OF EXISTING SYSTEM:

1) Existing machine works concentrated handiest on classifying character URLs or posts as direct mail, however no longer centered on figuring out malicious software program that are the principle source of unsolicited mail on Facebook.

2)Existing device works focused on money owed created via the usage of spammers in preference to malicious software..

3) Existing device supplied exceptional a immoderate-stage assessment approximately threats to the Facebook graph and do not provide any evaluation of the device.

PROPOSED SYSTEM

1) In this project, we extend FRAppE, a collection of inexperienced class techniques for identifying whether an utility is malicious or no longer. To assemble FRAppE, we use data from MyPage-Keeper, a protection utility in Facebook.

2) We find out that malicious software extensively vary from benign software program with respect to 2 training of functions: On-Demand Features and Aggregation-BasedFeatures.

3) We gift two versions of our malicious software program classifier— FRAppE Lite and FRAppE.

4)FRAppE Lite is a lightweight version that makes use of pleasant the software capabilities available on name for. Given a specific software ID, FRAppE Lite crawls the on call for functions for that

application and evaluates the utility based totally on the ones functions in actual time.

5) FRAppE—a malicious application detector that makes use of our aggregation-based features similarly to the on-demand competencies.

1.4. BENIFITS OF PROPOSED SYSTEM:

1)The proposed artwork is arguably the first complete study that specialize in malicious Facebook programs that specializes in quantifying, profiling, and facts

malicious programs and synthesizes this records into a powerful detection technique..

2)Several features used by FRAppE, collectively with the recognition of redirect URIs, the variety of required permissions, and the use of numerous client IDs in utility installation URLs, are strong to the evolution of hackers.

3) Not the usage of unique patron IDs in utility installation URLs could possibly restrict the capability of hackers to tool their application to propagate every distinctive.

OBJECTIVES AND GOALS:

The goal is to make FRAppE as a step toward creating an independent watchdog for application assessment and ranking, so as to warn Facebook users before installing applications.

PROBLEM DEFINITION:

Hackers have began out taking benefit of the popularity of this third-party applications platform and deploying malicious software. Malicious applications can offer a profitable commercial enterprise for hackers, given the popularity of OSNs, with Facebook essential the manner with 900M lively clients . There are many methods that hackers can gain from a malicious software program: The software can reach massive numbers of customers and their buddies to unfold direct mail, The utility can reap customers' personal facts including electronic mail cope with, home metropolis, and gender. The application vicinity can “re-produce” thru making different malicious programs popular.

MODULES:

1. Data collection
2. Feature extraction
3. Training
4. Classification & Detection

1.Data collection

The records series issue has subcomponents: the collection of Facebook programs with URLs and crawling for URL redirections. Whenever this element obtains a Facebook utility with a URL, it

executes a crawling thread that follows all redirections of the URL and looks up the corresponding IP addresses. The crawling thread application ends those retrieved URL and IP chains to the tweet records and pushes it right into a queue. As we've seen, our crawler can not reach malicious touchdown URLs when they use conditional redirections to avoid crawlers. However, because of the truth our detection gadget does

no longer rely on the capabilities of landing URLs, it really works independently of such crawler evasions.

2.Feature extraction

The feature extraction factor has 3 subcomponents: grouping of same domains, finding access thing URLs, and extracting characteristic vectors. To classify a positioned up, MyPageKeeper evaluates every embedded URL inside the submit. Our key novelty lies in considering simplest the social context (e.G., the text message within the publish, and the style of Likes on it) for the magnificence of the URL and the associated put up. Furthermore, we use the reality that we are looking at multiple consumer, that may help us discover an epidemic spread. It detects Presence of Spam key phrases like 'FREE', 'DEAL' and 'HURRY'.

3. Training

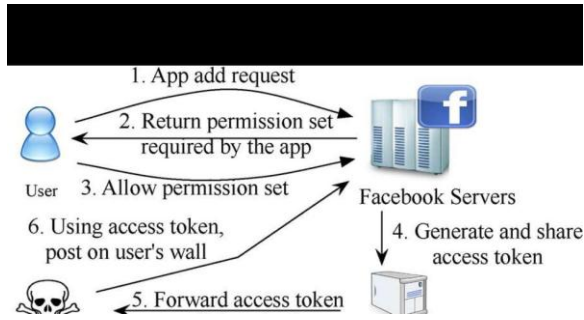
The schooling element has two subcomponents: retrieval of account statuses and training of the classifier. Because we use an offline supervised getting to know algorithm, the feature vectors for schooling are enormously older than function vectors for class. To label the schooling vectors, we use the account repute; URLs from suspended money owed are taken into consideration malicious whilst URLs from lively bills are taken into consideration benign. We periodically update our classifier the usage of labeled training vectors.

4. Classification & Detection

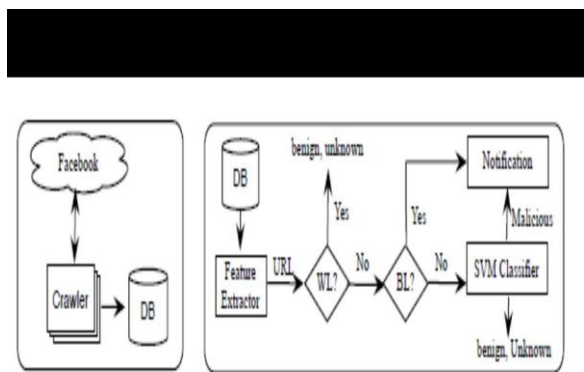
The category factor executes our classifier the usage of input function vectors to classify suspicious URLs. When the classifier returns a number of malicious feature vectors, this thing flags the corresponding URLs information as suspicious.

The kind module makes use of a Machine Learning classifier primarily based on Support Vector Machines, but also makes use of several close by and external white lists and blacklists that assist tempo up the machine and boom the over-all accuracy. The category module gets a URL and the associated social context abilities extracted in the previous step. These URLs, detected as suspicious, may be introduced to protection specialists or more latest dynamic evaluation environments for an in-depth research.

SYSTEM MODEL:



SYSTEM ARCHITECTURE:



Operation of malicious applications: Malicious Facebook applications generally function as follows.

- Step 1: Intruders prove users to put in the app, typically with a few faux promise (e.G., free iPads).
- Step 2: Once a consumer installs the app, it redirects the consumer to a web page .
- Step 3: The app thereafter accesses private facts (e.G., delivery date) from the consumer’s profile, which the hackers can hypothetically use to profit.
- Step 4: The app makes malicious posts on behalf of the consumer to entice the user’s pals to put in the equal app .

This way the cycle keeps with the app or colluding apps achieving increasingly more users. Private information or surveys can be —offered" to 1/3 parties to finally income the hackers.

Step 5: In this paper, the admin plays the predominant position to identify the malicious apps within the face book. Every malicious apps have some issues to install within the consumer account.

Step 6: Advanced Frappe is the proposed machine to discover the each malicious app with some of the parameters like timeline messages, versions of apps, url verification.

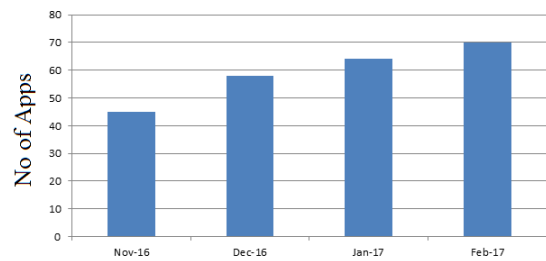
Step 7: Based at the above parameters the Advanced Frappe verification works positively to test whether the apps are malicious apps or no longer.

Expected Results

This application is developed in java with netbeans and mysql as database.

1. FacebookNets form large and densely connected groups
2. Posting direct links to other Facebooks
3. Indirect Facebook promotion.
4. Facebooks with the same name often are part of the same FacebookNet.
5. Amazon hosts a third of these indirection websites.
6. Robustness of features.
7. Recommendations to Facebook.
8. Detecting spam accounts.
9. Facebook permission exploitation.
10. Facebook rating efforts.

Frappe Verification



Year Wise detection of malicious Apps using Frappe

Conclusions and Future Work:

Applications showcase an fine way for programmers to spread malicious content material material on Facebook. However, little is comprehended about the attributes of malignant packages and how they work. In this work, the usage of a big corpus of pernicious Facebook packages observed over a nine month time span, we hooked up that malignant programs contrast basically from considerate programs as for a few elements. For example, noxious applications are a first-rate deal greater susceptible to impart names to extraordinary packages, and they commonly ask for less has the same opinion than kind applications. Utilizing our perceptions, we created FRAppE, an real classifier for distinguishing noxious Facebook packages. Most interestingly, we highlighted the rise of AppNets—expansive gatherings of firmly associated applications that increase every other. During this art work, the usage of a extraordinary amount of malicious Facebook applications we have a tendency to shows that malicious applications region unit appreciably take problem from mild apps with the severa alternatives. For example, malicious apps region unit feasible to share names with special applications, and they typically request fewer permissions than slight apps.

Most reputedly, we have a tendency to focus on the emergence of AppNets large teams of tightly linked programs that sell every different. We are going to nonetheless dig deeper into this scheme of malicious apps on Facebook, and that we are hoping that Facebook can benefit from our guidelines for decreasing the risk of hackers on their platform.

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An Integrated Approach for Frame-Based Recovery of Damaged Video Files

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Abstract — In digital forensics, the recovery of damaged video record is an important requirement that plays a crucial function in looking for evidences to clear up a crook case. A video frame is the minimum extensive unit of a video statistics. Many present techniques try to get better broken video file the usage of file shape rather than frame shape. This paper gives an integrated approach of restoration of broken video record the use of the body-based absolutely restoration method. The preceding techniques were used to get higher the damaged video report the usage of the record shape. The important idea in the back of the frame-based totally healing approach is to recover the broken video record for forensic features. The idea of this device is to get better the damaged video the use of the frame shape. This method addresses a way to extract the video frames from the apart of a video to be restored and additionally convert the video into frames. The fragmented video is first extracted and then it is attached to make it in playable form. Experiment effects suggests that the proposed approach correctly restores the broken video documents.

Index Terms— Extraction, Recovery, Frames, Damaged video data.

I. INTRODUCTION

RECENTLY, a large amount of video contents have been produced in step with huge spread of surveillance cameras and mobile gadgets with integrated cameras, digital video recorders, and vehicle black boxes. Recovery of corrupted or broken video files has finished a important characteristic in position in digital forensics [1]–[3]. In criminal investigations, video statistics recorded on garage media often provide an important proof of a case. As an effort to look for video information recorded approximately crook, video information recovery and video file carving has been actively studied [4]– [6].

Year by using way of 365 days, the variety of computer systems and specific virtual gadgets being used is growing. The latest Pew Research Center Globalization Review [7] showed that 26 of the 36

worldwide places surveyed had multiplied their pc usage. This growth goes on concurrently with an boom in usage of diverse virtual gadgets, which incorporates cellular phones. In fact, within the United States by myself eighty one% of the populace now owns a cellular cellular phone, it is a 20% boom in comparison to 2002. Some worldwide places, which include Russia, have proven upwards of a 50% increase in mobile mobile phone possession. Computers are actually honestly virtually considered one of many gadgets in which virtual information is stored. Devices along with cellular telephones, tune game enthusiasts, and virtual cameras all now have some Shape of inner garage otherwise allow records to be saved to out of doors gadgets like flash playing playing cards, reminiscence sticks, and solid-country gadgets (SSDs). With this massive boom in virtual statistics storage, the want to get better information due to human errors, tool malfunction, or planned sabotage has additionally improved. Data healing is a key detail of the disaster restoration, forensics, and e-discovery markets.

A software (or hardware) which could decode video or audio is called a codec; playing or encoding a video record will every now and then require the individual to install a codec library much like the form of video and audio coding used inside the file. Traditional data recovery techniques rely on record device structures like document tables to get higher facts that has been deleted. This is due to the fact most record systems do no longer contact the physical region of the documents at some stage in a deletion, they absolutely mark the area as being to be had for storing records. After deletion, the get right of entry to of the record inside the record table may additionally furthermore further more although be gift and the records linking the clusters to the record deleted may additionally moreover moreover despite the fact that be present, and as a quit end result, this form of file may be without problems recovered. However, even as the report system systems aren't gift, corrupt, or were deliberately eliminated, the data at the same time as present cannot be accessed thru traditional way.

Digital facts recovery can embody each software program and hardware approaches. Hardware techniques are most usually used to extract understanding from corrupted or bodily broken disks.

As speedy due to the fact the data has been extracted, software treatment techniques are quite often required to reserve and make trust of the facts. In virtual forensics, restoration of a broken or altered video file plays a brilliant characteristic in looking for evidences to remedy a crook case, a massive quantity of video contents had been produced regular with massive unfold of surveillance cameras and cell devices with built-in cameras, digital video recorders, and car black bins. Cure of corrupted or broken video documents has achieved a crucial carry out in virtual forensics. In crook investigations, video facts recorded on garage media commonly offer an important proof of a case. As an try to look for video ability recorded about criminal, video records healing and video file carving has been actively studied.

The boom in laptop-related crime has introduced on lawenforcement groups to capture virtual evidence inside the form of network logs, text documents, movement snap shots, and pixels. File fragmentation commonly is an unintended impact of deletion, alternate, and creation of documents in a storage tool. Therefore, a forensic analyst investigating storage devices also can furthermore come across many scattered fragments with none smooth way of being able to reconstruct the unique documents. In addition, the analyst may not without problems be capable of decide if a fragment belongs to a particular file or if the contents of the fragment are part of the contents from a particular file type (photograph, video, and so forth.). Due to the big software program software software in severa filed this challenge find out the software program in severa region of forensic branch further to within the live video propagation in diverse generation.

II. PREVIOUS WORK

Recovery of movies performs an important characteristic in catastrophe manipulate as right as crook scene and in forensic department in case you need to have video evidence. Beforehand to be able to get better a video record we use a file meta records to get well the documents from report. The record device meta-expertise includes the recommendations along with the deal with and the hyperlink of a video report which may be used for record medicine. The signature-located video healing method proposes File Carver [8] to control with this disadvantage. This way creates a database of the file header (starting mark of file) and footer (the top mark of file), and define a hard and fast of regulations for a specific file style. Signature-in particular primarily based totally file healing strategies do not require file laptop files, as a way to moreover be accomplished to a video file without a meta-documents for the cause that of file tool exchange and reformatting of a storage medium. Signature-based totally file recuperation structures

set up the fragments from the byte series (or magic bytes) containing file header or footer. Scalpel [8] does now not depend upon a file tool to restore a video file. This approach is constrained to the instances on the equal time as the files are unfragmented.

File fragments are well-known with the help of evaluating byte- sequences contained in headers and footers with values saved in a database containing notable identified values for particular record sorts. Former file carving systems in which computationally rigorous and required outstanding portions of reminiscence. Scalpel changed into supplied to overcome these proscribing elements. The operation of Scalpel is finished in chronological passes. For the length of the initial pass the whole disk picture is indexed through way of the usage of studying chunks of some megabytes and attempting to find document headers. After coming across headers in a giant piece, footers are well-known as tremendous and stored in a database. This database is examined to without problem embody header-footer tuples which satisfy the constraints for the most size of information to be recovered [13].

The contents of the database are used to region up jogging queues which consist of regions for the record extraction method inside the 2d bypass. For the duration of the 2nd go the disk photograph is all all once more processed in chunks to duplicate recovered files to the close by the area recovered documents are stored. Carving files using Scalpel has furthermore been prolonged thru disposing of the final step of copying recovered files. Rather a report approach is advanced the use of the FUSE library. The patron accesses the investigated storage catch 22 situation thru mounting an image the usage of the Scalpel record pc wherein the contents of the header-footer database are furnished as actual files. Additional improvements for the carving of contiguous files were labeled centered on considered one of a type homes for files to be recovered: Header/footer carving: for placing off documents amongst great start and stop of file markers (string sequences), Header/most length carving: with moreover evaluation for the longest professional string series that also validates.

Garfunkel [9] utilizes extra records saved within the file to boom the concept to signature-primarily based absolutely recuperation techniques. For some files, record header may additionally moreover include the facts of report period or length. When the document footer does now not exist, they'll use this statistics to extract a record. A video record can be restored the use of Bifragment Gap Carving [10]. This approach find a mixture of the vicinity containing the header and the footer to test if a video pattern is legitimate. This computes the difference among the two statistics areas and take a look at if the difference passes the predefined validation method. This device repeats till the distance passes

the validation test. However, this approach can only be applied to a video document with fragments and this technique has catch 22 situation while the distance a few of the 2 Record fragments is large. Smart Carving method have come to be proposed to restore a document without being confined with the aid of using the extensive fashion of fragments [11]. This technique, if it identifies the prevalence of fragmentation, combines the variations of the fragment additives and searches for the order of the fragments. They method consists of three steps: preprocessing, collation, and reassembly. In the preprocessing step, they acquire the called block element, that have end up no longer allotted to a file, the use of the record device information to lessen the size of the facts to analyze. The collation n step categorizes the accumulated blocks within the preprocessing step in keeping with a file layout.

III.RECOVERY OF VIDEO FILES

Firstly ,we are taking an input video that may be line scratches (or) frame broken manner. So in our input video database there are lot of films which all are based mostly on broken pixels.At least minimal number of frames are damaged in each video inputs. For this approach, first of all we're changing the video into frames. In the Frame Conversion step, the taken video is splitted into frames which consist of N style of frames. So depending at the time period of the taken video all frames are transformed. Now the transformed frames are completed by preprocessing. In preprocessing step, filters or fused . So by way of way of filtering , noises are removed in all frames. After eliminating noises in all frames, we skip for frame extraction. In body extraction step ,the frames are extracted primarily based on the begin code signature. The extracted body statistics are showed through the decoder, and it's miles decided if the statistics are frames. Now integrate the list of validated frames into framesets then it is simple to attach the frames.The frame set compose tested frame so as in advance than and after the relevant frame. The size statistics of every body recorded in meta-records of the documents with the stored video records are used to connect the frame units. Extracted frames now being method and recovered and attach at the facet of the frames that have been extracted so that we're able to get a video content fabric in playable shape. Video frame of a saved video report relies upon at the Frame conversion.

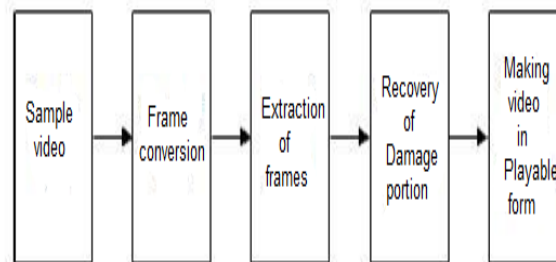


Fig.1: Processing steps of recovery of Damaged Video Files

IV. EXPERIMENTAL RESULT

A. Extraction of Damaged Frame

A video consists of collection of quantity of frames, if one the body isn't present then video will now not be done as properly if the frame is broken then its turns into now not possible to play video without issues. In this method, first off extract the frames from a video. The video is selected to assess the body in which a body form is finished and every and each body is selected for evaluation and take a look at for confirmed frame. The extracted body has precise picture and approach photograph. The authentic body consists of a color picture. The pattern video is transformed into frames as established underneath.



Fig.2: Converting Video into Frames

Fig.2 shows that how the video is transformed into Number of Frames. Number of Frames are converted relying upon the size of video.

B. Recovery of Damaged Video Frame

The next step of recovering of damaged video body is finished the usage of photo healing method; the frame that is corrupted is taken for assessment. The enter image of the frame is visible and its co-ordinates is decided, after figuring out the co-ordinates picture is recognized as shade or grey scale photograph. The photo segmentation affords the greater know-how form of a part of harm location. Utilizing the co-ordinates tool of neighboring of pixel now we've got got were given get better the damage image a part of video frame



Damaged Frame

Recovered Frame

Fig.3:Recovery of damage frame

The Fig.3 show the damage portion of the frame, after performing the recovery technique the original frame is obtained.

To have a observe the outcomes we've got had been given examined the video report, the video is extracted into N frames and the extremely good of photograph is advanced via making use of histogram equalization as set up in Fig2. In next step frame feature is extracted and body series is identified, if one of the crucial body is corrupted then damage element to picture is examine thru neighboring of pixel method and corresponding photograph is get higher as showed in Fig three. In next segment of video recovery we have had been given tested the video sample from any camera recording tool and corrupted the small part of the video pattern after which we attempt to get better the damage element thru utilizing healing set of rules. The recuperation fee which become issue out upfront within the paper grow to be ninety% which additionally had been given progressed and we've got recovered nearly all corrupted video frame.

V. CONCLUSION

This paper affords a unique procedure for recovery of corrupted video data. The proposed method recovers very almost all information standard with minimal significant physique unit. Therefore, the proposed approach restores practically frames in damaged or corrupted video records without being tormented by collection of the frames. Experimental result suggests that sample video is changed into the

frame structure and evaluation of damage element is finished as properly it's far a long way recovered, additionally the healing price have been given improved we now have now recovered nearly the complete corrupted video frames.

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Perspective Based Diversification for Keyword Queries' Over XML data

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Abstract—while keyword query permits ordinary users to search large amount of data, the uncertainty of keyword query makes it difficult to adept answer keyword queries, especially for short and indefinite keyword queries. To address this challenging problem, in this paper we come up with an approach that automatically diversifies XML keyword search based on its dissimilar contexts in the XML data. Given a short and indefinite keyword query and XML data to be searched, we first attain keyword search candidates of the query by a easy feature selection model. And then, we design an productive XML keyword search diversification model to measure the quality of each candidate. After that, two efficient algorithms are estimated to incrementally calculate top-k qualified query candidates as the diversified search intentions. Two selection criteria are focused: the k selected query candidates are most relevant to the given query while they have to cover large number of different results. At last, a comprehensive verification on real and fake data sets demonstrates the productiveness of our proposed diversification model and the productiveness of our algorithms.

Index Terms—XML keyword search, context-based diversification

INTRODUCTION

As we know that keyword query search on structured and semi-structured data showed much research interest recently, as it is easy to retrieve information without learning of sophisticated query languages and database structure [1]. When we Compared with keyword search methods in information retrieval (IR) they mainly prefer to find a list of relevant documents, keyword search approaches in structured and semi structured data concentrate more on specific information contents, e.g., fragments rooted at the smallest lowest common ancestor nodes of a given keyword query in XML. Given a keyword query, if 1) the sub tree which is rooted at the node v contains total keywords, and 2) there does not exist a descendant node v0 of v such that the sub tree rooted at v0 contains total keywords. In other words, if a node is an SLCA, then its ancestors will be definitely excluded from being SLCAs, by which the minimal information content with SLCA semantics can be used to represent the specific results in XML keyword search. In this paper, we adopt the well-accepted SLCA semantics [2], [3], [4], [5] as a result metric of keyword query over XML data. In general, the more number of keywords for user's query contains, then it is easy to find the user's intention with regards to the query can be identified. However, when the given

Keyword query only contains a small and vague keywords, it would become a very difficult problem to find the user's search intention due to the high ambiguity of this type of keyword queries. Although sometimes user involvement is required to find search intentions of keyword queries, when the user involvement is taken it is a time consuming process when the size of relevant result set is large. To address this type of problems we will develop a method which provides diverse keyword query suggestions to the user based on the context of the given keywords in the data which is to be searched. By doing this, users may choose their preferred queries or modify their original queries based on the returned diverse query suggestions.

Example 1.First Consider a query $q = \{\text{database, query}\}$ over the DBLP data set. There are 21,260 publications or venues having the keyword "database", and 9,896 publications or venues containing the keyword "query", which contributes 2,040 results that contain the two given keywords together. When we directly try to read the keyword search results, it would become time consuming and not user friendly due to the large number of results. It takes 54.22 s for just calculating all the Smallest Lowest Common Ancestor results of query q by using XRank [2]. Even if the system processing time is acceptable by accelerating the keyword query evaluation using efficient algorithms [3], [4], the unclear and frequent search intentions in the large set of retrieved results will make users frustrated. To overcome from this problem, we will find different search semantics of the original query from the different contexts of the XML data, which can be used to examine different search intentions of the original query. In this study, the contexts can be modelled by extracting some relevant feature terms of the query q keywords from the XML data, as shown in the below Table 1. Then, we can calculate the keyword search results for each search intention. Table 2 shows that part of statistic information of the answers which are related to the keyword query, which classifies each ambiguous keyword query into different search intentions. The problem of diversifying keyword search is firstly studied in Information Retrieval (IR) community [6], [7], [8], [9], [10]. Most of them perform diversification as a reranking or post-processing step of document retrieval based on the analysis of result set and/or logs

TABLE 1
Top 10 Selected Feature Terms of q

keyword	features
database	systems; relational; protein; distributed; oriented; image; sequence; search; model; large.
query	language; expansion; optimization; evaluation; complexity; log; efficient; distributed; semantic; translation.

In IR(Information Retrieval), keyword search diversification is done at the topic level or document level. For e.g., Agrawal et al. [7] model user intents at the topical level of the taxonomy and Radzinski and Dumas [11] to obtain the possible number of query intents by mining of query logs. However, it is not always easy to get these useful taxonomy and query logs. In addition, the diversified results in Information Retrieval are often designed at the document level. To improve the precision of query diversification on both structured databases and semi structured data, it is desirable to consider both structure and content of data in diversification model. So the problem of keyword search diversification is needed to be reconsidered in structured databases or semi structured data. Liu et al. [12] is the first work to measure the difference of XML keyword search results by comparing their feature sets. However, the selection of feature set in [12] is limited to metadata in XML and it is also a method of post-process search result analysis. Different from the above post-process methods, another type of works addresses the problem of intent-based keyword query diversification through constructing structured query candidates [13], [14]. Their brief idea is to first map each keyword to a set of attributes (metadata), and then construct a large number of structured query candidates by merging the attribute-keyword pairs. They assume that each structured query candidate represents a type of search intention, i.e., a query interpretation. However, these works are not easy to be applied in real application due to the following three limitations:

- A huge number of structured XML queries may be created and evaluated;
- There is no guarantee that the structured queries to be evaluated can find matched results due to the structural constraints;
- Similar to [12], the process of constructing structured queries has to depend on the metadata information present in the XML data.

To overcome from all the above problems, we implement a diversification problem in XML keyword search so, that it will directly find the diversified results without retrieving the relevant results .to reach this goal we will take a keyword query based on MI(Mutual Information) score using Simple Feature Selection model[15],[16].in this model we will find correlated feature terms in the probability theory the selection of co-related feature terms are not limited to the labels of XML elements . It also finds the feature terms for each combination of feature terms on original query keyword may represent one of diversified contexts. In this we will find the context of the keyword based on the relevance of the original query and the novelty of its results. To efficiently calculate the diversified results for keyword search we will use 2 algorithms 1)Baseline algorithm 2)Anchor based pruning algorithm which is improved algorithm based on observed results.

2 PROBLEM DEFINITION

Consider a keyword query q and XML data T, and over goal is to find the top-k query candidates based on high relevance and maximal diversification for q in T. Finally, each query candidates denotes a context or a search intention of query q in an XML data T.

TABLE 2
Part of Statistic Information for q

database systems query +					
	language	expansion	optimization	evaluation	complexity
#results	71	5	68	13	1
relational database query +					
	log	efficient	distributed	semantic	translation
#results	12	17	50	14	8
relational database query +					
	language	expansion	optimization	evaluation	complexity
#results	40	0	20	8	0
	log	efficient	distributed	semantic	translation
#results	2	11	5	7	5
...	...				

2.1 Feature Selection Model

In this model using of distinct term pairs we will find the MI(Mutual Information) score [15],[16].to find this MI Score Consider an XML data T and their relevance based on term pairs using the dictionary W mainly depends on the application context and it will not affect an subsequent discussion.

MI score can also use to characterize both the relevance and redundancy of the variables, such as the minimum redundancy feature selection

Now assume that we have an XML tree T and sample result R(T) and Prob(x,T) is the probability of terms x which is appearing in R(T).Here Prob(x,T)=R(x,T)/R(T) where R(x,T) is the number of results containing x in T and Prob(x,y,T) represents probability of x and y co-occurring terms in R(T) which means Prob(x,y,T)=R(x,y,T)/R(T)

TABLE 3
Mutual Information Score w.r.t. Terms in q

database	system	relational	protein	distributed	oriented
	7.06	3.84	2.79	2.25	2.06
Mutual score (10 ⁻⁴)	image	sequence	search	model	large
query	1.73	1.31	1.1	1.04	1.02
	language	expansion	optimization	evaluation	complexity
	3.63	2.97	2.3	1.71	1.41
Mutual score (10 ⁻⁴)	log	efficient	distributed	semantic	translation
	1.17	1.03	0.99	0.86	0.70

If terms x and y are said to be independent, if x does not give any information about y and y does not give any information about x,at that case their mutual information is said to zero. ifterms x and y are similar, then x determines the value of y and y determines x. This shows, the simple measure can be used to quantify how much the produced word co-occurrences maximize the dependency of the feature terms while reduce the redundancy of feature terms. In this work, we use the following method to measure mutual information score:

$$MI(x, y, T) = Prob(x, y, T) * \log \frac{Prob(x, y, T)}{Prob(x, T) * Prob(y, T)} \quad (1)$$

For each and every term in the XML data, we have to find a set of feature terms where the feature terms can be selected in any way, for e.g., top-m feature terms or their feature terms with mutual values greater than a given threshold based on domain applications or data administrators. The feature terms can be computed before and stored the procedure of query expansion. So that, for a given keyword query, we can get a matrix of features for the query keywords q using the term-pairs in dictionary W. The

matrix represents a place to search intentions (query candidates) of the real query w.r.t. the XML data T. Therefore, our problem is to select a subset of query candidates, which has the highest probability of interpreting the contexts of real query. In this, finding of the query candidates are depends on an approximate sample at the entity level of XML data T.

2.2 Keyword Search Diversification Model

In this model, we not only give importance to new generated queries but also gives importance to both relevance and novelty. relevance indicates about new results whereas novelty indicates distinct results . two criteria are targeted for both relevance and novelty 1) generated query qnew has maximal probability to interpret the contexts of original query with regards to the data to be searched 2) the generated query qnew should have maximal difference from the previously generated query set Q. Such that, we have the qnew scoring function

$$score(q_{new}) = Prob(q_{new} | q, T) * DIF(q_{new}, Q, T), \quad (2)$$

Where Prob(qnew/q,T) indicates probability that qnew is the search intention when the real query is issued over the data; DIF (qnew,Q,T)indicates percentage of results that are produced usingqnew, but not by any before generated query in Q.

2.1 Evaluating the Probabilistic Relevance of an Intended Query Suggestion w.r.t. the Original Query

From Bayes Theorem, we have

$$Prob(q_{new} | q, T) = \frac{Prob(q | q_{new}, T) * Prob(q_{new} | T)}{Prob(q | T)}, \quad (3)$$

WhereProb(q/qnew,T)models the generatingthe observed query q,during the intended query is qnew, and Prob(qnew /T)indicates the query generation probability in thegiven XML data T.

To deal with multiple keyword queries, we will make the independence consideration based on the probability that fiji ,is the intended feature of the query keyword ki. That is,

$$Prob(q | q_{new}, T) = \prod_{k_i \in q, f_{ij_i} \in q_{new}} Prob(k_i | f_{ij_i}, T). \quad (4)$$

From the statistical sample information, the intent of a keyword can be inferred from the occurrences of the keyword and its correlated terms in the data T. Thus, we can compute the value ofProb (ki / fiji , T) of interpreting a keyword ki into a search intent fijas follows:

$$\begin{aligned} Prob(k_i | f_{ij_i}, T) &= \frac{Prob(f_{ij_i} | k_i, T) * Prob(k_i, T)}{Prob(f_{ij_i}, T)} \\ &= \frac{|R(\{k_i, f_{ij_i}\}, T)| / |R(T)|}{|R(f_{ij_i}, T)| / |R(T)|} \\ &= \frac{|R(s_i, T)|}{|R(f_{ij_i}, T)|}, \end{aligned} \quad (5)$$

where $s_i = \{k_i, f_{ij_i}\}$.

For example Consider a query q={database, query} and a querycandidate qnew={database system; query expansion}.Prob(q/qnew,T)represents the probability of a publicationthat shows that problem of “database query” regarding the context of “system and expansion”, which can becalculated by

using

$$\frac{|R(\{\text{database system}\}, T)|}{|R(\text{system}, T)|} * \frac{|R(\{\text{query expansion}\}, T)|}{|R(\text{expansion}, T)|}$$

. Here,R({database system},T)indicates the number of keywordsearch results of query q over thedata T. |R(system,T)|indicates the number of keywordsearch results of current query system on the data T,but the number can be obtained without presence of current querysystem because it is equal to the size of keyword nodelist of “system” over data T. Similarly, we can also find thevalues of |R({query expansion},T)and |R(expansion , T)|. In this work, we take the huge number of acceptedsemantics—SLCA to design XML keyword search results.Consider an XML data T, the query generation probabilityof qnew can be calculated by using of the following equation:

$$Prob(q_{new} | T) = \frac{|R(q_{new}, T)|}{|R(T)|} = \frac{|\bigcap_{s_i \in q_{new}} R(s_i, T)|}{|R(T)|}, \quad (6)$$

where $\bigcap_{s_i \in q_{new}} R(s_i, T)$ is the set of SLCA results by combining the node lists $R(s_i, T)$ for $s_i \in q_{new}$ using the XRank algorithm in [4] which is a popular method to computing the SLCA results by visiting of the XML tree only once.

Given a q(query) and the XML data T, the value $\frac{1}{Prob(q | T)}$ Is notchanged value w.r.t different generatedquery candidates. Therefore, from Equation (3)we can be rewritten as :

$$Prob(q_{new} | q, T) = \gamma * \left(\prod \frac{R(s_i, T)}{R(f_{ij_i}, T)} \right) * \frac{|\bigcap R(s_i, T)|}{|R(T)|}, \quad (7)$$

where

$k_i \in q, s_i \in q_{new}, f_{ij_i} \in s_i$ and $\gamma = \frac{1}{Prob(q | T)}$ can be ranged in (0, 1] because it does not affect the expanded query candidates w.r.t. an original keywordq(query)and data T. Though the above equation can model the probabilities of generated query candidates (i.e., the relevance amongthese query candidates and the original query w.r.t. the data), different query candidates may have overlapped result sets. So, we should also take into account the novelty of results of the query candidates.

2.2.2 Evaluating the Probabilistic Novelty of an Intended Query w.r.t. the Original Query

As we know, the important property of SLCA semantics is exclusivity, i.e., if a node is taken as an SLCA result, then the ancestor nodes cannot become SLCA results. Because of this exclusive property, the process of evaluating the novelty for a newly generated query candidate qnew depends on the evaluation of the other previously generated query candidates Q. Hereby, the novelty DIF(qnew,Q,T)of qnew against Q can be calculated as follows:

$$\begin{aligned} DIF(q_{new}, Q, T) &= \\ &= \frac{|\{v_x | v_x \in R(q_{new}, T) \wedge \nexists v_y \in \{ \bigcup_{q' \in Q} R(q', T) \} \wedge v_x \leq v_y \}|}{|R(q_{new}, T) \cup \{ \bigcup_{q' \in Q} R(q', T) \}|} \end{aligned} \quad (8)$$

here $R(q_{new}, T)$ represents the set of SLCA results generated

by q_{new} ; $\bigcup_{q' \in Q} R(q', T)$ represent the set of SLCA results generated by queries in Q , which do not include the duplicate and ancestor

nodes $v_x \leq v_y$ that means v_x is a duplicate of v_y for “=”, or v_x is an ancestor of v_y for “<”;

$R(q_{new}, T) \cup \{ \bigcup_{q' \in Q} R(q', T) \}$ is an SLCA result set that satisfies with the exclusive property. By performing this, we can avoid presenting overlapped SLCA results to users. In other means, the consideration of novelty allows us to incrementally refine the diversified results into more specific ones when we incrementally deal with more query candidates. Our main problem is to find top k qualified query candidates and their relevant SLCA results. To do this, we can compute the exact score of the search intention for each generated query candidate. However, to reduce the calculating cost, an alternative way is to calculate the relative scores of queries. Therefore, we have the following equation transformation. After we use the Equations (7) and (8) into Equation (2), we have the final equation

$$\begin{aligned} score(q_{new}) &= \gamma * \prod \left(\frac{R(s_i, T)}{R(f_{ij_i}, T)} \right) * \frac{|\bigcap R(s_i, T)|}{|R(T)|} \\ &* \frac{|\{v_x | v_x \in R(q_{new}, T) \wedge \nexists v_y \in \{ \bigcup_{q' \in Q} R(q', T) \} \wedge v_x \leq v_y \}|}{|R(q_{new}, T) \cup \{ \bigcup_{q' \in Q} R(q', T) \}|} \\ &= \frac{\gamma}{|R(T)|} * \prod \left(\frac{R(s_i, T)}{R(f_{ij_i}, T)} \right) * |\bigcap R(s_i, T)| \\ &* \frac{|\{v_x | v_x \in R(q_{new}, T) \wedge \nexists v_y \in \{ \bigcup_{q' \in Q} R(q', T) \} \wedge v_x \leq v_y \}|}{|R(q_{new}, T) \cup \{ \bigcup_{q' \in Q} R(q', T) \}|} \quad (9) \\ &\mapsto \prod \left(\frac{R(s_i, T)}{R(f_{ij_i}, T)} \right) * |\bigcap R(s_i, T)| \\ &* \frac{|\{v_x | v_x \in R(q_{new}, T) \wedge \nexists v_y \in \{ \bigcup_{q' \in Q} R(q', T) \} \wedge v_x \leq v_y \}|}{|R(q_{new}, T) \cup \{ \bigcup_{q' \in Q} R(q', T) \}|}, \end{aligned}$$

where $s_i \in q_{new}, s_i = k_i \cup f_{ij_i}, k_i \in q, q' \in Q$ and the symbol represents the left side of the equation depends on the right side of the equation because the value is not changed for calculating the diversification scores of different search intentions.

3 EXTRACTING FEATURE TERMS

To address the problem of deriving meaningful feature terms w.r.t. an original keyword query, there are two relevant works [17], [18]. In [17], Sarkas et al. proposed a solution of producing top- k interesting and meaningful expansions to a keyword query by deriving other words with high “interestingness” values. The expanded queries can be used to search more specific documents. The interestingness is formalized with the notion of surprise [19],[20], [21]. In [18], Bansal et al. proposed efficient algorithms to identify keyword clusters in large quantity of blog posts for specific temporal intervals. Our work combines both of their ideas together: we first measure the correlation of each pair of terms using our mutual information model in Equation (1), which is a simple surprise metric; and then we build terms correlated graph that contains all the terms and their correlation values. Different from [17], [18], our work makes use of entity-based sample information to build a correlated graph with high accurate for XML data. In order to efficiently measure the correlation of a pair of terms, we use a statistic method to measure how much the co-occurrences of a pair of terms deviate from the independent assumption where the entity

nodes (e.g., the nodes with the “*” node types in XML DTD) are taken as a sample space. For instance, given a pair of terms x and y , their mutual information score can be evaluated based on Equation (1) where $Prob(x; T)$ (or $Prob(y, T)$) is the value of dividing the number of entities consisting x (or y) by the total entity size of the sample space; $Prob(x, y, T)$ is the value of dividing the number of entities consisting both x and y by the total entity size of the sample space. In this work, we build a term correlated graph offline i.e we precompute it before processing queries. The correlation values among the terms are also recorded in the graph, which is used to generate the term-feature dictionary W . During this XML data tree traversal, we first obtain the meaningful text information from the entity nodes in XML data. Here, we would like to filter out the stop words. And then, we produce a set of term-pairs by scanning the obtained text. After that, all the generated term-pairs will be recorded in the terms of correlated graph. In this procedure of building correlation graph, we also record the count of each term-pair to be generated from various entity nodes. As such, after the XML data tree is traversed completely, we can calculate the mutual information score for each term pair based on Equation (1). To decrease the size of correlation graph, the term-pairs with their correlation less than a threshold can be filtered out. Based on the offline built graph, we can on-the-fly select the top- m different terms as its features for each given query keyword.

4 KEYWORD SEARCH DIVERSIFICATION ALGORITHMS

In this, we first propose a baseline algorithm to retrieve the diversified keyword search results. Then, two anchor-based pruning algorithms are designed to improve the efficiency of the keyword search diversification by making use of the intermediate

Algorithm 1. Baseline Algorithm

```

input: a query  $q$  with  $n$  keywords, XML data  $T$  and its term correlated graph  $G$ 
output: Top- $k$  search intentions  $Q$  and the whole result set  $\Phi$ 
1:  $M_{m \times n} = \text{getFeatureTerms}(q, G)$ ;
2: while ( $q_{new} = \text{GenerateNewQuery}(M_{m \times n}) \neq \text{null}$ ) do
3:    $\phi = \text{null}$  and  $prob\_s\_k = 1$ ;
4:    $l_{i_x j_y} = \text{getNodeList}(s_{i_x j_y}, T)$  for  $s_{i_x j_y} \in q_{new} \wedge 1 \leq i_x \leq m \wedge 1 \leq j_y \leq n$ ;
5:    $prob\_s\_k = \prod_{f_{i_x j_y} \in s_{i_x j_y} \in q_{new}} \left( \frac{|k_{i_x j_y}|}{\text{getNodeSize}(f_{i_x j_y}, T)} \right)$ ;
6:    $\phi = \text{ComputeSLCA}(\{l_{i_x j_y}\})$ ;
7:    $prob\_q\_new = prob\_s\_k * |\phi|$ ;
8:   if  $\Phi$  is empty then
9:      $score(q_{new}) = prob\_q\_new$ ;
10:  else
11:    for all Result candidates  $r_x \in \phi$  do
12:      for all Result candidates  $r_y \in \Phi$  do
13:        if  $r_x == r_y$  or  $r_x$  is an ancestor of  $r_y$  then
14:           $\phi.remove(r_x)$ ;
15:        else if  $r_x$  is a descendant of  $r_y$  then
16:           $\Phi.remove(r_y)$ ;
17:         $score(q_{new}) = prob\_q\_new * |\phi| * \frac{|\phi|}{|\phi| + |r_x|}$ ;
18:  if  $|Q| < k$  then
19:    put  $q_{new} : score(q_{new})$  into  $Q$ ;
20:    put  $q_{new} : \phi$  into  $\Phi$ ;
21:  else if  $score(q_{new}) > score(\{q'_{new} \in Q\})$  then
22:    replace  $q'_{new} : score(q'_{new})$  with  $q_{new} : score(q_{new})$ ;
23:     $\Phi.remove(q'_{new})$ ;
24: return  $Q$  and result set  $\Phi$ ;

```

4.2 Anchor-Based Pruning Solution

By using of this baseline solution, we can find that the main cost of this solution is spent for computing SLCA results by

removing unqualified SLCA results from the newly and before generated result sets. To decrease the computing cost, we are mapping to design an anchor based pruning algorithm, which will avoid the unnecessary computing cost of unqualified results (i.e., duplicates and ancestors). In this, we first find the each term-pair to be created from various entity nodes. As after the XML data tree nodes are visited completely, we can compute the mutual information score for each and every term pair from Equation (1). To decrease the size of correlation graph, of the term-pairs with their correlation lower than a given threshold can be separated. Based on the offline built graph, we can on-the-fly select the top-m distinct terms as its features for every query keyword.

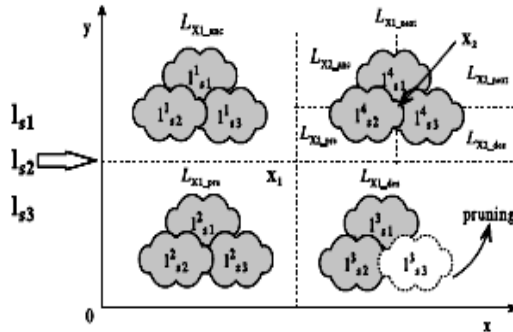


Fig. 1. Usability of anchor nodes.

Algorithm 2. Anchor-Based Pruning Algorithm

input: a query q with n keywords, XML data T and its term correlated graph G

output: Top- k query intentions Q and the whole result set Φ

```

1:  $M_{m \times n} = \text{getFeatureTerms}(q, G)$ ;
2: while  $q_{\text{new}} = \text{GenerateNewQuery}(M_{m \times n}) \neq \text{null}$  do
3:   Lines 3-5 in Algorithm 1;
4:   if  $\Phi$  is not empty then
5:     for all  $v_{\text{anchor}} \in \Phi$  do
6:       get  $l_{i_x j_y \text{-pre}}$ ,  $l_{i_x j_y \text{-des}}$ , and  $l_{i_x j_y \text{-next}}$  by calling
       for  $\text{Partition}(l_{i_x j_y}, v_{\text{anchor}})$ ;
7:       if  $\forall l_{i_x j_y \text{-pre}} \neq \text{null}$  then
8:          $\phi' = \text{ComputeSLCA}(\{l_{i_x j_y \text{-pre}}\}, v_{\text{anchor}})$ ;
9:       if  $\forall l_{i_x j_y \text{-des}} \neq \text{null}$  then
10:         $\phi'' = \text{ComputeSLCA}(\{l_{i_x j_y \text{-des}}\}, v_{\text{anchor}})$ ;
11:         $\phi + = \phi' + \phi''$ ;
12:        if  $\phi'' \neq \text{null}$  then
13:           $\Phi.\text{remove}(v_{\text{anchor}})$ ;
14:        if  $\exists l_{i_x j_y \text{-next}} = \text{null}$  then
15:          Break the FOR-Loop;
16:         $l_{i_x j_y} = l_{i_x j_y \text{-next}}$  for  $1 \leq i_x \leq m \wedge 1 \leq j_y \leq n$ ;
17:      else
18:         $\phi = \text{ComputeSLCA}(\{l_{i_x j_y}\})$ ;
19:       $\text{score}(q_{\text{new}}) = \text{prob}_{q_{\text{new}}} * |\phi| * \frac{|\phi|}{|\Phi| + |\phi|}$ ;
20:      Lines 18-23 in Algorithm 1;
21: return  $Q$  and result set  $\Phi$ ;

```

6 RELATED WORK

Diversifying results of document retrieval has been implemented [6], [7], [8], [9]. Most of them perform diversification as a re-ranking or post-processing step of document retrieval. Related work on result diversification

in IR also includes [22], [23], [24]. Santos et al. [22] used probabilistic model to diversify document ranking, by which web search result diversification is introduced. They also used the similar model to discuss search result diversification through sub-queries which are in [23]. Gollapudi and Sharma [24] proposed a set of natural axioms that a diversification system is expected to satisfy, by which it will Improve user satisfaction with diversified results. Different From all the above relevant works, in this paper, our diversification model was created to process keyword queries over structured data. We have to consider the structures of data in our model and algorithms, not limited to pure text data like the above methods. Moreover, our algorithms can generate query suggestions and evaluate them. The diversified search results can be returned with the passed query suggestions not depending on the whole result set of the real keyword query. Recently, they also introduced some relevant work to communicate the problem of result diversification in structured data. For instance, [25] they also conducted clear experimental evaluation of the many diversification techniques implemented in a common framework and proposed a method based on threshold value to control the tradeoff between relevance and diversity features in their diversification metric. But it is a huge challenge for users to set the threshold value. Hasan et al. [26] developed efficient algorithms to find top-k most distant set of results for well organized queries over semi-structured data. As we know, a organized query can be used to express much more clear search intention of a user. Hence, diversifying structured query results is less significant than that of keyword search results. In [27], Panigrahi et al. focused on the selection of diverse item set, not considering structural relationships of the items to be selected. The most relevant work to ours is the approach DivQ in [13] where Demidova et al. first identified the attribute-keyword pairs for an original keyword query and then constructed a large number of structured queries by connecting the attribute-keyword pairs using the data schema (the attributes can be mapped to corresponding labels in the schema). The challenging problem in [13] is that to generated structured queries with slightly different structures may still be considered as different types of search intentions, which may hurt the effectiveness of diversification as shown in our experiments. However, our diversification model in this work utilized mutually co-occurring feature term sets as contexts to represent different query suggestions and the feature terms are selected based on their mutual correlation and the distinct result sets together. The structure of data are considered by satisfying the exclusive property of SLCA semantics.

7 CONCLUSIONS

In this paper, we used Feature Selection Model to find the diversification results of Keyword query q from xml data and then based on relevance and novelty we will measure the context of original query and results, After that we used two algorithms 1) Baseline Algorithm 2) Anchor-based Pruning algorithm to observe the properties of XML search results. Finally, we will perform comprehensive evaluation of real data and synthetic data is performed for the effectiveness of our diversification model by analyzing the returned search intentions for the given keyword queries over DBLP data set based on the nDCG measure and the possibility of diversified query suggestions. After that, we also finds that efficiency of our proposed algorithms by running of substantial number of queries over both XMark

and DBLP data sets. By observing this results, we will get that our proposed algorithms can return qualified search intentions and results to users with in a short amount of time.

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National Conference on "Innovative Technologies and Data Communication Engineering" (NCITDCE-17)

22nd April, 2017



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Reciprocal Online Multitask Erudition

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Abstract—We concentrate the issue of online multitask learning for unraveling various related order undertaking in parallel, going for arranging each arrangement of information got by each assignment precisely and productively. One down to earth case of online multitask learning is the miniaturized scale blog assessment location on a gathering of clients, which groups small scale blog entries created by every client into passionate or non-enthusiastic classes. This specific web based learning errand is trying for various reasons. Above all else, to meet the basic necessities of online applications, an exceedingly productive and adaptable order arrangement that can make quick expectations with low learning expense is required. This prerequisite leaves routine clump learning calculations out of thought. Second, established characterization strategies, be it clump or on the web, frequently experience a problem when connected to a gathering of errands, i.e., on one hand, a solitary order display prepared on the whole accumulation of information from all undertakings may neglect to catch attributes of individual assignment; then again, a model prepared freely on individual undertakings may experience the ill effects of lacking preparing information. To conquer these difficulties, in this paper, we propose a collective online multitask learning strategy, which takes in a worldwide model over the whole information of all undertakings. In the meantime, singular models for different related errands are mutually deduced by utilizing the worldwide model through a cooperative web based learning approach. We outline the adequacy of the proposed system on an engineered dataset. We additionally assess it on three genuine issues—spam email separating, bioinformatics information arrangement, and miniaturized scale blog estimation location.

Index Terms—learning systems, online learning, multitask learning, classification.

I.INTRODUCTION

Classical machine learning techniques are regularly detailed as a solitary errand learning issue, which by definition learns one undertaking at any given moment.

Despite what might be expected, multitask learning intends to understand various related learning

assignments in parallel. Some genuine issues are basically multitask learning, in spite of the fact that they are regularly broken into littler single learning assignments, which are then tackled separately by established learning techniques. Multitask learning has been widely contemplated in machine learning and information mining over the previous decade [1]–[4]. Experimental discoveries have exhibited the benefits of multitask learning over single assignment learning over an assortment of utilization areas. The traditional multitask learning approach [1] frequently makes two suppositions. To begin with, it expect there is one essential assignment and other related undertakings are basically auxiliary ones whose preparation information are abused by multitask figuring out how to enhance the essential errand. In this manner, the traditional multitask learning approach concentrates on taking in the essential undertaking without minding how alternate assignments are found out. Second, the traditional multitask learning issue is regularly contemplated in a cluster learning setting, which expect that the preparation information of all assignments are accessible. On one hand, this presumption is not reasonable for some true issues where information arrives successively. Then again, the bunch multitask learning calculations as a rule have genuinely serious preparing expense and poor versatility execution, to the extent substantial genuine applications are concerned.

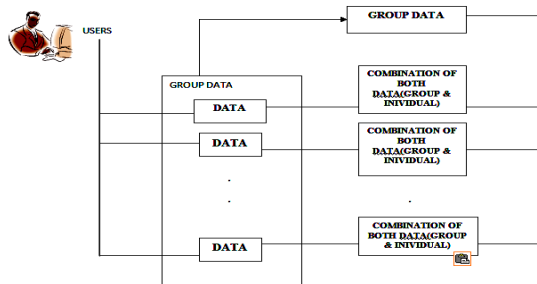
We propose a novel collective online multitask learning (COML) strategy to assault the previously mentioned challenges. The fundamental thought is to first form a non specific worldwide model from huge measure of information accumulated from all clients, and afterward in this way use the worldwide model to manufacture the customized characterization models for individual clients through a cooperative learning process. We define this thought into a streamlining issue under an internet learning setting, and propose two distinctive COML calculations by investigating various types of web based learning systems.

To assess the productivity of the proposed system, we direct trials by contrasting our calculations against an assortment of best in class strategies on an engineered dataset and three genuine applications, including on the web spam email sifting, peptide

restricting expectation in bioinformatics, and miniaturized scale blog feeling location. Our outcomes demonstrate that the proposed COML calculations outflank (1) a solitary assignment internet learning approach that basically takes in a worldwide model over the whole accumulation of information assembled from every one of the undertakings, (2) a solitary errand web based learning approach that tackles each errand freely, and (3) a cutting edge online multitask learning approach.

II.FORMULATION

We now figure the issue in a twofold characterization setting. Our calculation can be effectively reached out to address the multiclass issues by embracing strategies portrayed in [8], [18]. Online multitask characterization continues in rounds by watching a grouping of cases, each having a place with some client/assignment from an arrangement of K clients/errands. On each round, there are K isolate online twofold characterization issues being unraveled mutually. We expect that information from all clients/assignments can be spoken to in the same worldwide component space, so that it is conceivable to utilize the common data between errands to improve each learning undertaking. Signify by $(x_k t, y_k t)$ a preparation occasion having a place with the k-th client at round t, where $x_k t \in R^d$ is a d-dimensional vector speaking to the illustration and $y_k t \in \{1, -1\}$ alludes to its class mark. We from this time forward exclude the superscript of $x_k t$ beneath for curtness. We will probably take in an arrangement of grouping models to amplify the online forecast precision of each errand i.e., $f^{(k)}(\cdot):R^d \rightarrow \{1, -1\}$, $k = 1, \dots, K$. In this work, we consider a linear classification model for each task, which is parameterized by a weight vector w, i.e., $f(x) = \text{sign}(w \cdot x)$.



2.1 Building a global model

The initial step of the community oriented online multitask learning assembles a worldwide characterization model to misuse the shared characteristic among assignments. We receive the online detached forceful (PA) structure [8] to manufacture a worldwide model utilizing

information gathered from all clients at round t, that is $f_t(x) = \text{sign}(u_t \cdot x)$ where $u_t \in R^d$ is the weight vector of the worldwide model educated at round t. In particular, at round t, the calculation utilizes the most recent preparing occasion x_t, y_t to refresh the grouping model as takes after $u_{t+1} = \arg \min_{u \in R^d} \frac{1}{2} \|u - u_t\|^2 + C\xi$ (1a) s.t. $(u; (x_t, y_t)) \leq \xi$ (1b) $\xi \geq 0$ (1c) where C is a positive parameter controlling the impact of the slack variable ξ on the goal work, and is the pivot misfortune work characterized as $(u; (x_t, y_t)) = \max(0, 1 - y_t u \cdot x_t)$

The above plan intends to accomplish two destinations: (1) variety of the new weight vector u_{t+1} from the past weight vector u_t ought to be as little as could be expected under the circumstances, and (2) the new weight vector ought to effectively arrange the present case x_t with an adequately expansive edge. Thusly, it keeps up an exchange off between the measure of advance made on each round and data held from past rounds. The shut frame arrangement of the advancement issue (1) is $u_{t+1} = u_t + \tau y_t x_t$ where τ is given by $\tau = \min C, \tau x_t^2$. The confirmation can be found in [8].

2.2 Learning the Collaborative Models:

The basic stride of our community online multitask learning is to apply the current worldwide model to cooperatively take in the each of the K singular client models. Utilizing a similar PA plan, the objective is to take in an arrangement display for the k-th client as

$$f^{(k)}(x) = \text{sign } w^{(k)} \cdot x$$

where $w^{(k)} \in R^d$ is the weight vector of the k-th user’s collaborative model learned at round t. For simplicity, we use w_t to denote $w^{(k)}_t$ henceforth. The next step is to use the shared information learned by the global model to enhance each individual learning model. We formulate the collaborative learning model as a convex optimization problem that minimizes the deviation of the new weight vector from the prior collaborative one and the global one, as follows

$$w_{t+1} = \underset{w \in R^d}{\text{argmin}} \frac{\eta_1}{2} \|w - w_t\|^2 + \frac{\eta_2}{2} \|w - u_t\|^2 + C\xi \quad (2a)$$

$$\text{s.t. } \ell(w; (x_t, y_t)) \leq \xi \quad (2b)$$

$$\xi \geq 0 \quad (2c)$$

where η_1 and η_2 are two args() that adjust the trade off among the worldwide model U and the communitarian show w, and args() $C \geq 0$ manages the impact of the slack variable ξ on the goal work. The above plan intends to accomplish a harmony between the worldwide and self design methods, i.e., regardless of its specified, every self design methods likewise imparts some shared characteristic to different individuals in the gathering. It soundly joins the communitarian show with the worldwide one. Specifically, on the off chance that we set $\eta_2 =$

0, the streamlining lessens to the approach of taking in an individual characterization demonstrate without drawing in the worldwide model; on the off chance that we set $\eta_1 = 0$, it diminishes to the worldwide model. As needs be, we can tweak the commitment of each designed methods by resulting proper args(). Applying the multiplier method, the refresh control for improvement issue (2) can be determined as

$$w_{t+1} = \frac{\eta_1 w_t + \eta_2 u_t + \tau y_t x_t}{\eta_1 + \eta_2} \quad (3)$$

where τ is given by

$$\tau = \min \left\{ C, \frac{\eta_1 + \eta_2 - y_t(\eta_1 w_t + \eta_2 u_t) \cdot x_t}{\|x_t\|^2} \right\}$$

2.2.1 Algorithm 1

An ebb and flow drift in web based learning exploration is to utilize parameter certainty data to control internet learning process. Certainty weighted learning, proposed by Crammer et al. [16], [17], [19], models the straight classifier theories vulnerability with a multivariate Gaussian dissemination over contained vectors, which is then used to control the course and length of parameter updates. Reasonably, to arrange a case x , a certainty weighted classifier draws a parameter vector $w \sim N(\mu, \Sigma)$ and predicts the name as indicated by $\text{sign}(w \cdot x)$. By and by, in any case, the normal contained vector $E(w) = \mu$ is utilized to make the expectation. Certainty weighted learning evaluations have been appeared to perform well on many undertaking. We broaden the proposed community oriented web based multitask learning with the confidence weighted hypothesis. It solves the following unconstrained objective function on each round

$$\underset{\mu \in \mathbb{R}^d, \Sigma \in \mathbb{R}^{d \times d}}{\text{argmin}} \quad D_{KL}(N(\mu, \Sigma) \parallel N(\mu_t, \Sigma_t)) + \frac{1}{2r} \ell^2(\mu; (x_t, y_t)) + \frac{1}{2r} x_t^T \Sigma x_t$$

Step 1: Take input of n user $(x, y)^n$

Step 2: Intialize w and u to zero.

Step 3: If $t=1$ then do
 Take collaborative model
 Take training data at current period
 Take loss dat

Step 4: if length of a and n user data is equal to 0
 Then
 Set $t=0$
 End

Step 5: else
 $t = \min(c, \text{users data})$

Step 6 : Update the model.

Step 7: Repeat the process for global model as well

At the origin term exactly assured that the modified distribution is identical to the present distribution $N(\mu, \Sigma)$ in the Kull back Leibler (KL) divergence sense. The next term $2(\mu(x_t, y_t) - \max(0, 1 - y_t \mu \cdot x_t))^2$ is the doubled hinge loss occurred from the heavy vector μ to measure the error rate the resultant for input x_t when the true-1 named labelled is at y_t . The next term is related to a having the many chances condition used in confidence weighted learning, i.e., a classifier drawn from the updated distribution should classify the example correctly with a high probability (see [16], [19] for further details).

III. Final Results

We calculate the performance of our algorithm on a synthetic dataset and real-life datasets.

- **Global Model** It takes in a solitary arrangement demonstrate from every one of assignments' information by applying the PA/AROW calculation. At each web based learning round, the calculation gets a preparation test from each errand, and utilizations that example to refresh its weight vector.

- **Personal Model** It utilizes the PA/AROW calculation to prepare an individual characterization demonstrate for each errand just utilizing its own information. As it were, each assignment is related with a customized order show.

- **Simple Model** It basically switches between the Global and Personal models as per their aggregate blunder checks in past internet learning rounds. Specifically, at each round, it sets its weight vector to that of the best model (Global or Personal), i.e., one with the slightest total mistakes to-date. Benchmarking against this technique is critical as it will demonstrate whether the proposed COML calculation is more viable than a guileless mix.

3.1 Twitter Sentiment Detection

With the developing prominence of small scale web journals like Twitter3 comes the request to comprehend their clients. We concentrate on the smaller scale blog assumption identification issue, whose objective is to recognize whether a clients miniaturized scale blog entry contains feelings or conclusions. This issue is testing in light of the fact that a smaller scale blog entry is frequently short and every individual may have his/her one of a kind method for communicating suppositions. Additionally, the extent of enthusiastic posts is regularly little, and fluctuates crosswise over people. In a perfect world, a customized classifier ought to be made for each smaller scale blogger. Be that as it may, there is a lack of preparing information for every client, making the customized assessment show immeasurably incorrect unless the model has been prepared more than several miniaturized scale web journals. A post on Twitter is known as a tweet.

This outcome coordinates our guess that passionate tweets are by and large a minority among Twitter clients.

VI.CONCLUSION

We proposed a community online multitask learning strategy that can exploit individual and worldwide models to accomplish a general change in grouping execution for together taking in numerous corresponded undertakings. We demonstrated that it can beat both the worldwide and individual models by rationally coordinating them in a brought together community oriented learning system. The exploratory outcomes show that our calculation is compelling and proficient for the genuine miniaturized scale blog conclusion identification errand. In spite of the fact that the shared online multitask learning calculation was firstly intended to tackle the UGC characterization issue, it has potential applications outside of the areas concentrated here. We want to have the capacity to extend our tests to a more significant size dataset and furthermore to more applications. Our strategy expect uniform relations crosswise over assignments. All in all, our cooperative online multitask learning technique is a huge initial move towards a more powerful online multitask arrangement approach.

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Image Search By Using Custom Tags With Geo Locations

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Abstract— Presently a day's social labelling is a basic in social sites to regulate a decent labelling for photographs exchange to the sites to get to high viewpoint social labels. Label direction via naturally doling out related labels to photographs to discover suitable intriguing zone. In this paper we focus on the represent proposal work and attempt to pick client affirmed geo-area unequivocal and in addition good stags for photographs on social site. For client and geographical-areas tending to accomplish they have distinguished favoured labels permit to a photograph and yearning a subspace look into technique to severally reveal the client inclination and geo-area seek. The objective of our work is to relate a visual and printed space into a helpful subspace. As per bound together subspace is graphed from the transitional subspace and literary subspace separate We make recipe for above data issues into helpful frame and present the feedback with its conversion run the show. For a given a drew in photograph with its geo-area to a client we utilized the closest neighbour look in the depict brought together space. The client affirmed and geo-area nitty gritty labels.

Keywords — Geo-area inclination, User inclination delineate proposal, Subspace learning, Tagging history.

Introduction

Because of more popularity of GPS-empower camera accessory and cell phones, now a day's have witnessed possible growth of personal photos like tags, geo-location and visual and textual from these characteristics. In addition numerous photographs allocation websites like Flickr, Picasa and Zoomed approach a large number of clients to exchange and share their own photographs by their PDAs or other web extra.

A tag is a non-progressive term delegate to an information, (for example, a web bookmark, computerized picture or PC document). Tagging allows user to find out linked images when recapture that image later. User can attach tags for photos but it is very time intense. Tag guidance specifies user to assign more tags in associating gap between user concept and appearance of media images, which provide apparent answer for CBIR (Content Based

Information Retrieval). Many label suggestion approach have worked upon association amongst labels and photographs [1]. Nature of catch is diminished with the human based label arrangement. According to the M.wang, B. Ni et.al [1] proposed three limit with respect to labelling that enhance manual ID and programmed labelling: 1) Tagging with information determination and gathering: manual case for label choice from information. 2) Tag suggestion. 3) Tag preparing: - It is procedure of refining labels or including new labels.

LITERATURE SURVEY

"T. L. Berg, A. C. Berg, and J. Shih" Proposed in It is familiar to utilize space particular expressing – characteristics – to portray the visual nearness of articles. Keeping in mind the end goal to scale the utilization of these obvious visual ascribes to countless, particularly those not all around considered by advisor or etymologists, it will be important to discover substitute procedures for examine trait vocabularies and for figuring out how to watch properties without hand order preparing information [2]. We show that it is achievable to fulfill both these errands normally by mining content and picture information case within the Internet. The proposed approach likewise portray ascribes as indicated by their visual appointment: worldwide or neighbourhood, and sort: shading, surface, or shape. This work focus on finding characteristics and their visual nearness, and is as freethinker as conceivable about the literary portrayal [2].

"Y. Shen and J. Fan" Proposed the Large-scale inexactly labelled pictures (i.e., various protest labels are given freely at the picture level) are open on Internet, and it is exceptionally appealing to favourable position such approximately labelled pictures for robotized picture explanation applications [3]. In this paper, a multi-errand organized SVM calculation is progressed to use both the between question communication and the approximately labelled appearance for accomplishing more sufficient preparing of a substantial number of between corresponding article classifieds. To use the approximately labelled pictures for question classifier preparing, each practically labelled picture is disintegration into an arrangement of picture occasions (picture locales)

and a various instance literature calculation is produced for example mark depiction via consequently break down the correspondences between various labels (given at the picture level) and the picture event . A protest connection system is create for describing the between question relationships unequivocally and analyze the between related learning undertakings actually. To improve the imbalance energy of an expansive number of between related protest classifiers, a multi-assignment organized SVM calculation is refined to demonstrate the between undertaking relatedness all the more unequivocally and preferred standpoint the between question connections for classifier preparing. Our examination on countless related question classes have given extremely positive outcomes [3].

"J. Tang, S. Yan, R. Hong, G.- J. Qi, and T.- S. Chua"has [4] Proposed in this paper, we misuse the issue of inducing pictures' adequate ideas from group contributed pictures and their consolidate labels. To derive the ideas more precise we propose a novel inadequate chart based semi-managed learning approach for bridling the marked and unlabelled information together. The meager diagram create by datum-wise one-versus.- all inadequate reconstitution of all examples can evacuate the greater part of the idea disconnected connections among the information, in this manner is more blasting and perceiving than regular charts. All the more urgently we propose a compelling preparing name elucidation procedure inside this chart based learning basis to deal with the clamor in the labels, by convey in a double regularization for both the amount and nonappearance of the commotion. What's more, we build a n descriptive conservative idea space with little satisfactory crevice to construe the semantic approach in this space to connect the right hole. The relations among various origination are naturally imbued in this space to help the idea suspicion. We lead broad examination on a genuine affiliation contributed picture database subsist of 55,615 Flickr pictures and consolidate labels. The outcomes decide the ability of the proposed approaches and the capacity of our technique to manage the clamor in the labels. We additionally demonstrate that we could accomplish practically identical ability by deducing semantic approach from preparing information with boisterous labels as opposed to preparing information with clean ground-truth names [4].

"X. Li, C. G. M. Snoek, M. Worring, and A.W. M. Smeulders"[15] Proposed in given the era of geo-distinguish pictures, the subject of how to misuse geo labels and the fundamental geo setting for visual pursuit is show up. In view of the thought that the significance of geo setting changes over approach, we present an idea based picture web search tool

which wires visual idea revelation and geo setting in an idea subordinate way. identified with individual substance based and geo-based idea pointer and their uniform combination, idea subordinate combination demonstrates headway. In addition, since the normal web search tool is skillful on social-labelled pictures alone past the need of human correspondence, it is adaptable to adapt to numerous ideas. Look examination on 101 well known visual origination legitimize the suitability of the proposed arrangement. In proper, for 79 out of the 101 ideas, the logical weights yield upgrades over the uniform weights, with a related pick up of no less than 5% regarding normal accuracy [15].

"Z. Li, J. Liu, X. Zhu, T. Liu, and H. Lu" Proposed [17] the image-word connection evaluation is a basic issue in picture explanation. In this paper, we think of a multi-connection probabilistic lattice factorization (MPMF) calculation for the relationship assessment. Not the same as the conventional clarification which treat the picture word collaboration, picture similitude and word connection uninhibitedly or continually, in the proposed MPMF, these three components are brought together at the same time and flawlessly. In particular, we have inferred two low-spatial sets by directing a joint factorization upon the word-to-picture connection lattice, the picture comparability framework, and the word connection network to obtain two low-dimensional arrangements of inactive word viewpoint and idle picture elements. At long last, the remark expressions of every unlabeled or boisterously labelled picture can be close by remaking the picture word cooperation with the both inferred dormant variables. experimental outcomes on the Corel dataset and a Flickr picture dataset demonstrate the better accomplishment of our proposed calculation over the condition of expressions of the human experience [17].

EXISTING SYSTEM

A. Generic tag recommendation: Non specific label motion strategies are to accept a similar once-over of names for a similar preview, i.e., it is free of the customer component. Song et al. [3] proposed a register mark recommendation approach that plainly predicts the tenable names with models picked up from planning data. Shen et al. [5] proposed a multi task facilitated SVM figuring to impact both the between item relation and the relatively labelled pictures. Pictures are assert on actually in light of picture visual object. For a picture, it first discovers its top-nearby pictures from the group picture set and after that chooses the most regular labels in the neighbour set as the finish up on results. In [6], two modes, in light of Poisson Mixture Models and Gaussian handle separately, are planned to make practical and effective label suggestions. In [7], label ideas decisive taking into account label co-event sets

are filed as printed records. The hopeful labels associated with the coordinating ideas, which are found with the question of client given labels of a picture, are advised.

B. Personalized tag recommendation: Customized label approach has pulled in critical consideration as of late. In [2], label proposal is captured utilizing both a Naive Bays classifier on customer describe history and TF-IDF based overall information. In [8], label co event for photographs is gauge utilizing labels seeming both as a part of the labelling history of a client and in Flickr site, and used to production suggested labels. Web searching conduct of a client is corrupt to recommend the labels to be added to as well as to be abolish from the first labels of a photograph in Flickr. In, picture label motion is detailed as a most extreme a posteriori issue utilizing a visual folksonomy. Having the doubt that most cherished pictures and their related marks demonstrate the visual what's more topical anesthesia and side diversions of a client, customized most loved pictures and their connection are utilized to perform customized picture label suggestion A basic customized picture commentary technique is composed in, which necessarily comments on untagged pictures with the most regular design in the client labelling history.

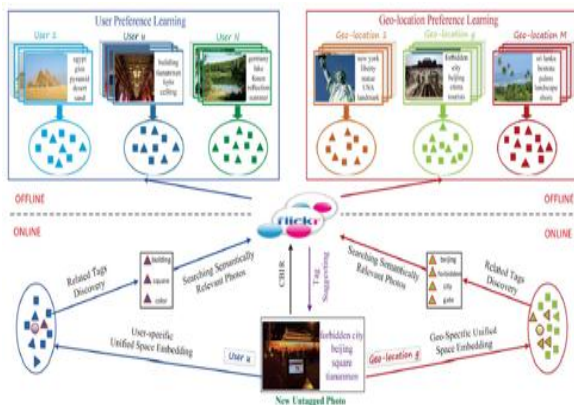


Fig:-1Architecture

PROPOSED SYSTEM

In proposed framework we utilized two learnings, client nucleation learning and geo area learning with web server and with the compensations of these two learning we can discover the ideal area of the client. The necessary term in framework building design is, the thing that authority we are providing for our framework, i.e. stage on which framework going to be get to or we can say that working framework for our utilization this sort of components can be find. Since this application is fame on how the customized photograph apply so as to label process the group commit mixed media advice with rich logical data.

The expected system is contains two crucial parts, the separated from the net and online conduct The logged off procedure is compose of three subdivisions: information association, client capability learning and a particular inclination learning. We address the custom label proposal errand with the benefit of group commit data, for example, client tag and geo-area. Pre processing will be polished by two channel i.e. Middle channel, Poisson Mixture model and Gaussian action

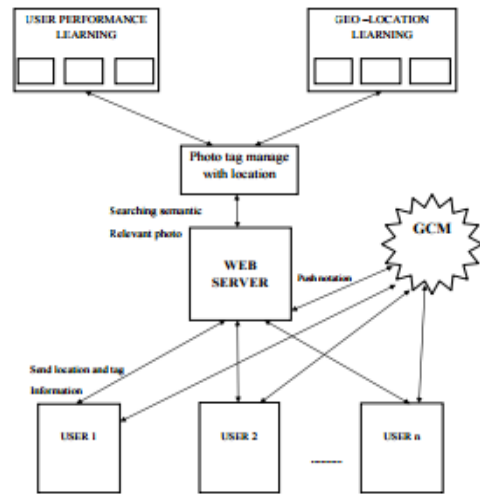


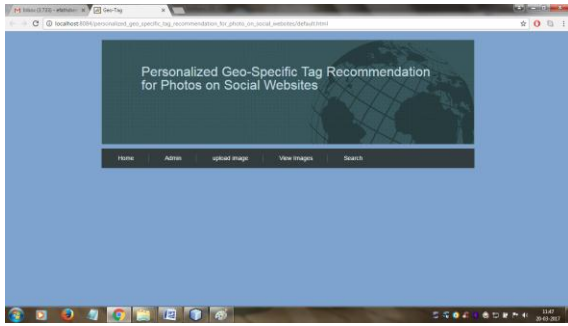
Fig:-2 System Architecture for proposed system

CONCLUSION

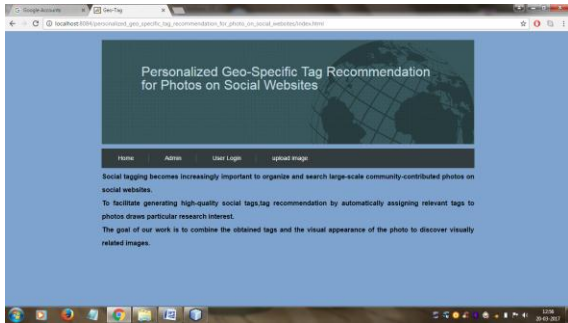
In this paper we recommend on burrow those redid denote for new overhauled photographs utilizing clients naming histories Also geographic majority of the data. We recommend another subspace Taking in check should autonomously uncover those client incline and the geo-zone incline towards denote. This two slants need aid national bit of this names. In the suggested system, those visual parts Furthermore substance parts about photographs are mapped under a bound together space Eventually Tom's perusing three progress systems: two to visual segments and you quit offering on that one for substance parts. Our skeleton will provide for Bfriend framework to impart customized geo-particular photograph to label suggestion with the push ready framework for geo-area based photograph with the assistance of Mobile Application in light of Android Operating System.

V. RESULTS

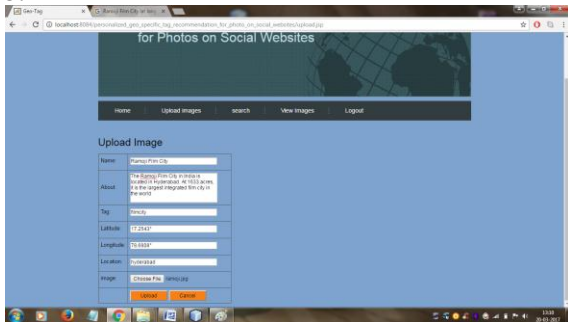
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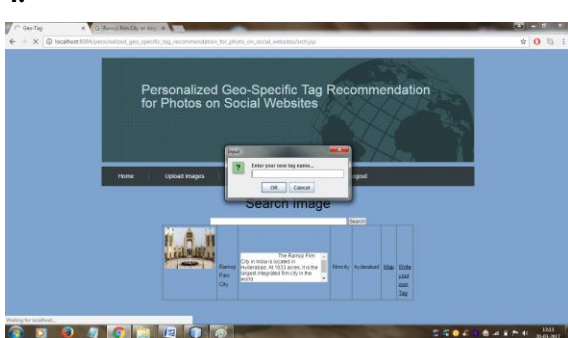
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Secure Data Storage And Retrieval In The Cloud

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Abstract—In Cloud computing, user can remotely store and fetch their data based on-demand service, without the burden of local data storage and preservation. However, the protection of the private data processed and generated during the computation is becoming the major security concern. The main objective of cloud computing enables customers with limited computational resources to outsource their large computation workloads to the cloud, and economically enjoy the massive computational power, bandwidth, storage, and even appropriate software that can be shared in a pay-per-use manner. The main concern of this paper is optimal storing, retrieval of data with effective security in cloud computing. The proposed methodology suggests the encryption of the files to be uploaded on the cloud. The integrity and confidentiality of the data uploaded by the user is gaurd doubly by not only encrypting it but also providing access to the data only on successful authentication. The proposed system takes care of data security while it is in transit and also has mechanisms to support confirmation of data for correctness.

Keywords-Cloud Computing; Cloud security; Fully Homomorphic Encryption [FHE]; Resource outsourcing; Advanced Encryption Standard [AES]

I. INTRODUCTION

Cloud consists of a large pool of easily usable and attainable virtualized resources. The users can access these resources based on their needs. Cloud computing has three service models such as Software-as-a-Service, Platform-as-a-Service, Infrastructure-as-a-Service. Cloud deployment models are Public Cloud, Private Cloud, and Hybrid Cloud. The cloud has many advantages such as Pay-As-You-Use, Rapid Elasticity, Multi tenancy, Resource Pooling, reduced maintenance and capital investments etc. These features have made cloud computing more profitable. The rapid usage of cloud has led to many security questions.

Cloud security is the biggest drawback for its selection. The various security issues include Data loss, DDOS attacks,

multenancy issues, availability etc. Users are more anxious about their data stored into cloud and retrieval of the data from the cloud. Thus, productive measures need to be taken to secure the users data. For this purpose, the paper offers an Effective Secure Storage and Retrieve system which guarantee the secure managing of the user's stored data and its retrieval. The proposed system adopts the encryption algorithms such as AES and FHE to secure users data. The locking mechanism is employed to allow only the authorized users to access the data.

The rest of this paper is classified as follows: The second section discusses related work. The third section sets out the research framework for our suggested work. The forth section discusses a potential implementation for upload and download of data in cloud computing. The fifth section depicts the snapshot of proposed work. Finally in the sixth section, the paper draws some conclusion and future work.

II. LITERATURESURVEY

Cloud computing offers a striking service for data storage known as cloud storage. Internet-based online services do provide huge amounts of storage space and customized computing resources, this computing platform shift, however, is removing the responsibility of local machines for data maintenance at the same time. As a result, users are at the elegance of their cloud service providers for the availability and fairness of their data Cong Wang et. al. [3]. The “provable data possession” (PDP) model for ensuring security of file on untrusted storages was defined by Ateniese et. al. [4]. Their scheme made use of public key based homomorphic tags for inspecting the data file, thus providing public empirical. Based on Gentry's et. al. [6] break through work on fully homomorphic encryption (FHE) scheme, a general result of secure computation outsourcing has been shown feasible in theory, where the computation is represented by an encrypted combinational Boolean circuit that allows to be assess with encrypted private inputs. However, applying this general mechanism to our daily calculation would be far from practical, due to the extremely high intricacy of FHE operation as well as the gloomy circuit sizes that cannot be handled in practice when constructing original and encrypted circuits. A method that allows

user to store and access the data securely from the cloud storage. Cloud storage identifies the storage on cloud with almost economic storage and backup option for small enterprise. The actual storage location may be on single storage environment or copy to multiple server storage based on importance of data.

Ming Li et. al. [9] established an Authorized Private Keyword Search (APKS) framework over encrypted cloud data and proposed two paperback solutions for APKS based on Hierarchical Predicate Encryption (HPE). This paper authorize systematic keyword searches with range query and the query privacy. Wang et. al. [10] gives the first study of secure outsourcing of linear programming in cloud computing. Their solution is based on the problem alteration and has the advantage of bringing customer savings without introducing significant overhead on cloud. However, those techniques involve cubic time computational burden matrix-matrix operations, which the weak customer in our case is not compulsory able to handle for large-scale problems. Design the independent inspecting service to check the data integrity in the cloud. It supports the data dynamic operation in cloud, which is efficient and secure model. Further extend inspecting protocol to support batch auditing for both multiple owners and multiple clouds, without using any trusted organizer. Describes data security and privacy protection issues in cloud. Here discusses data security and privacy protection issues related with cloud computing across all stages of data lifecycle.

III. PROPOSED SYSTEM ARCHITECTURE

The Proposed System works the highly secured encryption mechanism to secure the data storage and retrieval as represented in Figure 1. The file present on the appliance will be encrypted using AES algorithm. The user can also download any of the uploaded compression files and read it on the system. It works on fully homomorphic encryption (FHE) scheme where the calculation is represented by an encrypted combinative Boolean circuit that allows to be evaluated with encrypted private inputs. Every data is locked for security motive and only authorized users can access the data by using authenticated name and mail id.

Cloud is data storage system in the cloud which allows the users to store their data in to the cloud and do not have the data regionally. Therefore, the security and handiness of the data files which are stored on to the distributed cloud servers need to be protected. As decorated in Figure 1, after successful registration of the user, the user can upload the crave data in cipher text form. User will be provided with options for file, text or image upload in reliable manner.

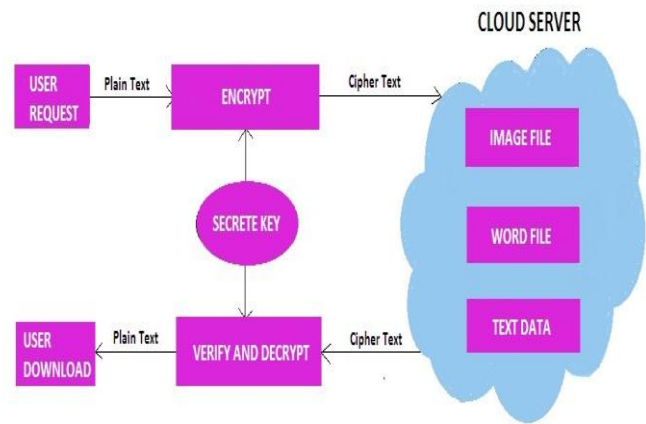


Figure 1. Architecture of Effective Secure Storage and Retrieve in Cloud Computing.

After secure storage, user can reclaim by downloading the data from the cloud server. The authenticated user can download the file safely which is being uploaded. The user can also get the decryption and encryption details.

IV. IMPLEMENTATION

The proposed system is executed using Java, MySQL and public cloud Open shift. JSP is used for create front end and server side script. Apache Tomcat 5.0/6X/7X is used as application server in our job. This section report the module implementation.

A. DataUpload

The data upload module makes the user to upload the data such as file, image and text can be uploaded to the cloud server. To upload the crave files, user must give his details such as user name and password. The valid authenticated user can connect to the cloud and upload the data by providing its information such as data name and email. The secret key is produced using AES algorithm. After affluent uploading of the data, the connection can be disconnected. The data uploading process takes place consecutively as in algorithm.

B. DataDownload

The data download module makes the authenticated users to download the requested data. The authenticated user create the connection with cloud and can request the wanted data. The user must provide facts such as data name and email id to decrypt the key using AES. If the data name and email is true, then the user can download the data from the cloud. After

V. EXPERIMENTS AND RESULTS

1. Obtain user name and password from the user
 - If user is authenticated, start connection with the cloud
 - Else, show error
2. Ask user to collect data to be uploaded onto the cloud
3. Ask the user to input data name and email for the encryption process
4. Save this data name and email then produce a key
5. Deploy the encryption algorithm
6. Upload the given data on to the cloud
7. Disconnect connection from the cloud

Figure 2. Data Uploading Algorithm

successful download, the user can break the connection from cloud. The data downloading process takes place step by step as in algorithm.

1. Obtain user name and password from the user
 - If user is authenticated, start connection with the cloud
 - Else, show error
2. Ask user to select the rank (Files, Images or Text)
3. Ask user to search your required files to be downloaded
4. Ask the user to input the data name and Email-id for the decryption process
5. Check the name and Email-id
 - If the input data is valid, generate a key
 - Else show an error and reject password
6. Apply decryption algorithm
7. Download the required data from the cloud

Figure 3. Data Downloading Algorithm

Home page

The snapshot below shows the home page of the proposed system. The home page is made using html language. It has links to user registration, user login and user upload pages. This page contains only connections to other pages and does not have any particular activity or computations being done here.

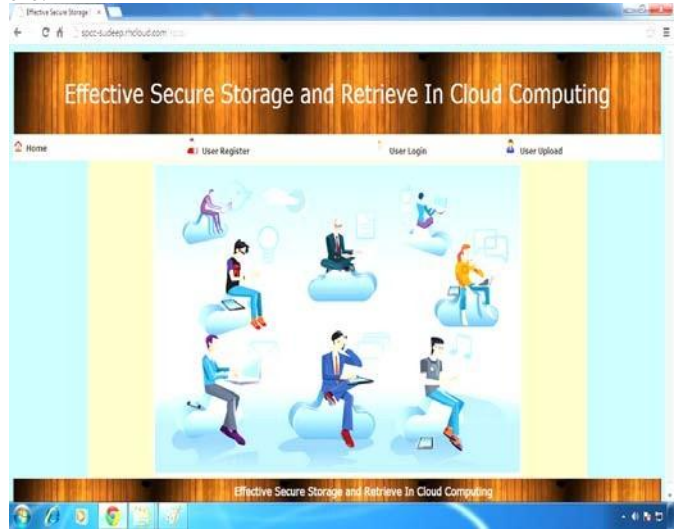


Figure 4. Home Page

User Login Page

The snapshot fig below shows the user login page. In this page after successful registration, the user will be given with login for the file, text or image upload and download. Here only valid user can sign in to the cloud through valid Email and password for authentication.



Figure 5. User Login Page

User Upload Page

The snapshot fig below shows the user upload page. In this page the user will be given with options for file, text or image upload. Here we also have two more options for user to logout and redirecting to home page.

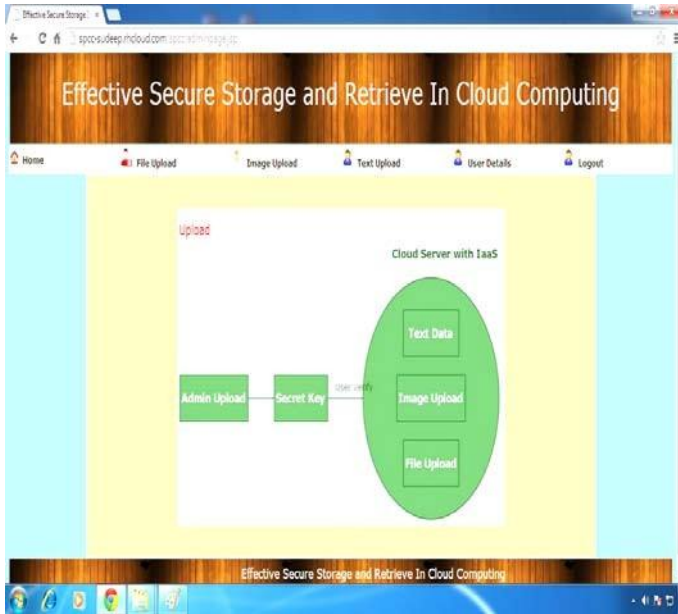


Figure 6. User Upload Page

File Upload Page

The snapshot below shows the file upload page. In the file upload first we have to check whether the database connection is set up or not, if the connection is ensured it continues with the execution else it displays error message. Once database is connected the file is uploaded to the server.

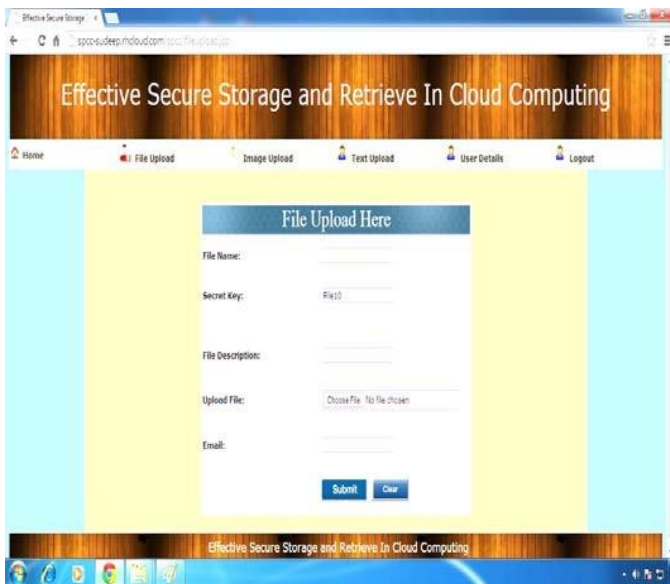


Figure 7. File Upload Page

User Download Page

The below snapshot shows how the user can download from the server database. In this page the user will be given with options for file, text or image download. Here we also have two options for user to logout and redirecting to home page.



Figure 8. User Download Page

File Download with Key Verification

This page is put to show how the user can download after key verification. Once the file is uploaded from the client(user) computer, we should be able to download from the server computer, for this first we have to establish a database connection where it generates the file in the decrypted arrangement. After authentication of the user, the file would be used for download.

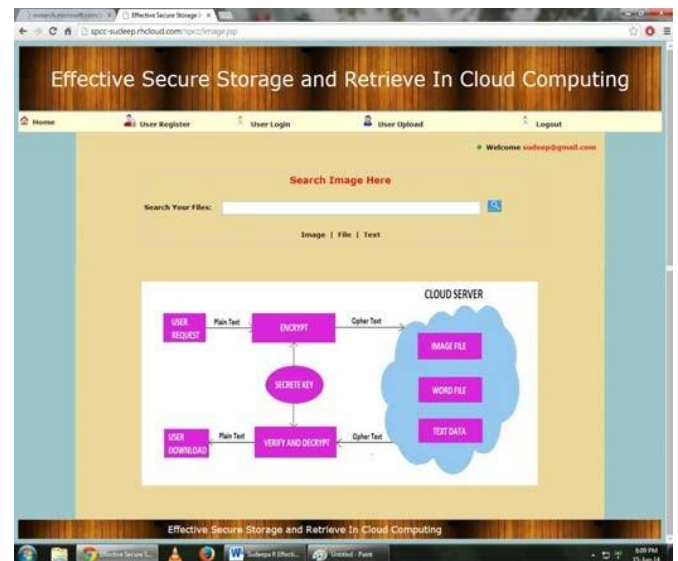


Figure 9. File Download with Verification Key

Unlocked Files and Download

This page is made to show files which are unlocked for view and download. The file unlock is done on the server side of the computer to download the contents uploaded from the client(user) side.

Once the file is uploaded from the client(user) computer, we would be able to download from the server computer, for this first we have to establish a database connection where it makes the file in the decrypted format. Once the database is connected, the file can be downloaded by the user.

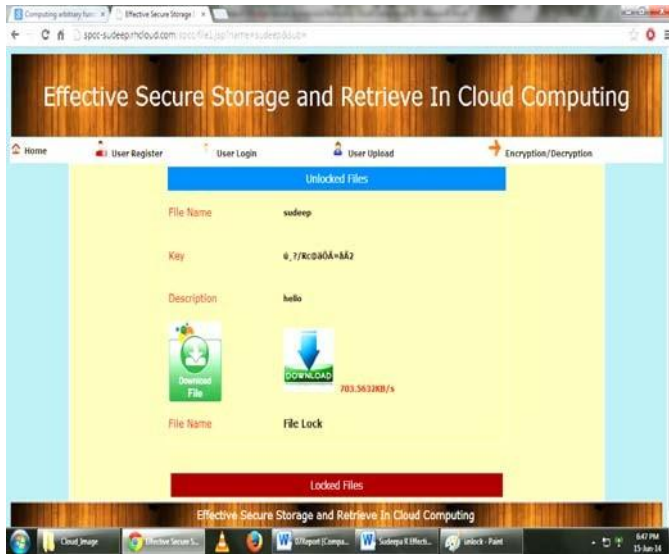


Figure 10. Unlocked Files and Download

Locked Files

This page is made to show files which are locked for view and download. The file lock is done on the server side of the computer to limit download of the contents uploaded from the client side.



Figure 11. Locked Files

Encryption/Decryption

This page is made to show the encrypted and decrypted value of file key. It would also display the files uploaded to cloud server. This is a proof generating technique which can be used for establishing the truth.



Figure 12. Encryption/Decryption

VI. CONCLUSION AND FUTURE ENHANCEMENT

The proposed system effectively gives secure data uploading and retrieval by employing AES and FHE. AES provides more security to the system as it is not vulnerable to any known pounce. The proposed system also increases the accuracy and availability of user data in the cloud. Proposed mechanism provides such a practical mechanism design which attains input/output privacy, cheating flexibility, and efficiency in the cloud.

The current project can be extended to following future improvement.

- The algorithm can also be magnified to not only encrypt data i.e., file, image and text but also audio and videofiles.
- Devise robust algorithms to achieve numerical firmness.

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Dynamic And Optimized Query Generator For Declarative Crowd Sourcing Systems

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ABSTRACT:

We study the query development problem in declarative criticize systems. Declarative crowd sourcing is arrange to hide the complication and relieve the user the concern of dealing with the crowd. The user is only appropriate to submit an SQL-like query and the system takes the authority of compiling the query, bring about the execution plan and appraise in the crowd sourcing forum. A given query can have many different execution plans and the contrast in crowd sourcing cost among the best and the worst plans may be considerable orders of consequence. Therefore, as in comparative database systems, query expansion is important to crowd sourcing systems that administer declarative query combine. In this paper, we introduce CROWD OP, a cost-based query optimization access for interpretive crowd sourcing systems. CROWDOP consider both cost and pottering in the query boost ambition and achieve query plans that administer a good balance between the cost and in activity. We develop active algorithms in the CROWDOP for advance three types of queries: selection queries, join queries and complex selection-join queries.

1 INTRODUCTION :

Query inflation is an operation of commonplace relational database administration systems. The query optimizer workout to administer the most active way to calculate a given query by seeing the possible query plans. essentially, the query optimizer cannot be getting straight by users once objection are acknowledge to database server, and determine by the parser; they are then lifted to the query optimizer where development occurs. However, some directory engines grant advise the query optimizer with hints objections results are produced by achieve relative database data and check out it in a way that return the requested instruction. By the reason of database architecture are convoluted, in most cases, and exclusively for not-very-simple reservation, the needed data for a query can be concentrated from a database by delivery it in different

ways, over different data-arrangements, and in different procedure. Each different way frequently requires different development time. Convert times of the same query may have high deviation, a second to minutes, hours, calculate on the way selected. The plan of objection optimization, which is an computerized process, is to find the way to development a user query in small amount of time. accordingly there must be system that helps to consider the query, advance it, find query hanging plans and finally predict possible query plan for gassing over crowd derived data.

2 LITERATURE SURVEY CrowdOp:

Query Optimization for analytical Crowd sourcing System [1] In this paper informative crowd sourcing is treated and refined query expansion system algorithm is consider. In this paper informative crowd sourcing is treated and refined query escalation system query algorithm is consider.

Using the Crowd for Top-k and Group-by Queries [2] In this paper, authors correctly study the problem of calculate such max/top-k and group-by reservation using the crowd. Given two data component, the answer to a type question is "true" if the aspect have the same type and accordingly belong to the same cluster. This paper recommend a Bayesian model to show the gather approach. This is in contrast to their model where they conclude that there is a fixed (but unknown) set of array partitioning the component. In this paper, 'Ranking based' and value-based error model is studied for optimization of query.

A Hybrid Machine-Crowd sourcing System for identical Web Tables [3] This paper expected, Concept-based access and Hybrid machine-crowd sourcing framework. This approach completely addresses complication in web table matching. Concept -based path maps each column of a web table in a well-developed awareness base, which represents it. And

hybrid machine-crowd sourcing framework approach breaks human agility for different columns in web table. In this paper, composer made a description that the crowd was affected to produce perfect answer.

Crowd Screen: Algorithms for Filtering Data with Humans [4] In this paper, authors attract on constitutional building blocks, an algorithm to drain a set of data items. Column list use the term filter for each of the equity they wish to check. Types of filter used: 1. "Image shows a scientist," and 2. "Image of people in which people consider towards the camera." The optimal and heuristic algorithms considered find filtering approach that result in significant cost savings proportionate to commonly-used design in crowd sourcing applications.

CDAS: A Crowdsourcing Data analysis System [5] In this paper, two types of copy are expected first one is PREDICTION MODEL (i.e. Economic Model in AMT, Voting based Prediction) and the other is VERIFICATION MODEL (i.e. Probability- based Verification, Online Processing) . These prospective model results show that their proposed model can administers high-quality answers while charge the total cost low. The natural ability of human workers to perform complicated tasks that are very assert for computers is grant by Crowd sourcing techniques. This paper come up with quality conscious model. Estimate with the Crowd [6] In this paper, approach is used to identify integrate attacks from multiple workers. In this paper author analyze for images, a count-based access to achieve certainty. In order to consequence less HIT label-based approach is used. In this paper, composer find text based counts; they also found that the label-based access has better accuracy. Human mechanized Sorts and Joins [7] In this paper, authors analyze items for sorting and joining data, two of the most familiar operations in DBMSs. MTurk rostrum is used Qurk, runs on top of crowdsourcing.

Deco: analytical Crowdsourcing [8] In this paper authors characterize, Deco's data model, query expression, and our prototype. In this, Crowd sourcing and table Crowdsourcing Algorithms are used that are offered efficient and principled approach for achieve crowd data and also combine it with ordinary data.

Query expansion over Crowd sourced Data [9] In this paper, Deco's cost-based query optimistbuilding on Deco's data model, query expression, and query gassing engine is proposed. detached of Deco's is to find the best query plan to answer a query. It describes Deco's cost- based query optimizer. The Primary goal Deco's is to find the best query plan to answer a query.

Learning from Crowds [10] In this paper authors were proposed probabilistic approach. This approach is used for supervised learning. This used to evaluate different experts and also gives an estimate of the actual hidden labels. Output indicates that the proposed method is superior to the commonly used majority voting baseline. Two key assumptions: (1) performance of each annotator does not depend on the feature vector for a given instance and (2) conditional on the truth the experts are independent, that is, they make their errors independently.

Finding with the Crowd [11] This paper formally define the problem using the metrics of cost and time, and design optimal algorithms that span the skyline of cost and time, i.e., Authors provide designers the ability to control the cost vs. time tradeoff. In this paper, we studied the fundamental CROWDFIND of problem, relevant in many crowdsourcing applications. Authors developed a solution that lies on the skyline of cost and latency for two settings: when humans answer correctly, and when they may make errors. They made the simplifying assumption that all workers are equally capable, identifying spam workers and learning accuracies of workers over time while solving CROWDFIND problems are also interesting extensions.

Max Algorithms in Crowdsourcing Environments [12] In this paper, authors investigated methods for retrieving the maximum item from a set in a crowdsourcing environment. They developed parameterized families of algorithms to retrieve the maximum item and proposed strategies to tune these algorithms under various human error and cost models. Also they evaluate under many metrics, both analytically and via simulations, the tradeoff between three quantities: (1) quality, (2) monetarcost, and (3) execution time. Algorithm Used: • PARAMETERIZED FAMILIES OF MAX ALGORITHMS 1. Plurality Rule 2. Bubble Max Algorithms 3. Tournament Max Algorithms Model: 1.Human Error Models Crowd ER: Crowdsourcing Entity Resolution [13]This paper represents studied the problem of crowdsourcing entity resolution. Authors described how machine-only approaches often fall short on quality, while brute force people only approaches are too slow and expensive. Thus, they proposed a hybrid human-machine workflow to address this problem. In the context of this hybrid approach, In particular, the results indicated that (1) The two-tiered approach generated fewer cluster-based HITs than existing algorithms; (2) Hybrid human-machine workflow significantly reduced the number of HITs compared to human-based techniques,

and achieved higher quality than the state-of-the-art machine based techniques; and
(3) The cluster-based HITs can provide lower latency than a pair-based approach. In this paper authors,

proposed techniques that are as follow:

ENTITY RESOLUTION TECHNIQUES Machine based Techniques Hybrid Human Machine Workflow HIT Generation Techniques: Pairbased HIT Generation Clusterbased HIT Generation A Sample-and-Clean Framework for Fast and Accurate Query Processing on Dirty Data [14] In this paper, the techniques used are as follow: QUERY PROCESSING ON DIRTY DATA Sampling Error Data Error SampleClean Framework In this paper, authors propose SampleClean, a novel framework which only requires users to clean a sample of data, and utilizes the cleaned sample to obtain unbiased query results with confidence intervals. They also identify three types of data errors (i.e., value error, condition error and duplication error) that may affect query results, and develop NormalizedSC and RawSC to estimate query results for the data with these errors. Question Selection for Crowd Entity Resolution [15] This paper examines the problem of enhancing Entity Resolution (ER) with the help of crowdsourcing. Algorithm: brute-force" algorithm For deriving the best question that has the highest expected accuracy. 2. GCER algorithm to produce an approximate result within polynomial time. 3. Half algorithm

3 PROPOSED SYSTEM:

From the mentioned literature survey it is clear that there are existing systems that work on query optimization where datasets or databases are no so complicated. There are systems that work on the query execution plans though datasets have some problematic values. Though there are smart query optimizers, they are unable to deal in declarative crowd sourcing area. In this environment when user fire some query then existing system are unable to work on it form time estimation point of view. Also existing systems are unable to select cost effective query plan. Hence there must be such system that properly analyze the user query in crowd sourcing environment , also proposed system should introduce smart query optimizer that find proper query plans and finally evaluate it properly from monetary cost point of view and execution time point of view. Figure 1: Block diagram of proposed system. Hence in the proposed system user will first fill the form for the required attributes and conditions. The query generator module will automatically generate the query and this SQL query is issued by a crowd-sourcing environment for execution. The executer will first call QUERY OPTIMIZER. This optimizer parses the query and produces a best cost and time efficient query plan.

The query plan is then executed by CROWDSOURCING EXECUTOR to generate human intelligence tasks (or HITs) and transfer these HITs on crowd sourcing platforms. Based on the HIT answers collected from the crowd, executer executes the query and returns the generated results to the user.

To encapsulate the execution phases there must be system that executes the user query with effective execution plans. System should recognize the best query execution plans using proposed algorithm in optimizer from cost and execution time point of view. This system should be user friendly so that newbie can fire his queries without knowing proper query language.

4 CONCLUSION :

In crowd sourcing environment to hide query execution complexity and to encapsulate the execution phases there must be system that executes the user query with effective execution plans. System should recognize the best query execution plans using proposed algorithm in optimizer from cost and execution time point of view. This system should be user friendly so that newbie can fire his queries without knowing proper query language.

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Offline Echo Speech Recognition

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Abstract— *The Voice Command Demo demonstrates a simple speech recognition by showing you the commands it recognizes. A speech recognition engine should be installed to run the program. You can download the Microsoft Speech Recognition Engine from here. The Voice Command interface is the high-level interface for speech recognition. It is designed to provide command and control speech recognition for applications. With this interface, a user gives the computer simple commands, such as "NUMERICS". Command and Control does not allow speech dictation. The Voice Command design mimics a Windows menu in behavior, providing a "menu" of commands that users can speak. Basically, to use voice commands, an application designs a Voice menu that corresponds to a window or state within the application. Most programs will have one Voice menu for the main window and one for every dialog box. Contained within every Voice menu is a list of voice commands that users can say. When they say one, the application is notified which command was spoken. "Numerics" and are typical voice commands. Each voice command has information in addition to the spoken command, such as a description string and a command ID.*

A. **Keywords**— *Automatic speech recognition, Speech gear interaction, Voice Activated Commands;*

I. INTRODUCTION

The PaeLife project is a English industry-academia collaboration in the framework of the Ambient Assisted Living Joint Programmed (AAL JP), with a goal of developing a multimodal, multilingual virtual personal life assistant to help senior citizens remain active and socially integrated. Speech is one of the key interaction modalities of AALFred, the Windows application developed in the project; the application can be controlled using speech input in four English language. This paper briefly presents the personal life assistant and then focuses on the speech-related achievements of the project. These include the collection, transcription and annotation of large corpora of elderly speech, the development of automatic speech recognizers optimized for elderly speakers, a speech modality component that can easily be reused in other applications, and an automatic grammar translation service that allows for fast expansion of the automatic speech recognition functionality to new languages. Voice commands allow the user to control an application by speaking commands through an audio input device rather than by using the mouse or keyboard, giving the user hands-free control of the application. Voice commands involve the use of an audio input device, such as a microphone or a telephone, a speech recognition engine, and a Voice menu. When the user speaks a command into the audio input device, the speech recognition engine

attempts to transcribe the spoken input into text. If the engine succeeds, it compares the command text to that of the commands in the active Voice menus.

II. LITERATURE SURVEY

One of the problems faced in speech recognition is that the spoken word can be vastly altered by accents, dialects and mannerisms. In South Africa, there is a large variety of languages and dialects. Even the most basic speech recognition systems perform poorly when trying to recognise words spoken by English second language speakers. The motivation behind this survey is to investigate speech recognition and more specifically what research has been around dealing with the problem of large variations in dialects. Users now demand an enlightening first experience and there's no second first impression for speech recognition things are not quite yet user friendly. We have two options in sphinx speech recognition a) batch and b) continuous i.e. real time. Our focus here is to provide accurate recognition for the first words in real time. We're trying to find a better method of automatically initialize the cepstral mean normalization for more accurate recognition of the first utterance in continuous (real time) mode. Problem Statement Pocket sphinx continuous wastes the first few seconds (first utterance) to tune the canine and only then good and precise results starts to show up. In serious speech recognition applications like speech evaluation this is not acceptable and the first words are not something to sacrifice. Usually normal desktop used by all users are easy for those who can see but for a blind person it is not easy to use a desktop without knowing where they are located and if at all they knew also they can't view the data. Even for normal people also sometimes it is difficult to search the files in vast drives. In windows8 operating system now we are having a voice search facility and some of the mobiles with android versions also having this voice search facility but it is difficult for a blind person even though it gives audibility.

III. PROPOSED SYSTEM

Offline Echo Speech Recognition provides a way for blind people to use desktop easily. As they can't use normal desktop normally we are providing an interface with desktop. It is a concept of providing vision to the blind through speech or voice. Whenever they are accessing a desktop by mouse as they can't see but they can hear name of the icon. Text to speech and voice to text is another facility providing for user.

First benefits of this strategy is that degradation of the possibility of copying security passwords because there is no need of composing security passwords and the whole can be done without any worry. Numeric data have to echo to open particular icon to access them without any mouse

The significant advantage of this program is in contact centers where a huge number of clients are on line to enquire and a representative needs to be online to be present at the call. With the help of this technological innovation calling can be joined successfully and with more efficiency.

Person who is unable to write or see with the help of this application can perform their task such as inquiring or transaction process etc.

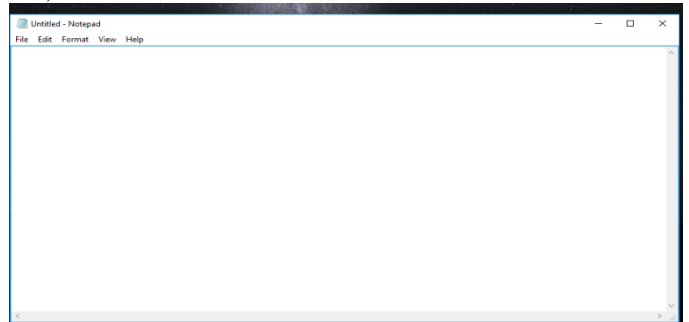
Country like India has so many dialects variation with the help of this technology the dependency of human staff trained in different languages has been reduced significantly.

This application has proved a revolution to improve customer happiness in addition to improving companies' earnings by simply achieving new customers in addition to holding onto existing customers.

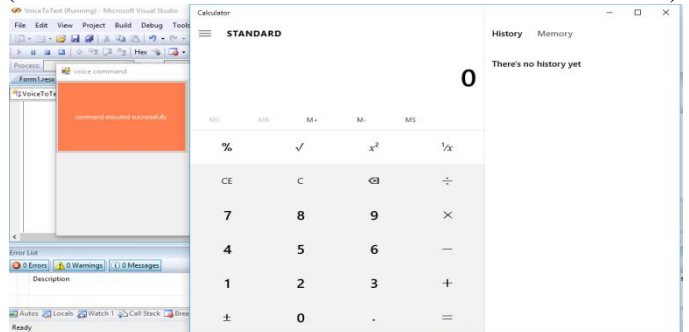
This is very beneficial for who are able to read and write up to some extent and know how to make use of cell but can't write or speak in English to type English letters as passwords.



Receiving the voice command and giving the output (Note Pad)



Receiving the voice command and giving the output (Calculator)



IV. RELATED WORK

Voice Attack - allow hands-free keyboard and mouse input in Windows 10, Windows 8, Windows 7, Windows Vista and Windows XP. Its popularity lies mainly in its ease of use and extended feature set, which includes the ability to create multi-threaded macros. Livrot Mic Command - modern desktop speech recognition support, programmable multi threaded macros with independent data system. Windows 7,8 and 10 VAC - Voice Activated Commands is a feature rich speech recognition solution It works with Windows 8, Windows 7, Windows Vista and Windows XP .medical vocabularies(language models) for medical users. Can be licensed for individuals, groups speech applications using Windows Speech. Vocal – a macro language Speech gear interact-combines speech recognition with language translation.

V. RESULTS

The following snapshots will contain the brief description of a project i.e., from where we have to start how to start our project it will contains



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VI.CONCLUSION AND FUTURE WORK

The world is a place where blindness is not a handicap, but just a more inconvenience. We are providing convenience to access desktop as normal as others by giving input through voice , easy redirecting and some other conveniences like text to speech , audibility of complete data in files , audio files and provision of mailing is there .microphone or using a Bluetooth device, which would not only improve the microphone quality but allow the commands to be given at a distance from the robot. Another way to improve this would be to use Google’s speech recognition API. However, Google’s API only allows a limited amount of pull requests per day, which would make testing difficult. Another drawback we faced was the fact that we used the move base client node to publish goals at a predetermined distance from where the robot’s starting point



Y. Rajesh Pursuing Ph.d from Visvesvaraya technological university, belagavi in computer science and engineering currently working as an Assistant professor in "Andhra loyola institute of Engineering and technology". His areas of interest data mining and information security.



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I Shopping: Intelligent Shopping and Predicate Analysis System Using Data Mining

Mrs.K.Sireesha¹, K. Satya Sumitha², P.Harsha Priya³, M.Tejitha⁴

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Abstract—Many technological advancements have been done across the world. Out of which one is the current technology that is the development of the e-commerce websites. Not many people in the world are getting satisfied with their needs, they are facing a major issue on the finding the suitable shop that is nearest to them. So out of which I-Shopping is currently suitable for the users who are finding a risk in finding the most sustainable shop, This I-Shopping creates a communication between the customers and retailers which deals a constant interaction between the customers and retailers and tells about the location, which is nearest to them. and also gives the updates about the movie which is currently running in that mall so that the customer can enjoy the movie and do his shopping.

Keywords- Technology, E-Commerce, I-Shopping, Location, movie updates.

I.INTRODUCTION

Global changes have been made across the worldwide and out of these the trending technology is the E-commerce development, due to this rapid grow in this sector many of the websites have been coming further and exhibiting their type of contribution to the people needs, and not only the E-commerce websites, many of the shopping malls were ingurated in order to satisfy the customer needs. But what's the problem that the customers are not satisfying and wasting their money, Here comes the solution to this I-Shopping which is designed to meet the customer needs and this system will be able to tell the customer the current location with respect to the selected item and also will tell the movie updates with respect to that location that is the shopping and the related movie. One major challenge to the diffusion of technology in low-income nations that persists is its uneven distribution within the country. [1] Sri Lankan governments have taken many progressive initiatives to develop Information and Communication.

As the technology is developing all the people are getting aware of their personal needs. All the citizens are seeking a beneficial results of their shopping. The ICT is providing the solutions to these people who are seeking a beneficial result on their shopping. The customers who are seeking a beneficial results they need not to do anything they may be educated or uneducated, but they have to have a know a little knowledge about the computer. [2] In this kind of a

background, it is important to distribute the development of the e-commerce as well as the technology whole over the country without any restrictions. The products which are needed by the customer in their day to day lives and also which are helpful in developing the e-commerce domain, so that product must be released. As the people are much satisfied with the I-Shopping, So this I-Shopping will be a product which is developed to satisfy the needs of the customer, while looking into the e-commerce domain the technology has increased the sales in large amount. Based upon the e-commerce domain, the Retailers are getting a profit in a huge amount and also without a cost of penny they are advertising their product in the e-commerce domain. With the aid of developing the customers are getting a profit that means plenty of people are tending to purchase their accessories. With the help of the digital data mining there would be a chance of recognising the patterns widely. The. The heaps of significant data covered up in the information are not really abused out. Shockingly these important information accumulations are not used appropriately and not utilized as a part of a successful approach to help the both clients and additionally the retailers. Every one of the business points of interest of the retailers, buy subtle elements of the clients are a thousand dollar worth blessing to a retailer where he can use to enhance their deals. Yet at the same time there is no any application created to help the customer and retailer at the same time and permit them to trade data and additionally permit them to dig for profitable subtle elements. "I-Shopping" is an application who satisfies that hole by spanning the client and the retailer. [2]-[7] In present day society, the greater part of the clients are having an exceptionally frenzied way of life. Due to that they are not that sharp in looking for the most fitting merchandise for them as they are not exactly mindful of the repeats and substitutes which are accessible in the market. And furthermore they don't consider about the shops that much and keep setting off to similar shops which they are as of now used to go for an extensive timeframe. In any case, the most critical part in here is the client's inclination for the products that are quickly fluctuating with the time. In view of that reason, the retailers must be in contact with the new patterns and new items that has recently discharged to the market. Be that as it may, it sets aside impressive opportunity to get the new patterns of the everyday market. The framework recognizes the client. The framework recognizes the kind of the customer what sort of item he is acquiring and will have the capacity to find a closest

area that is the closest shopping centre to him .And the framework will give the updates about the motion picture as of now running in that shopping centre .With the goal that customer will have the capacity to do shopping and furthermore appreciate the motion picture in the proposed shopping centre.

The fundamental results of the framework are "The telephone for the clients", "The web application for the retailers". The web application essentially concentrates on the retailer side that is he will enlist his thing in the application ,the thing enrolled will be situated in the shopping center ,For instance a retailer needs to keep his things in the specific shopping then he will enlist a shop in the application and include his things, so that the clients while bouncing on their telephone will get the points of interest of the shop situated in the shopping centre and the subtle elements of the retailer and the cost of the item .The telephone which is utilized by the clients ,I-Shopping application keeps running via telephone which will be helpful for the customers to login and see the items refreshed by the retailer ,And the customer can buy his needs .The client in the wake of choosing the item can get the points of interest of the item and the cost of the related item and area closest to him and he will get the updates about the motion picture as of now running in that shopping customer.

The retailers while including the items , through this including of the items he will have the capacity to know which thing is acquired and which thing is not obtained and the intrigued things for the clients .So the retailers can purchase just the items that are of intrigued to the clients ,So this can diminish the lack of the merchandise .The customer to the telephone that the I-Shopping application can seek his items if once his intrigued item is know he will have the capacity to get the updates of the related item .So this I-Shopping will be a progressive idea in the Internet business area which will profit .The varieties in the costs can be appeared through the day by day refreshes about the item. As the principle advancement of the Web based business space is the diversion, So this I-Shopping framework will likewise be giving the updates about the motion picture that is right now running in that shopping centre.

II. RELATED WORKS

The current technology deals with the Up-On-Fashion ,the change in the technology had lead people to change their lifestyle in every corner of the world ,the main trending type of sector is the E-Commerce domain which is followed by many people in the world .This I-Shopping would be a progressive idea in managing the general population who are extremely enamoured with the Shopping, Individuals will never feel an idiosyncrasy between the web based shopping and disconnected shopping what they all need is the shopping .So this will a mix of both the on the web and disconnected modes. In the online mode the clients chooses the regarded thing and will get the points of interest of the item and will get the updates about the motion picture that is as of now running in that shopping centre. And when the shopping is through

offline he customers gets the location of the shop where he can go and purchase the item ,This reduces the nuisance of finding the appropriate Shopping mall which will be useful to the customers in reducing their cost of travelling and also the user can get his required product of his choice. And also today's generation is a full of entertainment ,The customers will be provided the movie currently running in that mall, so that the customers can make there free and they could relax and enjoy the movie whenever they go for shopping.

III. METHADODOLOGY

A. System Overview

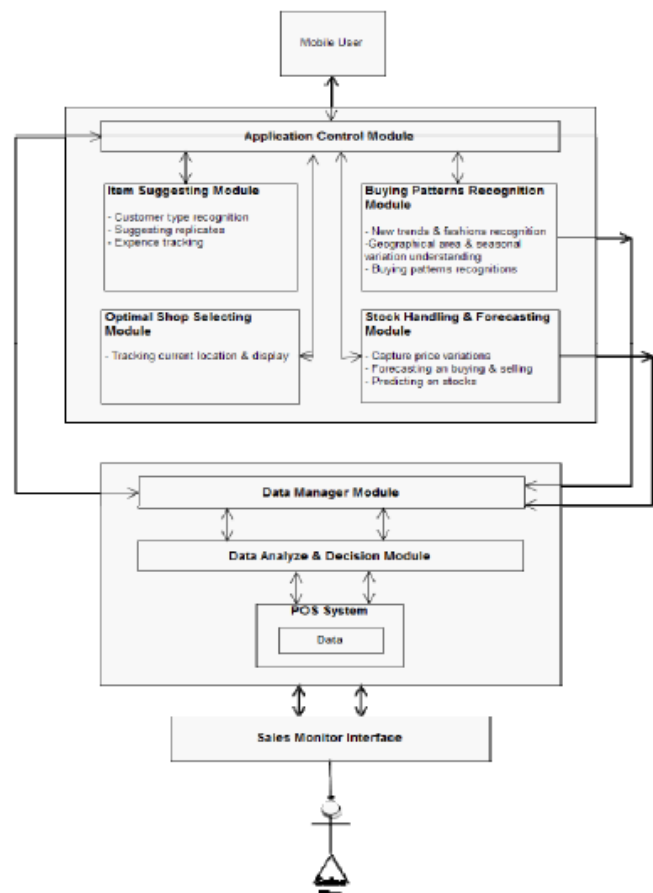


Fig. 1: High-level Diagram

The structure of the related work is as follows:

The above fig deals how the current process is going on that is how the I-Shopping system is running. In the first the application module receives the data from the users and also controls the flow of data .The data manager module will maintains the data about the user what type of product he is purchasing and what are the interested products. Through the concepts of the data mining the data analyzer and decision module will identify the customer and maintains the sales of the customer and prices and variations of the customer

Beneath given are the primary modules of the framework,

1) Module 01: Thing Proposing Module

Thing proposing module is the place the portable application cooperate with the client and getting the shopping rundown of the customer, which incorporates every one of the things that client would like to buy. Customer can essentially produce a rundown of things that he will buy amid the shopping. While making the shopping list, at first the framework basically proposes the things to the customer.

1) Module 02: Optimal Shop Predicting Module

. After all the shopping is done by the customer the system will be able to get the location of the shopping mall with respect to the current location of the respect the item .based upon the latitude and longitude co-ordination and by enabling the gps, A map will be shown and be getting the directions of the shop. Newly filtering algorithms were designed in order to identify the optimal shops the filtering algorithms were as shown below:

1st Filtering Level: The most suitable shopping mall is suggested to the customer using the latitude and longitude coordination by enabling GPS over the phone, the Customer will be getting the location.

2nd Filtering Level: The user requested will be able identified by the system and price and the quantity will be identified and shown to the customer and requested item location will be given to the customer and if the item is available he will get directions of the shop and the movies currently running in that mall so the customer can enjoy the movie along with the shopping. As shown in fig 4 and fig 5.

3rd Filtering Level: After the filtering is over the one of the particular location of the requested item is shown to the customers and directions of the shopping mall are shop in the map as shown in the fig 4, and once the location is clear the customer will be getting the movie currently running in that mall as shown in fig 5.

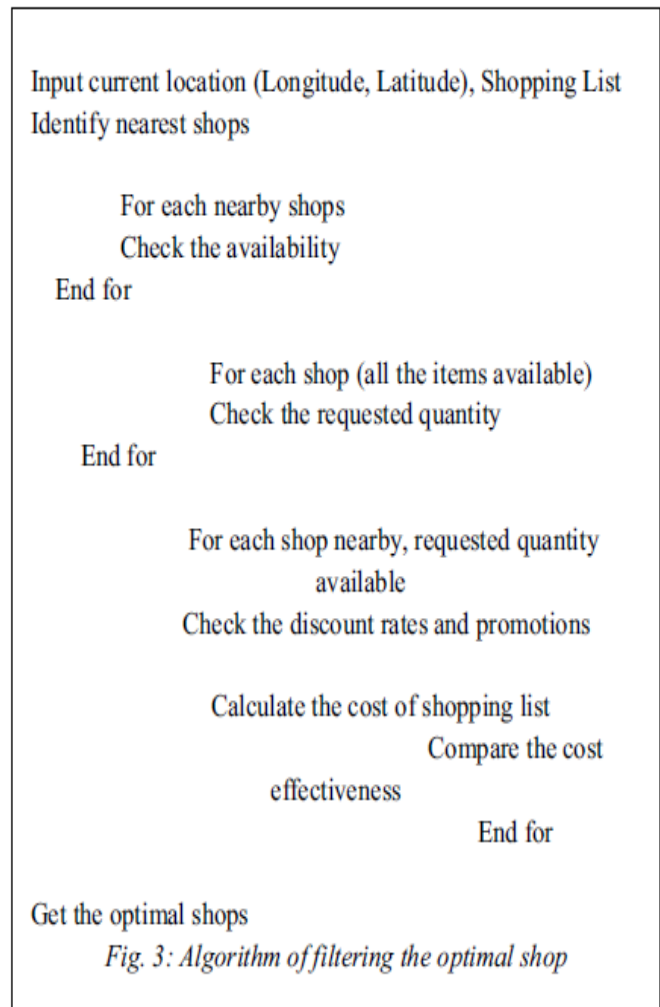


Fig: 3 Optimal shop filtering

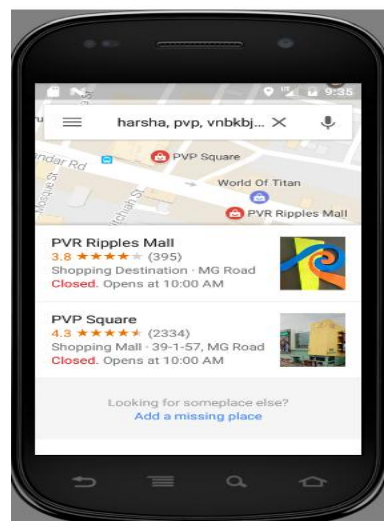


Fig 4: location identification to the customer



Fig 5: movie updates for the customer

IV. RESULTS AND TALK

The primary target of this exploration was to utilize the current procedures of information mining, information forecast and recommendations joining the web based business ideas, to think of a product application bundle to bolster the clients while shopping and the retailers in the interest of the prosperity of their business. Furthermore, the endeavor brought to think of earth shattering programming was productive. The "I Shopping" versatile application, web application and the online POS framework is very viable and productively bolster the clients and in addition the retailers. The usage of the product was done by the buy history of the clients, the client if chooses an item and he is prepared to shop that item that item using his cell phone he sick have the capacity to get the subtle elements of the closest area shopping center as for his area .And the motion pictures which are right now running in that shopping center. "and analyzing was conducted beside of data mining, as the research touches ontology theorems real time locating tracking and Geo fencing key knowledge areas. So that, an in depth study about those areas was very essential. The identified key concepts in these knowledge areas were the pace for the discovery of the new research outcomes. Based on the existing resources and techniques identified during data gathering and analyzing, the research was headed to search for new knowledge in all these areas ontology, data mining and data forecasting. Using the gathered information and the new concepts the software was developed step by step.. As the research is based on data mining, data prediction and forecasting, it requires a big amount of data for more effective and reliable results.

V. CONCLUSION

In the modern E-Commerce domain there is no technology that solves the problems of the customer ,that is which helps the customer to choose the required goods and help in variation of the prices and at the same time helps the retailer to forecast the good that the customers are tending to buy ,which helps the retailers not buy the unnecessary goods which leads to wastage. Furthermore the customers will be able to get the idea whether the required product is there in that shopping mall or not .

The customers could not find the optimal shop where the required product is located or not, this is a nuisance to the customers of wasting the time for searching a location of the shop, this I-Shopping can create bridge between the customers and the retailers which helps the customer to find the particular location, and also this will be a free advertising for the retailers which helps the retailers to post their products without any cost for their product. The customers through the mobile app can choose the required product and like that product so this will be helpful to the retailers about knowing in the customer type of interest .So this reduces the wastage of goods .I-Shopping is a revolution application which helps the customer and retailers to purchase and add their products has become the trending sector in the E-Commerce domain.

VI . ENHANCEMENT

In the future, the study deals or can be implemented how to take advantage in our scheme of various statistical representations. As well we are also suggesting the system will be provide the updates about the movie which is currently running in the nearest location with respect to the user selected product .And also provide the best deals which are currently among the nearest location with respect to the selected item .And also the system will give the user the chance whether to buy offline or online based upon his products.And also ,The customer will be provided the review column in the nearest mall, where he can give a review based upon the location he is provided.

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Detecting Fraud Rating For Mobile Apps

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Abstract: *Situating coercion in the adaptable App exhibit implies false activities which have an inspiration driving thumping up the Apps in the reputation list.. We give an exhaustive point of view of situating coercion and propose a situating distortion area we first propose the situating blackmail by mining the dynamic time periods, to be particular driving sessions, of adaptable Apps. Such driving sessions can be used for distinguishing the area peculiarity as opposed to overall anomaly of App rankings. There are three sorts of affirmations, i.e., ranking based evidences, rating based verifications and review based affirmations, by showing Apps' situating, rating and review rehearses through quantifiable theories tests. We propose a progression based amassing procedure to facilitate each one of the affirmations for blackmail acknowledgment. Finally, we evaluate the proposed system. In the trials, we attest the adequacy of the proposed framework, and demonstrate the flexibility of the exposure estimation and furthermore some commonness of arranging mutilation works out.*

Keywords— Adaptable Apps, Ranking, Rating and Review Based Evidences, Driving Sessions.

1. FOREWORD

The App quality has been decided in the app store based on the leader board positions of the app. The which is in the leaderboard position the user immediately tend to download and use that app. Many app stores calculating the apps efficiency and place them in a leader board positions by considering evidences like Ranking based evidence, Rating based evidence and Review based evidence. These leader board positions are announced everyday by the app stores.

This is typically executed by utilizing alleged "bot homesteads" to increase the downloaded apps evaluations in a detailed timeframe. An article detailed that, at the point when an App was progressed with the assistance of situating control, it could be pushed to the top leaderboard and new customers could be gotten inside a few days. Truth be

told, such positioning extortion raises incredible worries to the versatile App industry.

Although there are few belonging activity, for instance, web positioning spam recognition [6], [8], [12], online audit spam recognition, [10], portable Application proposal [7], [10], [12], [13], the matter of distinguishing situating deception for compact Apps is still underexplored. First, situating blackmail does not for the most part happen in the whole life cycle of an App, so we require to perceive the time when distortion happens. Such test can be seen as recognizing the area irregularity as opposed to overall peculiarity of adaptable Apps. Second, because of the enormous number of versatile Apps, it is difficult to physically name situating distortion for each App, so it is basic to have a versatile way to deal with actually recognize situating coercion without using any benchmark information. Finally, because of the dynamic method for diagram rankings, it is hard to perceive and certify the affirmations associated with situating deception, which drives us to locate some comprehended distortion cases of adaptable Apps as evidences. recognition reveals that versatile Applications are not by and large situated high in the leaderboard, yet rather just in some driving events, which outline assorted driving sessions. Situating distortion normally happens in these driving sessions. Subsequently, recognizing situating distortion of convenient Apps is really to recognize positioning misrepresentation inside driving sessions of versatile Apps. In this, we first propose a straight forward however compelling calculation to recognize the main sessions of each App in view of its authentic positioning records. Perception uncovers that portable Applications are not simply placed top in the leaderboard, but just in some driving occasions, which frame diverse driving sessions. Positioning misrepresentation ordinarily occurs in these driving sessions.

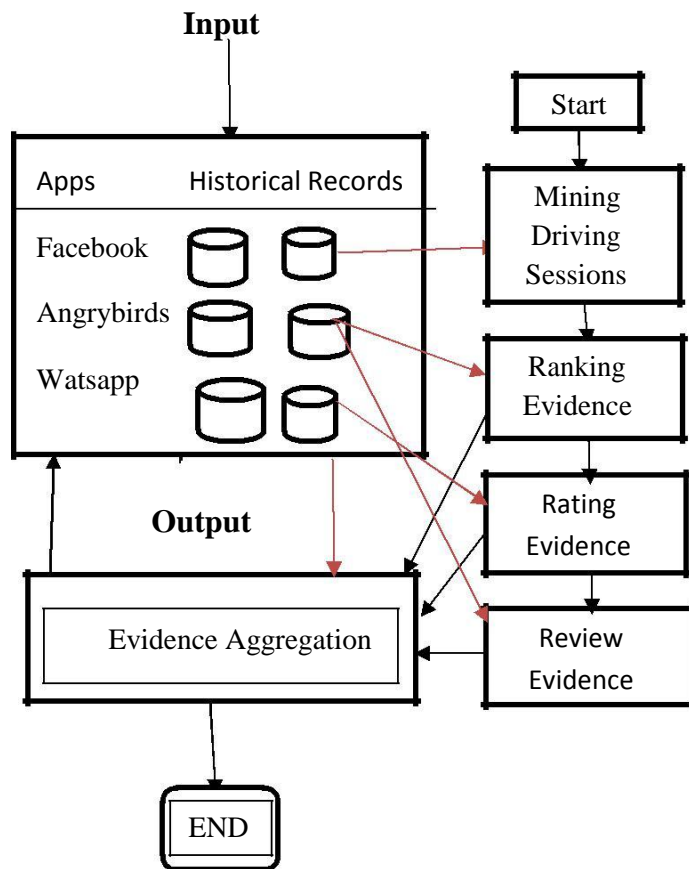


Fig. 1. Ranking sham Identification

Consequently, distinguishing positioning misrepresentation of portable Apps is really to recognize positioning misrepresentation inside driving sessions of versatile Apps. In particular, we first propose a straightforward however compelling calculation to recognize the main sessions of each App in view of its authentic positioning records.

2 DETECTING DRIVING SESSIONS

In this, we mainly focused on detecting the driving sessions for every app from the verifiable positioning data.

2.1 Prelude

The Application leader board shows best N well known Applications Concerning diverse classes, for instance, "Best Free Applications" & "Top Paid Apps". In addition, the leader board is typically refreshed intermittently. Along these lines, every versatile App a has numerous authentic positioning records which can be meant as a period arrangement, $R_a = \{ra_1, \dots, ra_n\}$, where $ra_i \in \{1, \dots, N, +\infty\}$ is the positioning of an at time stamp t_i ; $+\infty$ implies an

is not positioned in the top N list; n means the quantity of all positioning

1st Definition (Driving event): Given a positioning edge $N^* \in [1, N]$, a main occasion e of App a contains a period run $T_e = [t_e \text{ begin}, t_e \text{ last}]$ related ranks of a, which fulfills $ra_{t_e \text{ begin}} \leq N^* < ra_{t_e \text{ start}-1}$, and $ra_{t_e \text{ last}} \leq N^* < ra_{t_e \text{ last}+1}$. In addition, $\forall t_k \in (t_e \text{ begin}, t_e \text{ last})$, we have $k \leq N$. Note that we apply a positioning edge *which is generally littler than K here on the grounds that N might be huge like thousand, and the positioning records past N* like three hundred are not extremely helpful for identifying the positioning controls. Besides, we additionally locate that some Apps have a few contiguous driving occasions which are near each other and shape a main session records. Take note of that, the littler esteem ra_i has, the higher positioning position the App gets.

2nd Definition (Driving Session): A main session s of Application a contains a period go $T_s = [t_s \text{ begin}, t_s \text{ last}]$ and n nearby driving occasions $\{e_1, \dots, e_n\}$, which fulfills $t_s \text{ begin} = t_{e_1} \text{ begin}$, $t_s \text{ last} = t_{e_n} \text{ last}$ and there is no other driving session s that makes $T_s \subseteq T_s$ In the interim, $\forall i \in [1, n]$, we have $(t_{e_{i+1}} \text{ begin} - t_{e_i} \text{ last}) < \phi$, where ϕ is a predefined time limit for consolidating driving occasions. Instinctively, the sham ranking was majorly found in the driving sessions for that we first find out the driving session of a versatile Application of their chronicled positioning data.

2.2 Detecting Driving Sessions

Here we are detecting the driving sessions below algorithm explains how to detect or extract the driving sessions.

Algorithm for Detecting Driving Sessions

Input 1: a' s historical ranking records R_a ;

Input 2: the ranking threshold N^* ;

Input 3: the merging threshold ϕ ;

Output : the set of a' s leading session tS_a ;

Initialization : $S_a = \emptyset$;

1: $E_s = \emptyset$; $e = \emptyset$; $s = \emptyset$; $t_{\text{start}}^e = 0$;

2 :for each i do

3:If $r_i^a \leq N^*$ and $t_{\text{start}}^e = 0$; then

4: $t_{\text{start}}^e = t_i$;


```

5:else if  $t_i^a > N^*$  and  $t_{start}^e \neq 0$  then
6://found one event;
7:  $t_{last}^e = t_{i-1}$ ;  $e = \langle t_{start}^e, t_{last}^e \rangle$ ;
8: if  $E_s = \emptyset$  then
9:  $E_s \cup e$ ;  $t_{start}^s = t_{start}^e$ ;  $t_{last}^s = t_{last}^e$ ;
10: else if  $(t_{start}^e - t_{last}^s) < \emptyset$  then
11:  $E_s \cup e$ ;  $t_{last}^s = t_{last}^e$ ;
12: else then
13://found one session;
14:  $S = \langle t_{start}^s, t_{last}^s, E_s \rangle$ ;
15:  $S \cup s$ ;  $s = \emptyset$  is new session;
16:  $E_s = \{e\}$ ;  $t_{start}^e = t_{start}^e$ ;  $t_{last}^e = t_{last}^e$  ;
17:  $t_{start}^e = 0$ ;  $e = \emptyset$  is a new driving event;
18: return  $S_a$ 

```

Second, we have to blend nearby driving occasions for building driving sessions. Algorithm displays the pseudo code of digging driving sessions of the specified Application. For each removed individual driving occasion e , we check the time traverse amongst e and the current driving session s to choose whether they have a place to a similar driving session in view of 2nd Definition. Especially, on the off chance that $(t_{e \text{ begin}} - t_{s \text{ last}}) < \phi$, e will be considered as another driving session. Subsequently, this calculation can distinguish driving occasions.

3 OBTAINING AFFIRMATION FOR RANKING SHAM IDENTIFICATION

In this we just concentrate on getting ranking evidences

3.1 Ranking based Affirmation

As showed by the definitions exhibited in 2nd forum, a driving session is made out from a couple driving occasions. In this manner, we ought to first dissect the essential qualities of driving occasions for removing extortion confirmations. By examining the Apps' authentic positioning records, we watch that Apps' positioning practices in a main occasion dependably fulfill a particular positioning example, which comprises of three diverse

positioning stages, in particular, rising stage, keeping up stage and retreat stage. In particular, in each driving occasion, an App's positioning first increments to a crest position in the leaderboard, then keeps such pinnacle position for a period, lastly diminishes till the finish of the occasion. diverse positioning periods of a main occasion. Undoubtedly, such a positioning example demonstrates an imperative comprehension of driving occasion. In the accompanying, we formally characterize the three positioning periods of a main occasion.

3rd Definition (Ranking Junctures of a Drivingevent):

Given a main occasion e of App a with time run $[t_e \text{ begin}, t_e \text{ last}]$, where the most astounding positioning position of a is r_a crest, which has a place with ΔR . The rising period of e is a period run $[t_{e a}, t_{e b}]$, where $t_{e a} = t_e \text{ begin}$, $r_a \in \mathbb{R}$ furthermore, $\forall t_i \in [t_{e a}, t_{e b}]$ fulfills $r_{a i} \in \Delta R$. The keeping up period of e is a period extend $[t_{e c}, t_{e d}]$, where $r_a \in \mathbb{R}$ and $\forall t_i \in [t_{e c}, t_{e d}]$ fulfills $r_{a i} \in \Delta R$. The subsidence stage is a period extend $[t_{e d}, t_{e f}]$, where $t_{e d} = t_e \text{ last}$. positioning extent to choose the starting time and the end time of the looking after stage. $t_{e b}$ what's more, $t_{e c}$ are the first and last time at the point when the App is positioned into ΔR . It is on the grounds that an Application, even with positioning control, can't generally keep up a similar zenith position in the leaderboard yet just in a situating reach. If a primary session s of App a has situating distortion, applications situating rehearses in these three situating times of driving events in looked to be not the same as those in a regular driving session. Truly, we find that every Application with situating control constantly has an ordinary situating focus on what's more, the enrolled advancing firms similarly charge money agreeing to that situating wish.

3.2 Rating based Affirmation

The situating based affirmations are useful for situating distortion revelation. In any case, at times, it is not sufficient to in a manner of speaking use situating based affirmations. For example, some Apps made by the famous planners. In addition, a part of the legitimate displaying organizations, for instance, "limited time markdown", may moreover bring about basic situating based evidences. To understand this issue, we in like manner consider how to think distortion affirmations from Apps' chronicled rating records. An App which has higher rating may pull in more customers to download and can in like manner be situated higher in the leaderboard. Along these lines, assessing control is moreover an essential perspective of situation

deception. Intuitively, if an Application has situating blackmail in a primary session s , the examinations in the midst of the day and period of s may have peculiarity plans differentiated and its unquestionable assessments, which can be used for creating rating based confirmations.

3.3 Review based Affirmation

Other than appraisals, the majority of the App stores likewise permit clients to compose some literary remarks as App audits. Such surveys can reflect the individual observations and utilization encounters of existing clients for specific versatile Apps. To be sure, survey control is one of the most imperative viewpoints of App positioning misrepresentation. In particular, before downloading or obtaining another portable Application, clients regularly initially 5, read its authentic surveys to facilitate their basic leadership, and a versatile App contains more positive audits may pull in more clients to download. Consequently, shams frequently post fake surveys in the main sessions of a particular App in request to blow up the App downloads, and in this manner move the App's positioning position in the pioneer board. Albeit some past chips away at audit spam recognition have been accounted for in later a long time, the issue of distinguishing the neighborhood abnormality of surveys in the main sessions and catching them as proofs for positioning misrepresentation discovery are still under-investigated.

3.4 Affirmation Aggregation

Subsequent to removing three sorts of misrepresentation confirmations, the following test is the means by which to consolidate them for positioning misrepresentation discovery. In fact, there are many positioning and proof accumulation techniques in the writing, for example, change based models [4], score based models [2], and Dempster-Shafer rules [1]. In any case, a few of these strategies concentrate on taking in a worldwide positioning for all applicants. This is not legitimate for identifying positioning misrepresentation for new Apps. Diverse strategies rely upon controlled learning techniques, which depend upon the checked planning data those are hard to be abused. We proposed an unsupervised approach in light of coercion similarity to merge these affirmations. Note that, here we propose to utilize the direct blend since it has been ended up being viable furthermore, is broadly utilized as a part of applicable areas, for example, positioning collection [3], [5].

4 SPECULATIVE RESULTS

In this segment, we assess the exhibitions of positioning misrepresentation discovery utilizing certifiable App information.

4.1 The Speculative Data

The exploratory informational indexes were gathered from the "Top Free 300" and "Top Paid 300" leaderboards of Application Store. The informational indexes contain the day by day diagram rankings 1 of best 300 free Apps and main 300 paid Apps, separately. Besides, every informational index additionally contains the client appraisals furthermore, survey data. Demonstrate the disseminations of the number of Apps as for various rankings in these informational collection. We can see that the number of Apps with low rankings is more than that of Apps with high rankings. In addition, the opposition between free Apps is more than that between paid Apps, particularly in high rankings the quantity of Apps as for various numbers of evaluations in these information sets. In the figures, we can see that the dispersion of Application appraisals is not even, which shows that exclusive a little rate of Apps is extremely famous.

4.2 Obtaining Driving Sessions

Here, we display the results of mining driving sessions in both instructive accumulations. Specifically, in Algorithm 1, we set the situating edge $N^* = 200$ and edge $\phi = 6$. This means two abutting driving events can be divided into a comparable driving session in case they occur inside one week of each other. Show the flows of the amount of Apps with respect to different amounts of contained driving events what's all the more, driving sessions in both educational accumulations. We can see that solitary a couple Apps have many driving events and driving sessions. The typical amounts of driving events and driving sessions are reaches from 2 to 3 for nothing Apps, and 4 for paid Apps.

5. RELATED WORK

When in doubt, the related works of this audit can be accumulated into three orders. The essential grouping is about Web situating spam acknowledgment. Specifically, the Web situating spam insinuates any contemplate exercises which pass on to pick Web pages a stunning awesome relevance or centrality [11]. For example, Ntoulasetal. [6] have concentrated diverse parts of substance develop spam in light of the Web and

presented different heuristic methodologies for recognizing content based spam. Zhou et al [11] have concentrated the issue of unsupervised Web situating spam distinguishing proof. Specifically, they proposed a profitable online association spam and ter spam recognizable proof strategies using spamicity. Starting late, Spirin et al. [8] have reported a review on Web spam area, which altogether shows the measures besides, figuring's in the writing. The menial is focused around recognizing on the web review spam. For example, Limetal. have perceived a couple designate practices of overview spammers moreover, demonstrate these practices to recognize the spammers. Wu et al. [9] have concentrated the issue of recognizing blend shilling strikes on rating data. The proposed approach relies on upon the semi-coordinated learning and can be used for tried and true thing proposition. For Instance, Yan et al. [10] developed a convenient App recommender structure, which relies on upon customer's App utilize records to build a slant network instead of using express customer assessments. Furthermore, to deal with the sparsity issue of App utilize records, Shi et al. [7] concentrated a couple recommendation models and proposed a substance based group arranged isolating show, some application, for endorsing Apps in their site.

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Performance Evaluation Of Fingerprint Orientation Field Reconstruction Methods

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Abstract-Orientation fields (OFs) are a key component of unique finger impression acknowledgment frameworks. They are a necessity for vital handling steps, for example, picture upgrade by logical separating, and commonly, they are assessed from unique finger impression pictures. In the event that data about a unique mark is accessible just in type of a put away details layout, an OF can be remade from this format up to a specific level of precision. The recreated OF can then be utilized e.g. for unique mark arrangement or as an element for coordinating, and along these lines, for making strides specifically or in a roundabout way the acknowledgment execution of a framework. This review looks at remaking strategies from the writing on a benchmark with ground truth introduction fields. The execution of these strategies is assessed utilizing three measurements measuring the measure of recreation mistakes and in addition as far as computational runtime.

1.Introduction-Orientation fields (OFs) are an essential part of all unique mark acknowledgment calculations. They are utilized at many preparing stages and for different purposes, e.g. for unique finger impression arrangement, particular point identification, unique finger impression grouping, picture improvement by relevant sifting, or descriptor coordinating. In addition, OFs are connected for supreme pre-arrangement in unique finger impression cryptosystems, they are utilized to process histograms of invariant angles (HIG) for unique mark liveness recognition and for enhancing unique finger impression acknowledgment execution by score reevaluation. The OFs in previously mentioned applications are ordinarily evaluated from a unique mark picture. In circumstances in which as it were unique mark details formats are accessible, OFs can be remade from these layouts. This is typically the initial step in strategies which endeavor to remake a unique finger impression picture from a details format. With regards to scientific applications, a law requirement office may have a vast database with fingerprints put away as details formats and OFs recreated from these formats are helpful for the arrangement venture in dormant unique mark distinguishing proof as of late broke down by Krish

et al. Beforehand, the execution of calculations for introduction field estimation from unique mark pictures has been assessed utilizing physically checked ground truth introduction data. In this review, we take after this profession by physically checking details in the pictures of the FOE benchmark by Turrone et al. furthermore, by assessing the OF recreation execution on the ground truth introduction field.

2Proposed System

In the proposed framework an arrangement of minutiae triplets was proposed to remake orientation field when the singular focuses are not accessible. The strategy proposed by Feng and Jain predicts an orientation field for each piece by utilizing the closest minutia. The methodologies utilized for recreation of orientation field from details enhances the unique mark orientation field by remaking and further it can be utilized for picture upgrade by logical separating, and normally, they are assessed from unique finger impression pictures.

3. Methodology: The methodology used in this research is based on the FJ method and FJ algorithm which is Feng and Jain algorithm. The Feng and Jain provides a better way for reconstruction of the orientation field when the singular points are not available. The inputs chosen are the templates of the damaged fingerprint and the minutiae and the orientation field are reconstructed and the damaged fingerprint is reconstructed. Feng and Jain (FJ) method proposes an OF reconstruction method in 2011 which divides the area around a location to be reconstructed into 8 sectors, and considers the nearest minutiae in each sector for a distance based weighted averaging of orientations. We also analyze a variant (FJM) which uses the polynomial model of Chen et al. as a final smoothing step.

4. Proposed Architecture Model

In this project we are using .NET and visual studio as tool for implementing the project. In the architecture consisting of a number of orientation

patches, is constructed from a set of high quality fingerprints (50 rolled fingerprint images). An orientation patch consists of 10×10 orientation elements with each orientation element referring to the dominant orientation in a block of size 16 × 16 pixels.

when reconstruction of orientation field is done the reconstructed OF is matched against the patch dictionary to check for the similarity and accuracy.

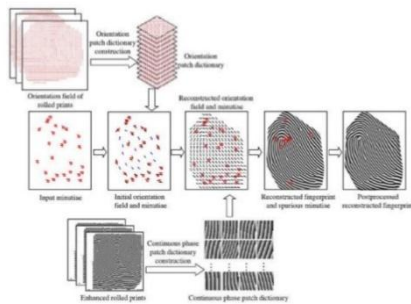


Fig 2-System Architecture design

5. Experimental Results



Fig 2-Loading the query template and checking the similarity and accuracy

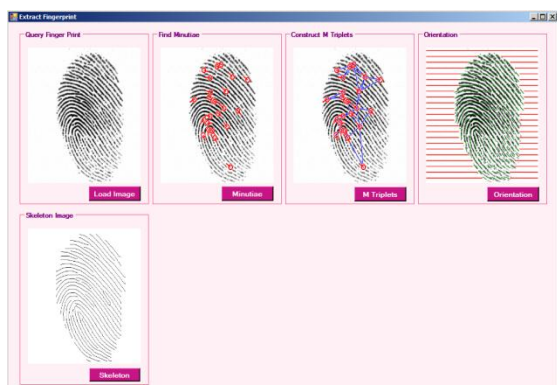


Fig-3: Reconstructing the orientation field

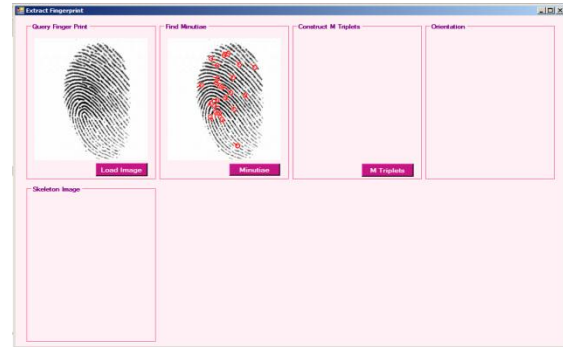


Fig-4: Reconstructing the Minutiae

6.Modules

1. Am-Fm Fingerprint Model
2. Dictionary Construction
3. Orientation Field Reconstruction
4. Fingerprint Reconstruction
5. Fingerprint Image Refinement

Am-Fm Fingerprint Model:

The AM-FM unique mark display proposed by Larkin and Fletcher speaks to a finger impression picture I as a multi dimensional image, i.e., comprising of 2D and recurrence balanced periphery design: $I(x, y) = a(x, y) + b(x, y) \cos(\theta(x, y)) + n(x, y)$, (1) where $a(x, y)$, $b(x, y)$ and $n(x, y)$ are, individually, the counterbalance, adequacy and commotion, which make the finger impression practical, and $\theta(x, y)$ is the stage which totally decides the edge structures and particulars of the unique finger impression.

Dictionary Construction:Orientation Patch Dictionary:The orientation patch dictionary proposed by Feng et al. for latent enhancement is directly utilized as prior knowledge of ridge flow for orientation field reconstruction. The introduction fix word reference DO, comprising of various introduction patches, is built from an arrangement of great fingerprints Continuous Phase Patch Dictionary: The ceaseless stage fix lexicon, which incorporates various consistent stage patches (without spirals), is constructed through the following steps: i) Fingerprint selection and processing, ii) Orientation patch clustering, iii) Fingerprint patch clustering, iv) Orientation and frequency fields estimation.

Orientation Field Reconstruction:

The introduction field is viewed as just in the frontal area locale of a unique mark which is controlled by expanding the raised body of the information details focuses with a plate shape cover with a range of 32 pixels. in the locale without details or with maybe a couple particulars.

Introduction fix word reference, in this manner, can't be utilized to remake the introduction field straightforwardly.

Fingerprint Reconstruction:

The persistent stage fix lexicon is utilized to reproduce unique mark picture patches in view of the remade introduction field and edge recurrence field. Worldwide enhancement is then received to acquire the recreated unique mark picture. Unique mark Image Refinement: We embrace the worldwide AM-FM model to expel the spurious particulars from the recreated picture.

Fingerprint Image Refinement:

We adopt the global AM-FM model to remove the spurious minutiae from the reconstructed image. The block wise orientation field is expanded to pixel-wise orientation field.

6. Conclusion

We considered two algorithms to implement this project which are FJ and CZY and we have found that FJ method is more accurate method in reconstructing of the orientation field. FJ method has led to the improvement of the accuracy. On the other hand CZY is least competitive when compared to the FJ and displaying high error measures.

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A Cocktail Approach for Travel Package Recommendation

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Abstract:

Late a long time have seen an expanded enthusiasm toward recommender frameworks gigantic propel in this field, there at present sit tight Different streets should examine. Undoubtedly, this paper provides for a examination about misusing on the web venture out information to altered go pack suggestive. A essential test along this accordance may be should address the a standout amongst a sort qualities for travel information, which distinguish venture out packs from customary things for proposition. For that for mind, in this paper, we to start with analyze the characteristics of the current go packs and develop An visitor zone season liable (TAST) show. This TAST model might talk to go packs Furthermore voyagers Eventually Tom's perusing Different side of the point appropriations, the place the topic extraction is formed with respect to both those sightseers and the trademark components (i. E. , areas, go seasons) of the scenes. At that point, in perspective for this topic show portrayal, we recommend An blended beverage route on manage make the rundowns to altered go pack suggestive. Besides, we augment those

TAST model of the visitor association zone season side of the point (TRAST) show for getting those inactive associations Around those vacationers for each head out bundle. Toward in length last, we survey the TAST demonstrate, those TRAST show, and the blended beverage proposition methodology once this introduce truth travel pack majority of the data. Test Outcomes indicate that the TAST model camwood adequately catch those interesting qualities of the travel information and the mixed drink methodology is, substantially more viable over accepted suggestion systems for go bundle suggestion. Also, by acknowledging visitor relationships, those TRAST model might a chance to be utilized Similarly as a successful appraisal for go aggregation creation.

Keywords

TRAST model, K-means clustering, Authentication, collective filtering, seeking, strategies

1.INTRODUCTION

Right away days, there will be pattern for internet benefits. In the individuals on the web administrations there is voyaging data benefits need aid developed quickly. By and large visitor picks the travel bundles as stated by as much interest. Also Additionally as stated by their necessities visitor decides venture out bundles. Thus to fulfilling visitor needs, venture out organizations need will see visitor inclination. Assuming that agency understands visitor enthusiasm and preferences, organization should expands benefit. To that end goal they require shrewdly head out services, these are nothing yet the recommender framework. This recommender framework prescribes diverse go bundles for visitor. This venture out bundles fulfils those visitor states and their necessities. Recommender Framework for visitors bring been examined clinched alongside [1],[3],[6],[7]. For instance, those meets expectations for [1],[6] primarily centered around advancement about portable visitor aide. Versatile recommender system, which may be formed Eventually Tom's perusing Averjanova et al. Could give clients for a few customize proposals [3]. The point of interest meets expectations of over things need aid exploratory On nature, because of that working; those issue for leveraging interesting features to recognize venture out bundle proposals remains open. To outlining and actualizing an compelling recommender framework to head out bundle

recommendation, there are specialized foul and area Tests must make intrinsic. In assume motion pictures for proposals. The expense to head out will be a greater amount unreasonable.

Over viewing An motion picture. Viewing more than particular case motion picture done every month may be ordinary thing for costumer, same time they might. Just go you quit offering on that one alternately two times done one quite a while. Second, head out bundle need inalienable unpredictable spatiotemporal connections. Example, travel one bundle comprise of anumber landscapes/attractions, are geographically collocated. Together [24,28,26]. Hence, those attractions which would available to venture out bundles need spatio-temporal autocorrelations. Third challenge may be as a rule depend for client ratings, which need aid conventional recommender framework. Likewise The point when the client seeking bundles with respect to website they found Numerous results, Along these lines those practically visited bundles might make shown them At whatever point they taking care of those tourism website. This could a chance to be done with the assistance for providing for stable worth of the A large portion looking tour bundle things.

We tended to those over specified tests in this paper, with the assistance from claiming mixed drink approach to travel one bundle suggestion. Those head out bundle suggestion framework holds models, which aides with suggest those customize head out one

bundle. Done mixed drink approach, 1st we investigate the key qualities about go bundles. Following analysing the time Also go destinations need aid partitioned under different seasons Furthermore ranges. After the fact we create a Tourist-Area-Season-Topic (TAST) model, which speak to venture out bundles as stated by those separate subject circulations. It camwood Additionally representable the visitors by subject circulations. The point conveyance is nothing yet the subject extraction is molded ahead both those tourists, Also inalienable offers (i. E. , location, venture out season) of the landscapes. To getting those idle association the middle of the visitors in every venture out assembly we augment those TAST model of the Tourist-Relation-Area-Season-Topic (TRAST) model. As a result, the TAST model camwood viably catch those exceptional qualities of go information. Because of the over results, we found that mixed drink approach will be All the more successful over those accepted suggestion strategies..

2.PROPOSED SYSTEM

In this project, we aim to make personalized recommendations for the tourists. Thus, the users are the tourists and the items are the existing packages, and we exploit a real-world travel data set provided by a travels for building recommender systems. we develop a tourist-area-season topic (TAST) model, which can represent travel packages and tourists by different topic distributions. In the TAST model, the extraction of topics is conditioned on both the tourists and the intrinsic features (i.e., locations, travel seasons) of the landscapes. Based on this TAST model, a cocktail approach is developed for personalized travel package recommendation by considering some additional factors including the seasonal behaviours of tourists, the prices of travel packages, and the cold start problem of new packages

III.PROPOSED METHOD:

1) “Personalized head out one bundle Recommendation.”

Toward Mr.G.Sunil [Andhra Loyola Institute of engineering and technology Furthermore Technology],2017 in this paper, visitor requirements, needs and inclination will make fulfilled. To that reason they use recommender system, which prescribes those head out bundles of the visitor as stated by their inclination. To planning What's more actualizing such kind of recommender framework they location those specialized foul What's more area tests. For that motivation they make those TAST model. TAST model speaks to the travel bundle Furthermore visitors by different theme dissemination. For those help about this TAST model go bundle suggestion must be customize.

2) “A mixed drink approach to head out one bundle Recommendation”.

Eventually Tom's perusing mr.Pruthvi raj [Andhra loyolaInsitute about building and Technology],2017 this paper gives An investigation from claiming exploiting web travel data to customize travel one

bundle suggestion. In this distinctive head out bundles will be recognized starting with conventional things for suggestion. Here Additionally creators 1st investigate those qualities for existing travel bundles et cetera develops those TAST model. TAST model could representable the go bundles What's more visitors Eventually Tom's perusing diverse theme circulations. On the foundation for this subject sentence model representational they recommend those mixed drink methodology. Mixed drink approach will be used to produce those schedules to customize travel bundle suggestion. Anyway to catching idle associations "around the visitors On each travel group, writers developed TAST model of the TRAST model. At long last they assess An mixed drink suggestion approach on true head out bundle information.

3)“Travel one bundle suggestion utilizing mixed drink. Approach” Toward mr. Siva ram [Andhra loyolaInsitute from claiming building What's more Technology],2017 On later papers that TAST model is ordinarily used, that is the reason TAST model speaks to those venture out bundles What's more visitors by subject sentence circulations. In this project,here Additionally the TAST model will be utilized alongside their

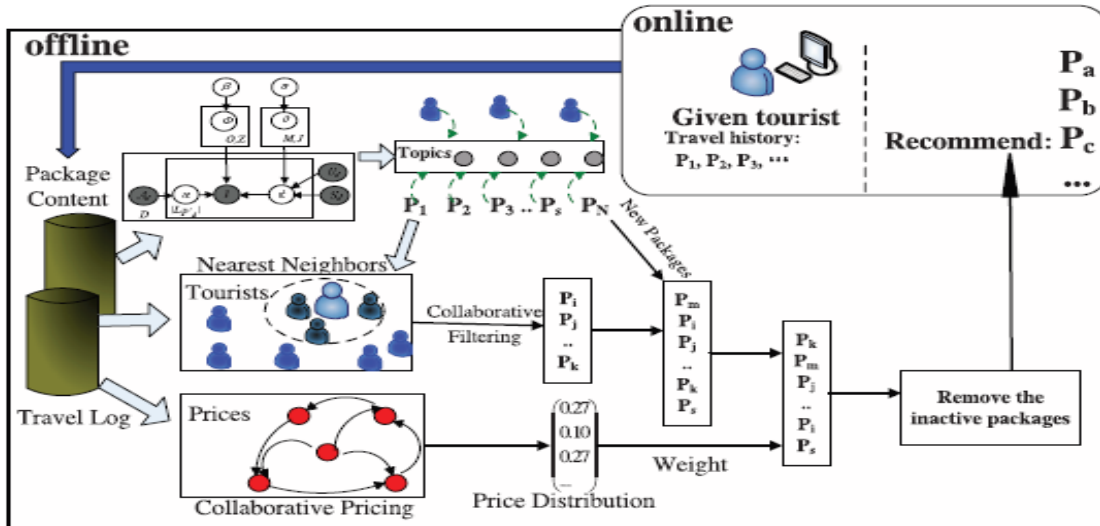
stretched out versify TRAST model. However in this undertaking those existing framework camwood a chance to be extemporized with assistance of community oriented sifting Also closest neighbor framework. In community oriented filtering, visitors secret word transactions would analysed in place to create those associations between client Also items.Because of this, the recommender framework gives clients with customize suggestions for result alternately benefits. Closest neighbor may be the system which will be used to Figure those comparability done subject sentence from claiming every last one of clients. Along these lines it makes theaggregation of comparative clients What's more find closest neighbor. Following, finding the nearest neighbour they predict the relationship among them using the TRAST model.

1v.module of a proposed system

Three method involved into it:

1) **Authentication:** The primary module may be Confirmation module. In this module, visitor as a matter of first importance logged over under the website. If they don't bring Confirmation on right those website, they

Architecture



can't make log in of the website. For putting on the Confirmation visitor must make enrolled with the website. Following Enlistment we provide for them one time secret key (OTP). For the assistance from claiming this international ID. Visitor can wood settle on their profile on the website. In this manner we provide security of the website starting with the intruders.

2) Search: In this module, visitor hunt bundles as stated by their investment. Then afterward looking venture out packages, they select Furthermore include them under their profile. In this module we employments collective filtering, expected that as of late seen bundles Furthermore other updated new bundles will make shown them on the website.

3) TAST model: Then afterward seek Also selecting those head out package, TAST model working will be began. TAST model speaks to the head out one bundle and visitors as stated by those separate theme circulations. Those point must a chance to be recognized on the support of the Chosen go bundles. Additionally the regular investment of the visitor will be measured in this TAST model. In this model community oriented model will once more utilized. The community oriented sifting meets expectations on the made bundles Furthermore it removes the unwanted bundles. Following that those grouping assessment of the bundles could be takes spot. Et cetera the bundle production will be off

V. conclusion

To constantly on approaching evolutionary frameworks similar to e-commerce mixed drink model performs exceptional. When we execute the paper we get those right effects. In this way we feel mixed drink approach hold numerous settlement parameter.

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Quantifying Political data Analysis Based On Tweets

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Abstract—The across the board utilization of online interpersonal organizations (OSNs) to scatter data and trade assessments, by the overall population, news media and political performers alike, has empowered new roads of research in computational political science. In this paper, we concentrate the issue of evaluating and gathering the political inclining of Twitter clients. We define political inclining derivation as an arched streamlining issue that fuses two thoughts: (a) clients are reliable in their activities of tweeting and retweeting about political issues, and (b) comparable clients have a tendency to be retweeted by comparative gathering of people. Our quantitative review reveals insight into the political socioeconomics of the Twitter populace, and the worldly elements of political polarization as occasions unfurl.

Keywords –Twitter, political science, inference, convex optimization.

1. INTRODUCTION

As of late, huge online web-based social networking information have discovered numerous applications in the crossing point of political and software engineering.

Illustrations incorporate noting inquiries in political and sociology (e.g., demonstrating/discrediting the

presence of media predisposition [3, 30] and the "reverberate chamber" impact [1, 5]), utilizing on the web-based social networking to foresee decision results [46, 31], and customizing web-based social networking encourages to give a reasonable and adjusted perspective of individuals' conclusions on disputable issues [36]. An essential for noting the above research inquiries is the capacity to precisely evaluate the political inclining of the populace included. On the off chance that it is not met, either the conclusion will be invalid, the expectation will perform inadequately [35, 37] due to a skew towards exceptionally vocal people [33], or client experience will endure.

In this venture the administrator logs into the server and he makes a tweet on a specific theme on political gatherings, issues of governmental issues. At that point the administrator tweets it then the tweeters seeing the tweet can remark on the tweet made by the administrator. After the tweeter tweets on the tweet of the administrator the companions who are in the profile of the tweeter can re-tweet to the remark made by the tweeter. Just the companions who are in the profile of the tweeter can react to the remark made by the tweeter to the administrators tweet no other individual can see the tweet made by the tweeter. At that point on the no of tweets given on that specific issue the

administrator computes the outcome utilizing the surmising strategy and makes the reference diagram portrayal for the outcome. Each issue has three sorts of results (positive, negative, neutral.). Administrator at some point shows the result in pictorial format according to tweets.

2. Proposed System

In this venture we will defeat the inconveniences in the above existing framework by encircling political inclining derivation as a raised advancement issue.

It mutually expands tweet re-tweet understanding it a mistake term. Our procedure requires just a constant flow of tweets yet not the twitter interpersonal organization. basic Interpretation of averaging is utilized. Hash utilization designs change altogether as political occasions unfurl.

3. METHODOLOGY

Usage is the phase of the venture when the hypothetical outline is transformed out into a working framework. In this manner it can be thought to be the most basic stage in accomplishing a fruitful new framework and in giving the client, certainty that the new framework will work and be powerful.

The usage organize includes cautious arranging, examination of the current framework and its limitations on execution, outlining of techniques to accomplish changeover and assessment of changeover strategies. In this project we are using Convex Optimization technique where the tweets and re-tweets collected in the database are in huge number when the convex optimization technique is used up in the large number of data, then the data is taken as a whole and average is calculated and the

approximate value is produced to upon the average number of tweets and the average value is given out very quick in spite having the huge number of data.

When the data is converted into small number using the convex optimization the data is still large in number. The daily usage of tweeter is being increased day by day so in order to get a value which is close to the exact value we are using Inference technique which is based upon the assumptions of the values every value is taken as the approx. value of the real value and the result is being produced based upon that number.

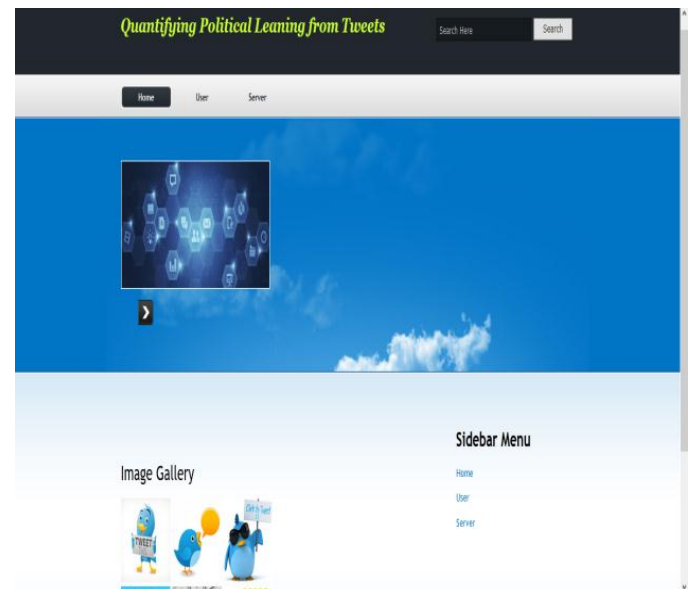


Fig 1: Home Page

4. PROPOSED ARCHITECTURE MODEL

In this project we are using Jsp for the front for creation of user interfaces on which the user interacts with the tweeter. MySQL is used as the back end database where the all the data which is collected from the tweeter are stored. By using both Jsp and MySQL we are creating this project where the user can tweet according to that particular issue

and all the data is stored in Mysql server from where the calculations are done and the result is being produced.

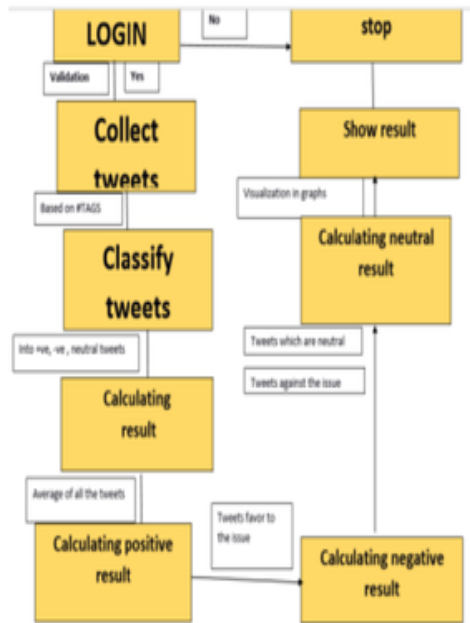


Fig 2: System Architecture design

5.IMPLEMENTATION

5.1 TWEET OPERATION

5.2 CALCULATING TWEETS Based

On contents

5.3 RESULT TWEET

5.4 RESULT VISUALIZATION

5.1TWEET OPERATION:

First twitter user log in to the twitter and the tweets on an issue giving a specific keyword to show that he is tweeting on particular topic. The keyword used is “#Tag”. Now the tweets is posted on a particular issue, then according to his tweet

there are re-tweeters who reply to his tweets in a positive manner and in negative manner and again there are re-tweeters who tweet on the reply of re-tweeters, so there will be multiple re-tweets for the re-tweets.

As there will be many tweets on issues we need to classify the tweet based on #tags

Example: - #tags are: - #elections, #party name, #candidate name, #issue, #state elections.

5.2 CALCULATING TWEET BASED ON CONTENT:

Now the user can tweet and re-tweet on an issue its difficult to classify the tweets as there are thousands of tweets on particular issue in order to eliminate this problem we classify the tweets based on #tags now as we consider #tags there are re-tweets for that particular tweet so in order to classify them as supporting or not supporting we are again classifying the tweets based upon key words.

5.3 RESULT TWEET:

After calculating the no of supporters for each candidate we now should calculate the no of tweets which are positive, negative and neutral for each candidate. In order to calculate these we are using the key word based classification.

The key words which we use are good , bad, excellent, worst ,happy ,sad etc. so based upon these key words we are classifying the result and develop the positive , negative, neutral result.

5.4 RESULT VISUALIZATION:

After generating the result the result is then showed in a bar chat manner so that it will be easy for the twitter users to understand how many twitter users

have supported the candidate, how many twitter users have not supported and how many twitter users have stayed neutral on this issue through a bar chart representation

6.EXPERIMENTAL RESULTS

Image	Tweet Name	Description	Date	Tweets	Re-Tweets
	Congress	The future Congress leader will be Rahul Gandhi	01/08/2017 16:02:16	View Tweet Details	View Re-Tweet Details
	BJP	BJP changes all members recently	01/08/2017 16:36:51	View Tweet Details	View Re-Tweet Details
	BJP	BJP is some better in congress	25/02/2017 15:26:29	View Tweet Details	View Re-Tweet Details
	BJP	IN THIS YEARS OF BJP GOVT IT IS REACHED BY PEOPLE SATISFACTION OR NOT	06/03/2017 20:30:16	View Tweet Details	View Re-Tweet Details
	cong	will Rahul Gandhi be PM due to the mistakes made by BJP?	06/03/2017 08:40:47	View Tweet Details	View Re-Tweet Details
	others	other political party	13/03/2017 17:24:27	View Tweet Details	View Re-Tweet Details
	others	Are there any chances for people to support other parties other than BJP and CONGRESS?	14/03/2017 09:46:10	View Tweet Details	View Re-Tweet Details

Commented User	Comment	Date	View the Details
sal	very good choice	14/03/2017 10:18:02	View
teja	yes it is very good choice	14/03/2017 10:20:11	View
bhanu	yes it is good opinion	14/03/2017 10:21:18	View
venu	yes i will agree with you and good choice	14/03/2017 10:23:10	View
praveen	yes it is correct and good choice	14/03/2017 10:24:46	View

Fig 3:All Users Tweets And Details

Fig 4:Classification Of Tweets

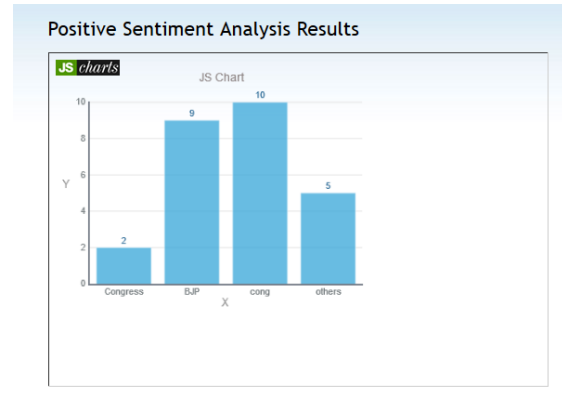


Fig 5- Positive graph

7.CONCLUSION

In this project we are implemented inference technique where we assume the number of tweets tweeted for that particular actor and we calculate the result using convex optimization technique where the huge number of tweets are collected in our data based is taken and average of the tweets are calculated and the result is produced according to the actor and the main key used for producing the result are the keywords which classify the which type of tweet the user is tweeting on that particular issue.so it is collected based upon keywords used in this project. Finally it shows how many positive, negative and neutral tweets in graph representation.

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Testing Polynomial Load for Voltage Stability

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ABSTRACT

Assessment of load models is required in power system voltage stability studies. Voltage stability defines the ability of a power network to maintain steady state voltages at all the buses under both normal operating conditions, and under the state of a disturbance. The research presented as part of this paper, deals with analysis of Impedance, Current and Power static load model for voltage stability studies. The precision of the results are directly related to the load models used in this analysis. The method is analyzed using continuation power flow routine backed by fast decoupled computational iterative approach.. Static var Compensator is used to address the voltage instability caused by the load variations using search procedure. The effectiveness of the proposed method is demonstrated through quantitative simulation on standard IEEE 14 bus system.

KEYWORDS: Continuation Power Flow, Search Procedure, Voltage Stability, Polynomial Load

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I. INTRODUCTION

Voltage Stability or Load Stability is one of the concerns in power systems which are heavily loaded, faulted or having a shortage of reactive power [1]. Load imbalances are one of the many causes of reactive power shortages. During such system disturbances, system stability is imperilled. The probability of moving to the global instability increases. This will usually result in a blackout unless some precautions are considered. The problem of voltage stability concerns the whole power system, although it usually has a large involvement in one critical area of the power system [2]. Power System Load Modeling is a technique used to model the power system and essential for stability assessments. In this paper, we are trying to analyze Impedance, Current and Power static load model also termed Polynomial load for voltage stability studies. Different load

models would greatly affect voltage stability aspect of an interconnected power system [4]. We are using continuation power flow backed by BX based fast decoupled load flow to analyze the effects of the above load model and compare the results. Flexible AC Transmission Systems in short FACTS controllers are used to control the variables such as phase angle and voltage magnitude at a given bus and line impedance where a voltage collapse is observed. Introducing FACTS controllers is the most effective way for utilities to improve the voltage profile and voltage stability margin of the system. As the size and the cost of the FACTS devices are high, an optimal location and size has to be identified before they are actually installed.

II. PROBLEM FORMULATION

Accurate modelling of loads continues to be a difficult task due to several reasons.

Lack of precise information on the composition of the load, changing of load composition with time like day and week, seasons, weather, through time and more influence the load models. Electric utility analysts and their management need evidence of the benefits in improved load representation to justify the effort and expense of collecting and processing load data. Also to modify computer program using load models. The interest in load modelling has increased in the last few years, and power system load modelling has become a new research area in power systems stability [4]. Several studies have reported the critical effect of load representation in voltage stability studies. This leads to identify accurate load models than the traditionally used ones. Though ours is not the first paper to test various static load models for determining the voltage stability limits of a power network, it happens to be a research paper to address stability issues related to polynomial load model or ZIP load model for voltage stability. We present a simple binary search procedure [6] to locate and size static var compensator to address load instability caused by ZIP loads.

III. MATERIAL

A. IEEE 14 Bus Network

We are testing our load model on IEEE 14 bus power network as shown in Figure 1. The test system consists of twenty one branches, fourteen buses, and eleven loads totalling 259 MW and 81.4 MVAR. The tolerance for bus voltages in P.U. was assumed to be 5%. Bus 1 is assumed slack. The analysis is performed in power system analysis toolbox [5]. We are applying continuation power routine with fast decoupled iterative approach. The number of iteration limit in power flow routine is set to twenty count.

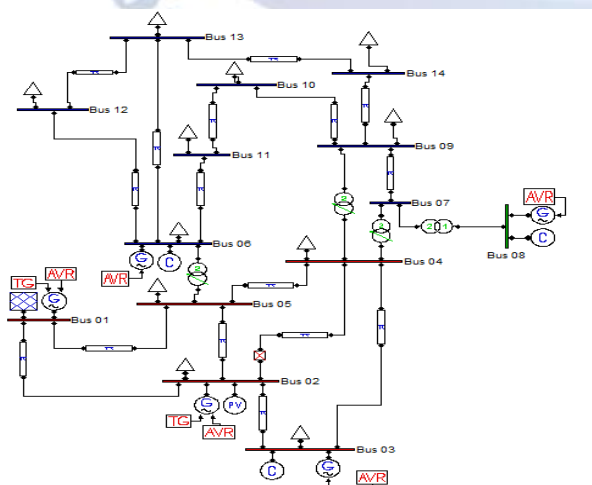


Figure 1: IEEE 14-bus Network

B. Polynomial Loads

Constant impedance loads examples: Residential loads and lighting loads such as bulbs to mention a few. Constant current load examples: Transistors, transducers and incandescent lamps. Constant power loads are switching regulators and industrial loads.

C. SVC-Static VAR Compensator

It consists of a capacitor bank in parallel with a thyristor controlled reactor. The schematic is given in figure 2. It is used to stabilize a bus bar voltage and improve damping of the dynamic oscillation of power systems. In this model, a total reactance bSVC is assumed and the differential equation 2.1 holds. The regulator is having an anti-windup limiter. The reactance bSVC is thus locked if one of its limits is reached [3].

$$\begin{aligned} \dot{b}_{SVC} &= (K_r (V_{ref} + V_{POD} - V) - b_{SVC})/T_r \\ Q &= -b_{SVC}V^2 \end{aligned} \quad (1)$$

Where K_r is regulator gain, V_{ref} is reference voltage and T_r is regulator time constant. SVC model has an additional stabilizing signal v_{POD} , which is the output of the Power Oscillation Damper.

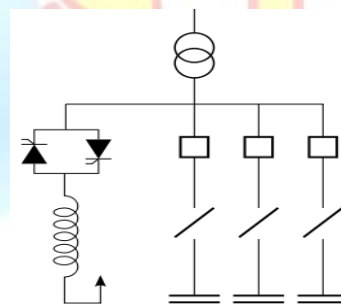


Figure 2: Structure of SVC

A. Flow chart: Binary Search

The flow chart for binary search approach is presented in figure 3.

IV. IMPLEMENTATION, RESULTS & DISCUSSION

The polynomial loads were installed at buses 9 to 14. Here we observe a decline in voltage magnitude as a result of reactive power deficit after installation of ZIP loads as compared to a case without these loads. As can be seen from table 1 and figure 4, we observe an improvement in bus voltage magnitude profile after the placement of SVC using binary search approach. Also, observe similar kind of decline in maximum loading limit before and after placement of ZIP loads. The loading limit is enhanced using placement of SVC in this case to improve the steady state stability

limit at the heavily loaded power system buses. For pre-disturbance condition, the loading limit was 1.7086 which was improved to 1.9923.

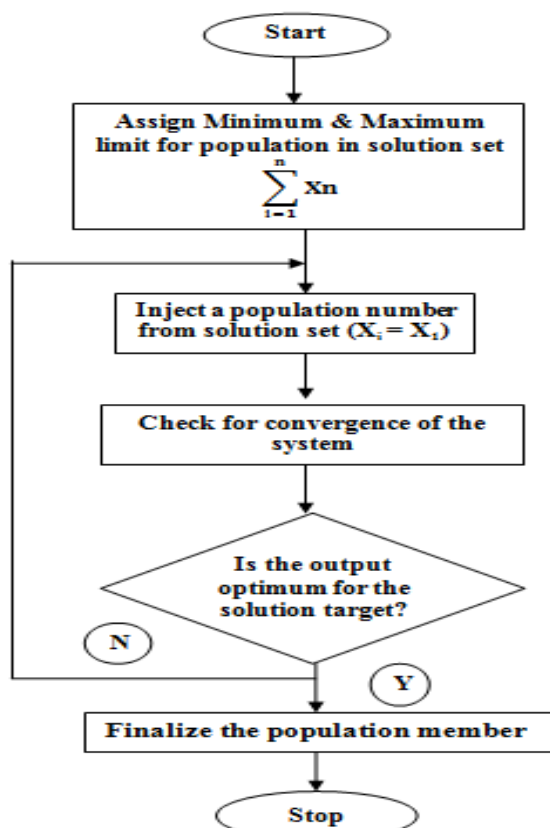


Figure 3: Binary Search Procedure

Table 1: Voltage Magnitude Profile

BUS No.	Before ZIP Load	After ZIP Load	ZIP load with SVC
1	1.0576	1.0576	1.0576
2	0.95357	0.90694	0.8996
3	0.89545	0.79309	0.78978
4	0.81763	0.76006	0.79653
5	0.83132	0.78121	0.80651
6	0.87874	0.84241	0.95576
7	0.84196	0.81191	0.98311
8	0.97488	0.95581	1.0485
9	0.77609	0.7516	1.045
10	0.76998	0.74653	1.0077
11	0.81253	0.78398	0.97177
12	0.82661	0.79661	0.92217
13	0.8061	0.77917	0.9168
14	0.72578	0.71082	0.93684

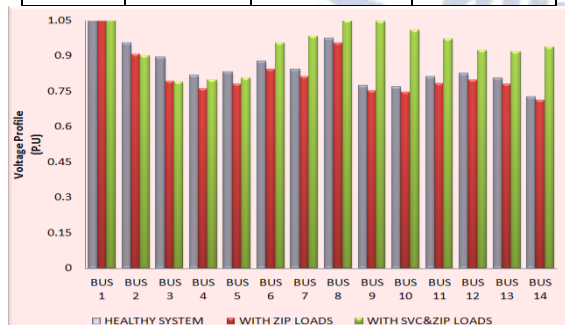


Figure 4: Voltage Magnitude Profile Comparison

V. CONCLUSION

The work presented here details a load model study for voltage stability using Search Procedure. The case study considered was modelled using polynomial static loads and analyzed for their performance in terms of voltage magnitude profile and maximum loading parameter. The inclusion of load models in the power system causes a decline in voltage profile as a result of reactive power deficit. A method is also presented to determine the optimal location and size of SVC to enhance the stability. This method is based on Binary Search. This algorithm is simple in implementing compared to complicated Artificial Intelligence techniques. It is capable of finding multiple optimal solutions, giving more flexibility to make the final decision about the location of the FACTS controller. The future scope of this work deals with the testing of above techniques for higher order IEEE case studies and practical networks.

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Sanitization for Preventing Sensitive Information Inference Attacks in Social Networks

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Abstract: Easygoing affiliations give a virtual stage to clients to reveal themselves to individuals if all else fails. These structures allow clients to present specific of them and interface with their mates. Client profile and family relationship relations are really private. It is possible to expect fragile information passed on in released data inactively by utilizing data mining procedures. In this we take a gander at how to dispatch affirmation strikes using released online gathering data to find undisclosed private information about individuals, including their political affiliations. By then we devise possible sanitation strategies that may be found in various conditions. By then, the vitality of these systems by executing them with a dataset from a Facebook web gathering application and needing to use techniques for total finding to learn fragile parts of the illuminating record. In like manner, also this shows the possible results where the method for both neighborhood and get-together estimation may be obliged with the sanitation techniques as portrayed.

I. Introduction:

A part of the information revealed inside these frameworks is proposed to be private. Regardless it is possible to use learning figurings on released data to anticipate private information. In this paper, we investigate how to dispatch conclusion ambushes using released individual to individual correspondence data to anticipate private information.[4]

We then devise possible cleansing strategies that could be used as a touch of various conditions. By then, we research the sufficiency of these frameworks and attempt to use procedures for total determination to discover delicate qualities of the lighting up record. [4]Interpersonal alliance application providers have a phenomenal open entryway: make use out of this information could be fundamental to advancing experts for direct publicizing. In any case, a little while later, security concerns can keep these attempts. This verbal confrontation between the pined for usage of data and individual security demonstrates an open entryway for affirmation sparing social association [4]Private information spillage, on the other hand, is related to experiences around a man that are not unequivocally passed on, in the interim, rather, are settled through various subtle portions released or possibly association with individuals in the past papers there is no staying away from delicate information spillage.

To secure against such attacks, we propose a data disinfection structure in light of present circumstances including unmistakable data controlling frameworks and social association with ensure[15] against get-together ambushes in social affiliations .Data assurance in the agreeable connection can be accumulated into two arrangements, for instance, Inherent data security and sit without moving data affirmation. The data which is related to the customers profile which is assembled by customers is known as Inherent-data insurance. Similarly, the data which is released through the family relationship of the customer is known as Latent data insistence.

In this paper, we expect an aggregation of confounding data from different social joint exertion regions. Customers need to cover up or reveal the private information from appearing to others. In light of current conditions the outcast customers may get the data camouflaged by using de-anonymization methodologies. For this we take after three phases: One is to take a gander at or find how the flimsy data can be released ie; the courses in which the data can be spilled. Second is to discover the frameworks for keeping the spillage. At first we need to research how the attacker can dispatch a catch by using the model called Collective Inference. In past works which are refined for anticipating strikes have drawbacks. At in any case, the data of the customer and his relations are seen as self-governing which reduced the accuracy. In addition, only a solitary of the controlling strategies is used which incited low execution.

II. Related works

Information anonymization is a kind of information filtration whose objective is security protection. It is the course of action of either scrambling or removing a little while later identifiable information from educational records, so that the thorough gathering whom the data delineate stay obscure. De-anonymization is a data mining structure in which cloud data is cross-referenced with other data sources to re-see the astounding data source. Any information that reviews that one data source from another can be used for de-anonymization.

I. L. Backstrom, C. Dwork, and J. Kleinberg lit up that in a nice alliance, centers emerge from people or other social parts, and edges identify with social connection between them. With a certified focus to additional certification, the show of anonymization replaces names with vain exceptional identifiers. We portray a party of ambushes with an authoritative focus on that even from a single anonymized copy of a social

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Single key Based Secure Data sharing in Cloud

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Abstract—Sharing of data is a general handiness property in storage cloud. In this paper, we show how to provide security, viably, and adaptably for data that has to be shared to others in distributed storage. In our application number of files is encrypted before uploading in to cloud storage. Another user who wants to access the shared files in cloud uses the single secret key which was send to his email. This single secure key is used to decrypt the files before they are downloaded.

Keywords—Cloud stockpiling, information sharing, KAC-based encryption, persistent encryption

I. INTRODUCTION

Storage clouds are getting predominance starting late. In huge business, there is a climb mainstream for sending data out to manage, that helps the key organization of corporate confidential data. It is moreover seen as a middle advancement apart of various online communities for individual security applications.

Nowadays, it is not hard to implement with the desire of complimentary records for accumulation, archive distribution or conceivably accessing from remote, in the limit measure greater than 25 GB .Along with the present remote advancement, customers can get to the greater part of records along with messages using wireless at any point in the world.

Including data security, a standard solution to cope with certification and depend on upon the server to materialize numerous approval (e.g., [1]), infers the sudden advantage uplifting that reveal complete data. In the form of shared inhabitance appropriated registering condition, things end up being shockingly more unpleasant.

Data originated from different clients are to encouraged in discrete virtual computing system (VMs) yet depend up on physical machine. Important data in a target virtual machine can be manipulated and stolen by starting another virtual.

According to reports, there are lots of changes in crypto based security arrangements

which allow an evaluator to check and avail of archives for the advantage of data owner without leaking anything about the data [3], or without piggybacking off the data proprietor's identity [4] downloading the encoded data about the limit, then send it to others for the purpose of sharing, be that as it may it loses the estimation of circulated stockpiling. Customers may have the ability to get to benefits of offering data to others.

Regardless, of choosing a compelling and secure method to deal with share partial data in sharing is not all immaterial. Underneath we will take storage cloud "Drop box" for security.

II. LITERATURE SURVEY

Benaloh showed that encryption method is at first propose for transmitting many number of keys in convey circumstance. This kind of advancement is essential along with this we rapidly review its plan for derivation of keys. The acceptance of these keys for a course of different actions (which is a combination of all possible figure content models) is according to the accompanying [1].

A composite model of modulus is selected where entity p and entity q are two far reaching unpredictable prime numbers. An efficient secret key is selected unpredictably. Each type of class is correlated with a specific prime number. All of the prime numbers can be used set in overall public structure parameter. A strong size(S) key for set can be conveyed.

For those persons who have been allocated the get to rights for S' can be delivered. In any way, it is expected for the symmetric key cryptographic system setting. The substance provider needs to get the relating secret key to encode data which is not sensible for a few applications. Since technique is used to make a riddle regard instead of several open/puzzle keys, it is fuzzy to find how to implement this idea for the purpose of open encryption of key plot.

As a result, we observe the arrangements that help to endeavor to reduce the key size for fulfilling concept in symmetric-key encryption, e.g.,

[4]. Regardless, sharing which is unscrambling power should not be considered as stress in these arrangements. Identity-based encryption (IBE) is a type of open key encryption where overall (pk)public key of a customer can be used as a character string assigned to customer).

Identity based encryption that holds an expert riddle key which issues a secret secure key to every customer in regards and relative customer character. The actual key provider can make use of overall public key parameter and customer character to scramble the given message. The receiver can unravel the message by his riddle key.

Guoet al. endeavored to produce identity based encryption with key accumulation. In their arrangements, KAC is restricted as in all generated keys has to be originate from distinct sources. In the mean while there is an availability of exponential number of entity identities and henceforth confidential keys, that only a polynomial generated based number of them can be amassed .This in a general sense fabricates the costs of securing and transmitting figure works, which is unreasonable all around, for instance, shared conveyed stockpiling.

As another method to deal with, we have to implement hashing methods to string meaning of the chipper class, besides, keep hash method again and again until we have a prime number is gotten as a result of the hash based work. We decided to determine, our arrangements incorporate reliable figure content size.

Security methods in the standard model can be soft IBE [10], one easy single insignificant confidential key can unscramble figure compositions mixed under various identities that is closed in a particular metric method, any way it is not for a self-decisive course of action of elements and thus it is not possible to arrange with our idea of key based accumulation.

III. PROPOSED SYSTEM

To arrange a gainful open key encryption plot which supports versatile assignment by using any number of subset of the figure compositions are decode capable by a predictable size of unscramble key (delivered by the proprietor of the ace puzzle key[1]."

We deal with this problem by including a remarkable kind of open key based encryption in

which we call them as key-add up to cryptosystem. In this method, customers scramble a selected message under an open key, and additionally by using an identifier of figure called class.

That infers actual figure compositions are additionally orchestrated into unmistakable classes. The key owner holds a important element called expert secure key.

This key can be making used to think secure keys for different chipper classes? More basically, the isolated key will have an aggregate key which is consider traditionalist key for a lone class; however adds up to the drive of various such secure keys, i.e., the unscrambling control under any subset of figure substance classes.

With our answer, Alice sends to Bob ,a single aggregate secure key by methods for a protected email. We can then download the mixed photos from Alice's account of Dropbox space and after that utilization this total key us used to unscramble these scrambled photographs. It is more secure.

Decrypting of key is sent by means of a protected channel and kept mystery. It is a productive open key encryption plot which underpins adaptable delegation.

With our solution we encrypt all the files before uploading in the drop box, another user who wants to download file enters the single secret key which was send to email then files are view in decrypted manner.

Different sizes of cipher text open key, Alice master public key, what's more, total key in our KAC plans are all of steady based measure. Past outcomes may be used to accomplish a comparative property including a steady constant size of decoding key, yet the different classes has a need to adjust to some specific predefined in different levels of relationship. Our work is easily adaptable and limitation can be is wiped out, and no extraordinary relation is required that exist between systems. The detail and other related works can be found.

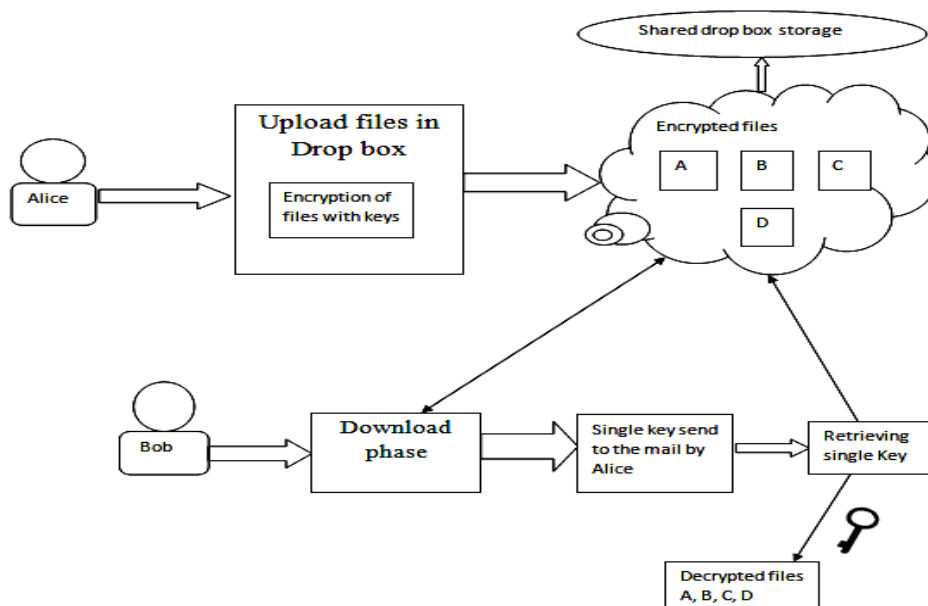


Fig 1: Frame work of the proposed system

Here we propose a method called KAC plan (Figure 1) with possible various security of levels and augmentations in this paper. All included developments can be demonstrated to secure in the proper standard model.

For example Alice is one of user in drop box she wants to upload her files in drop box but she did not relay with the security method given by the drop box. So she wants to convert all files in to cipher before starting of uploading. So she encrypted her files with her own distinct keys and then uploaded in drop box. Bob is also one of the users in drop box he wants to download some of files of Alice. By clicking on download button a single key is sent to mail by Alice he retrieves the single key and then decrypts the files which he has chosen.

IV. RELATED WORK

The PHP module executes the script, which then passes on the result as HTML back to your program, which you see on the screen. Here is an essential PHP layout which outlines the technique.

First we need to create an account in Drop box by giving username and password and then login to the drop box account. we need to create an app in Drop box API for implementing our application by the URL . “ <https://www.dropbox.com/developers/apps>”and then click on create an app it displays choose an API it displays two apps that is Drop box API and Drop

box Business API in that we need to choose Drop box API since our application is based on storing of files. We need to give name to the app which we create.

When we click on create an app it displays app key and secret key which is most essential part in our application, we need to store app key and secret key for generating a “single secret key”.

For storing of registration details we can use XAMPP server or WAMPP server in our application we choose XAMPP server.

The main goal in our application is to provide security to data or files which are stored in cloud. For achieving this we are encrypting files or data with distinct keys before uploading files in Drop box, and then retrieving the same files with a single secure key.

We need to create tables for storing the registration details. Login to the Homepage using (local host/dropboxapi /Home.php) and It displays the synopsis of project in “Homepage” [Output1]. Click on to the “Login” button it displays username and password and at the bottom it displays new Registration.

User need to “Register” with their details and then login it displays welcome along with their Email-id. The page contains three buttons they are “upload and download and Logout”.

If user needs to upload their files or images they need to click on “Upload” button it displays list of files present in your PC [Output2]. Select the File and click on “Submit” button it again asks for “Do you really want to upload the file” if yes click on submit it displays file uploaded successfully.

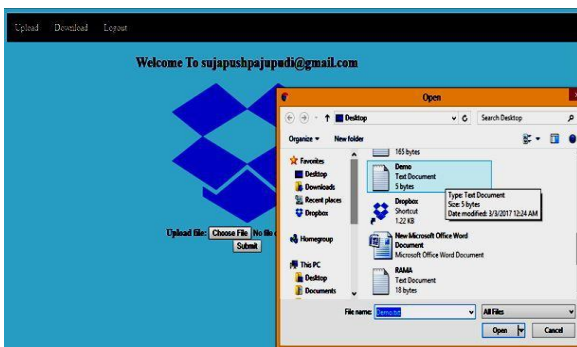
The file has been uploaded in the encrypted Form. In drop box and it displays a popup message in drop box [Output3].If the user wants to download the files then click on “Download” button it displays all the uploaded files in your drop box and then select the multiple files to download [Output4] and click on download button it asks the key which have been send to the Email-id for downloading of selected files.

Enter the key and click on submit button if the enter key is correct then it displays a message downloaded successfully if not it displays a message wrong key. The files which are been downloaded is in the decrypted form [Output5].

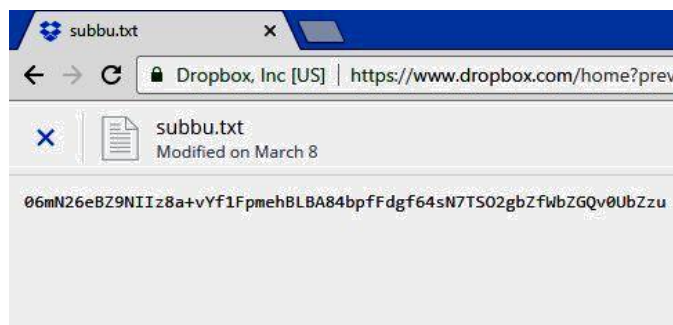
V. RESULTS



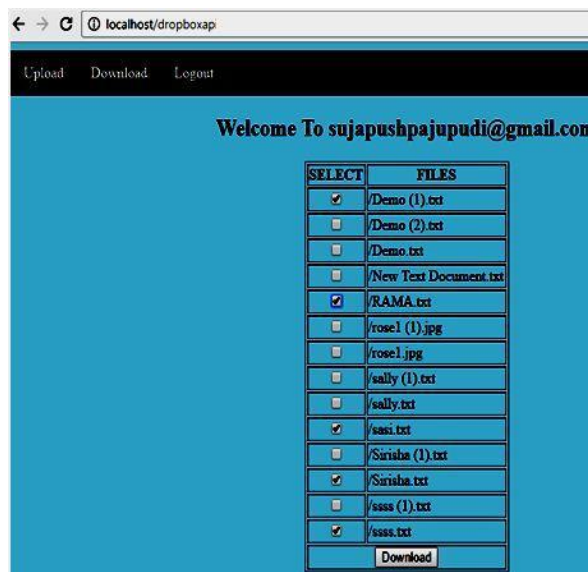
Output1:Homepage to login



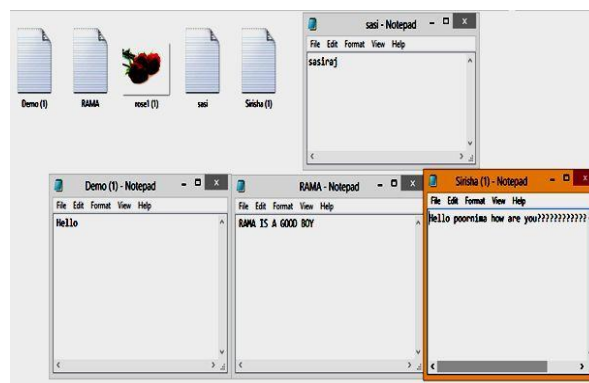
Output2: Uploading of files in drop box



Output3:After uploading file is in Encrypted format



Output4:select of files for download



Output5:selected files downloaded in decrypted format

VI. CONCLUSION AND FUTURE WORK

The most effective method to ensure clients' information protection is a focal question of distributed storage. With more numerical gadgets, cryptographic arrangements are getting more versatile and as often as possible incorporate diverse keys for alone application. In this paper, we consider how to "pack" mystery enters in broad daylight key cryptosystems which bolster assignment of mystery keys for various figure content classes in distributed storage. Notwithstanding which one among the power set of classes, the delegate can essentially get an aggregate key of un faltering size.

An impediment in our work is the predefined bound of the quantity of most extreme figure content classes. In appropriated stockpiling, the amount of figure messages when in doubt grows rapidly. So we have to sufficiently spare figure content classes for the future extension. Else, we have to grow people in general key as we portrayed in Section in spite of the fact that the parameter can be downloaded with figure writings, it would be better if its size is free of the most extreme number of figure content classes. On the other hand, when one bears the relegated enters in a wireless without using remarkable trusted in gear, the key is induce to spillage, delineating a spillage solid cryptosystem yet allows beneficial and versatile key assignment is moreover a charming heading.

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A Text Mining Application Of Emotion Classification Of Twitter's Users

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ABSTRACT—Application of text mining procedures on social networking sites can extra reveal results regarding human pondering patterns group identification and suggestion and likewise opinion about any specified issues of pursuits. Many researches labeled emotions into 2 categories that positive and negative. Consequently this excludes twitter's users different general feelings like anger, sad, disgust and surprise. It is noticed that those present strategies of emotion prediction in text do not mainly target the datasets in social networking websites and they rarely point out the preprocessing segment that's primary to simplify the text mining procedure. In this paper, the mentioned dis-advantages are being resolved. This is mainly focusing on six different emotions, they are happy, sad, surprise, disgust, angry and fear. Classification is mainly done in three phases (text collection, preprocessing and processing). Steps performed in the preprocessing section had been case folding, cleaning, discontinue-word elimination, emoticons conversion, negation conversion, and tokenization. Within the processing phase, it carried out weighting and classification utilising the Naive Bayes algorithm. The datasets size is also increased and the prediction of emotions are more accurate.

Key words—Text mining, Emotion detection, Naïve Bayes method, Preprocessing, Processing, Datasets.

I. INTRODUCTION

Social networking web pages like twitter and facebook create enormous possibilities for users to be in contact with one yet another while not having to worry about variations in moral and social values. Additionally they allow mutual studying and sharing of useful competencies with no regard to geographical distance time barrier and language talents. Users thus become a member and engage in more than a few communities and discussions corporations that great suit their wants.

Twitter has atleast millions users and tweets posted in its web page everyday. Tweets are written messages in the form of texts that have many opinions, expressions and feelings of users. Information in Twitter's web site is unstructured because users don't care about Spelling and grammatical mistakes when they are posting their tweets. This is difficult to identify the emotions from the unstructured data. The every tweet posted by user may

contain maximum of 140 letter [1] These tweets have many hidden emotions. A written tweets have more than one emotion or may not have any emotion. In this paper, the tweets are collected and some methods are applied to classify the emotions.

a) Text Mining:

Text mining, additionally known as textual content data mining, roughly similar to text analytics, is the approach of deriving important and uesful data from large data. High quality data is most commonly derived through the devising of pattern corresponding to statistical pattern studying. Text mining more commonly entails the method of structuring the enter text, deriving patterns within the structured information, and ultimately analysis and interpretation of the output. High quality in text mining refers to a combinations of relevance, novelty, and interestingness[3]. Common text mining have methods like textual content categorization, textual content clustering, thought/entity extraction, construction of granular taxonomies, sentiment evaluation, report summarization, and entity relation modeling.

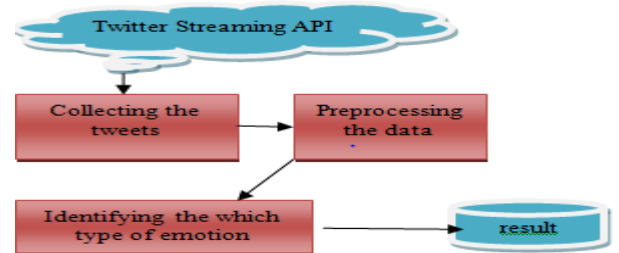


Figure1: Text Mining

II. PROPOSE SYSTEM

Text mining application is used to discover twitter users feelings. Software of text mining system on social networking web sites can extra reveal the human pondering patterns. Text mining is used to overcome this situation as its supplies computational intelligence. A text mining software of emotion classification of twitter's

users which will predict the twitter users emotions involves six types of feelings. Emotions of Twitter's users which can be classified into six emotions, particularly happy, sad, anger, disgust, fear, and surprise[11][13].

Three important phases of the text mining utilized on this application had been text collection, preprocessing, and processing. Activities carried out within the preprocessing section had been case folding, cleaning, stop-word removal, emoticons conversion, negation conversion, and tokenization to the learning information and the test data established on the sentiment analysis that carried out morphological evaluation to construct a number of models. Within the processing section, it performed weighting and classification utilizing the Naive Bayes algorithm. Text mining application makes use of Naive Bayesian methods which is used to foretell the twitter person feelings[9].

It could actually extract the data from twitter site which is unstructured, tremendous and dynamic. To organize the accrued knowledge into pre-outlined categories that can be used for performing text analysis by way of preprocessing. Assemble the compatible units centered on the information set through processing. Then validate the emotions of tweets within the information set.

III. EMOTIONS

The categorization of emotions has often been studied from two principal techniques: basic emotions and core influence.

1. Basic Emotions:

Basic emotion theorists think that people have a small set of normal feelings, that are discrete [20]. More than a few researchers have attempted to establish a number of general emotions which are universal amongst all people and vary one from an additional in important ways. A trendy example is a go-cultural study of 1972 by means of Paul Ekman and his colleagues, where they concluded that the six common emotions are anger, disgust, fear, happy, sad, and surprise[17].

2. Core Affect Model:

Core influence model of emotion characterizes human feelings by defining their positions along two or three dimensions. That's, most dimensional units incorporate valence and arousal dimensions[20].

a) Emotion Analysis in Text:

Effort for emotion evaluation on Twitter knowledge entire by Bollen and his colleagues . They tried to find a relationship between overall public mood and social, fiscal and other principal pursuits[14]. They extracted six dimensions of mood (anxiety, depression, anger, vigor, fa- tigue, confusion) utilizing an multiplied variant of POMS (pro- file of temper States), a psychometric instrument. They located that social, political, cultural and fiscal pursuits have a enormous, and immediate outcomes on the various dimensions of public mood[15].

IV. STOPWORDS

Discontinue phrases are on the whole probably the most ordinary phrases together with articles (a, an, the), auxiliary verbs (be, am, is, are), prepositions (in, on, of,

at), conjunctions (and, or, nor, when, even as), and it record together with bad verbs (now not, is just not, does now not, don't, must now not, and many others.), auxiliary verbs (be, am, is, are), prepositions (in, on, of, at). In addition, we changed the phrase "very" with blank and the word "clean no longer clean" is replaced via "clean not". That do not provide additional growth for engines like google however broaden the computational complexity by means of growing the size of the dictionary[16].

Example:

For instance, "i'm happy." => "i'm happy."
=> "i'm happy."
"i'm not very happy." => "i'm not happy." =>
"i'mNOThappy."

In this example the phrase "happy" and "not happy" is used to create new words "happy" and "NOThappy". On this means, we are able to discriminate the phrase "happy" having positive meaning and it is classified as the word belongs to happy class. In the identical means, the new phrase "NOThappy" has a negative meaning and it is classified as the word belongs to sad class.

V. ARCHITECTURE

The architecture of proposed system is shown in figure 2. This paper makes use of machine learning based methodologies for predicting the emotins of twitter's users. Tweets are collected from the Twitter API. The words had been extracted and saved in a feature vector. The text is collected from the tweets and divided into 2 sets. They are training set and testing set. From these sets the feature are extracted from each and every word respectively. From the sets the features are extractes and stored. And also naïve bayes methods are being implemented[5].

Naive Bayes does not recollect the relationships between aspects equivalent to emotional keyword phrases and emoticons. This is best for sentiment analysis as regularly these facets do not invariably relate to one an additional corresponding to in the use of a smiley emoticon on the finish of a negative tweet[20]. The features extracted are based on the techniques applied in the preprocessing phase. The Naive Bayes methods will classify the emotions present in the tweets.

Both training and testing sets are important for the classification of emotions. The classified emotions are then label whether it belongs to happy or sad or anger or disgust or fear or suprise.

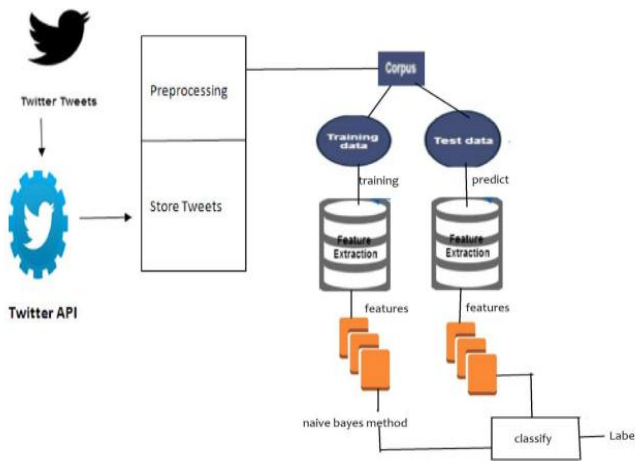


Figure 2: Architecture

VI. PHASES IN THE PROPOSED SYSTEM

Text mining Application makes use of three main phases which is used to classify the emotions. The Phases are:

- Text Collection
- Preprocessing
- Processing

(a) Text Collection

Text collected is completed using the streaming API. Twitter Search with extra filters based on username and key words. We collecting the tweets from twitter_site either by means of utilising the username [1]. And then performing the preprocessing segment and after elimination of all stop phrases we collected the preprocessed tweets again. These tweets are being used and in addition some systems like naïve bayes approach is implemented. And sooner or later emotions are categorized[6][7].

(b) Preprocessing

In this preprocessing phase, the techniques used are case folding, stop word elimination, emoticons conversion, tokenization, Conversion to slash case, Removing URL, Eliminating mention from the tweets, Delete a character other than a to z, etc. And there some algorithm for these above mentioned techniques such as porter stemmer algorithm, etc[3].

ORIGINAL TWEET	PREPROCESSED TWEET
wonderful...news exams postponed....!	wonderfulnews exams postponed
i am vijaya my friends are priya and sowmya	vijaya friends priya sowmya
you are beautiful and calm disturbed.	beautiful calm disturbed
kalam is a great pearson he is important person.	kalam great pearson important person
i am not happy	happy
hlo gud mrag...i am happy	hlo gud mragi happy
hii friends, today one surprised news.	hii friends today surprised news

Figure 3: Tweet collection and Preprocessed tweets

(c) Processing

For classifying the tweets in this paper we're using Naive Bayes algorithm in preprocessing section. Naive Bayes classification on each tweet represented in a pair of attributes. They are training set and testing set. From these sets the feature are extracted from each and every word respectively. From the sets the features are extractes and stored. And also naïve bayes methods are being implemented. This algorithm is for sentiment analysis as commonly these facets don't invariably relate to at least one an extra similar to in using a smiley emoticon on the finish of a poor tweet. Naive Bayes classifier for classification which is a machine learning algorithm is then utilized to the model classifier and a label is produced [1][2]. The Naïve Bayes procedure for classification is in most cases utilized in text classification as a result of its pace and ease. It makes the belief that phrase are generated independently of word position. The classifier then returns the category with the best chance given there record.

$$P(c|x) = \frac{P(x|c)P(c)}{P(x)}$$

Likelihood
Class Prior Probability
Posterior Probability
Predictor Prior Probability

$$P(c|X) = P(x_1|c) \times P(x_2|c) \times \dots \times P(x_n|c) \times P(c)$$

Figure 4: Naive Bayes method

VII. GENERAL APPROACH TO NAÏVE BAYES METHOD

In the textual content classification literature, two specific units established on the naïve Bayes assumption have been proposed: the multinomial mannequin and the multivariate Bernoulli mannequin. In this paper we have applied the multinomial model. The multinomial model specifies that a document be represented through the frequencies of time period within the record by means of representing a record with the bag of words[2][4].

The records in every category can then be modeled as samples drawn from a multinomial word distribution. Thus, the conditional likelihood of a file given a class is effortlessly a manufactured from the chance of every found phrase within the corresponding class. Fig1 shows the final process for constructing a Naïve Bayes Classification algorithm[8].

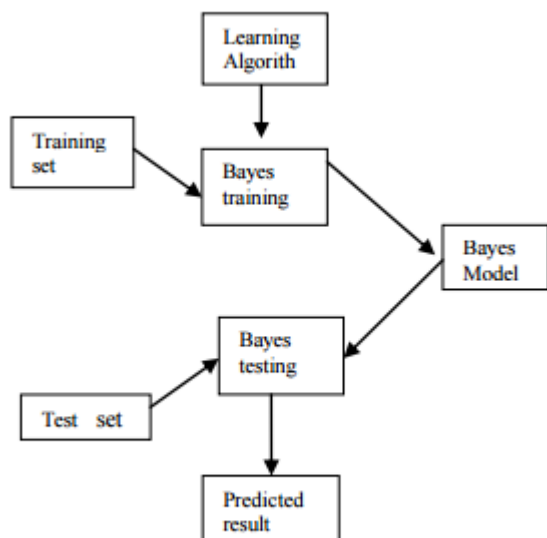


Figure 5: General Approach to naïve bayes method

VIII. RESULTS

This is the result obtained after preprocessing and processing phases are applied and in figure 5 the actual tweet is “ I am proud of you. I was in a state of joy and shock with your results”. After preprocessing phase is completed the tweet contain only proud, joy, shock, results. Where tweet consists of two happy words and one fear word, the tweet is considered as “happy”.

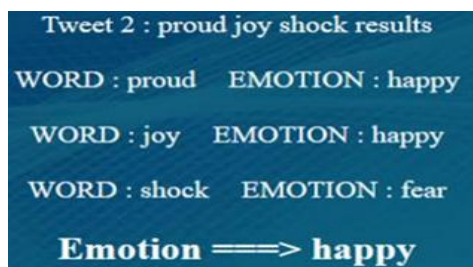


Figure 6: Emotion predicted in the tweet

IX. CONCLUSION

Digital textual documents are particularly got from the social websites. Huge numbers of technologies are developed for the extraction of meaningful knowledge from enormous collections of textual data utilising extraordinary textual content mining tactics[12]. However, textual content pre-processing becomes more challenging when the textual understanding shouldn't be structured in line with the grammatical conference. This overview presents a thorough figuring out of specific textual content classifiers in the social networking internet sites. From our evaluate we concluded that specific algorithms perform differently depending on information collections [2][16]. The text

mining software to discover emotions of Twitter customers which can be classified into six emotions, specifically happiness, sad, anger, disgust, fear, and shock. This paper can get 75 % accuracy which used to be observed on the one hundred fifty tweets.

X. FUTURE ENHANCEMENT

There are several possible instructional materials for future study on this field. Essentially the most promising one we believe is a model where in more security is furnished to the end users information and the passwords are saved in encrypted format. And this can be applied to other sectors like agriculture based, etc. And likewise dataset dimension should be elevated and by using increasing the dimensions, the accuracy of the prediction additionally will also be increased[18][19]. And in addition voice based software can also be completed with the aid of mining inspiration. Other types of algorithm and techniques can implemented in the text mining phases.

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Secure and Reliable Data Sharing For Dynamic Group Members through Fine-Grained Access Control in Cloud Environment

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Abstract— *The cloud providing security, guarantees for the sharing data file. Unfortunately, because of the frequent change of the membership, sharing data while providing privacy-preserving is still a challenging issue, especially for an untrusted cloud due to the collusion attack. In this research work, we propose a secure data sharing scheme for dynamic members Firstly, we propose a secure way for key distribution without any secure communication channels, and the users can securely obtain their private keys from group manager. Secondly, our scheme can achieve fine-grained access control, any user in the group can use the source in the cloud and revoked users cannot access the cloud again after they are revoked. Thirdly, we can protect the scheme from collusion attack, which means that revoked users cannot get the original data file even if they conspire with the untrusted cloud. This scheme can achieve fine efficiency, which means previous users need not to update their private keys for the situation either a new user joins in the group or a user is revoked from the group.*

Index Terms-- Cloud Computing, Security, Private Keys, Public Keys, Fine-Grained Access Control;

I. INTRODUCTION

Cloud computing is the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet). The name comes from the common use of a cloud-shaped symbol as an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts remote services with a user's data, software and computation. Cloud computing consists of hardware and software resources made available on the Internet as managed third-party services. These services typically provide access to advanced software applications and high-end networks of server computers.



Figure 1: Architecture of Cloud Computing

However, security concerns become the main constraint as we now outsource the storage of data, which is possibly sensitive, to cloud providers. To preserve data privacy, a common approach is to encrypt data files before the clients upload the

encrypted data into the cloud. Unfortunately, it is difficult to design a secure and efficient data sharing scheme, especially for dynamic groups in the cloud. A cryptographic storage system that enables secure data sharing on untrustworthy servers based on the techniques that dividing files into file groups and encrypting each file group with a file block key. However, the file-block keys need to be updated and distributed for a user revocation; therefore, the system had a heavy key distribution overhead. However, the complexities of user participation and revocation in these schemes are linearly increasing with the number of data owners and the revoked users. The techniques of key policy attribute-based encryption, proxy re-encryption and lazy re-encryption to achieve fine-grained data access control without disclosing data contents. However, the single-owner manner may hinder the implementation of applications, where any member in the group can use the cloud service to store and share data files with others. However, the scheme will easily suffer from the collusion attack by the revoked user and the cloud. The revoked user can use his private key to decrypt the encrypted data file and get the secret data after his revocation by conspiring with the cloud. In the phase of file access, first of all, the revoked user sends his request to the cloud, and then the cloud responds the corresponding encrypted data file and revocation list to the revoked user without verifications. Next, the revoked user can compute the decryption key with the help of the attack algorithm. Finally, this attack can lead to the revoked users getting the sharing data and disclosing other secrets of legitimate members. Unfortunately, the secure way for sharing the personal permanent portable secret between the user and the server is not supported and the private key will be disclosed once the personal permanent portable secret is obtained by the attackers group in the cloud. The main contributions of this scheme include: A way for key distribution without any secure communication channels. The users secure can securely obtain their, private keys from group manager without any Certificate Authorities due to the verification for the public key of the user. This scheme can achieve fine-grained access control. With the help of the group user list, any user in the group can, use the source in the cloud

and revoked users cannot access the cloud again. A secure data sharing scheme can be protected from collusion attack. The revoked users cannot be able to get, original data files once they are revoked even if they conspire with the untrusted cloud. This scheme can achieve secure user revocation with the help of polynomial function.

II. RELATED WORK

Many researchers have proposed stored encrypted data in the cloud to define against CSP. S. Kamara and K. Lauter in their work “Cryptographic cloud storage” considered the problem of building a secure cloud storage service on top of a public cloud infrastructure where the service provider is not completely trusted by the customer. Its core, the architecture consists of three components: a data processor (DP), that processes data before it is sent to the cloud; a data verifier (DV), that checks whether the data in the cloud has been tampered with; and a token generator (TG), Under this approach, users are revoked by having a third party to re-encrypt data such that previous keys can no longer decrypt any data. This uses a lockbox to protect only the keys. Mechanisms that Plutus uses to provide basic file system security features-(1) To detect and prevent unauthorized data modifications, (2) To differentiate between read and write access to files, and (3) To change user’s access privileges. In encrypt-on-disk file systems, the clients encrypt all directories and their contents. This used a single key to encrypt an entire directory of files. Mahesha et al in their work “Plutus: Scalable secure file sharing on untrusted storage” introduces a new secure file system which strives to provide strong security even with an untrusted server. The main feature of Plutus is that all data is stored encrypted and all key distribution is handled in a decentralized manner. All cryptographic and key management operations are performed by the clients, and the server incurs very little cryptographic overhead. With the character of low maintenance, cloud computing provides an economical and efficient solution for sharing group resource among cloud users. Unfortunately, sharing data in a multi-owner manner while preserving data and identity privacy from an untrusted cloud is still a challenging issue, due to the

frequent change of the membership, in this paper, we propose a secure multi owner data sharing scheme, named Mona, for dynamic groups in the cloud. By leveraging group signature and dynamic broadcast encryption techniques, any cloud user can anonymously share data with others. Meanwhile, the storage overhead and encryption computation cost of our scheme are independent with the number of revoked users. In addition, we analyze the security of our scheme with rigorous proofs, and demonstrate the efficiency of our scheme in experiments. The Existing techniques of key policy attribute is based on “encryption, proxy re-encryption and lazy re-encryption” to achieve fine-grained data access control without disclosing data contents. However, the single owner manners may hinder the implementation of applications, where any member in the group can use the cloud service to store and share data files with others. A secure provenance scheme by leveraging group signatures and cipher text policy attribute based encryption techniques. Each user obtains two keys after the registration while the attribute key is used to decrypt the data. A secure access control scheme on encrypted data in cloud storage by invoking role based encryption technique. It is claimed that the scheme can achieve efficient user revocation that combines role-based access control policies with encryption to secure large data storage in the cloud. Unfortunately, the verifications between entities are not concerned. There are some disadvantages with the existing system they are as follows. 1. This scheme has secret key between the user and the server, it is not supported and the private key will be disclosed once the personal permanent portable secret key is obtained by the attackers. 2. This scheme easily suffers from attacks, for example collusion attack, and this attack can lead to disclosing sensitive data files.

III. FRAME WORK

A secure data sharing scheme proposes, which can achieve secure key distribution and data sharing for dynamic group. The main contributions of this scheme include: 1. this provide a secure way for key distribution without any secure communication channels. The users can securely obtain their

private keys from group manager without any Certificate Authorities due to the verification for the public key of the user. 2. This scheme can achieve fine-grained access control, with the help of the group user list, any user in the group can use the source in the cloud and revoked users cannot access the cloud again after they are revoked. 3. This secure data sharing scheme which can be protected from collusion attack. The revoked users can not be able to get the original data files, once they are revoked even if they conspire with the untrusted cloud. This scheme can achieve secure user revocation with the help of polynomial function. 4. This scheme is able to support dynamic groups efficiently, when a new user joins in the group or a user is revoked from the group, the private keys of the other users do not need to be recomputed and updated. 5. This scheme provides a security analysis to prove the security of our scheme. In addition, it also performs simulations to demonstrate the efficiency of our scheme. We can get some advantages from this scheme, they are: 1. this scheme achieve a secure key distribution and data sharing for dynamic group. 2. In this scheme the users can securely obtain their private keys from group manager without any Certificate Authorities. 3. This scheme can be protected from collusion attack. 4. This scheme is able to support dynamic groups efficiently. The below figure illustrated as the system model consists of three different entities: the cloud, a group manager and a large number of group members. The cloud, maintained by the cloud service providers, provides storage space for hosting data files in a pay-as you-go manner. However, the cloud is untrusted since the cloud service providers are easily to become untrusted. Therefore, the cloud will try to learn the content of the stored data. Group manager takes charge of system parameters generation, user registration, and user revocation.

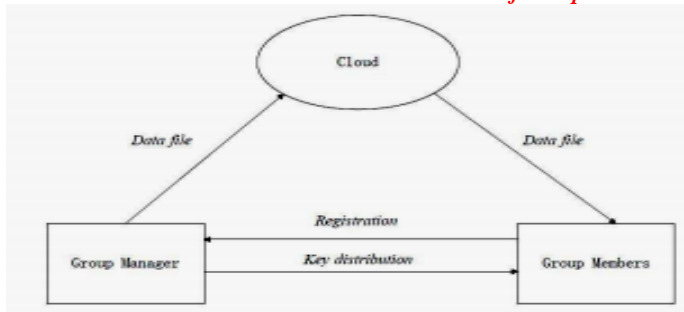


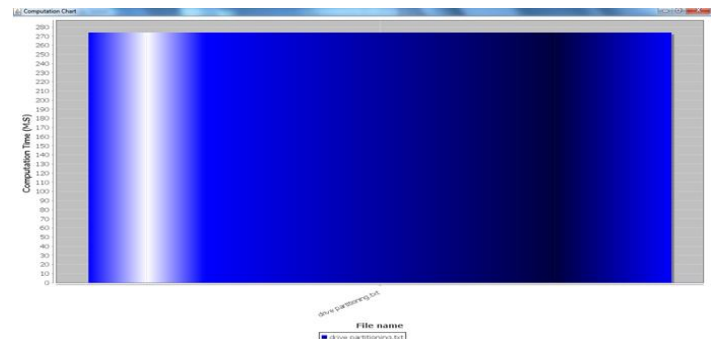
Figure 2: Architecture Diagram for Secured Anti-Collision Data Sharing

In the practical applications, the group manager usually is the leader of the group. Therefore, we assume that the group manager is fully trusted by the other practices. Group members (users) are a set of registered users that will store their own data into the cloud and share them with others. In the scheme, the group membership is dynamically changed, due to the new user registration and user revocation. Implementation is the stage of the project when the theoretical design is turned out into a working system. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing, designing of methods to achieve change over and evaluation of change over methods. AES is an iterated symmetric block cipher, which means that: AES works by repeating the same defined steps multiple times. AES is a secret key encryption algorithm. AES operates on a fixed number of bytes. AES as well as most encryption algorithms is reversible. This means that almost the same steps are performed to complete both encryption and decryption in reverse order. The AES algorithm operates on bytes, which makes it simpler to implement. This key is expanded into individual sub keys, a sub keys for each operation round. This process is called Key Expansion.

IV. EXPERIMENTAL RESULTS

In our experiments, any number of users registers into the system after successfully register into the system the group manager generate the secret keys for registered user after that authorized user can login into the system after login authorized user upload the file into the system after uploading

the file that upload file user giving access permission through fine grained access control to other registered users, the file share into the those access permission users and file not share to the non-access permission users as well as user can revoke the access permission to the others. In the below chart we can observe that computation time



We can observe that computation chart the computation chart will be shown in the sense of Computation Time and File name. Through our implementation we have implemented an efficient data sharing scheme through fine-grained access control for dynamic members or groups and as well as revoking the users or members in dynamic groups through communication channels by using the scheme we can share the data in secure format with low cost.

V. CONCLUSION

In this paper, I design a secure data sharing scheme, for dynamic groups in an untrusted cloud. In this scheme a user is able to share data with others in the group without revealing identity privacy to the cloud. Secure policy supports efficient user revocation and new user joining. Efficient user revocation can be achieved through a public revocation list without updating the private keys of their users, and new users can directly decrypt files stored in the cloud before their participation. Extensive analyses show that the proposed scheme satisfies the desired security requirements and it guarantees efficiency as well.

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Novel Duplicate-Adjacency Approach for Improving Resemblance Detection for Additional Data Reduction in Storage Systems

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ABSTRACT—As digital data is developing uncontrollably, require for data reduction has emerge as an essential task in storage structures. For large scale data reduction, it is vital to maximally find and remove redundancy at low overheads. Data deduplication is a statistics reduction technique that reduces storage area via putting off redundant information and best one example of the records is retained on storage media. Delta compression is an effective method for eliminating redundancy among non-duplicates but very similar records documents and chunks. In this paper we endorse DARE (Deduplication-Aware Resemblance Detection and Elimination) scheme to employ a scheme, referred to as Duplicate-Adjacency based Resemblance Detection (DupAdj), by considering about any statistics chunks to be comparable (i.e., applicants for delta compression) if their respective adjacent records chunks are duplicate in a deduplication approach, after which similarly beautify the resemblance detection performance by an stepped forward super-feature technique.

Keywords: Data deduplication, delta compression, storage system, Super-feature Approach

I. INTRODUCTION

Deduplication is both I/O extensive and compute extensive. Its method may be divided into 4 steps: data chunking, chunk fingerprint calculation, chunk index research, and unique data store. Source deduplication is a popular scheme that plays the primary two steps of the deduplication method at the consumer aspect and makes a decision whether or not a piece is a reproduction earlier than facts switch to keep network bandwidth with the aid of keeping off the transfer of redundant data, which differs from target deduplication that plays all deduplication steps on the target facet. To right away discover and remove data redundancy, inline deduplication is a method that plays deduplication on the traditional facts I/O route with some effect on I/O performance.

Today, the ever-developing volume and value of digital information have raised a crucial and mounting call for lengthy-time period information protection through huge-scale and high-performance backup and archiving systems. According to ESG (Enterprise Strategy Group), the amount of statistics requiring safety maintains to grow at

approximately 60% per year. The massive information needing backup and archiving has amounted to several perabytes and might quickly attain tens, or even masses of perabytes. Backup and archiving structures for that reason call for effective solutions to reinforce each storage efficiency and machine scalability to fulfill the accelerating call for on backup capacity and performance. In current years, disk-based totally de-duplication storage has emerged as a key method to the storage and bandwidth performance troubles going through backup and archiving structures. By removing replica information across the machine, a disk-primarily based de-duplication storage system can reap far greater efficient statistics compression than tapes. DDFS, for instance, said a 38.54: 1 cumulative compression rate when backing up actual global data middle over a time span of 1 month. Such an excessive compression price dramatically reduces the storage and bandwidth necessities for records protection, making it more price-powerful and practical to build a huge disk-primarily based storage gadget for backup and archiving. The most commonplace de-duplication technique has been to divide a document or flow into chunks and eliminate the duplicate copies of chunks. Duplicate chunks are identified via comparing the chunk fingerprints represented via the hash values of bite contents. A disk index is used to set up a mapping among the fingerprints and the locations of their corresponding chunks on disks, which make having access to the index an excessive common event for records de-duplication. Considering the fact that the index locations of the fingerprints to be compared are random in nature and the entire index is usually too big to match in as server's foremost memory, the throughput of de-duplication can be restricted via the random I/O throughput of the index disk, which for the contemporary technology usually quantities to few hundred fingerprints per a second.

II. RELATED WORK

Several emerging business structures have used Identical Segment Deduplication approach which breaks a facts report or circulate into contiguous segments and removes duplicate copies of same segments. An opportunity method is to keep on-disk index of section fingerprints and use a cache to accelerate segment index accesses. Unfortunately, a

traditional cache could now not be powerful for this workload. Since fingerprint values are random, there may be no spatial locality within the section index accesses. Moreover, due to the fact the backup workload streams massive records units though the system, there is little or no temporal locality.

This fingerprinting indexing has emerge as the principle overall performance bottleneck of huge-scale statistics deduplication systems. In locality-based approach, chunk lookups are one by one but a few backup streams have excessive locality. However this technique suggests low pace on backup stream with weak locality. In similarity-based totally technique, as opposed to lookups in line with chunks or consistent with nearby chunks (locality) the lookups are according to documents. Although is a good deal faster than locality technique it may sacrifice the duplication accuracy.

One of technical demanding situations almost about allotted data deduplication is to acquire scalable throughput and a machine-extensive data discount ratio close to that of a centralized deduplication system. By querying and comparing the complete information globally, we will obtain the satisfactory facts deduplication ratio (DR). However, it's far required to preserve a worldwide index library. Both index information updates and replica statistics detection will motive community transmission overheads. Therefore, the sort of worldwide deduplication can have severed performance degradation, especially in a cloud storage sys-tem with masses of nodes. An alternative technique is a mixture of content material-aware data routing and nearby deduplication. When the use of this method, one will face the assignment of designing an information routing algorithm with low computing complexity and high deduplication ratio.

In backup storage workloads the inherent high degree of data redundancy and need for high through-put make deduplicating techniques important. Deduplication can be performed at the granularity of en-tire files (e.g., Windows 2000), fixed blocks (e.g., Venti), or variable-sized “chunks” based on content(e.g., LBFS). In each case, a strong hash (such asSHA-1) of the content, i.e., its “fingerprint,” serves as a unique identifier. Fingerprints are used to index con-tent already stored on the system and eliminate duplicate writes of the same data. Because content-defined chunks prevent small changes in content from resulting in unique chunks throughout the remainder of a file, and they are used in the backup appliances we have analyzed, we assume this model for the remainder of this paper. Backup data can be divided into content-defined chunks on the backup storage server, on the backup software intermediary (e.g., a NetBackup server), or

on the systems storing the original data. If chunked prior to transmission over a network, the fingerprints of the chunks can first be sent to the destination, where they are used avoid transferring those chunks already present. Traditional compression, such as gzip, complements data deduplication. We refer to such compression as “local” compression to distinguish it from compression obtained from identifying multiple copies of data, i.e., deduplication. The systems under study perform local compression after deduplication, combining unique chunks into “compression regions”.

III. FRAMEWORK

A. System Architecture

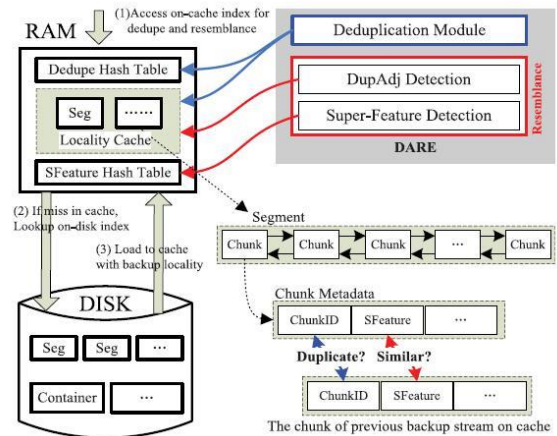


Fig1. DARE Scheme Architecture

The system architecture has 3 main modules such as

1. Deduplication Module
2. DupAdj Detection Module
3. Improved Super-Feature Module

B. System Overview

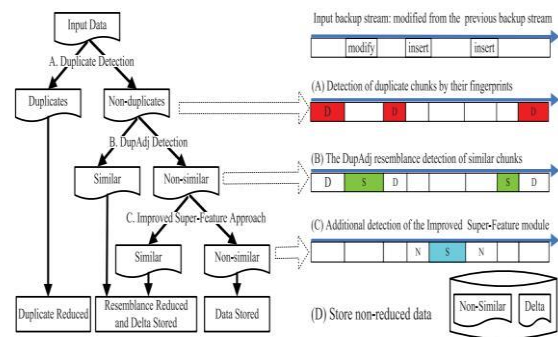


Fig2. Work Flow of DARE

The proposed system DARE have 4 major components such as;

1. Duplicate Detection
2. Resemblance Detection
3. Delta Compression
4. Storage management

From the above DARE scheme diagram we can explain these 4 components.

Duplicate detection

In Duplicate detection phase, the data stream is first chunked, fingerprinted, duplicate-detected, and then grouped into segments of sequential chunks to preserve the backup-stream logical locality.

Resemblance detection

The DupAdj resemblance detection module in DARE is first detects duplicate adjacent chunks in the segments formed. After that, DARE's improved super-feature module further detects similar chunks in the remaining non-duplicate and non-similar chunks that may have been missed by the DupAdj detection module when the duplicate-adjacency information is lacking or weak.

Delta compression

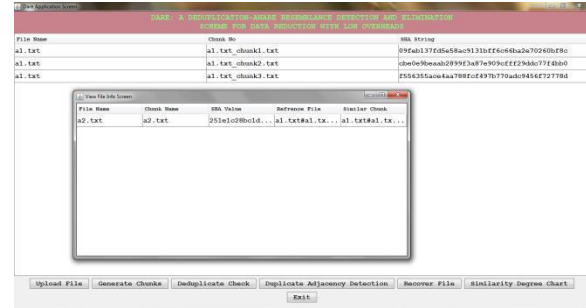
In second step, for each of the resembling chunks detected, DARE reads its base-chunk, then delta encodes their differences. In order to reduce disk reads, an LRU and locality-preserved cache is implemented here to pre-fetch the base-chunks in the form of data segments.

Storage management

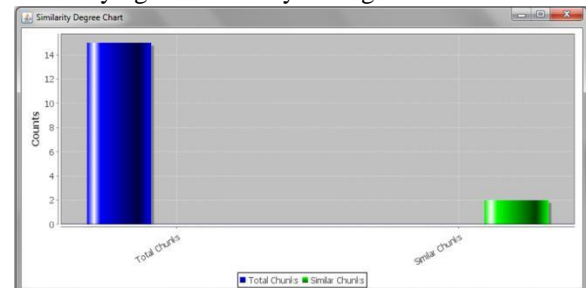
The data NOT reduced, i.e., non similar and delta chunks, will be stored as containers on the disk. The file mapping relationships between the duplicate chunks, resembling chunks, and non similar chunks will also be recorded as the file recipes to facilitate future data restore operations in DARE. For the restore operation, the proposed scheme will first read the referenced file recipes and then read the duplicate as well as non similar chunks one by one from the referenced segments on disk according to mapping relationships in the file recipes. For the resembling chunks, DARE requires to read both delta data as well as base-chunks and then delta decode them to the original ones. DARE is able to maximize data reduction while reducing the overheads of resemblance detection in existing deduplication systems by developing the duplicate-adjacency data in resemblance detection and further improving the super-feature approach.

IV. EXPERIMENTAL RESULTS

In this DARE experiment, we upload the file to detect and remove the duplicate data. After upload file, we can generate the chunks for uploaded file. The duplicate check will be done by using SHA algorithm. The SHA algorithm creates the SHA strings for every chunk. These SHA strings are used to duplicate check.



The duplicate Adjacency will be performed by using super-feature approach. In duplicate adjacency, we are verifying the similarity among the chunks.



Finally, we can see the total chunks and similar chunks size in the chart.

V. CONCLUSION

We conclude that in this paper we proposed and significant DARE scheme to improve the super-feature approach. DARE is a resemblance detection and elimination scheme for data reduction in backup/archiving storage systems. The DARE worked by using Duplicate Adjacency scheme. By implementing duplicate adjacency, we can improve the super-feature approach. From experimental results, we can say that the DARE significantly outperforms the existing super-feature approach.

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ANONYMOUS AUTHENTICATION OF DATA WITH DECENTRALIZED ACCESS CONTROL STORED IN CLOUD

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Abstract

Information deduplication is solitary of the about every significant reality pressure procedures worn for in transit for evacuating the copy duplicates of rehashing data also it is widely worn amid the cloud load space intended for the utilization of slice the storage room territory with however transfer speed. close stick to the classification of accuracy insights however underneath the deduplication, toward scramble the realities ahead of time outsourcing focalized encryption hone has been arranged .To create shield truths security, this anticipate makes the in the past attempt set out toward formally address the catch of authorized measurements deduplication .Different initiating the frequent deduplication framework, differential repayment of the customer are broaden well thoroughly considered the copy test additionally the figures itself. combination cloud design contains some extra deduplication developments behind supported copy check. The longed for wellbeing measures models incorporate the show of care examination plot. having the status of an affirmation of idea, contains the execution structure of expected endorsed copy wellbeing examination contrive alongside lead test bed explores different avenues regarding these model. concerning future strategy encase permitted copy hinder arrange brings about ostensible overhead contrasted in transit with customary operations.

Keywords

Deduplication, authorized duplicate check, confidentiality, hybrid cloud, Proof of ownership.

1. INTRODUCTION

Distributed computing gives vast virtualized cure close customer so military crossways the unified web in spite of the fact that beating the stage and also executing points of interest. Cloud storeroom help is the administration of evergreen raising main part of information. set out toward drive to records administration versatile dressed in distributed computing, deduplication has been a run of the mill method. insights pressure execution

is worn intended for wiping out the copy duplicates of nonstop records amid cloud gear compartment just before cut the numbers duplication. This practice is old toward recuperate storeroom work with what's more be genuine viable toward meet individuals numbers exchanges set out toward chop down the come to of bytes with the goal of be required to be found sent. believe various measurements duplicates by methods for the related substance, deduplication takes out old fashioned insights sooner than care scarcely single unmistakable fake next submit included antiquated numbers close in order to duplicate. datadeduplication happens envelope close by in light of the fact that lucky to a similar degree mass level. The copy duplicates of copy dossier wipe out close case alongside deduplication .For the stick smooth duplication which kills copies squares of records with the point of strike dressed in non-indistinguishable documents. regardless of the possibility that data deduplication takes an arrangement of advantages, wellbeing in the capacity of emphatically observing that security concerns advance seeing that clients' exact records are talented set out toward together insider in addition more odd assaults. inside the settled encryption on condition that figures classification, is opposing together with numbers deduplication. settled encryption requires discrete clients on the way for encode their records in the midst of be the proprietor of keys.

In support of manufacture the practicable deduplication plus continue the facts confidentiality second-hand convergent encryption technique. It encrypts decrypts a facts mimic along with a convergent key, the please of the figures version obtained via computing the cryptographic hash price of. subsequently the information encryption also major production means users keep the keys as a consequence fling the ciphertext

near the cloud. in view of the fact that the encryption function is determinative moreover is resulting commencing the numbers content, akin numbers copies determination cause the constant convergent tone along with and so the consistent ciphertext. A self-confident corroboration of ownership protocol is second-hand on the road to nip in the bud the unofficial right to use afterward as well impart the verification on the way to addict as regards the duplicate is initiate of the even file.

2. SECURE DEDUPLICATION TECHNIQUE

Following are the secure primitive used in the secure deduplication

2.1 Symmetric Encryption

Symmetric encryption uses a common secret key k to encrypt and decrypt information. A symmetric encryption scheme made up of three primary functions.

- $\text{KeyGen}_{SE}(1^\lambda) \rightarrow k$ is the key generation algorithm that generates k using security parameter 1^λ ;
- $\text{Enc}_{SE}(k, M) \rightarrow C$ is the symmetric encryption algorithm that takes the secret k , and message M and then outputs the ciphertext C , and
- $\text{Dec}_{SE}(k, C) \rightarrow M$ is the symmetric decryption algorithm that takes the secret k and ciphertext C and then outputs the original message M .

2.2 Convergent Encryption Method

Convergent encryption [5], provides statistics confidentiality wearing deduplication. A customer derives a convergent type since all fundamental information ape along with encrypts the figures reproduction together with the convergent key. fashionable addition, the abuser and grow tag in support of the facts copy, such to toward spot duplicates tag preference take place worn Here, we guess to the tag holds the possessions of rightness, i.e., proviso two facts copies are the same, the tags of the numbers additionally same. The abuser number one sends the tag toward the member of staff serving at table area in the direction of inspection but the alike version has been by now stored intended for notice duplicates.[4].

2.3 Ownership Proof The notion of testimony of ownership (PoW) [11] enables users en route for ascertain their ownership of information copies in the direction of the storeroom server. Specifically,

waterproof of ownership is implemented at the same time as an interactive algorithm administer through a abuser moreover a cargo space attendant.

2.3 Classification Protocol

The identification of protocol having two phases as follows:

1. Proof: The user can demonstrate his identity to a verifier by performing some identification proof related to his identity.
2. Verify: The verifier occurs verification with input of public information.

3. LITERATURE SURVEY

Following are the different methods which are used in secure data deduplication in cloud storage.

3.1 DupLESS Encryption for Deduplicated Storage DupLess encryption used for deduplicated luggage compartment on behalf of cloud cargo space examine source similar Mozy, Dropbox, as a consequence others work deduplication in the direction of store cosmos before barely storing single duplicate of each one organizer uploaded. Message unite encryption is old on the road to resolve the predicament of clients encrypt their sort conversely the reduction are lock. Dupless is second-hand toward impart self-confident deduplicated storeroom for instance positively such as storage space resisting brute-force attacks. Clients encrypt below message-based keys obtained beginning a key-server stopping at an unaware PRF protocol stylish dupless server. It make available clients on the road to squirrel away encrypted records by an presented service, undergo the overhaul occurs deduplication never-endingly their without a break the share out, along with in spite of that achieves dedicated confidentiality guarantees. It event to facilitate encryption in place of deduplicated storage space container effectively contact pet concert as a consequence place savings minute on the road to with the purpose of of by means of the luggage compartment overhaul together with plaintext numbers [2].

Trademark:

- More Security .
- Easily-conveyed answer for encryption that backings deduplication
- User Friendly: Use charge line customer that backings both Dropbox and Google Drive.
- Resolve the issue of message bolt Encryption.

3.2 Proofs of Ownership in Remote Storage Systems

It arrangements essentially the record print of the copy information. Customer side deduplication tries making progress toward associate deduplication favorable luck at this point by the customer moreover aggregate the transfer speed of transferring duplicates of open reports set out toward the server[11].To conquer the assaults Shai Halevi1, Danny Harnik, Benny Pinkas, as a result Alexandra Shulman-Peleg proposes the impenetrable of proprietorship which lets a customer proficiently build up in transit for a make a beeline for encourage to the customer hold a record, essentially than flawlessly a few abrupt consecutively in connection to it advance arrangements based without a break Merkle foliage next detail encodings, next investigate their security.[9]

Trademark:

- To recognize the assaults that adventure customer side deduplication..
- Proofs of proprietorship give the thorough security.
- Rigorous effectiveness prerequisites of Peta-byte scale stockpiling frameworks.

3.3 A Secure Deduplication with Efficient and Reliable Convergent Key Management

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ANONYMOUS AUTHENTICATION OF DATA WITH DECENTRALIZED ACCESS CONTROL STORED IN CLOUD

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Abstract

Information deduplication is solitary of the about every significant reality pressure procedures worn for in transit for evacuating the copy duplicates of rehashing data also it is widely worn amid the cloud load space intended for the utilization of slice the storage room territory with however transfer speed. close stick to the classification of accuracy insights however underneath the deduplication, toward scramble the realities ahead of time outsourcing focalized encryption hone has been arranged .To create shield truths security, this anticipate makes the in the past attempt set out toward formally address the catch of authorized measurements deduplication .Different initiating the frequent deduplication framework, differential repayment of the customer are broaden well thoroughly considered the copy test additionally the figures itself. combination cloud design contains some extra deduplication developments behind supported copy check. The longed for wellbeing measures models incorporate the show of care examination plot. having the status of an affirmation of idea, contains the execution structure of expected endorsed copy wellbeing examination contrive alongside lead test bed explores different avenues regarding these model. concerning future strategy encase permitted copy hinder arrange brings about ostensible overhead contrasted in transit with customary operations.

Keywords

Deduplication, authorized duplicate check, confidentiality, hybrid cloud, Proof of ownership.

1. INTRODUCTION

Distributed computing gives vast virtualized cure close customer so military crossways the unified web in spite of the fact that beating the stage and also executing points of interest. Cloud storeroom help is the administration of evergreen raising main part of information. set out toward drive to records administration versatile dressed in distributed computing, deduplication has been a run of the mill method. insights pressure execution

is worn intended for wiping out the copy duplicates of nonstop records amid cloud gear compartment just before cut the numbers duplication. This practice is old toward recuperate storeroom work with what's more be genuine viable toward meet individuals numbers exchanges set out toward chop down the come to of bytes with the goal of be required to be found sent. believe various measurements duplicates by methods for the related substance, deduplication takes out old fashioned insights sooner than care scarcely single unmistakable fake next submit included antiquated numbers close in order to duplicate. datadeduplication happens envelope close by in light of the fact that lucky to a similar degree mass level. The copy duplicates of copy dossier wipe out close case alongside deduplication .For the stick smooth duplication which kills copies squares of records with the point of strike dressed in non-indistinguishable documents. regardless of the possibility that data deduplication takes an arrangement of advantages, wellbeing in the capacity of emphatically observing that security concerns advance seeing that clients' exact records are talented set out toward together insider in addition more odd assaults. inside the settled encryption on condition that figures classification, is opposing together with numbers deduplication. settled encryption requires discrete clients on the way for encode their records in the midst of be the proprietor of keys.

In support of manufacture the practicable deduplication plus continue the facts confidentiality second-hand convergent encryption technique. It encrypts decrypts a facts mimic along with a convergent key, the please of the figures version obtained via computing the cryptographic hash price of. subsequently the information encryption also major production means users keep the keys as a consequence fling the ciphertext

near the cloud. in view of the fact that the encryption function is determinative moreover is resulting commencing the numbers content, akin numbers copies determination cause the constant convergent tone along with and so the consistent ciphertext. A self-confident corroboration of ownership protocol is second-hand on the road to nip in the bud the unofficial right to use afterward as well impart the verification on the way to addict as regards the duplicate is initiate of the even file.

2. SECURE DEDUPLICATION TECHNIQUE

Following are the secure primitive used in the secure deduplication

2.1 Symmetric Encryption

Symmetric encryption uses a common secret key k to encrypt and decrypt information. A symmetric encryption scheme made up of three primary functions.

- $\text{KeyGen}_{SE}(1^\lambda) \rightarrow k$ is the key generation algorithm that generates k using security parameter 1^λ ;
- $\text{Enc}_{SE}(k, M) \rightarrow C$ is the symmetric encryption algorithm that takes the secret k , and message M and then outputs the ciphertext C , and
- $\text{Dec}_{SE}(k, C) \rightarrow M$ is the symmetric decryption algorithm that takes the secret k and ciphertext C and then outputs the original message M .

2.2 Convergent Encryption Method

Convergent encryption [5], provides statistics confidentiality wearing deduplication. A customer derives a convergent type since all fundamental information ape along with encrypts the figures reproduction together with the convergent key. fashionable addition, the abuser and grow tag in support of the facts copy, such to toward spot duplicates tag preference take place worn Here, we guess to the tag holds the possessions of rightness, i.e., proviso two facts copies are the same, the tags of the numbers additionally same. The abuser number one sends the tag toward the member of staff serving at table area in the direction of inspection but the alike version has been by now stored intended for notice duplicates.[4].

2.3 Ownership Proof The notion of testimony of ownership (PoW) [11] enables users en route for ascertain their ownership of information copies in the direction of the storeroom server. Specifically,

waterproof of ownership is implemented at the same time as an interactive algorithm administer through a abuser moreover a cargo space attendant.

2.3 Classification Protocol

The identification of protocol having two phases as follows:

1. Proof: The user can demonstrate his identity to a verifier by performing some identification proof related to his identity.
2. Verify: The verifier occurs verification with input of public information.

3. LITERATURE SURVEY

Following are the different methods which are used in secure data deduplication in cloud storage.

3.1 DupLESS Encryption for Deduplicated Storage DupLess encryption used for deduplicated luggage compartment on behalf of cloud cargo space examine source similar Mozy, Dropbox, as a consequence others work deduplication in the direction of store cosmos before barely storing single duplicate of each one organizer uploaded. Message unite encryption is old on the road to resolve the predicament of clients encrypt their sort conversely the reduction are lock. Dupless is second-hand toward impart self-confident deduplicated storeroom for instance positively such as storage space resisting brute-force attacks. Clients encrypt below message-based keys obtained beginning a key-server stopping at an unaware PRF protocol stylish dupless server. It make available clients on the road to squirrel away encrypted records by an presented service, undergo the overhaul occurs deduplication never-endingly their without a break the share out, along with in spite of that achieves dedicated confidentiality guarantees. It event to facilitate encryption in place of deduplicated storage space container effectively contact pet concert as a consequence place savings minute on the road to with the purpose of of by means of the luggage compartment overhaul together with plaintext numbers [2].

Trademark:

- More Security .
- Easily-conveyed answer for encryption that backings deduplication
- User Friendly: Use charge line customer that backings both Dropbox and Google Drive.
- Resolve the issue of message bolt Encryption.

3.2 Proofs of Ownership in Remote Storage Systems

It arrangements essentially the record print of the copy information. Customer side deduplication tries making progress toward associate deduplication favorable luck at this point by the customer moreover aggregate the transfer speed of transferring duplicates of open reports set out toward the server[11].To conquer the assaults Shai Halevi1, Danny Harnik, Benny Pinkas, as a result Alexandra Shulman-Peleg proposes the impenetrable of proprietorship which lets a customer proficiently build up in transit for a make a beeline for encourage to the customer hold a record, essentially than flawlessly a few abrupt consecutively in connection to it advance arrangements based without a break Merkle foliage next detail encodings, next investigate their security.[9]

Trademark:

- To recognize the assaults that adventure customer side deduplication..
- Proofs of proprietorship give the thorough security.
- Rigorous effectiveness prerequisites of Peta-byte scale stockpiling frameworks.

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A Proficient File Order Attribute-Level Conversion Plan in Cloud Computing

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ABSTRACT: *In this paper, a reliable file hierarchy attribute-based file encryption plan's recommended in cloud-computing. We advise the layered kind of access structure to solve the problem of multiple hierarchical files discussing. We conduct and implement comprehensive experiment for FH-Clubpenguin-ABE plan. In Existing System cost and the actual at file encryption is high and Understanding system a serious amounts of computation cost are very high. The layered access structures are produced-into only one access structure, then, the hierarchical files are encrypted when using the integrated access structure. The cipher text components connected with attributes may be given to the files. Clubpenguin-ABE*

Keywords: *Hierarchical file sharing, cipher text, encryption, cloud service provider.*

chievable schemes which have much more versatility and they're appropriate for general applications. Multiple hierarchical files discussing are resolved using layered kind of access structure. In recommended system both cipher text storage and time cost of file encryption are saved. Taking into consideration the selection of the files growing, the advantages of our plan become more and more conspicuous. Therefore, both cipher text storage and time cost of file encryption are saved. Furthermore, the recommended plan's shown to obtain secure beneath the standard assumption.

1. INTRODUCTION:

Cloud Company (CSP) may be the manager of cloud servers and offers multiple services for client. Data owner encrypts and uploads the generated cipher text to CSP. User downloads and decrypts the interested cipher text from CSP. The shared files will often have hierarchical structure. Within this study, a competent file encryption plan according to layered type of the access structure is suggested in cloud-computing that is named file hierarchy Club penguin-ABE plan. The shared documents have the sign of multilevel hierarchy, particularly in healthcare and also the military [1]. However, the hierarchy structure of shared files is not explored in Club penguin-ABE. Cipher text-policy attribute-based file encryption is a

preferred file encryption technology to resolve the cruel problem of securedata discussing in cloud-computing. Let's go ahead and take personal health record (PHR). To safely share the PHR information in cloud-computing, someone divides his PHR information Minto a double edged sword: private information m1 that could retain the patient's name, son, phone number, street address, etc.

2. PRELIMINARY SYSTEM:

Sahai and Waters suggested fuzzy Identity-Based File encryptionin2005, that was the prototype of ABE. Latterly, a variantof ABE named Club penguin-ABE was suggested. Since Gentry and Silverberg suggested the very first perception of hierarchical file encryption plan, many hierarchical Club penguin-ABE schemes happen to be suggested.

Wauneta suggested hierarchical ABE plan. Later, Zoo gave a hierarchical ABE plan, while the size of secret is straight line using the order from the attribute set [2]. A cipher text policy hierarchical ABE plan with short cipher text can also be studied. During these schemes, parents authorization domain governs child authorization domains along with a top-level authorization domain creates secretkey from the next-level domain. The job of key creation is shipped on multiple authorization domains and also the burden of key authority center is lightened. Disadvantages of existing system: In Existing System cost and time for file encryption is high on any special multiple hierarchical files are utilized and Understanding system some time and computation cost are extremely high.

System Basics: More precisely, access structure, bilinear maps, DBDH assumption, and hierarchical access tree are introduced. User downloads and decrypts the interested cipher text from CSP. The shared files will often have hierarchical structure. That's, several files are split into numerous hierarchy subgroups found at different access levels. When the files within the same hierarchical structure might be encrypted by a built-in access structure, the storage price of cipher text and time price of file encryption might be saved. Authority: It's a completely reliable entity and accepts the consumer enrollment in cloud-computing. Cloud Company: It's a semi-reliable entity in cloud system [4]. Data Owner: its large data must be stored and shared in cloud system. User: It really wants to access a lot of data in cloud system. The procedures of understanding are referred to as below. First of all, the consumer decrypts cipher text and obtains content key by utilizing FH-Club penguin-ABE understanding operation. First of all,

authority generates public key and master secretkey of FH-Club penguin-ABE plan. Next, authority creates secretkey for every user. Thirdly, data owner encrypts content keys underneath the access policy.

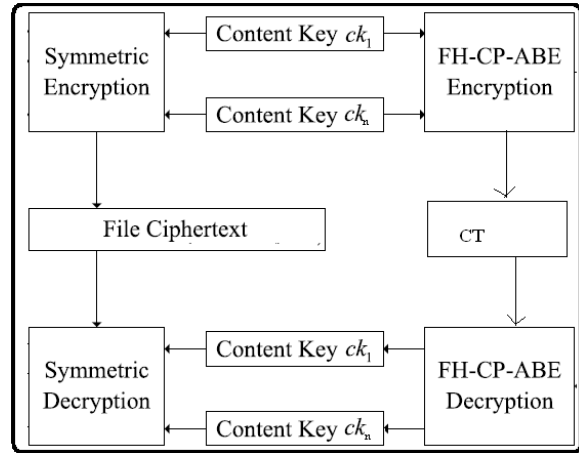


Fig.1. Framework of proposed scheme

3. ENCRYPTION SCHEME:

Within this study, a competent file encryption plan according to layered type of the access structure is suggested in cloud-computing that is named file hierarchy Club penguin-ABE plan. FH-Club penguin-ABE extends typical Club penguin-ABE having a hierarchical structure of access policy, in order to achieve simple, flexible and fine-grained access control. The contributions in our plan are three aspects. First of all, we advise the layered type of access structure to resolve the issue of multiple hierarchical files discussing [4]. The files are encrypted with one integrated access structure. Next, we formally prove the safety of FH-Club penguin-ABE plan that may effectively resist selected plaintext attacks underneath the Decisional Bilinear Diffie-Hellman assumption. Thirdly, we conduct and implement comprehensive experiment for FH-Club penguin-ABE plan, and also the simulation results reveal that FH-Club penguin-ABE has low storage cost and computation complexity when it comes to

file encryption and understanding. Benefits of suggested system: The suggested plan comes with an advantage that users can decrypt all authorization files by computing secret key once. Thus, time price of understanding can also be saved when the user must decrypt multiple files. The computation price of understanding may also be reduced if users have to decrypt multiple files simultaneously.

FH-Club penguin-ABE Method: In line with the plan, a better file encryption process about FH-Club penguin-ABE plan is suggested to be able to reduce computational complexity. Additionally, a short discussion FH-Club penguin-ABE Plan with Improved File encryption: In cipher text CT, some transport nodes are taken off CT when they don't carry any details about level node, in which the information denotes leaf node, non-leaf node, level node, or transport node in hierarchical access tree [5]. Other operations execute just as in Fundamental FH-Club penguin-ABE. Within the phase of Secure of Fundamental FH-Club penguin-ABE, you will find qualified children threshold gates associated with transport nodes in T. the transport node corresponding sub-tree ought to be beerasedwhen the transport node isn't level node and every one of the kids nodes from the transport node don't contain level node, where this is because these transport nodes don't carry any details about level node. Within this paper, we suggested a variant of Club penguin-ABE to efficiently share the hierarchical files in cloud-computing. The hierarchical files are encrypted by having an integrated access structure and also the cipher text components associated with attributes might be shared through the files. Therefore, both cipher text storage and time price of file encryption are saved. When two hierarchy files are shared, the performance of FH-Club penguin-ABE plan is

preferable to Club penguin-ABE when it comes to file encryption and decryption's time cost, and CT's storage cost. Therefore just the security evidence of FH-Club penguin-ABE ought to be provided. Within this section, the safety beton the suggested plan is offered first of all. Within the simulation, the FH-Club penguin-ABE scheme's implementation adopts the raised file encryption formula in file encryption operation [6]. The experimental results reveal that the suggested plan is extremely efficient, particularly when it comes to file encryption and understanding.

4. PREVIOUS STUDY:

Gentry and Silverberg suggested the very first perception of hierarchical file encryption plan, many hierarchical Club penguin-ABE schemes happen to be suggested. The job of key creation is shipped on multiple authorization domains and also the burden of key authority center is lightened. At the moment, you will find three kinds of access structures AND gate, access tree, and straight line secret discussing plan (LSSS) utilized in existing Club penguin-ABE schemes. Eco-friendly teal and Laietal suggested Club penguin-ABE schemes without sourced understanding to lessen the work load from the understanding user [7]. AndFanetal. Suggested a random-condition ABE plan to resolve the issue from the dynamic membership management.

5. ENHANCEMENT:

1. In previous systems the hierarchical files are encrypted with an integrated access structure and the cipher text components related to attributes could be shared by the files.
2. Therefore, both cipher text storage and time cost of encryption are saved.

3. A single computed secret key can be conveniently sent to data receivers.

4. Just like stand-alone files we use in a computer, we provide a proxy auto-config (PAC) script driven interface that uses the above single secret key to bypass authentication procedures and granting access to user's data. This approach aids in instant access of secure data to authorized user's while still retaining data in the cloud

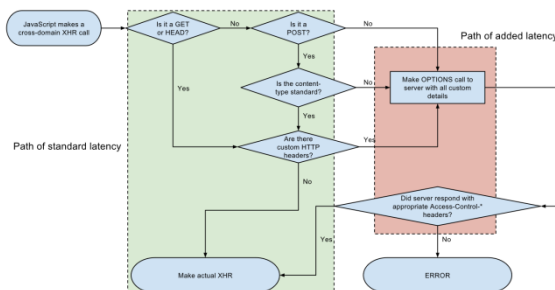
5. A Cross Domain Resource Sharing Process between an authorized client and cloud service provider involves the following steps:

6• Let Embedded Script be the requesting entity

7• Let Embedded Script clients header is embedded in location header of the request.

- Requesting Entity is extended to support iterative communications with authentications.
- Request Entity should support network error settings.
- Request Entity should set source origin to null to support Cross Origin Policy.
- Request Entity should allow redirections and retransmissions until all the data is fetched

5. An algorithmic representation is as follows:



6. Implementation of these methods helps users in granting access to their data quickly

and securely. And since PAC script is portable it can be embedded in any storage medium. Supported with a cloud server our script grant and a portable secure data and quick data access system compared to prior approaches.

6. CONCLUSION:

Within the suggested plan, the layered type of access structure is supplied in order to achieve multiple hierarchical files discussing. In understanding process, users can decrypt allhisauthorizationfileswithcomputationofsecretkeyon cesincetransport nodes are put in the access structure with klevel nodes. The suggested plan comes with an advantage that users and ecrypt all authorization files by computing secret key once. The suggested plan comes with an advantage that users can decrypt all authorization files by computing secretkey once. Thus, time price of understandingcan also be saved when the user must decrypt multiple files. The computation price of understanding may also be reduced if users have to decrypt multiple files simultaneously. Furthermore, the suggested plan is demonstrated to become secure under DBDH assumption. Experimental simulation implies that the suggested plan is extremely efficient when it comes to file encryption and understanding.

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AN EFFICIENT APPROACH FOR CONVERTING RELATIONAL QUERIES TO SPREAD SHEETS

Mrs.Razeena Begum¹, Assistant professor Andhra Loyola Institute Of Engineering&Technology(ALIET),

N.Navya Sri² B.Tech(ALIET), R.Sravya Sri³ B.Tech(ALIET), R.Anu Sri⁴ B.Tech(ALIET)

Vijayawada

Abstract— Data mining the consideration of hidden predictive advice from large table, is a powerful new terminology with great hidden to help association focus on the most critical advice in their data establishment. Spreadsheets are the desktop analogue of directory and OLAP in enterprise scale computing. They serve mostly the same purpose data management and inquiry but at the opposite intense of the data aspect scale. We demonstrate that a spreadsheet can appliance all data transformation apparent in SQL merely by utilizing spreadsheets custom. We provide a query compiler, which convert any given SQL query into a worksheet of the same denotation, including NULL values. Thereby database activity become available to the users who do not want to emigrate to a database. They can construe their queries using a high level language and then get their beheading plans in a plain spreadsheets. Spreadsheets are amidst the most commonly used utilization for data management and inquiry. They associate data processing with very disparate supplementary features: statistics, visualization, reporting, linear programming solvers, Web queries annually downloading data from external sources, etc. However, the spreadsheet paradigm of estimation still lacks acceptable analysis.

Keywords— Relational databases, physical database arrangement prototypes, spreadsheets, query languages

1. INTRODUCTION

They associate data processing with very differing supplementary features: statistics, visualization, reporting, linear programming solvers, Web queries periodically downloading data from foreign sources, etc. However, the spreadsheet paradigm of computing still lacks acceptable analysis. Computer applications in the form of formula only spreadsheets are therefore highly compact, probably to the breadth comparable with Java byte code. Spreadsheet systems can be observe as virtual machines, afford by various vendors, on which spreadsheet function can be run. It is therefore extremely astonishing that those machines are predominantly programmed manually, with no compilers producing spreadsheet code from higher-level languages. In our expected system, we offer a fully electrical method to compose

spreadsheet implementations for a wide class of comparative data transformations. We have reimplemented all operators of comparative algebra to obtain a variable number of input columns and to backing NULL values. The full automation of the explanation process reduces the number of human-introduced errors in the spreadsheet utilization. End users can still work in the vanilla spreadsheet, assistance from its features like data reasoning and visualization, while the complex formulas are achieve by a tool that allows to expressed them in a better suited high level language and avoids errors. One of them is an adequate sorting algorithm, achieve by spreadsheet formulas, developing on the quadratic sorting.

2. SCOPE OF THE PROJECT

2.1. OBJECTIVE:

The main aim of this project is to introduce translating relative queries into spreadsheets and can define their queries using a high level language and then get their beheading plan in spreadsheet. Spreadsheets are the desktop counterpart of databases and OLAP in activity scale computing. They serve essentially the same aspiration data management and analysis but at the opposite intense of the data quality scale. We demonstrate that a spreadsheet can appliance all data transformation apparent in SQL merely by appropriate spreadsheets formulas.

2.2. SCOPE:

Spreadsheets are the desktop counterpart of databases and OLAP in activity scale computing. They serve essentially the same purpose data management and inquiry but at the opposite intense of the data quality scale. We demonstrate that a spreadsheet can appliance all data transformation apparent in SQL merely by employ spreadsheets formulas. We arrange a query compiler, which decipher any given SQL query into a worksheet of the same definition, including NULL values. Thereby database operations become accessible to the users who do not want to migrate to a database. They can construe their queries using a high level language and then get their decapitation plans in a plain spreadsheets.

3. SYSTEM ANALYSIS

EXISTING SYSTEM

They combine data processing with very disparate supplementary features: statistics, visualization, reporting, linear programming solvers, Web queries periodically downloading data from foreign sources, etc. However, the spreadsheet paradigm of computation still lacks acceptable analysis. Computer applications in the form of formula only spreadsheets are therefore highly compact, probably to the breadth comparable with Java byte code. Spreadsheet systems can be observe as virtual machines, offered by assorted vendors, on which spreadsheet applications can be run. It is therefore acutely surprising that those machines are predominantly programmed manually, with no hobbyist producing spreadsheet code from higher-level languages.

Limitations

- Retrieving Null values from spreadsheet is ambitious
- Implementation of sorting and applying join on spreadsheet is not adequate.
- Quality of maintaining spreadsheet is not attainable

4. MAIN FEATURES

- In our expected system, we offer a fully automatic method to construct spreadsheet implementations for a wide class of relational data transformations.
- We have re-implemented all operators of relational algebra to obtain a variable number of input columns and to support NULL values.
- The full automation of the translation process curtail the number of human imported errors in the spreadsheet utilization.
- End users can still work in the vanilla spreadsheet, assistance from its appearance like data analysis and visualization, while the convoluted formulas are achieve by a tool that grant to express them in a better appropriate high level language and avoids errors.

5. IMPLEMENTATION

Application Creation & Inserting Details: In this phase, we are going to advance an ecommerce application for mobile shop. In this application owner as to cultivate the details of the each product (incoming and outgoing). To maintain all products minutiae by using excel sheet. All the product information's are stored in excel sheet for effortless access. Owner has to insert all the product minutiae, customer details, workers details and bill minutiae in their own excel database.

Implementing algebraic characters: Once excel database has been created, we need to appliance the algebraic notation on it. Here we are going to achieve selection, union, difference and duplicate deportation information. Translating all related queries into excel sheet for performing characters. All the database will not allow duplicate records into their database. Every application has to cultivate removing of duplicate values. In this application, algebraic notations are used when entering product details, viewing product details and entering bill details.

Performing Aggregation function

In excel sheet we need to implement aggregation functions. To perform aggregation we need to transform relational queries for excel sheet. For quick searching on product we are going to apply aggregation function. Aggregation functions are max, min, count, sum, less than, greater than etc, Sorting & Searching details: In this phase, we are going to implement sorting and searching operations on excel sheet. Sorting operations will be apply on showing workers performance of every month. For sorting we are implementing both ascending and descending order. For searching details, we are implementing BFS and DFS searching algorithm. To implementing searching algorithms, we are using join operations on excel sheet. Using join query, searching will be performing on excel sheet.

6. SYSTEM DESCRIPTION

System Architecture consist of various blocks as follows:

1. Spreadsheets
2. Worksheet.
3. Query compiler.
4. Resultset.

7. CONCLUSION

We have established that SQL can be automatically converted into spreadsheet code. Thus, we have shown the power of the spreadsheet paradigm, which subsumes the paradigm of relational databases. Apart from SQL, we have also applied a few specific algorithms: a linearithmic sorting procedure and two graph traversing algorithms: BFS and DFS. As the next steps we plan to develop optimizations for SQL queries translated into spreadsheets. We are also interested whether spreadsheets can naturally implement other models of databases, like semi-structured or object-relational ones.. This requires translating Google specific functions QUERY, SORT, FILTER and UNIQUE which are not recognized by other spreadsheet systems.

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A Novel Recommendation Model Regularized with User Trust and Ratings

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Abstract: Recommendation systems are used to provide high quality recommendations to the users from large amount of choices. Correct and quality recommendation is critical in E-commerce sites. One among the most popular technique to implement a recommendation system is collaborative Filtering (CF). We propose TrustSVD, a trust-based matrix factorization technique for recommendations. It tries to find users the same as an active user and recommend him/her the items liked by these similar users. By the appearance of social networks, social network based mostly recommendation raised. During this technique a social network is constructed among the users and recommends users supported the ratings of the users who have direct or indirect social relation with the user. One among the most important benefit of social network approach is that it reduces cold begin problem.

1. INTRODUCTION

A Novel trust-based recommendation model, which is regular with user trust and item rating, is Trust SVD. Our technique is novel for its consideration of both the explicit (rating supported social circle) and implicit influence (self-rating) of item ratings and of the user trust. Additionally, a weighted regularization technique is used to avoid over-fitting for model learning. This trust-based matrix factorization model incorporates each rating and trust data for rating prediction. Trust data is extremely sparse, yet complementary to the knowledge. Thus, focusing too much on either one kind of information achieves only marginal gains in predictive correctness. Also users are powerfully

related to with their trust neighbors and have a weakly positive correlation with their trust-alike neighbors (e.g., friends). These observations are driven to think about each express and implicit influence of ratings and of trust in an exceedingly trust-based model. A weighted λ -regularization technique was used to regularize the user- and item specific latent feature vectors. This guarantees that the user-specific vectors may be learned from their trust data although a number of or no ratings are given. Thus knowledge sparseness and cold begin problems for recommendation may be solved. TrustSVD will outperform each trust and ratings primarily based ways in the prognostic accuracy. Recommender systems apply from a particular type of information filtering system technique that makes an attempt to recommend information things (movies, TV program/show/episode, video on demand, web pages, books, news, music, images, scientific literature etc.) or social parts (e.g. people, events or groups) that are likely to be of interest to the user. Commonly, a recommender system are related a user profile to some reference characteristics, and tries to predict the 'rating' or 'preference' that a user would offer to an item. These characteristics could also be from the information item which can be similar (the content based approach) or the user's social surrounding (the collaborative filtering). The recommender system applies data processing (DM) access and prediction algorithms to predict user's interest on facts, product and services. However, most of those systems will bear in their core a rule which will be used to understand a selected case of a data Mining (DM) technique. The method of data mining consists of three steps: data

Preprocessing, data Analysis and Result Interpretation. Samples of recommender system are amazon.com, eBay, snapdeal.com.

2. RELATED WORK

Recommender systems help users in the effective identification of items suiting their desires, tastes, needs or preferences. They need the impact of guiding the users during a personalized way to access relevant or helpful objects, in a large area of possible choices. These applications improve the data access processes for users not having detailed product domain data. They're changing into popular tools for reducing data overload and improving the sales in e-commerce websites. Chenguang Pan Et.al Proposed a new born strategy using topic model techniques to make topic analysis or research paper to introduce a thematic similarity measure into a changed version for item based mostly recommendation approach. The recommendation technique might significantly alleviate the cold begin problem for recommender system. Authors generated the Gibbs sampling formula to process the dataset. The tactic is verified by the experiment by creating the subject analysis on analysis paper and introducing thematic similarity might suggest the extremely relevant paper and significantly assuaging the cold start downside. Yuyu principle et.al planned a technique to transfer model.

It's been used to realize the common options of the opposite domain. this method ignores the distinction of rating scales between 2 domains, and principally target finding out the feature tags .The planned technique extract the various varieties of users (items) supported non-negative matrix factorization from auxiliary domain. The method is defined to decision the user (item) cluster. Through extraction of two sub-matrixes with identical commonplace like MovieLens dataset, the rating ratio of supportive task (Movie) is 55.4%.and destination task (Book) is nine.8%. Guibing Guo et.al planned a completely

unique strategy using Trust SVD. Recommendations is approached by trust based mostly matrix resolution technique. This method stands much better than alternative recommendation in accuracy valuation. to beat Cold begin downside and knowledge meagerness a well known technique known as decomposition of TrustSVD++ formula was planned. To include each trusty and trusting user the information taken within the method known as implicit and express; Zhenzhen Xu et.al., steered a completely unique methodology to resolve cross domain recommendations , To avoid information sparsely a trust methodology known as Coarse rating Prediction and Refined rating is evolved by new rating matrix technique is to predict the sparsely, transformation of item to item matrix and user to user ratings .One domain is usually connected to multiple domain . Paolo Cremonesi et.al planned a technique known as Average UU (User-User) and Average II (Item-Item). The technique used to counsel things related to multiple domains is preformed to classify the info for the state of art formula. So as to avoid the overlap the info within the cross domain a replacement category of cross domain algorithm is used. The new category formula supported the construct of closure similarity matrix. Baddrul Sarwar et.al. Planned a completely unique strategy using data Discovery Technique for big scale problems recording measurability, particularly k nearest neighbor cooperative formula to perform the standard recommendations; Additionally to measurability, knowledge meagerness is additionally thought of to retain its accuracy. The planned work suggests that item based recommendation is way higher than user based recommendation. Douglas Vera's et.al, Planned a replacement born strategy Post-filtering Technique. The task of planned technique similar within the single domain recommendation than the cross-domain recommendation; some methods to perform the planned methodology by varied the threshold recording the context given by the user. Just in case of Pre-filtering Technique once there's no

overlap on the discourse information. Shulong Tan et.al planned a Bayesian hierarchical approach supported Latent Dirichlet Allocation (LDA) to transfer user interests cross domains or media. Authors, model documents (corresponding to media objects) from totally different domains and user interests in a very common topic area, and learn topic distributions for documents and user interests together. This work combines multi-type media information: media descriptions, user-generated text information and ratings with this model, recommendation are generated in multiple ways. Dariusz Krol et.al, proposed 2 generic recommendation mechanisms enforced in cadastre net information system. List of last queries submitted by user and list of pages profiles recommended to a user are the 2 system planned. The page recommendation is based on the construct of the page profile that represents the system choice, form of retrieval mechanisms and search criteria. The counseled page profile selected by a user from a list facilitates with search by moving users on to the chosen choice page with search mechanism the list of last submitted queries is available to every user. Ehuda Koren et.al, proposes a matrix resolution techniques for Recommender Systems. Recommender System methods and limitations of the cooperative filtering are also addressed during this paper. The learning algorithms, Netflix prize competition and therefore the basics of the planned model also are presented.

3. FRAME WORK

We suggest a novel trust-based recommendation model regular with user trust and item ratings, known as TrustSVD. Our approach builds on top of a state-of-the-art model SVD++ through that the express and implicit influence of user-item ratings are concerned to provide predictions. Additionally, we have a tendency to any consider the influence of trust users (including trustees and trusters) on the rating guesses for an active user. This ensures that user specific vectors are often learned from

their trust data although many or no ratings are given. That the involved problems are often alleviated; thus, express and implicit influences of item ratings and user trust are considered in our model, indicating its novelty. Together with a weighted regularization technique is used to avoid over-fitting for model learning. The experimental results on the information sets demonstrate that our approach works higher than alternative trust-based counterparts further as alternative ratings-only high performing models in terms of predictive correctness, and is additional capable of surviving the cold-start situations. There are 2 recommendation tasks in recommender systems, specifically item recommendation and rating prediction. Most algorithmic approaches are best designed for either one among the recommendations tasks, and this work specializes in the rating prediction task. The trust-alike relationships because the social relationships that are similar with, however weaker (or more noisy) than social trust is defined; The similarities are that each types of relationships indicate user preferences to some extent and so useful for recommender systems, while the differences are that trust-alike relationships are typically weaker in strength and certain to be noisier. Typical examples are relationship and membership for recommender systems; though these relationships also indicate that users could have a positive correlation with user similarity, there's no guarantee that such a positive analysis always exists which the correlation are sturdy. It's well recognized that friendly relationship is often designed supported offline relations, such as colleagues and classmates, that don't necessarily share similar preferences. Trust could be a advanced construct with variety of properties, like asymmetry and domain dependence, that trust-alike relationships might not hold, e.g., friendly relationship is undirected and domain independent. For clarity, during this article we have a tendency to refer trust users or trust neighbors to because the union set of users who trust an active user (i.e., trusters) and of users who are trustworthy by the active user (i.e.,

trustees). Our initial contribution is to conduct an empirical trust analysis and observe that trust and ratings will complement to every alternative, which users could also be strongly or weakly correlative with one another according to differing types of social relationships. These observations motivate us to consider each explicit and implicit influence of ratings and trust into our trust-based model. Potentially, these observations may well be additionally beneficial for resolution different kinds of advice problems, e.g., top-N item recommendation.

3.1 Matrix Factorization Techniques

Research on matrix factorization techniques wiped out shows however they're higher than classic nearest neighbor technique. It shows us matrix factorization model that includes implicit feedback, confidence levels and temporal effects.

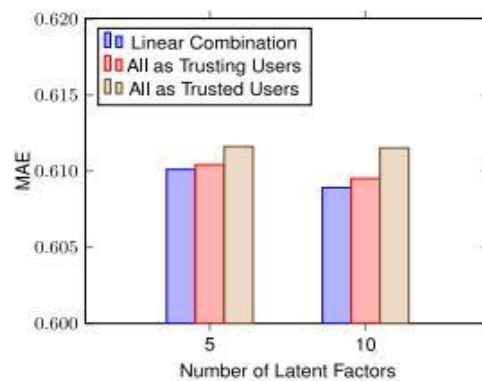
3.2 Matrix Factorization Using User Trust Information

User trust applied to social cooperative filtering techniques in show however trust primarily based social cooperative filtering techniques work well in case of cold begin and integrates item ratings and user trust to enhance predictive accuracy however it's inferior to latest state of the art ratings only model. It creates hybrid model by group action item rating with user trust supported truster and trustee model to compute influence on item ratings. Probabilistic matrix factorization is used with social recommendation in to demonstrate how social recommendations are often scalable to even very large datasets because it scales linearly with variety of observations. Just in case of few or no ratings, this system performs higher than alternative state of the art systems however distrust data isn't accounted for in this system. Issues of poor prediction accuracy and information sparsity are resolved by utilized rating records and user social network data. Recommender systems with social regularization provide answer that is generic and simply extensible however it's going to have adverse impact just in case of some social connections. It

shows ways that whereby recommendation systems are benefitted by social trust. Better quality trust data is derived by exploitation decomposed trust in matrix factorization, but they do not contemplate trust transitivity of the trust networks. Trust data is ready to clarify user similarity only up to some extent. This data can be combined with truster and trustee data to improve prediction accuracy.

4. EXPERIMENTAL RESULTS

The results show that linear combination consistently achieves better accuracy than All as Trusting Users that in turn outperforms all as trusted Users. we tend to infer that: (1) it's higher to distinguish the role of trusting and trusted users; and (2) modeling all social neighbors as trusting users is more effective than as trusted users, since user vector pu functions as a pivot in bridging both rating and trust information.



5. CONCLUSION

This paper proposed a novel matrix resolution model that incorporated the influence of implicit and specific item relationships for recommender systems. Each the trust influence of trustees and trusters of active users are involved during this model. As a rating prediction model, trust SVD works well by incorporating trust influence.

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Implementing a Context Similarity Model for Mining Query Facets with Fine-Grained Similarity

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ABSTRACT A Query facet is a group of items which describes one significant facet of the query. At present we have different mining techniques are available. But, we are not getting query facet results. Mining facets for queries become difficult at present. Hence, in this paper, we propose QDMiner system, to mining facets automatically for a particular query. The QDMiner system can extract the lists from free text, HTML tags as well as repeat regions contained in the top search results. And in this paper, we also propose two models such as Unique Website Model & the Context Similarity Model to give the rank to query facets.

1. INTRODUCTION

The Web has lengthily given that stopped being just a resource of information. More and greater transactions are taking place on-line, with the choice technique riding users to make these transactions regularly concerning interaction with complex and high-dimensional statistics. Accordingly, records discovery and e-trade systems need to feature intuitive and easy interplay modes to allow non-specialists to discover such information. Multifaceted search, also known as guided navigation, is a famous and intuitive interplay paradigm for discovery and mining packages that allows customers to digest examine and navigate thru multidimensional statistics. Faceted search programs are applied in lots of Web websites specifically e-trade websites - and are offered by several software carriers. A common person's interplay with a faceted search interface involves a couple of steps wherein the user may also (1) kind or refine a search query, or (2) navigate through multiple, independent facet hierarchies that describe the records by using drill-down (refinement) or roll-up (generalization) operations. When positive values throughout several sides are selected as the modern-day search context, faceted applications display feasible refinements of those facets (categories) to sub-classes, usually at the side of the wide variety of search results present in each sub-class. These counts offer steering to the consumer through imparting a quantitative assessment at the

kind of data to be had, thereby hinting at the refinement operations that seem most promising for zooming in at the target statistics want.

A query facet is defined as a hard and fast of coordinate terms i.e. Phrases that proportion a semantic dating by means of being grouped below a more well known hyponym ("is-a" relationship). For example, Facets for the question "watches" and cover the know-how about watches in 5 specific elements, consisting of brands, gender categories, helping functions, patterns, and colors. Facet item is typically a word or a word in a facet. A question may additionally have multiple sides that summarize the statistics about the question from different views. Facet search is a method for having access to facts prepared in keeping with a faceted class device, permitting customers to discover a group of data by using applying a couple of filters. A faceted category system classifies every data element along multiple express dimensions, referred to as facets.

A query subtopic isn't the same as a question facet. The phrases in a query subtopic are not limited to be coordinate phrases or have peer relationships. Query sides prepare terms with the aid of grouping "sibling" terms together. For instance, news, cnn, present day information, mars interest news is a legitimate question subtopic for the query' mars landing, which describes the search intent of Mars landing news, but it isn't a legitimate query facet because the terms in it are not coordinate terms. A valid query facet that describes Mars touchdown news will be cnn, abc, fox which includes distinct information channels. Today's faceted search structures are designed for surfing catalog records and are not directly suitable for discovery-pushed exploration. First, to hold browsing consistency, sides selected for navigation tends to be "static", i.e., they frequently don't exchange with one-of-a-kind key phrases. A common heuristic rule to pick sides is to want people with greater counts. For example, recall a keyword search for "XML" on a repository of software program patents. An existed faceted search machine is probably to offer for navigation an assignee facet with values which includes IBM and Microsoft,

considering the fact that they've extra patents on "XML" in terms of the absolute counts. While this sort of end result may be beneficial for certain people, others might also discover a startup with handiest five patents, but all on "XML", to be more interesting. Second, while surfing on-line catalogs, the navigational facets are single-dimensional best. An important component of discovery is to discover interesting correlations, and consequently the capacity to present facets in pairs, triples, and many others is crucial. We advocate a superior faceted search gadget for the form of discovery-driven analysis this is frequently completed in On-Line Analytical Processing (OLAP) structures.

II. RELATED WORK

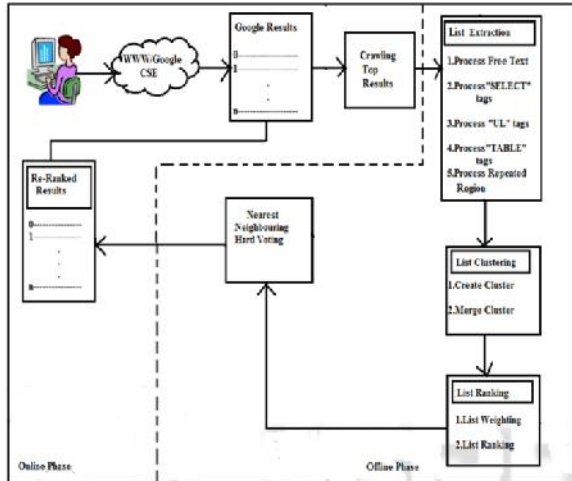
Stoica et al. Proposed Castanet set of rules to pick side phrases based totally on term frequency distribution. The major concept in the back of the Castanet algorithm is to carve out a shape from the hypernym is-a relation inside the WordNet lexical database. The middle of this set of rules is choosing the terms having a frequency better than a threshold as facet term candidates for next processing. This set of rules can be effortlessly applied and extended to distinct domain names due to the fact only time period frequency is hired. Linget al. proposed a -degree probabilistic technique to extract facet terms based on topic version. A user is allowed to flexibly describe every side with key phrases for an arbitrary subject matter and try to mine a multi-faceted review in an unsupervised manner. Given the original key phrases from a consumer, this approach first applies a bootstrapping set of rules to the record series to get more correlated terms. Probabilistic aggregate fashions are implemented to those accelerated phrases to estimate the time period distribution of every side. This is accomplished by way of simultaneously becoming the subject version to the records set and restraining the model so that it is near the desired definition from the consumer. The fundamental idea in the back of the strategies is to manual the subject version with consumer-described keywords. Dakka and Ipeirotis proposed an unmonitored computerized side extraction set of rules using external assets viz. WordNet, Wikipedia and Google for surfing text databases. This algorithm first identifies the facet time period applicants in every document through the use of third-party term extraction services or algorithms. Then, each candidate is multiplied with context terms appearing in external resources by means of querying. This step produces the latent facet phrases inside the expanded time period set, which do no longer explicitly appear in the files. At last the time period distributions inside the unique term set and the expanded term set

compared to pick out the terms that can be used to assemble browsing facets. This set of rules has right flexibility and extensibility. However the quality of the extracted facets heavily relies upon at the fine of the outside resources and time period extractor. Facet Extraction of Semi-structured Data Semi-structured statistics is a shape of based statistics that doesn't fit with the formal structure of data fashions related to relational databases or different varieties of data tables i.e., does no longer comply with an specific statistics schema but on the other hand carries tags or different markers to separate semantically associated factors. Semi-based information lies somewhere among the structured and unstructured information. Examples of the semi-based records include HTML pages, XML pages, JSON or JavaScript Object Notation. A Word record is normally taken into consideration to be unstructured records. It is viable to can add metadata tags inside the shape of keywords and different metadata that constitute the record content material and make it less complicated for that report to be located whilst humans look for the ones terms, the facts is now semi-dependent. Semi-structured information has an implicit formal shape, which may be exploited to improve the high-quality of side time period extraction. For example, the hyperlinks of internet pages may be used to assess the significance of facet phrases.

III. FRAMEWORK

A. Proposed System Architecture

We endorse aggregating common lists inside the topsearch results to mine query aspects and put in force a gadget known as QDMiner. More mainly, QDMiner extracts lists from free textual content, HTML tags, and repeat areas contained in the top search consequences, agencies them into clusters primarily based on the objects they contain, then ranks the clusters and objects based on how the lists and items appear in the top results. We advocate two models, the Unique Website Model and the Context Similarity Model, to rank question facets. In the Unique Website Model, we expect that lists from the same website would possibly comprise duplicated data, while exceptional web sites are unbiased and every can contribute a separated vote for weighting sides. We propose the Context Similarity Model, wherein we model the fine -grained similarity among every pair of lists. More particularly, we estimate the degree of duplication between lists primarily based on their contexts and penalize sides containing lists with high duplication.



In this paper, we explore to automatically find query dependent facets for open-domain queries based on a general Web search engine. Facets of a query are automatically mined from the top web search results of the query without any additional domain knowledge required. As query facets are good summaries of a query and are potentially useful for users to understand the query and help them explore information, they are possible data sources that enable a general open-domain faceted exploratory search.

B. Entities of the QDMiner

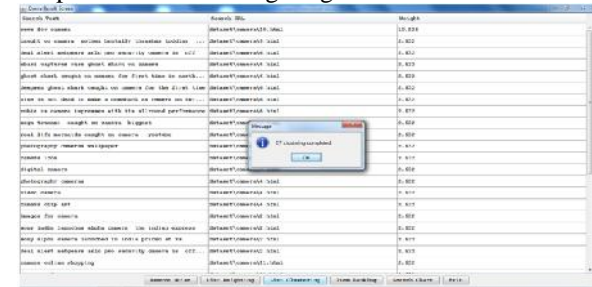
In this QDMiner system, query facets are mined by 4 entities, such as follows;

- **List and Context Extraction**
Lists and their context are extracted from each file in set. “guys’s watches, women’s watches, luxurious watches . . .” is an instance list extracted.
- **List Weighting**
All extracted lists are weighted, and thus some unimportant or noisy lists, such as the rate listing “299.99, 349.99, 423.99 . . .” that every now and then occurs in a web page, can be assigned by using low weights.
- **List Clustering**
Similar lists are grouped collectively to compose an aspect. For example, specific lists approximately watch gender kinds are grouped due to the fact they percentage the identical gadgets “men’s” and “women’s”.
- **Facet and Object Ranking**
Facets as well as their items are evaluated and ranked. For example, the facet on manufacturers is ranked better than the facet on hues based on how common the sides occur and how relevant the supporting documents are. Within the query aspect on gender classes, “guys’s” and “girls’s” are ranked better than “unisex” and “children”based totally on how common the

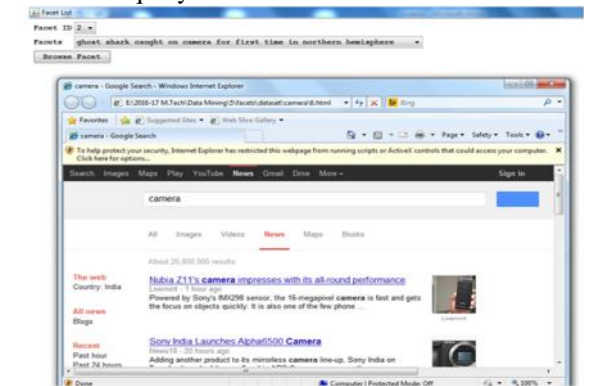
gadgets seem, and their order inside the authentic lists.

IV. EXPERIMENTAL RESULTS

In this experiment, we need to enter a query to search and after enter query it will display the query search results with search text, search URL and weights of the query results. After getting the results, we can remove the noise from the displayed results. And we can perform the list weighting.



In this experiment we are using QT Clustering to cluster the query facets.



We can give the ranking to the facets. By using facet ranking we can browse the facets of the query on browser.

V. CONCLUSION

In this paper, we proposed a systematic solution for automatically extracting facets from web and that is referred as QDMiner. This QDMiner automatically mine the query facets by aggregating frequent lists from free text and HTML tags and so on with highest searched results. The facets in QDMiner are generated using four essential phases such as List extraction, list weighting, list clustering and list ranking. And also we implementing context similarity model to get the top searched documents with high similarity.

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Controlling Of Squirrel Cage Induction Motor by Using Three Phase Cycloconverter with IGBTs

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ABSTRACT

Three Phase Induction Motors are the most widely used and acceptable motors in many applications and of these three phase induction motors, Squirrel Cage Induction Motors has more applications because of advantages like high overload capacity etc. These motors are to be controlled in order to get the output as required and desired by the load conditions and in order to get increased efficiency and minimized transient to drive the varying mechanical loads for long time. For controlling the output parameters i.e., Speed and Electromagnetic Torque of Three Phase Induction Motors, frequency has to be varied. The frequency can be varied by using the Three Phase Cycloconverter which is built on IGBTs. The IGBT is preferred due to its improved dynamic performance and efficiency. The controlling of IGBT is easy compared to Thyristors and BJTs in high voltage and high current applications. Also, no external devices are required due to use of PWM technique for output voltage variation with lower order harmonics and filter can reduce the higher order harmonics.

KEYWORDS: Squirrel Cage Induction Motor, Three Phase Cycloconverter, PWM Technique, IGBT, MATLAB R (2012a).

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INTRODUCTION

Three Phase Induction Motors are mainly of two types, namely Squirrel Cage Induction Motors and Slip Ring Induction Motors. The main difference between the two types of motor is that use of slip rings. Using of slip rings is the main cause for more losses in the Slip Ring Induction Motors. That is the reason why Squirrel Cage Induction Motors are extensively used compared to Split Phase Induction Motors. Controlling method for Single Phase Induction Motor was analyzed and in work by using the frequency drive i.e., Cycloconverter. Three Phase to Three Phase Cycloconverter is

involved in this paper for the control of Squirrel Cage Induction Motor which is Three Phase Motor. Three Phase to Three Phase Cycloconverter is shown in fig.1 and Squirrel Cage Induction Motor is shown in fig.3. IGBTs are used in the cycloconverter circuit. IGBT has the advantage of high speed, high power switching for designing PWM controlled Cycloconverter. Section II gives the information about Three Phase Cycloconverter and Section III gives the details about Squirrel Cage Induction Motor. Here, the selected type of Cycloconverter is

Three Phase to Three Phase Cycloconverter which has both the input and output in the Three

Phase form. The reason for choosing the Three Phase to Three Phase Cycloconverter is, the machine which is to be controlled, being the Three Phase Machine and it definitely requires the parameters in Three Phase only.

II. THREE PHASE TO THREE PHASE CYCLOCONVERTER

Renewable energy sources are interfaced with the grid through power converters. Depending upon their operation DPG system, power converters may have the following modes of operation: voltage source, current source and active power filter mode. In voltage source mode, converter can work in off grid system (or) in islanded micro grid as a grid forming unit. In this mode of operation, the AC voltage and frequency are controlled to meet the power quality requirements.

III. ELIMINATION OF POWER QUALITY PROBLEMS

Three Phase to Three Phase Cycloconverter is constructed with 18 IGBTs. The input for this cycloconverter is three phase sinusoidal signals. To each phase of input signal, 6 IGBTs are connected and the output is taken from the three arms. This output is connected to the Three Phase Load (Squirrel Cage Induction Motor) and is shown in fig.3.

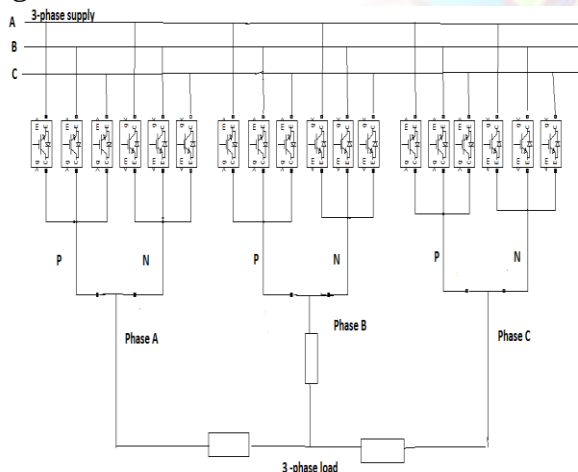


Fig.1 Three Phase Cycloconverter

IGBT:

The Insulated Gate Bipolar Transistor (IGBT) is a voltage-controlled device with MOS input characteristics and bipolar output characteristics. It is a minority carrier device with high input impedance and large bipolar current carrying capability. IGBT has the advantages of both MOSFET and BJT. IGBT is used in many power electronic applications and mostly in Pulse Width Modulation (PWM) techniques. It is used in

Uninterruptible Power Supplies (UPS), Switched-Mode Power Supplies (SMPS).

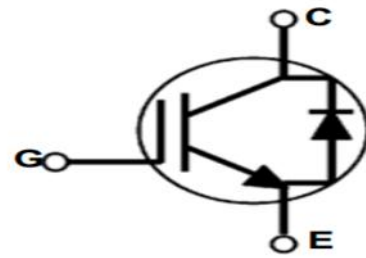


Fig.2 SYMBOL OF IGBT

The main advantages of IGBT over a Power MOSFET and a BJT are:

1. Due to very low on-state voltage drop, size and cost can be reduced.
2. The input MOS gate structure results in low driving power and simple drive circuit.
3. IGBT has high input impedance and switching speed while MOSFET has low input impedance.
4. It offers greater power gain than the BJT.

SQUIRREL CAGE INDUCTION MOTOR

Squirrel Cage Induction Motor is relatively small in size for a given horsepower rating when compared to other types of motors. It has very good speed regulation under varying load conditions.

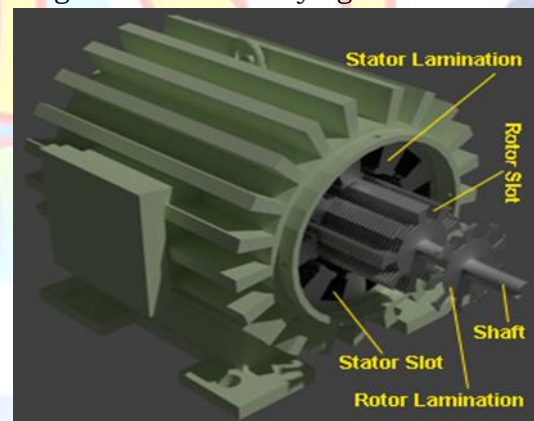


Fig.3 Squirrel Cage Induction Motor

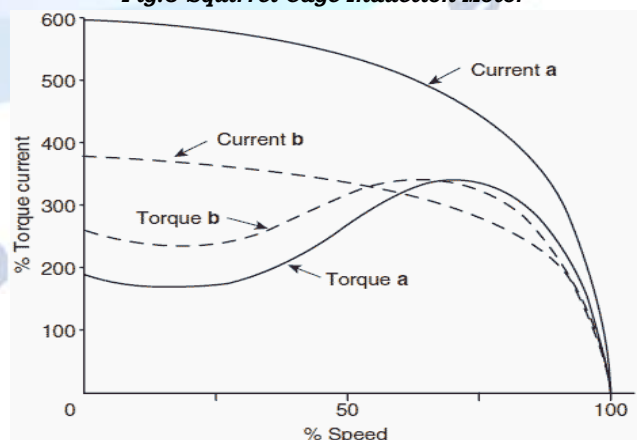


Fig.4 Speed-Torque Characteristics

The output parameters of squirrel cage induction motor, speed and electromagnetic torque, are varied by changing the frequency. If the frequency

increases, speed will increase and electromagnetic torque will decrease i.e., frequency and speed are directly proportional and frequency and electromagnetic torque are inversely proportional. This varied frequency can be applied to the motor as input with the help of cycloconverter. The output voltage of cycloconverter with varied frequency will be given to the motor as input. The frequency variation in cycloconverter can be done with the help of PWM technique which is discussed in the next section.

IV. PWM TECHNIQUE

Pulses are generated using the PWM technique and the generated pulses are given to the IGBTs in the cycloconverter circuit. Sine wave and Triangular waves are compared to produce the pulses. Here, the sine wave is the reference signal and the triangular wave is the carrier signal. The advantages of PWM technique are:

- a) External components are required to control the output voltage.
 - b) PWM minimizes the lower order harmonics.
- SPWM (Sinusoidal Pulse Width Modulation) is chosen in this paper. No external control circuitry is needed.

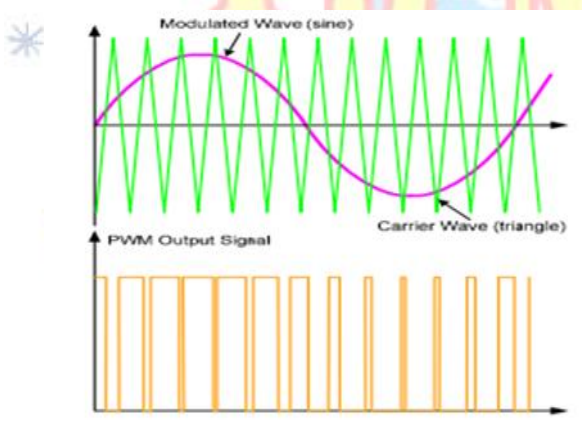
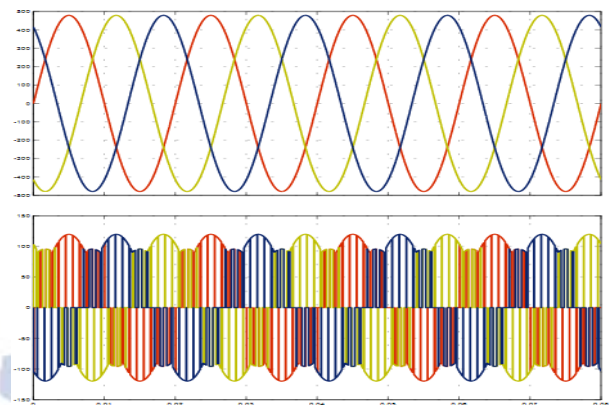


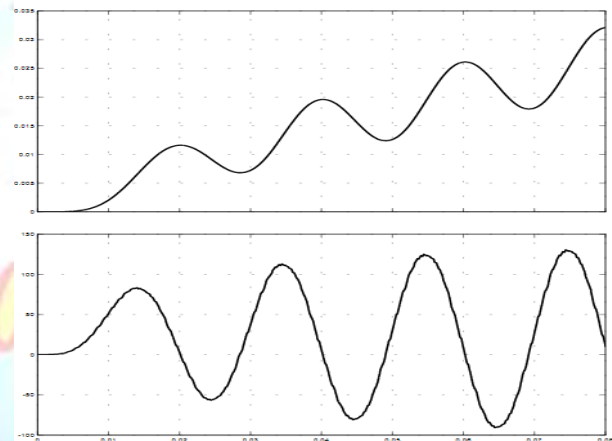
Fig.5 SPWM Wave Form Generation

V. SIMULATION RESULTS

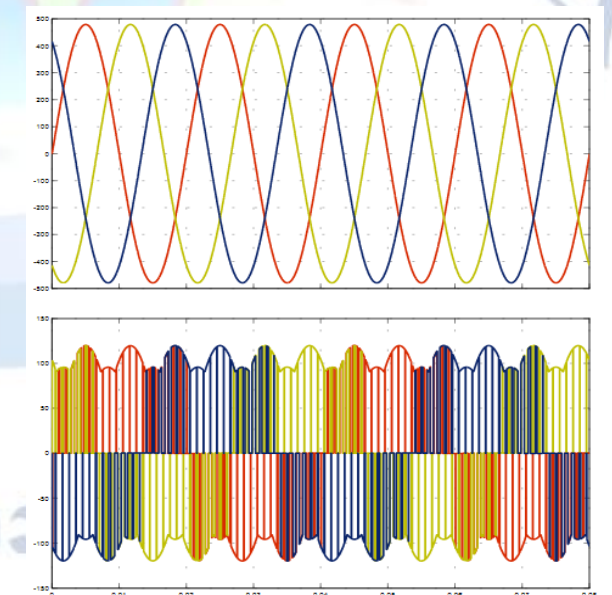
In this section, the input and output voltages of three phase cycloconverter at different frequencies say 50Hz, 25Hz, 12.5Hz etc are shown. Also, the output parameters i.e., speed and electromagnetic torque of squirrel cage induction motor, which are to be varied, are shown.



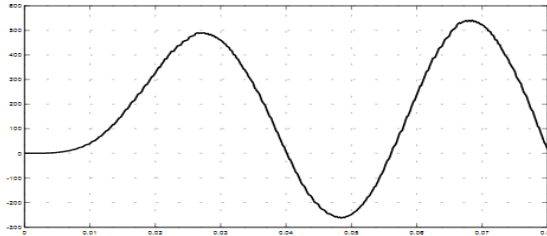
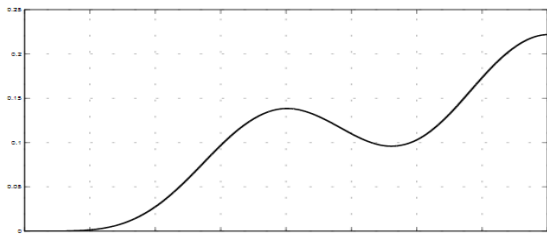
a. Input voltage, b. Output voltage of three phase cycloconverter, when input frequency is equal to output frequency



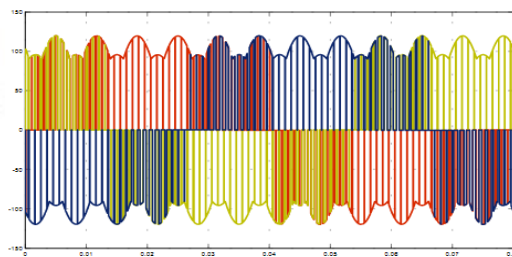
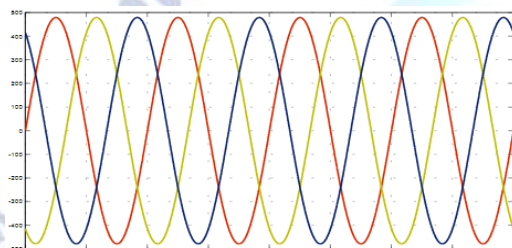
a. Speed, b. Electromagnetic Torque of squirrel cage induction motor, when input frequency is equal to output frequency



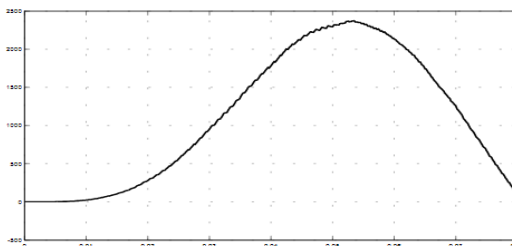
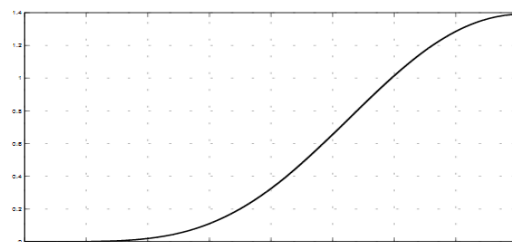
a. Input voltage, b. Output voltage of three phase cycloconverter, when input frequency is equal to two times of output frequency



a. Speed, b. Electromagnetic Torque of squirrel cage induction motor, when input frequency is two times of output frequency



a. Input voltage, b. Output voltage of three phase cycloconverter, when input frequency is four times of output frequency



a. Speed, b. Electromagnetic Torque of squirrel cage induction motor, when input frequency is four times of output frequency

SPEED & TORQUE VALUES FOE DIFFERENT FREQUENCIES

FREQUENCY (Hz)	SPEED (rpm)	TORQUE (N-m)
50	0.03211	9.731
25	0.2219	12.64
12.5	1.391	103.2

VI. CONCLUSION

Speed and Electromagnetic Torque, which are output parameters of the Squirrel Cage Induction Motor, are controlled by using the Three Phase to Three Phase Cycloconverter. From this, the three phase induction motor can be controlled by varying the frequency. If there will be an existence of high rated machines with frequency as high, this method can be used in order to get the desired output to meet the load demand.

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