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Data Mining Technique for H2EO and Smart Chat Using Rounded Box Encryption Algorithm

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Abstract: ***Chat is one of the most effective and efficient forms of communication over the internet that offers an instantaneous transmission of text based messages from sender to the receiver. In our day to day life we had come across chat system many times. It may be either personal chat or confidential chat. The objective of this project is to maximize the security given to the chat messages. This security is provided by encrypting the message while sending, displaying as well as storing the messages. Smart chat allows the user to chat conveniently preserving the confidentiality of the messages on both the sender and the receiver side, hence allowing them to communicate their private messages in public. We implemented using our own symmetric algorithm called Rounded Box Encryption algorithm. We are planning to implement this project by using java programming language and Microsoft SQL with Visual Studio .Net Platform. This system can be used in organization, military application and in other applications where the secrete message to be exchanged and we also implement help to each other concept using data mining.***

Keywords: ***Data mining, Rounded box encryption , chatting, Textmining***

I. INTRODUCTION

Aim of the our project to create smart chart application that helps to the users while communicating with each other. Today the world is full of technologies there are lots of inventions made to use the latest technologies. To be specific on technology, Mobile phones have been a part of our everyday use where we share lots of information through this communication channel android system is becoming more popular, especially in the Smartphone market. Because there are some of the development tools which is available free are used to generate many applications in an android platform. The main reason for its popularity is, it also provides a very convenient hardware platform for developers. In android, there are applications for SMS controller, SMS spam and Auto-reply features. Some of the android applications allow creating group between the family and friends to share their messages and location. Group scheduling feature is also implemented in some android application to improve the response time. Various apps are present in Android Market for text communication. Communication is required to complete your work efficiently. But security is must in communication. Due to open source security of android platform is less. So it is possible to find vulnerability of Android OS to use it for hacking purpose. This android application is developed to provide security to text communication between Android devices using rounded box encryption and decryption algorithm. In our application information retrieval is done using text mining. The most basic definition of data mining is the analysis of large data sets to discover pattern and use those pattern to forecast or to predict the likelihood of future events. Data mining involves uncovering pattern from vast data stores and using that information to build predictive model. Many industries successfully use the data mining. It helps bank predict customer profitability. It serves similar use cases in telecom, manufacturing, the automotive industry, higher education, life sciences and more. However, data mining in smart chat also be used for the most part, an academic exercise with only a few pragmatic success stories. Academician are using data mining approaches like clusters, networks.

II. OBJECTIVES

The application which we are using has a popup window in which we can search for the required information. If the information is present in the database, it sends the information to the user. if the user is interested he or she can reply. During chat if the text entered by the user matches the related information that is stored in database then our application provides the advertisement based on that text by using affiliate program.

III. LITERATURE SURVEY

Kavitha R and Rupali Wagh [1] Android market for chatting and information sharing. All these just share the message but won't provide any message status like the message is seen or not and if seen, it is accepted or not .In this they introduce a new application called as “Shary” an Android based application developed using Android Kit Kat version 4.4. The main aim of this application is to

share any last minute updated information to a specific group and receive the status of the messages. Prasath J, Dr. S. Sujatha [2] A mobile chatting application via bluetooth techniques. Android operating system based smart phones are increasingly. The Bluetooth communication system has the low power requirement making it suitable for wireless carrier. A hybrid encryption algorithm based on AES and RSA is proposed to enhance the security of data transmission in Bluetooth communication. Dinesh P. Baviskar1, Sidhhant N. Patil2, Onkar K. Pawar3 [3] To encrypt plain text to encrypted text. Message encryption is character value based encryption in which 3D message character matrix is replaced with 2D encryption value matrix. It can also know by some kind of message masking which work on upper level to provide maximum security. Password protection increases encrypted message file security. Shubham Pandey , K. Navin , G. Vadivu [4] Cloud based instant messaing system for android smartphone with help of internet. In this forward the design method of instant messaging system based on SOAP and cloud computing technology for android Smartphone. Cloud platform is a platform where Cloud Application runs, it is an online application, which works over internet Cloud Platform has been constructed of three layers: “SaaS”, “PaaS”, and “Iaas” platform is used for deploying database of instant messaging application. R. Adaikkalam, Dr. A. Shaik Abdul Khadir [5] A social network community represents people and connects them. Social networks can be used in many business activities like increasing word-of-mouth marketing, marketing research, General marketing, Idea generation & new product development. Andreas Hotho, Gerhard Paaß [6] Text mining refers generally to the process of extracting interesting information and knowledge from unstructured text. The related areas information retrieval, machine learning, statistics, computational linguistics and especially data mining. We describe the main analysis tasks preprocessing information extraction and visualization number of successful applications of text mining. Vidya Shree S I, Pooja M R [7] A Review on Data Extraction using Web Mining Techniques . Web mining is used to identify the patterns by understanding the customer behaviour and evaluating a particular website based on the information stored in web log files. Web Mining is evaluated by using data mining techniques, like classification, clustering, and association rules to review on how to extract the useful data by using web mining techniques. You Xiaguang [8] especially the massive popularity of the Internet .We usually use many kinds of structure database software such as SQL Server, MYSQL and Oracle and so on for structured data. various text data of messages, blogs, twitters and emails which are produced by paper, newspaper and web research whose characteristic are data decentralized, structural diverse and difficult to comprehensively analyze.

IV. PROBLEM STATEMENT

Our goal of this project is to provide application for chatting, group discussion. In some of the application when a person creates a group (admin) for chat or share information, only the person who has created the group can add the other person. There will be the list of the group with the topic since it is a public group chat. Based on the topic we are interested we can select the group and join it. In our project ,we provide a public chat group with the topic. Based on the interest of the topic people can join the group by clicking the ADD option on their interest. If there is any spam message or message that is not related to the topic, that message can be blocked. The System Admin receives the blocked message as an alert. Then only the admin can remove that person from the group.

V. PROPOSED WORK

To overcome the drawbacks, we propose a system that takes advantage of data mining techniques as well as of the versatility of Android, an open source OS. The application can be used at any place anywhere. This mobile application plays a major role during emergency situations. The application will act as an messages are sent with respect to sender contacts, with respect to the location and with respect to location and contact.

A. Advertisement

Since this application uses users interest and his location it is easy for business people to pick their targeted customer.

B. Save our soul

Using our application user can send SOS signal to nearby people without knowing about them in the case of emergency like vehicle accident.

C. Help 2 Each Other

We can make single group of same interested people. Example, consider India the ‘Swatch Bharath’ abhigyan. He/She can send this information to all the user of the application without knowing them at all.

Similarly a person want blood of specific group then he/she can send message under that topic and everyone near to his/her location will be notified by the application

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VI. SYSTEM ARCHITECTURE

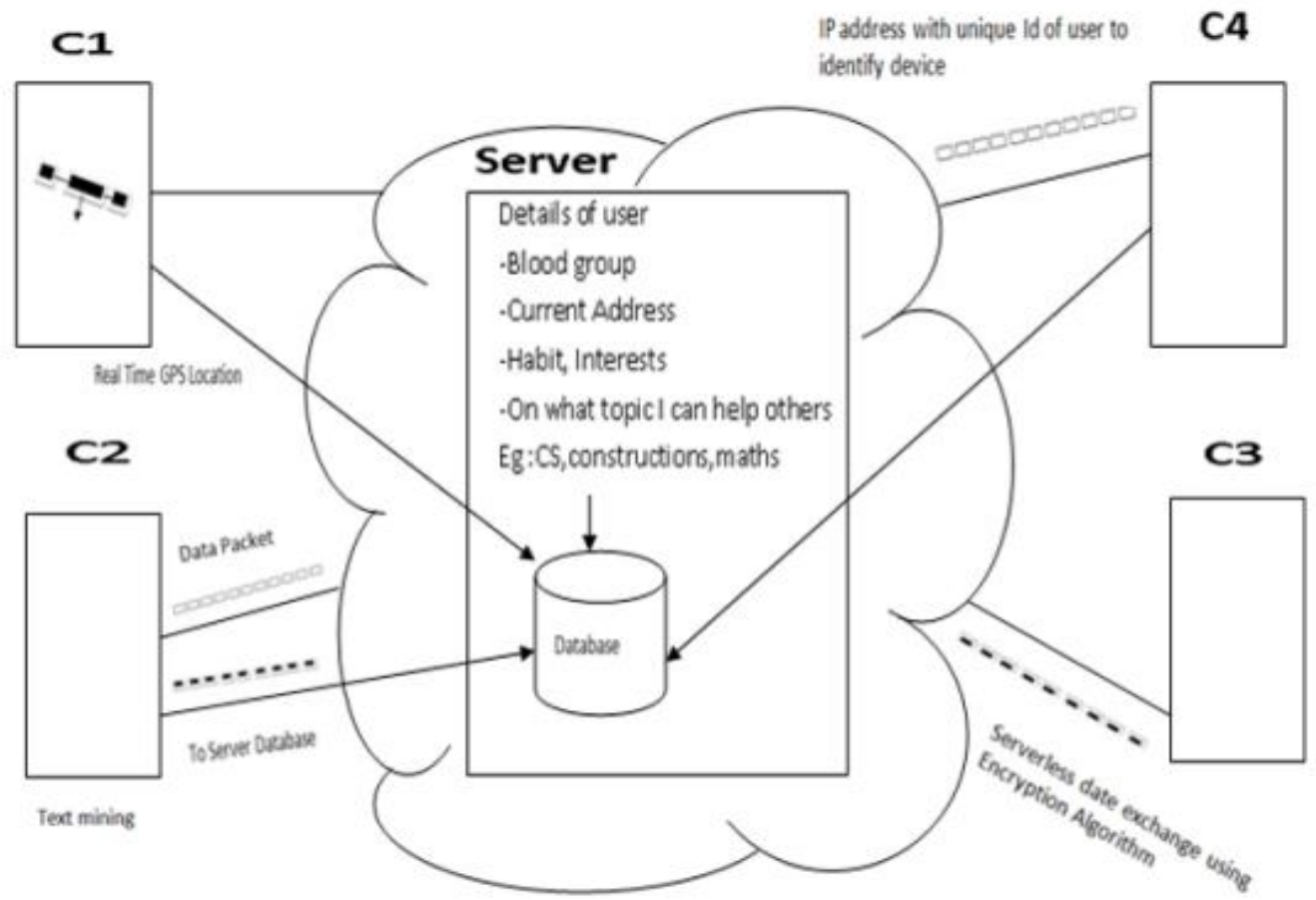

Fig. 1 System architecture

The above figure1 architecture diagram describes how our application come in existence while we implement it. It involves four function Chatting: It is like normal chat that we usually use in other application like sending and receiving messages, photos, documents. It is one to one communication. Group discussion It is slightly different from already introduced application, here there is no specific admin for the group. Any user who are using this application can search the topic in search popup window based on their interest and they can join that by clicking the add option. If there is any spam message or message that is not related to the topic, that message can be blocked. The system admin receives the block message as an alert. Then only the admin can remove that person from the group. SOS message whenever a member need any help he can send a message. There are four types of SOS message. Low priority, medium priority, high priority and emergency. Any user can block message of each priority except emergency. There is different relationship zone for every user.

A. Rounded Box Encryption

Since we use the data it is represented in binary format. If we take 8bit data bytes then we can arrange that in the following format. Input data of 16bits 110110101001101 as shown in the figure

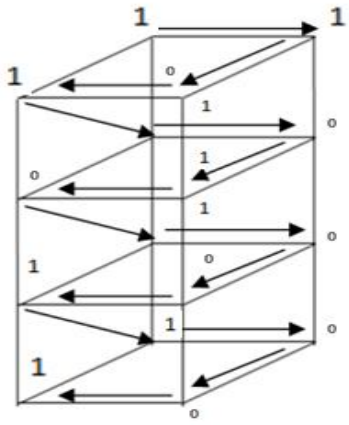

Fig. 2 Rounded box encryption algorithm for input data

Output will be shown in figure 3. of 20 bits 0^{th} to 15^{th} encrypted data 16^{th} and 17^{th} no of rotation 18^{th} clockwise an anticlockwise 19^{th} horizontal vertical position changed or not

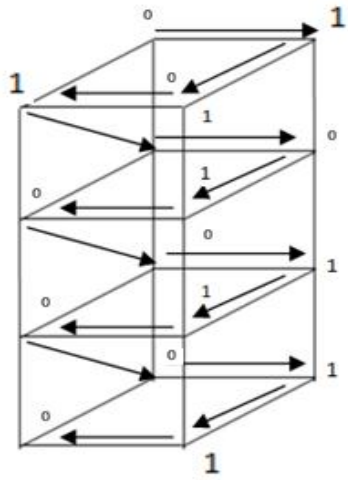

Fig. 3 Rounded box encryption algorithm for output data

VII. OUTCOMES

A. Advertisement

Since this application uses users interest and his location it is easy for business people to pick their targeted customer.

B. Save our soul

Using our application user can send SOS signal to nearby people without knowing about them in the case of emergency like vehicle accident based on the location.

C. Help 2 Each Other

We can make single group of same interested people. Example, consider India the 'Swatch Baharat' Abhiyan. He/She can send this information to all the user of the application without knowing them at all in the group chat.

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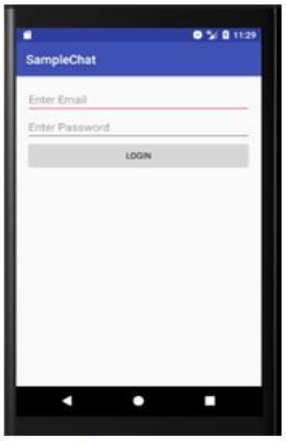

Figure 4.1

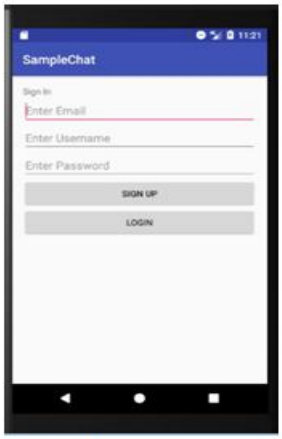

Figure 4.2

Figure 4.3

The figure 4.1 represents the Login page if the user as already have the account in the application he/she can directly login to the application. The Figure4.2 represents the registration page when user using the application first time. Figure 4.3 represents the chatting page between two users. All these data are are stored in the firebase. If once you register then next time direct login will takes place because the that we given during will be sotred in the firebase while login that value matches with the value that is already present in the firebase.

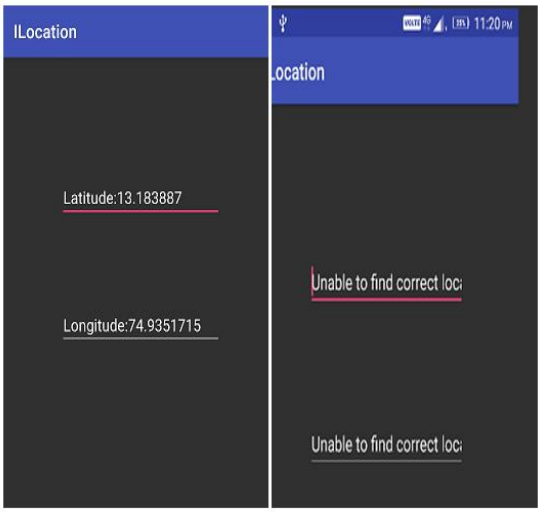

Figure 4.4 Figure 4.5

Figure4.4 represents the present location of the user when the GPS is on. Figure 4.5 represents the unable to display the location when GPS is off.

VIII. CONCLUSION AND FUTURE WORK

The proposed smart chat system will act as a communicating with each other. In our application Data Mining Technique for H2EO and Smart Chat Using Rounded Box Encryption Algorithm we are adding some of the additional concepts like public group Chatting and emergency location finder. The project can be enhanced by adding additional features like detecting the user's current location. We could also implement the system to sentence prediction We would also like to make the application compatible with iOS and Windows platform.

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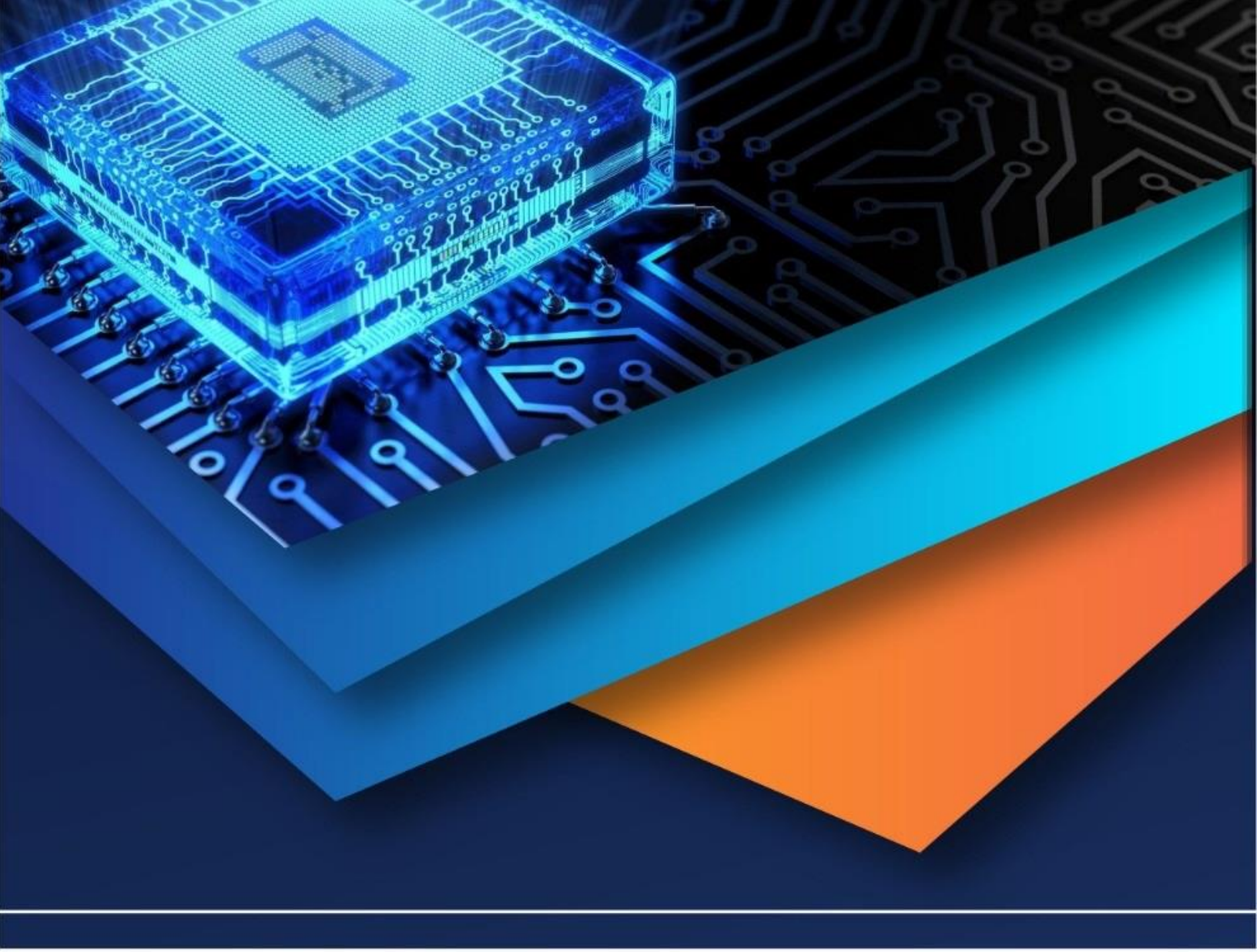

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