

# “ALERT SYSTEM FOR NEW USER TO CREATE SAFE AREA USING BLOCK CHAIN”

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**Abstract** - In current electronic world, more losses are impacted by cybercrime. Digital world are totally open and it is incredibly easy to focus to get to data or cash related information from any individual, open and private associations and so on, since, endlessly web are open, taking data on the unstable mechanism of channel is outstandingly straightforward. Thusly, guaranteeing bad behavior data required advance layers of safety counter to the cybercrime. Data confirmation is one of the first noteworthy systems to staying away from data from digital guilty parties. In this data confirmation procedure, cryptology has basic influence against the cybercriminal on the unstable correspondence channel. It gives data security, sort out security, sagacity and character organization to get to the data approved work force. Various open and private key systems are proposed for getting data, regardless there are as yet a piece of challenge exists in this substance. Most unmistakable encryption methods, for example, RSA, Elliptic curve, DES and AES are working. In this undertaking about new cryptography method forestalling the cybercrime in view of the block chain.

**Key Words:** Alert System, Crime Data, Cyber Crime, Block Chain, Safe Area, Security, etc.

## 1. INTRODUCTION

In current computerized world, more casualties are influenced by cybercrime. Cyber world are wide open and it is exceptionally simple to target to get to information or money related data from any person, open and private organizations etc., since, web and web are open, it is exceptionally simple to take information on the unsecured medium of channel. In this manner, ensuring wrongdoing information required advance layers of security counter to the cybercrime. Information assurance is one of the foremost noteworthy strategies to avoiding information from cyber offenders. In this information assurance strategy, cryptology plays imperative part against the cybercriminal on the unsecured communication channel. It gives information security, organize security, astuteness and personality administration to get to the information authorized personnel. Numerous open and private key strategies are suggested for securing information, in any case there are still a part of challenge exist in this substance. Most recognizable encryption methods such as

RSA, Elliptic bend, DES and AES are working. In this project about new cryptography technique preventing the cybercrime based on the block chain.

### 1.1 Objective of the work

Now a day's users don't have an idea about crime in new area human safety is most important factor in world. Also the crime data access by hackers or attackers by hacking activity so we will build system which provide security to both data and human by using block chain smart contract.

Cybercrime is considered as PC correspondence catch exercises which are either unlawful or thought of denied by specific gatherings and which can be controlled over furthermore, finished with complete organization medium. Cybercrimes allude to criminal clamor in which the organization or PC is an fundamental piece of the crime to take over ownership of the gadget or organization. Individual and organizations security is one of the significant issues in the current computerized climate. Securing individual information and government data are confronting significant difficulties against cybercrime. Network protection specialists are as yet attempting to experience digital lawbreakers with the assistance of different plans and strategies.

- To implement security system by using block chain smart contract
- To encrypt data of crime data report
- To create safest area for new user
- To prevent crime report from hackers

### 1.2 Project Scope

- Registration and login system for new user
- Registration and login system for crime branch
- Centralized digital data available access by multiple location.
- Data security based on smart contract to prevent hackers activity.
- System will show area crime report to new user in area.

## 2. RELATED WORK

Satoshi Nakamoto first proposed the Block chain innovation in 2008; it is a public exchange record of the digital money bit coin. It is a chain of squares where each square contains data like hash worth of past block and time-stamp. From the above technique honesty and security of the square is guaranteed and we can recognize the invalid square. The main utilization of this innovation was Bit coin, which permits cash exchange utilizing web. The creator gave a goal to the issue of twofold spending. The framework utilizes the strategy for timestamp by hashing the block into nonstop chain based of confirmation of work component.

In this system we have used decentralized and distributed network in order to store prisoner's data in form of blocks.

The blocks are interconnected with each other and are creating the chain of prisoner records. In this system our objective is to implement both hyperledger fabric as well as Ethereum network because we are providing our system not only for private use but also for public use. In hyperledger fabric network the data is kept in private mode, whereas in ethereum the data is kept for public use. It is expected that the hyperledger exchange and recover the data as per agreement. It must also permit the utilization for plugin modules such that various organizations advance the use for smart contract. In our proposed system the block chain is only used for security purpose we have created different levels of trusted contacts and only if the higher authority allows the data to get stored in blocks then only it will be in block chain database.

There are 2 higher authorities which will provide green signal to data which needs to be stored in blocks, once the data gets stored it cannot be manipulated.

**Block:** The block is nothing but a bunch of some kind of information. The block is mainly have a three section i.e. previous block hash value, information in that block and next block hash value. Whenever any new block of new transaction is authenticated by the system, block is added at the end of the block chain. This sequence of blocks is always increasing, or ledger of transaction that the system has authenticated. The primary block in a block chain is named as the Genesis block. This primary block holds the zero hash value for previous block because it is first block in block chain and doesn't have any previous block. The next block will have the hash value of the previous block and this chain continues.

**Block chain:** When blocks are connected with previous hash values and starts forming a chain then we declare it as a block chain.

The officials of crypto police will confirm the report. The principle undertaking of crypto police is to report extortion in the digital currency market. In this paper, the creator examines about the significance of block chain in the clinical field. The touchy information in the clinical field is getting controlled this cripple the honesty of information.

## 3. REQUIREMENTS

### 3.1 Functional Requirements

1. Database Connection.
2. Database on MySQL .
3. Sending http requests.
4. Responding http requests.
5. User Interface.

### 3.2 Safety Requirements

1. Higher Level Authentication.
2. All Information Shared with Encryption.
3. Encryption with Advance Encryption Standard (ADS).
4. Keeping all confidential data secret using Block Chain technique.

### 3.3 Software Requirements

1. Android Studio
2. JDK 12
3. MySQL Database
4. Frontend- xml
5. Script-Java

## 4. PROPOSED SYSTEM

### 4.1 SYSTEM DESIGN

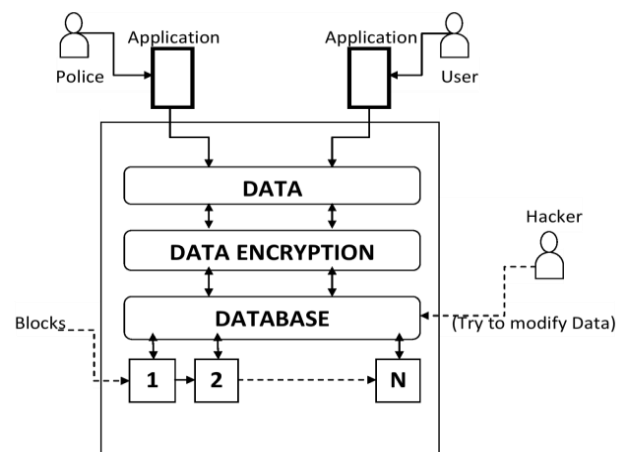


Fig-1: System Architecture

In above (figure 1) System architecture consists of mainly four components i.e. User/Client, Data Encryption, Database and Block Chain. The User/Client has to firstly login in that application for to find safest area. The Data Encryption mainly use for the data encryption for securely transfer the data from databases to the client side along with read API only. The database stores the encrypted data for security purpose. Finally, the blocks of the Block Chain work on the database so that we can avoid attacks from the hacker sides. If the hacker try to modify the data or access the data from the database due to the block chain he can't access it.

### 4.2 Activity Diagram

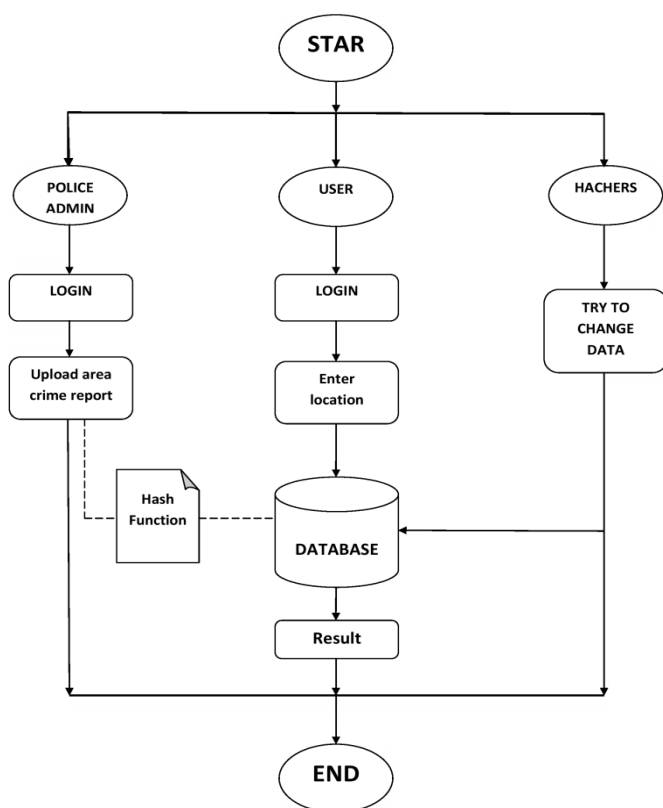


Fig-2: Activity Diagram

In above (figure-2) from start where we have to start our application and data is going to distribute in several types i.e. Police admin login, user login so that each one of these individuals can access or upload the data from their perspective level along with their protocols. Furthermore, the police administrator uploads the area wise crime report. The user can login and search the particular area whatever he want. Another one is the hash function, which plays the major role in the application, it provide the security to the data present in the database. Whenever the hackers try to modify the data, the hash function will change the hash value of that particular data.

## 5. SPECIFICATION

### 5.1 Advantages

1. **Data Security:** In this system, we store the data in encrypted formats with hash function in the database.
2. **Zero Paper Work:** In this system, we store criminal data as well as crime area data digitally so no paper work is boycott and make system environment friendly.
3. **Access Data from Anywhere Any Time:** The system provides data in decentralized so that anyone can easily access these data at any location.
4. **Lower Administration Burden:** The police administrator has less paper work and can share information securely and easily on system.

### 5.2 Applications

1. Cyber Crime Department.
2. Police Station Sector.
3. Business/Startup Sector.
4. Central Jail/Prison.
5. Socially Useful.

## 6. CONCLUSION

In this paper, we presented the things that are not available for Today to revolutionize safest area and crime sector and how to use the digital system efficiently to overcome various issues in crime sector. We focused on developing application through which we can save the time and money in comparison with today's traditional solution on safest area problems. Therefore, Alert system is progressed and solid. This application will introduce a high level, solid, modest and effective.

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