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CRIME REPORTING SYSTEM USING ANDROID APPLICATION

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***Abstract*-- In 21st century where mobile and information technology have become an integral part of our lives. A new area where mobile integrated with technology is useful for crime reporting since readily accessible information is not available at any point in investigation this is a key drawback for communication in police department. Thus, using cloud, we will try to make all the information related to the criminals available on the Android Application to the police during their investigation which would speed-up the entire process of tracking down the criminals. A mobile application is made available to the common people in order to track down the safest path to reach their destination by giving notifications when chosen a crime affected area and also providing an alternate route.**

Keywords -- Authenticated, criminal, android application

I. INTRODUCTION

In today's era mobile technology can be used in many other fields and application such as Gaming, Maps, E -mail, Messaging, Photography and so on. One such area is crime area detection and storing criminal data record. A recent mobile application named Mobile Vic PD was released by the Victoria police in Canada for fighting crime. The mobile application can be used to report minor crimes, offer anonymous tips to police, stay updated on crimes in progress, receive missing child reports or check on stolen property. As the criminal data is not available remotely there is a communication gap between the police officials investigating any case. The disadvantage of this application was that it was prone to fake reporting of crime and there was no other way to verify that the incident was true. This caused chaos among the general public [1, 2]. This paper focuses on overcoming this disadvantage by providing a method for verifying the incident. The application will provide the general users with the facilities like reporting any incidents which would lead to traffic jam. Moreover, it will also provide an alternate safe path on user's demand before entering the crime area. The database will be stored on cloud to gain remote access. For avoiding any false incidence to be notified to other user, the information provided will be first verified by the police officials.

II. EXISTING SYSTEM

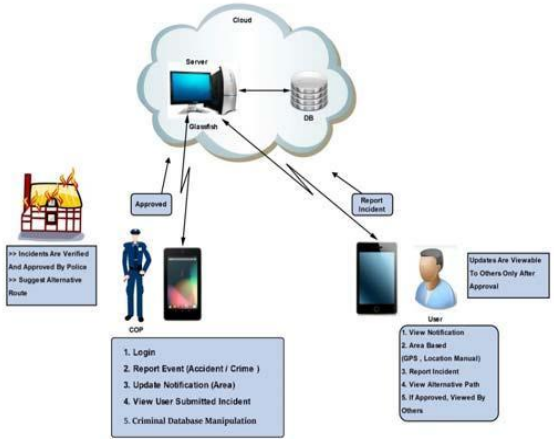
In the present scenario filing an FIR/complaint is a hectic task since one must go through a very huge process for justice. It matter how small or big the crime is. In general, to file an FIR/complaint one must search for a nearby police station and have to wait until a cop takes upon the request and either we have to recite or have to give it as a written statement. Certainly this takes nearly a day of an individual's time. In this busy world, it's quite tough to give up on our routine works. The existing system of filing complaints/FIR affects our daily routine, makes us spend a lot of our precious time in it. filing an FIR, meanwhile we could have done three. Mainly could give a lot of chances and time for verdicts to easily escape from cases making their pre bails ready or even for absconding. To avoid such miserable situations we have designed an app that makes everything happen in jut few minutes. Below diagram represents the existing process of filing complaints/FIR in police station which starts by a simple request from a Citizen.

III. PROPOSED SYSTEM

The purpose of this paper is to develop an android application for crime area detection and store criminal records. It provides an application for the user that would provide an alternate path for the users passing by crime area. It allows user to report incidents and get it verified by the police officials. It will consist of an application for police officials which can perform database operations on criminal record and allows efficient retrieval of required information from the centralized database present on Cloud. The application targets general public and police officials for managing the incidents and crime without consuming much time. This proposed system will be divided into three major modules.

This application will be useful for the remote access of criminal data which will be helpful for the investigations carried by police department. Also, it will provide the general users with the facilities like reporting any incidents which would lead to traffic jam. Moreover, it will also provide an alternate safe path on user's demand before entering the crime area. The database for this project will be stored on cloud to gain remote access. For avoiding any false incidence to be

notified to other user, the information provided will be first verified by the police officials. After approval of the information it will be broadcasted to other users using the application.



Overview Architecture

A. Police Application:

This module will be leading to the development of police android application which would work as follows. First and foremost, the police needs to login with the username and the password provided to him, as this application is not publicly available for the general users. After logging into the application, police will be provided with the features like reporting incidents (crimes and incidents causing traffic jam), view user reported incidents. After the verification of the incident, the database will be updated and the notification will be broadcasted to all the users who will be using this application. Police will be given privilege to do the criminal database manipulations.

B. General User Application

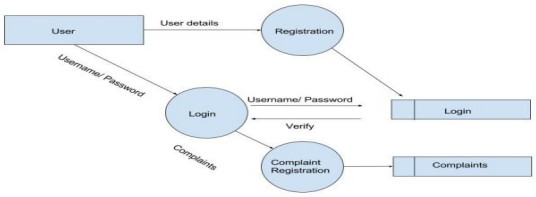
This module will be leading to the development of the general user application which would work as follows. First and foremost, the users will need to do one time registration before using the application. After registration, user will be provided with the facilities like report incidents, view the notifications and popups that will contain the information such as telephone number and address of the nearby police station, hospital, fire station. Moreover, choice to view the alternate path will be provided by the police officials. User will not be given any privilege to make changes in the criminal database. Physical location of the user will be tracked with the help of GPS which is inbuilt in the cellular phone. To avoid crime affected area, user can request a safest alternate path that will be provided by police through the application.

C. Cloud Database

In this paper, cloud will be used for storing the database to provide the facility of remote access. As mentioned in the police user application, the username and the password used by the police will be cross-verified with the ones stored in the database. The complexity of the crime will be decided on the first come first serve basis. In order to provide the security to the database SHA-1 algorithm will be used.

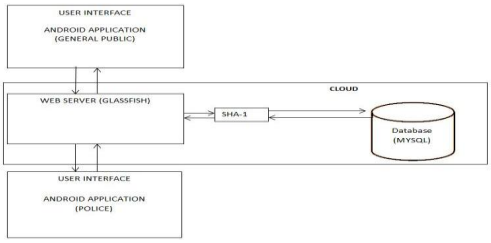
IV.SYSTEM DESCRIPTION

The proposed system consist of three different phases: Installation and configuration of the system, Data Specification of the system, Request/complaint Dispensation, Encryption & Decryption of request using cloud computing. The application has to be installed and configured to process the user's request/complaints against crime which is encrypted by the client and thus this information is further decrypted by the respective police department. The investigation of the complaint/FIR starts based on the information received from the sender whose details are already specified in the application**.** The process of application allows users to register their complaints against social crimes using their mobile phones. All the complaints registered by public are through their own login credentials which follows by downloading 'Cop@UrStep' app from their application stores/repositories and signing up into application using phone numbers/email id which generates an OTP to the registered phone number/email id. A new account will be created under the registered username in cloud once the OTP is accepted by the respective cloud.



Application interface

The architecture diagram of the proposed system consist of two user interfaces one for the general public and the other for the police. The data of these android applications will be stored on the cloud. Cloud will consist of the server and database which will be created in MY SQL.



V. CONCLUSION

In this paper we have overcome the problem of communication gap between the police during their investigation. We also provide solution to bridge the communication gap between police and general user. Also, the criminal information will be readily accessible to the police officials as it is stored on the cloud. The problem of reporting fake crimes will be overcome as this application will need the verification of police to report incidents reported by user to broadcast it to other users using the same application. In future, some other security algorithms can be used to provide better security measures for the criminal database. The only challenge of this proposed system is that GPS and the Internet connection has to be activated 24x7. Future research can be dedicated for these challenges.

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