

Digi Cop Assist

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Abstract - Digi Cop Assist is a website plus android app for providing centralized access to the police management for its operations and for general public to report complaints/crimes. The police information systems which exist today lack the required mobility and urgency for centralized access of the records like filed FIRs for missing people or vehicles, criminal records, city notifications, lease agreements, passport verification applications etc. The public still need to go from one police station to another to report crimes and to receive general services from the police. The crime records are usually recorded manually in police Occurrence Book (OB) and therefore determining the accurate crime trends and rates of reported crimes has proved to be a major hurdle in crime prevention. Digi cop Assist - website is maintained by Police authority where police has rights to operate on it whereas the android app is for general public to access the required facility from the available functionalities for the citizens. The proposed system involves the development of a back-end web-based prototype that incorporates a digitized OB (FIRs) and a criminal database for Police authority while the general public use the mobile-police application(android app) because of convenience, reduced fear of victimization and ease of use.

Key Words: Centralized Repository, Multiportal, Flexibility, Digitizing paperwork, User Friendly etc

1. INTRODUCTION

As Digital India programme has been started by Narendra Modi, Prime Minister of India. This programme has the tagline "Power to empower" which is citizen centric. It also transforms public services in India to new level by using information technology. It also ensures that services are made available to the citizens through use of information technology. There is various application that are contributing towards Digital India such as MyGov Mobile app, Swach Bharat mission app and so on. This system serves as a contribution to this digital India campaign. The first module is for the admin/ police authorities to maintain a central repository for criminal data and for complaints filed for missing people, missing vehicle, illegally parked vehicles. It also has facilities to put risk/alert notifications, view the documents uploaded for lease or passport purpose and a function (PANIC button) to locate and track the location of person through android app to provide emergency

service. The second module is an android app for the public to avail facilities to track information of missing people, missing vehicle, illegally parked vehicles, risk/alert notifications, upload documents for lease or passport purpose, panic button to find and track location of person using GPS. The location is sent to the nearest police station to provide immediate help.

1.1 System Overview

In this project we have used java, hibernate, mysql and android technology. The model view controller design pattern. Model View Controller. There are mainly two modules in this system website which is used by police that is administration and android app which is used by general public. Hibernate framework is used for designing the website. Main programming language that is used is java. For creating the website here hibernate, javascript, java are used. Main logic is written using java language. For android app xml is used for designing the front pages and java language is used for main logic part. The REST api are written in website part which is called from android. Website is designed using eclipse integrated development environment. Android part is implemented using android studio. The reason behind selecting java is it is platform dependent, and also there are lot of packages that are used and ease the programming effort. For database sql server is used as it is relational database and provide very easy query facilities. For server Tomcat is used.

1.2 Functions

1.2.1 Missing people

With this functionality on the website module, the police is able to maintain the authentic FIRs filed for missing people and their details like name, Aadhar number, contact details etc. On the app the user can view the details for the missing people and report to police if they find them and provide a contribution to the police system. It also provides a functionality to search a particular record in the missing people and check the status whether found or still missing.

1.2.2 Centralized Repository for criminal record

This functionality is available only on the website module as the criminal data has some privacy concerns with it and cannot be revealed to the general public on the app. This maintains a centralized repository for all the filed FIRs over all the police stations and reduces risks of data loss and case

transfer to other police station and provides service of availability of information and makes the system reliable for police system.

1.2.3 Missing vehicle

This functionality is maintained by the police on the website to maintain the data of missing vehicles[3] with details and point of contact. The app enables the user view and check the details of missing vehicles and search the vehicle they need to check data for and its current status whether found or still missing.

1.2.4 Illegally parked vehicle

This functionality differs from the missing vehicles as the missing vehicle is a filed FIR by the user but the illegal parked vehicles are the vehicles which are parked in "No Parking zone" and hence the police keeps the people aware of the vehicles carried from illegal parking zone and keeps the information of vehicle and the police station, where to report to collect their vehicles and complete official formalities. The app maintains the list and details of such vehicles for the general public to view data.

1.2.5 Upload documents for lease or passport purpose

It is a functionality available on the android app where the user can upload the attested documents from the app for the passport or lease document verification purpose from the app and the documents are available on the website to police to download and check the documents.

1.2.6 PANIC button[2]

It is an emergency functionality where the person when finds himself in a victimized condition can press this button so that the nearest local police station tracts its location automatically through GPS and provide emergency service and save them from getting victimized in any criminal cases being reported against women safety and theft etc.

1.2.7 Risk/ Alert notifications

It is a function to spread and broadcast general awareness of some alerts [2] of modus operandi, crime, theft, floods, blocked roads due to rallies etc according to dates. These notifications are maintained and updated by the admin on the website and is made available to the general public through app.

2. PSEUDO CODE

Here is the pseudo code that will be helpful to understand the working of proposed system.

2.1 Pseudo code 1

For adding the data to the database:

1. Open the form by logging to the website
2. Fill all the details with valid parameters
3. Submit by clicking the submit button on the form

4. Check whether the entry is violating the rule of the database
5. If not then add the entry into the database
6. If yes then display the error message

2.2 Pseudo Code 2

For searching the entry from application:

1. Connect to the website from application
2. Invoke the page where the connection and retrieve the data from database
3. If the database table is empty then display then list is empty
4. If there is an entry in table then display the list of the entries in android Application

2.3 Pseudo code 3

For sending the messages to website from application:

1. All the information is required to send is collected i.e. location in case of panic button and documents in case upload document
2. Connect to the website
3. If the connections are done successfully then send the information
4. If connection fails then document is not send to the website

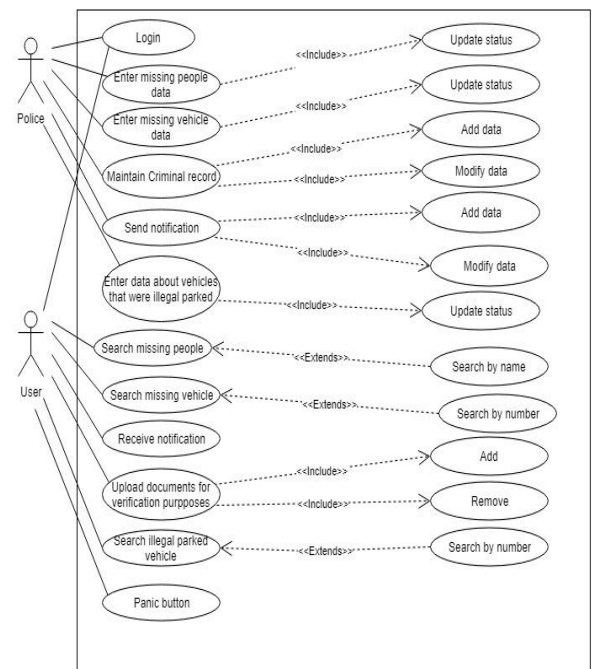


Fig -1: Use Case Diagram

3. CONCLUSIONS

The system Digi Cop Assist provides a centralized platform to police and puts forward an android architecture for the general public in order to file FIRs for the missing people, vehicle etc. Also it provides a centralized access to the police management system and overcomes the inconvenience of general public to approach police and file complaint in local police stations as the police database is centralized for all police stations. The proposed system provides facilities for filing FIRs for missing people and vehicles, centralized criminal records, city-notifications, lease agreements, passport verification applications etc. Digi Cop Assist is a combination of website and android app where website is maintained by Police authority where police has rights to operate on it whereas the android app is for general public to access the required facility from the available functionalities for the citizens. The proposed system involves the development of a back-end web-based prototype that incorporates a digitized OB (FIRs) and a criminal database for Police authority while the general public use the mobile-police application (android app) because of convenience, reduced fear of victimization and ease of use.

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