

Crime Record Management System

Asha.R

Assistant Professor, Department of Information Technology, RMK Engineering College, Gummidipoondi, India.

Dr.S.Radhika

Associate Professor, Department of Information Technology, RMK Engineering College, Gummidipoondi, India.

Vinoth Kumar L

Assistant Professor, Department of Information Technology, RMK Engineering College, Gummidipoondi, India.

Dr.Chidambarathanu

Associate Professor, Department of Computer Science and Business System, RMK Engineering College, Gummidipoondi, India.

Abstract - Indian crime report says that many unrecorded crimes and fraud cases have been took place without acknowledgement of police, The main cause of this problem is that people hesitate a lot to file a case and the other reason is some of the complex traditional procedures that involve in police department to take action against the crime. Our project provides some preliminary features that rules out all this problem. This application takes no time for a citizen to raise a complaint. Which helps the police to quickly act and solve the issue easily. The whole process of paper-work and manual data entry is digitalized. which is an efficient way of reducing their workload and helps them to quickly finish this process. This application uses Artificial Intelligence to search and match criminals. This application uses Shortest Distance Path Algorithm which helps a citizen to instantly ask for high priority emergency help from any police who is in nearest distance. Application Programming Interface is also induced in it to provide a greater interaction for public and police.

Index Terms - Shortest Distance Path Algorithm, Artificial Intelligence, Application Programming Interface

INTRODUCTION

Now-a-days everything is getting computerized except for Police Record Management. We can see public who wish to complain go to the police station and file a complaint. Police maintain these complaints and FIRs and several other files manually. This software addresses these problems by letting public complain online and computerized management of these complaints along with maintaining records of FIR, Patrol, Criminals, Most Wanted Criminals etc. for police. This saves a lot of time of both police and public.

This application mainly acts as a platform between police and public. It enhances the bond and it mainly makes the police to act quickly for any public disturbances. This also reduces the paper work for police where they can update, modify, delete or create any criminal record in this app. This application rules out all the problems of delay for the police to take against someone. g. This software reduces the amount of manual data entry and gives greater efficiency. The user interface of it is very friendly and can be easily used by anyone. It also decreases the amount of time taken to write FIR details and other modules.

PROPOSED SYSTEM

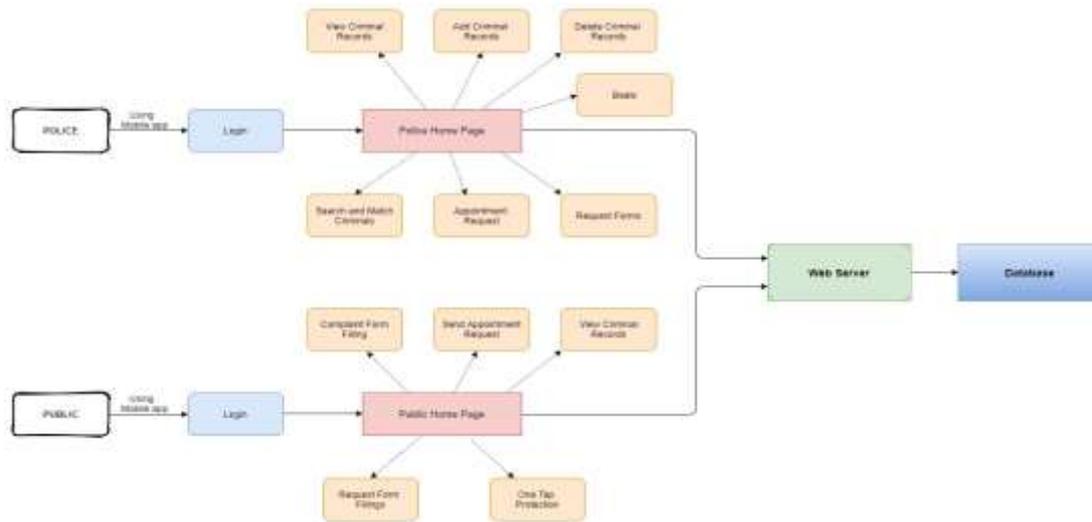
3.1.Objectives

This application mainly acts as a platform between police and public. It enhances the bond and it mainly makes the police to act quickly for any public disturbances. This also reduces the paper work for police where they can update, modify, delete or create any criminal record in this app. This application rules out all the problems of delay for the police to take action against crime.

3.2.Design and architecture

This application designed in such a way that it contains two different logins one for the police and other for public.

FIG 3.2.1
ARCHITECTURE OF CRIME MANAGEMENT SYSTEM



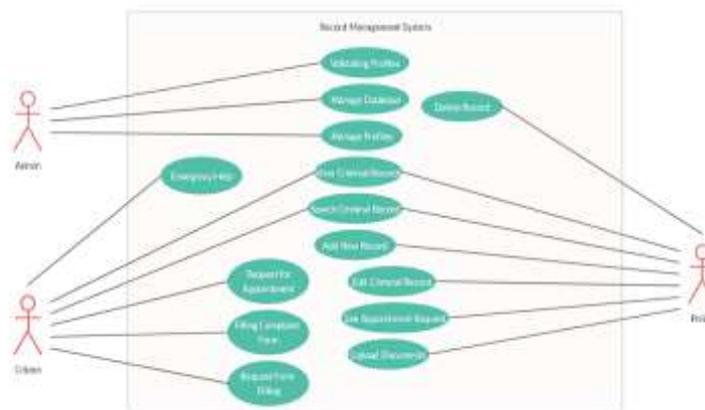
The first page displayed when this app opened is home page. This page contains two logins one police and the other is public. This police login is assigned only to police department and public login can be used by anyone.

After clicking on Police/Public a Login page will be displayed, where authentication takes place to enter into their account. In police portal, The home page consists of features such as view criminal records, Add/Modify/Delete criminal records, Search and match criminals, Appointment requests, Request form and Beats. All this feature helps them to do their work quickly and easily. As all the process of their work is digitalized they can attain a greater efficiency and respond quickly to any complaint or case from public.

In public portal, The home page consists of following features such as Complaint Form filling, Send Appointment Requests, Request form filling and one tap protection. All these features helps public to file a complaint to police instantly using this application. It also helps public to request appointments with police higher officials. The special feature called one tap protection is activated to get an instant emergency help from nearest police.

3.3. Use case diagram

FIG 3.3.1
USE CASE DIAGRAM



FIREBASE DATABASE

Firebase is a platform developed by google for creating mobile and web applications. In 2014, Google acquired the platform and it is now their flagship offering for app development.

The Firebase platform has 18 products split into three groups: Develop, Quality, and Grow. The Firebase real time Database is a cloud-hosted database.

Data is stored as JSON and synchronized in real time to every connected client. When you build cross platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one real time Database instance and automatically receive updates with the newest data. The firebase is used as backend database for this project.

ANDROID STUDIO

Android Studio is the official integrated development environment (IDE) for Google's Android operating system and designed specifically for Android development. Kotlin replaced Java as Google's preferred language for Android app development. As an opensource platform, one of the goals of Android to enable developers to create applications that utilize the features the mobile device has to offer and to tailor its feature to Police and Public. Using Android studio our mobile application is developed. Java language is also used.

ADVANTAGES

- It speeds up the process. Minimize manual data entry.
- Using latest Artificial Intelligence Technology to search and match criminals
- The Process becomes very Easy This application provides the feature of Translator.
- As everything depends upon computer there won't be any manual mistakes Updates about cases will be done regularly
- There won't be any data loss High Level Data Security is provided here.

IMPLEMENTATION

- a. This application contains separate login for Police and Public.
- b. In this project we provide two different logins. One for public and other for police. There is sign in for both logins to check the process of authentication.

FIG 7.1
HOME PAGE



- c. After selecting one login then the authentication page will be displayed where the user need to sign in if he already has an account if not he needs to sign up using all the details like aadhar number and mobile number. The authentication process is highly secured with highly encrypted firewalls inorder to prevent duplicate or fraud accounts.

FIG 7.2 LOG IN PAGE



d. After entering into Police portal then Home page for police will be displayed. It contains some preliminary features that helps the police to work efficiently and act quickly to any case.

FIG 7.3 HOME PAGE FOR POLICE PORTAL



e. A data base with good amount of data availability is connected to this application to store all the logins and profiles of police department, criminal records, Evidences, all form of police cases and other files and documents. And this data should be easily accessible by police department whenever needed.

Features in police Home Page:

- 1. View/Add/Update Criminal record.

FIG 7.4 VIEW/UPDATE CRIMINAL RECORD



- 2. Search and Match Criminals:

This feature is used to find criminal based on the suspect character received from witness. This process is carried out by Artificial face recognition technology which is inbuilt in it.

FIG 7.5 ARTIFICIAL FACE RECOGNITION

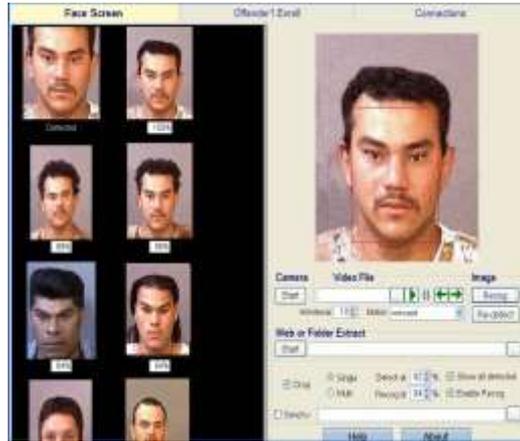


FIG 7.6 SEARCHING AND MATCHING PAGE



3. Appointment Requests:

In this page police can view all the number of appointment requests that they received from higher officials and public.

FIG 7.7 APPOINTMENT REQUESTS



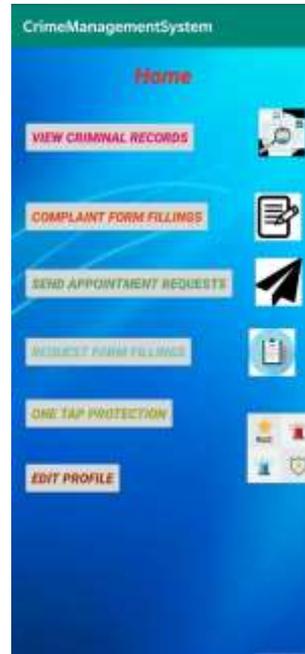
4. Beats:

This feature enables the police to update their current status of work duty or their duty time period and shifts at a given week or day. This makes the police officials to easily classify with number of police available at that particular time or helps them to allot duty for certain number of police at particular area.

e. When this application needs to be used by public they need to click public portal and then Public home page will be displayed after completing the authentication process.

f. The interface used here is very simple that any user can easily access it. Public home page mainly contains features which helps them to easily file a case to the police or ask for immediate help. Each user will be given a unique login details to avoid the problem of duplication and fraud.

FIG 7.8 PUBLIC HOME PAGE



Features in Public Portal:

1. Complaint Form Filling: This is used to file a complaint to police against any problem or criminal offence.

FIG 7.9 COMPLAINT FORM PAGE

2. Send Appointment Requests: This helps the public to request appointment with police higher officials. Then an acknowledgement response will be sent to public whether their request is accepted or rejected.

3. One Tap Protection : This is the most preliminary feature where in case of emergency anyone can activate it to get an instant emergency help from nearest police. Shortest distance path Algorithm is invoked in it to search and find a nearest police and send a high priority message for emergency help.

FIG 7.10 FINDING NEAREST POLICE



RESULT

This application provides a easy and efficient process to store and manage all the criminal records by the police. And also helps them to take action in any case quickly. This application also helps public to file a case against any public disturbances or criminal offence easily. This application conveys message from public to police quickly which helps the police to take action as soon as possible.

At the end, we can say that this software is performing all the tasks accurately and is doing the work for which it is made.

CONCLUSION

The Android platform reduces the amount of manual data entry and gives greater efficiency. The user interface of it is very friendly and can be easily used by anyone. It also decreases the amount of time taken to write FIR details and other modules. All the details about any complaint or any criminals can be saved or checked.

This record management system is a solution to all the problems related to the crime reports, criminals details, the their crime, their punishment and others.

At the end, we can say that this software is performing all the tasks accurately and is doing the work for which it is made.

REFERENCES

- [1]. <https://www.dubaipolice.gov.ae/wps/portal/home/services/individualservicescontent/reportCrimeServiceDetails>.
- [2]. <https://eservices.tnpolice.gov.in/CCTNSNICSDC/KavalanMobAppInformation>.
- [3]. <https://www.usa.gov/report-crime>.
- [4]. https://en.wikipedia.org/wiki/Dijkstra%27s_algorithm
- [5]. https://docs.opencv.org/master/dc/dc3/tutorial_py_matcher.html.
- [6]. <https://cybercrime.gov.in/Default.aspx>