

Crime Reporter and Missing Person Finder

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ABSTRACT

We here propose an android crime reporter which tracks the investigation status of criminal cases with logs as well as it also track complaints logged by the user. The system is proposed to help agencies like CBI, CID and other such bureau's to speed up their investigation process and track status of multiple cases at a time. In this system, society itself helps the authority to get the crime details quickly and to proceed with investigation. They will help the authorities to find out the crime ratio in the society. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved, Items recovered on scene and other details. The system realizes the type of case, allows admin to update the status of investigation, upload more images of crime and items found on scene etc. User can post their missing person's details with a photograph. User may also check for the status updated by the admin. The system is designed to aid investigation teams to work collectively on cases, coordinate and also speed up

the process by suggesting logical suspects based on data provided.

INTRODUCTION

In the area of security, one major problem hindering crime detection and reporting is lack of efficient communication platform between the police and the general public. Mobile technologies using mobile devices is proving to be a more effective implementation for crime detection and monitoring. In this study, we are proposing a crime reporting and management model using GSM and GIS technologies in order to mitigate the challenges faced by most developing countries in reducing the crime rates. We began by a baseline study that was carried out to ascertain how citizens report crime to the police. This was followed by a study that looked at how the Police receive and manage crime information. Based on the baseline study, we then designed a Public Crime Reporting and management System that

integrates GMS and GIS Technologies. In our baseline study, the results showed that 68% of the citizens walk to the police station, 30% made phone calls and less than 1% used Short Message Service (SMS), Internet or social media platforms to report crime. In crime reports management, our results showed an absence of an electronic capturing/recording system by the police with 98% of the police stations using a physical log book to record crimes. Using the results from the baseline study, a mobile crime reporting and management system model was developed. Using this model, we developed the prototype which showed improved results in terms crime reporting by the public using mobile devices and improved management of reports due to automation of crime reporting and monitoring.

Existing System

The proliferation of mobile handheld devices has made them a viable medium for carrying out a wide range of business activities in areas such as education, agricultural, healthy and security. In the area of security, one major problem hindering crime detection and reporting is lack of efficient communication platform between the police and the general public. Mobile technologies using mobile devices is proving to be a more effective implementation for crime detection and monitoring. In this study, we are proposing a crime reporting and management model using GSM and GIS technologies

in order to mitigate the challenges faced by most developing countries in reducing the crime rates. We began by a baseline study that was carried out to ascertain how citizens report crime to the police. This was followed by a study that looked at how the Police receive and manage crime information. Based on the baseline study, we then designed a Public Crime Reporting and management System that integrates GMS and GIS Technologies. In our baseline study, the results showed that 68% of the citizens walk to the police station, 30% made phone calls and less than 1% used Short Message Service (SMS), Internet or social media platforms to report crime. In crime reports management, our results showed an absence of an electronic capturing/recording system by the police with 98% of the police stations using a physical log book to record crimes. Using the results from the baseline study, a mobile crime reporting and management system model was developed. Using this model, we developed the prototype which showed improved results in terms crime reporting by the public using mobile devices and improved management of reports due to automation of crime reporting and monitoring.

Proposed System

This App allows user to file complaints or missing reports and keep a track of it. There are 3 categories that a user can file; Complaint, Crime Report and Missing Report and can see all the status of what action has been taken by the admin. To file any of the above 3 the user should register himself to the system and provide his right credentials to file them. The App also allows other user who doesn't want to register but can check the crimes at his or any other area, just provide the pin code and in return the

system displays the crimes if any filed. The offline i.e. the unregistered user can also take advantage of checking the missing persons but he is refrained from getting complaints done by the users.

The Front End of the App is done using Android Studio and SQL serves as a backend to store books lists and inventory data. The App has both the user as well the Admin Part, the role of admin is to just check all the 3 modules or categories and update their status likewise.

This App helps the user in tracking any report filed to the law and take an advantage of reporting any complaint from anywhere bringing the whole system online.

TECHNOLOGIES USED:

This chapter is about the software language and the tools used in the development of the project. The platform used here is JAVA.

FEATURES OF JAVA

Java is a programming language originally developed by James Gosling at Sun Microsystems and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++ but has a simpler object model and fewer low-level facilities. Java applications are typically compiled to bytecode that can run on any Java Virtual Machine (JVM) regardless of computer architecture. Java is general-purpose, concurrent, class-based, and object-oriented, and is specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere".

Java is considered by many as one of the most influential programming languages of the 20th century, and is widely used from application software to web applications. The Java framework is a new platform independent that simplifies application development internet. Java technology's versatility, efficiency, platform portability, and security make it the ideal technology for network computing. From laptops to datacenters, game consoles to scientific supercomputers, cell phones to the Internet, Java is everywhere!

ANDROID

Android is a complete set of software for mobile devices such as tablet computers, notebooks, smart phones, electronic book readers, set-top boxes. It contains a linux-based Operating System, middleware and key mobile applications. It can be thought of as a mobile operating system. But it is not limited to mobile only. It is currently used in various devices such as mobiles, tablets, televisions etc.

MODULES

Module Description:

A module is a collection of source files and build settings that allow you to divide your project into discrete units of functionality. Your project can have one or many modules and one module may use another module as a dependency. Each module can be independently built, tested, and debugged. Additional modules are often useful when creating code libraries within your own project or when you want to create different sets of code and resources for different device types, such as phones and wearables, but keep all the files scoped within the same project

and share some code. You can add a new module to your project by clicking File > New > New Module. Android Studio offers a few distinct types of module.

ANDROID APP MODULE:

Provides a container for your app's source code, resource files, and app level settings such as the module-level build file and Android Manifest file. When you create a new project, the default module name is "app". In the Create New Module window, Android Studio offers the following app modules:

- Phone & Tablet Module
- Android Wear Module
- Android TV Module
- Glass Module

They each provide essential files and some code templates that are appropriate for the corresponding app or device type.

PROJECT MODULES:

- **User Registration:** User has to register to file complaints, crimes or missing report.
- **User Login:** User can login to system to file and check the status of his complaints or missing reports.
- **Complaints:** Complaints consist of basic details the system asks and the user has to fill in order to register a complaint and check the status of his complaints.

- **Crimes:** Crimes consist of all the details that the user has to fill in to register a complaint and provide a picture, if he has one related to the crime, also can check the status of the crimes he has filed.
- **Missing Persons:** The System asks the user to enter all the details of the person with a photograph. The system also allows the user to check the status his previous filed cases.
- **Without Login:** The System allows the user to check for crimes against the pin code provided by the user. The User can also check for missing people.
- **Admin:** Admin and the user have the same app, no different system. The admin has to check the cases and update the status of that case.

This section looks at the development of a mobile crime reporting and monitoring tool. This tool will be used by the general public to report crimes and allow the police to monitor them in real-time. The system consists for two main parts; the mobile application (front end) and the Graphical User Interface (GUI) a backend system that is used to monitor and act on the reported crime. The solution is based on client-server architecture. The front end has an Android application and web based Graphical User Interface (GUI) for the police to monitor whatever crimes are reported within a certain radius. The technology that was used to develop the mobile crime reporting application frontend is android, it runs on any android powered phone. The web based Graphical User

Interface (GUI) was developed using PHP, The system database is implemented using MYSQL. For location mapping, the Google API was used and a web service was developed to listen for web requests from the mobile application.

Basic Concept and Design:

The architecture of the mobile crime reporting application is client-server. The client side is a mobile application running on the handheld device of the user (general public). The user can report a crime by pressing the „Hot Button“ and the nearest police station receives the crime incident notification as a pop up on the screen. A two way SMS messaging system also kicks in, The police officer receives the phone number of the crime reporter and the crime reporter receives the phone number of the police station .The running on the user handheld device communicate directly with the server; retrieving in real time the crime incident reports that the user reported.

DESIGN AND IMPLEMENTATION

Designing Part

Android powers hundreds of device types with several different screen sizes, ranging from small phones to large TV sets. Therefore, it's important that you design your application to be compatible with all screen sizes so it's available to as many users as possible.

But being compatible with different device types is not enough. Each screen size offers different possibilities and challenges for user interaction, so in order to truly satisfy and impress your users, your

application must go beyond merely *supporting* multiple screens: it must *optimize* the user experience for each screen configuration.

LESSONS LEARNED

IMPORTANCE OF RESEARCH:

We have used few technologies in our project, among them Android operating system is very important as our final application should run on this platform. We have spent many days learning Android as it was a new technology. Our application will be successfully built on this as we were able to use many built-in features of Android.

TEAM WORK:

By the end of this project we will end up as an effective and coordinating team as we understood the importance of the team work by the guidance of our mentor. Our team is a good combination of challenging and hardworking people. Throughout this project we have learnt a lot about team coordination, planning, presentation and developing personal attitude towards teamwork.

TIME MANAGEMENT:

To become successful, one must have good time management as it is considered as one of the important quality in the current competitive world. Keeping our mentor suggestions in mind we were able to implement and manage things in time. Meeting the various deadlines set by the instructor was tough and gave us a valuable experience of how to effectively manage time and as well the mentor's

expectations were sometimes very challenging and finally our project timeline was nearly accurate and we were following that from the initial stages onwards.

CONCLUSION

The study also looked at the crime rates and crime of frequencies in the city. From results, we can deduce that Lusaka is actually a very violent city and its residents are exposed to high levels of crime. Residents experience a lot of challenges with regards reporting of the crime because of the long distances to police stations and the fact that very few citizens even know the phone numbers of police stations and can therefore not contact them in case of an emergency. The other reason is that the Zambia police toll free lines hardly work and calls made to the toll free number go unanswered. To safeguard people's lives and property, the integration of its in crime reporting and monitoring process is key as this will effectively bridge the communication gap between the police and the general public in fighting crime. The ultimate result of this study is to therefore develop a mobile crime fighting application that will be used for crime reporting and monitoring.

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