International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056
Volume: 03 Issue: 02 | Feb-2016 www.irjet.net p-ISSN: 2395-0072

E-Police System- FIR Registration and Tracking through Android Application

Archana Iyer, Prachi Kathale, Sagar Gathoo, Nikhil Surpam

All UG Students, Department of Information Technology, YCCE, Wanadongri, Nagpur

---

Abstract - We can see that technology has touched many spheres of our lives in India. There is technology in business, in education, in socializing and maintaining human relations, in purchasing, in agriculture, in banking, communication, and almost every part of our lives. This intrusion of technology has aided the work in all these sections, and has proved beneficial, and time and effort saving. The only major part of our society that still remains majorly devoid of this luxury is the Indian Police Department. The Indian Police Department has ever since remained manually driven for most of its routine chores. The officials have been adopting the basic fundamental methods of carrying out the proceedings with the traditional "pen and paper" method being highly prevalent. These traditional practices were comfortable in earlier days, when population was far less, and the crime rates were also comparably minimal. But in today's India, when the evil elements of the society are in a boom and so many cases being registered every day, it has become a very tedious task to manage the case and all its related documents, manually. Digitization in Police department is the need of the hour. The traditional method of visiting a police station for registering a police complaint and getting updates needs to be replaced with an online process. Hence an E-police system is being developed which will collect complainant's data through a mobile application, sends the information over to the Police department on their web portal, and in this way the entire interaction occurs online, with information exchanges over the application and the web portal.

Keywords

FIR Tracking, e-governance, android application, database, IMEI.

1.INTRODUCTION

This system has been proposed keeping in mind the difficulties that people face during registering complaint at any police station. First of all, the entire manual process is time consuming as the complainant has to physically go to the police station numerous times. The same also consumes a whole lot of money and energy. Other disadvantageous factors include, Fear of getting harmed from people against whom FIR is filed, Lodging FIR against highly reputed person is sometimes difficult task. By allowing citizens to lodge their complaints directly, this system circumvents police officers who are often reluctant to register FIRs, particularly in kidnapping and ransom cases. Potentially, this could be an effective tool in combating the endemic corruption and pressure at the *thana* level.

We have proposed to develop a system which provides an easily accessible android mobile application which forms the front end and a web portal for the police department. The complaints would be registered over the application. The complainant would be filling up the FIR form, he would be providing the proofs and details related to the complainant on the application. The user can upload images, audio files, and video files as records. These details would then be received by the police officials on the web portal. They will verify the details of the complainant and carry out further proceedings of the case. The police officer will be posting the advancements made in the case into the account of the complainant through the portal. The user will receive updates in the form of notifications on his android phone. Thus the entire process would be carried out online, without much manual intervention.

FIR REGISTRATION

2.1 Present Scenario:

According to the Indian Jurisdiction and Law, a citizen can lodge a complaint for a cognizable offence. For any such offence, an FIR can be registered either by the victim of the offence or by someone else on his/her behalf. The report can be made either orally or in writing to the police. FIR is a crucial first step towards registration of complaint because only after the FIR has been registered the police can start investigation on the committed offence. The current scenario is that any person who has witnessed the commission of any such offence, has to rush to a Police Station in order to tell about the proceedings and lodge a complaint. A physical transfer of the person is required from the spot of crime to the police station. Many a times it so happens that important details about the offender is missed out by the victim due to this commute. Moreover the problem resides in availability of police station nearby,

which might add on to the time between occurrence of the offence and investigation being started on it.

2.2 E-Police System over Present System

The following are the advantages of E-police system over the present manual system:

1) Time and Energy Saving:

The system prevents the complainant from the need to manually go to a police station to lodge a complaint. Using the android application in his/her mobile phone, one can easily register the complaint with the police. Also the complainant does not need to repeatedly go to the police station for getting updates on his case as he/she would be notified through the application.

2) Ease of Accessibility for Public:

It is often observed that people refrain from going to the police station. Many think it is time consuming and that they would have to bribe the police to get the work done, while many are simply hesitant to lodge a complaint due to societal factors. This system allows anybody to lodge complaint and communicate directly with the police authorities.

3) Promotion of E-Governance:

With the recent advancement of Creation and Maintenance of police Database, Indian government is now planning to maintain database of 1.5 Crore criminals. The E-Police System will be an additional facility and will aid this process of record maintenance with e-documents.

4) Secure and Transparent Process of Investigation and Tracking:

Since only the investigating officer can access the particular FIR id, the information is private and secure. The process carrying out online, in full knowledge of the complainant ensures transparency.

5) Improving the standards of Indian Police system:

With many countries like USA, Singapore and many other developed countries in the world already having a fully functional e-police system, India must also develop upto thw world standards.

6) No delays in catering the FIR:

As the police has to directly update the complainant over the application about the proceedings of the case, with proof, any delay in the work is instantly noticed by the citizens and thus the scopes of false promises is highly reduced.

1. TECHNOLOGY USED

3.1 Android

Android is an operating system (OS) designed basically for touchscreen mobile phones. It is based on the Linux kernel and currently being developed by Google. Android's user interface allows direct manipulation, using touch gestures, swiping, tapping and pinching, to manipulate objects on the screen, virtual keyboard for textual input.

Applications that are more popularly known as "apps", extend the functionality of devices. They are written using the Android SDK (software development kit) and mostly use the Java programming language which provides complete access to the Android APIs.

3.2 Eclipse

Eclipse is basically an integrated development environment (IDE) that contains a base workspace and an extensible plug-in system that is used for customizing the environment. Eclipse is mostly written in Java and hence its primary use is for developing Java applications. In order to develop applications in other programming languages plugins are required.The toolkit of Java,called SWT, has graphical control elements that are implemented by Eclipse.It is seen that most Java applications make use of the Java standard AWT(Abstract Window Toolkit) or Swing. In order to provide an integrated environment to build Android applications we have a Google-provided plugin called ADT(Android Development Tools),for the Eclipse IDE. It helps the developers to create user interfaces, add Android Framework API based packages, debugging options using SDK tools, and in exporting signed or unsigned .apk files of applications to be used by users. ADT is a freeware.

3.3 WAMP Server

WAMP server is Windows web development environment. It includes Windows, Android, MySQL and PHP(WAMP). It allows one to create web applications using Apache2, PHP for creating the dynamic web pages and MySQL for creating the database. These technologies work together in a convenient way and provides the server facility. The web server Apache handles requests by the browser and sends information across the internet to the browser. PHP is a programming language that has been used for building many sites.It creates dynamic content which is sent to the Apache server. MySql is the database which saves data for the programs. PHP is used to acess this database. WAMP uses MySQL administrative tool called PhpMyAdmin that allows to manage the database using web browser.

2. SYSTEM INTERACTION

The system allows the common public to register an FIR with the police by using the E-Police System's Android application. The complainant is supposed to create an account to access the application. On creation of account on phone application, the IMEI number of the phone is retrieved by the application and saved into the database. Once the complaint has been registered the police officials are able to see those on their side of the application. Police officers too are required to have a unique account. The cases are assigned to the officers. They can make updations and provide details of the progress on a particular case. These details are available for the complainant on his app which he could check by logging into his account.

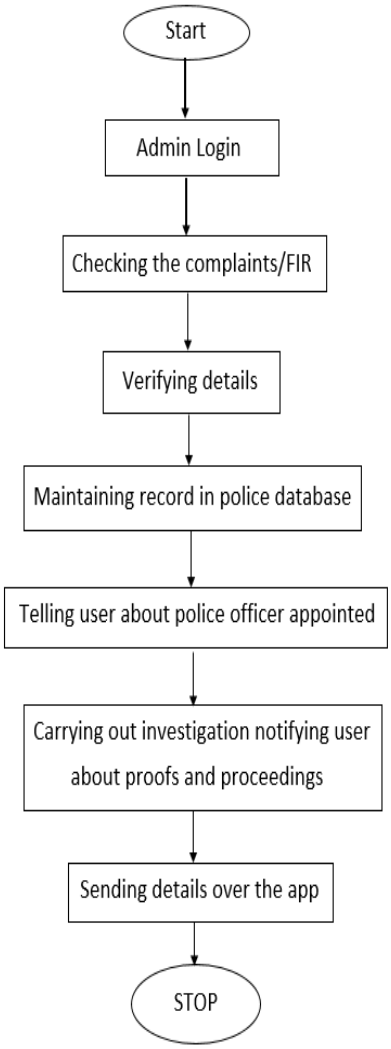

Figure 4.1 Flow graph for the officer

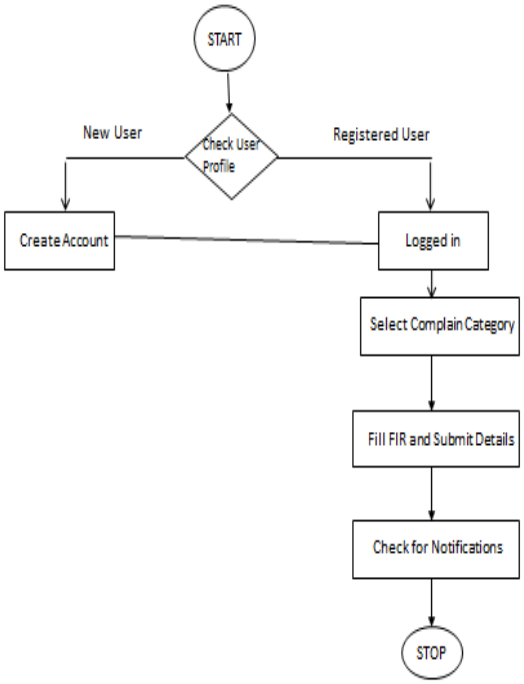

Figure 4.2 Flow graph for User

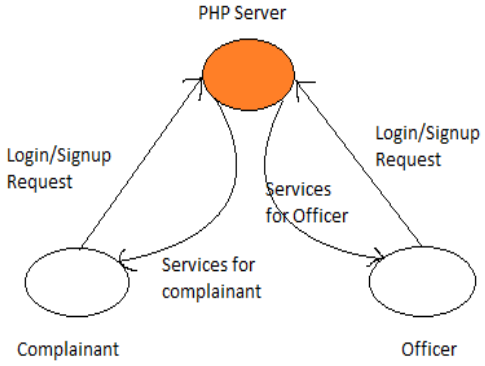

Figure 4.3 Server-App Interaction

3. CONCLUSION

Indian Police System has remained devoid of web technology, with most works being carried out on a pen and paper basis. This traditional method is prone to delays and inefficiency. This paper proposes to simplify and speed up the process of FIR registration and tracking. With the advancement and incorporation of internet and web technology into the Indian Police System, it will definitely boost up the proceedings. This paper aims to help the public and the police officers alike. The updates about case details are notified directly to the complainant through the application. The ease of access of the android application by the citizens of India will encourage a more judicial and lawful society.

4. ACKNOWLEDGMENTS

We would like to thank Dr. Ujjwala Gawande, Head of the Department, Information Technology, YCCE, Nagpur for the valuable suggestions and information provided towards this project. We would like to express our gratitude to our Guide Prof. Swati Kale for the constant support and guidance throughout the development of the system and during the drafting of this paper.

5. REFERENCES

[1] Muhammad Baqer Mollah,Sikder Sunbeam Islam, Md.Arnan Ullah,"Proposed E-Police System for Enhancement of E-Government Services of Bangladesh", IEEE/OSAIIAPR International Conference on Informatics, Electronics and Vision.

[2] Vamsi Krishna Myalapalli, Muddu Butchi Shiva, "An Appraisal to Optimize SQL Queries", 2015 International Conference on Pervasive Computing(ICPC)

[3] Du Wei, Wang Wei,"Design of E-Learning Platform by SQL",2010 2nd International Conference on Computer Engineering and Technology

[4] Berthold Reinwald,Hamid Pirahesh,Ganpathy Krishnamoorthy,George Lapis, Brian Tran,"Heterogenous Query Processing Through SQL Table Functions".

[5] Ju Fan. Guaoliang Li, Lizhu Zhou,"Interactive SQL Query Suggestions: Making Database User-Friendly".

[6] Panos Kyriakakis, Alexander Chatzigeorgiou,"Maintenance Patterns of large-scale PHP Web Applications",2014 IEEE International Conference on Software Maintenance and Evolution

[7] James Reed, David Janzen, “Contextual Android Education”, 2011 CSEE&T, IEEE

[8] FIR form template found on the website:www.fixindia.org/fir.php

[9] Details about FIR gathered from the source: https://en.wikipedia.org/wiki/First_Information_Report

[10] Complaint Registration procedure information example obtained here: https://mumbaipolice.maharashtra.gov.in/complaint.asp

[11] Got to learn more about android platform through the given site: http://developer.android.com/training/basics/firstapp/index.html

[12] PHP tutorials helped us gain through knowledge: http://www.w3schools.com/php/