E-POLICE ANDROID APP

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***Abstract*——** In this paper we propose an Android/IOS application for filing an E-FIR. This application contains functionality to file an E-FIR, check FIR status, get the location of nearby police stations and some other important information. This application will upload complaints on a web server which can be accessed by any of the friend or family member having the FIR Number.

Key words: FIR, Android Application, Server, Database

I. 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.

II. PROBLEM STATEMENT

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 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.

III. PROPOSED STATEMENT

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.

A. Block Diagram/ Architecture:

1) Presentation Layer:

It is the front-end component, which is responsible for providing portable presentation logic. Mobile phones will act as thin clients. Phone will contain Application. Users will interact with applications to add complaints and send this data to web service. [4]

2) Business Layer (Web Service):

The business layer function (web service) between presentation layer and Database layer sending the client's request to database. Web service will be responsible to fetch data from clients, process it and then store it in a database. Web services act as middleware for Application and Database.

3) Database Layer:

Database is responsible for storing all information in a well-defined format. Also, it responds to the queries fired by clients to add, update, remove or search records. In Our project we have used the FIREBASE database for storing Information.

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IV. TECHNOLOGIES LANGUAGE AND SOFTWARE / HARDWARE RELATED TO PROPOSED SYSTEM

A. *Hardware Requirement:*

- Processor : Intel 1.66GHz Processor Pentium 4
- RAM : 256MB
- Hard disk : 80GB
- Device : GPRS enabled Mobile Phone with Android OS

B. *Software Requirement:*

1) *VSCode or Android Studio:*

Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js and C++. It is based on the Electron framework, which is used to develop Node.js Web applications that run on the Blink layout engine. Visual Studio Code employs the same editor component (codenamed "Monaco") used in Azure DevOps (formerly called Visual Studio Online and Visual Studio Team Services).

Instead of a project system, it allows users to open one or more directories, which can then be saved in workspaces for future reuse. This allows it to operate as a language-agnostic code editor for any language. It supports a number of programming languages and a set of features that differs per language. Unwanted files and folders can be excluded from the project tree via the settings. Many Visual Studio Code features are not exposed through menus or the user interface, but can be accessed via the command palette.

2) *Flutter:*

Flutter is an open-source UI software development kit created by Google. It is used to develop applications for Android, iOS, Linux, Mac, Windows, Google Fuchsia, and the web from a single codebase.

The first version of Flutter was known as codename "Sky" and ran on the Android operating system. It was unveiled at the 2015 Dart developer summit, with the stated intent of being able to render consistently at 120 frames per second. During the keynote of Google Developer Days in Shanghai, Google announced Flutter Release Preview 2, which is the last big release before Flutter 1.0. On December 4, 2018, Flutter 1.0 was released at the Flutter Live event, denoting the first "stable" version of the Framework. On December 11, 2019, Flutter 1.12 was released at the Flutter Interactive event [3]

3) *Firebase:*

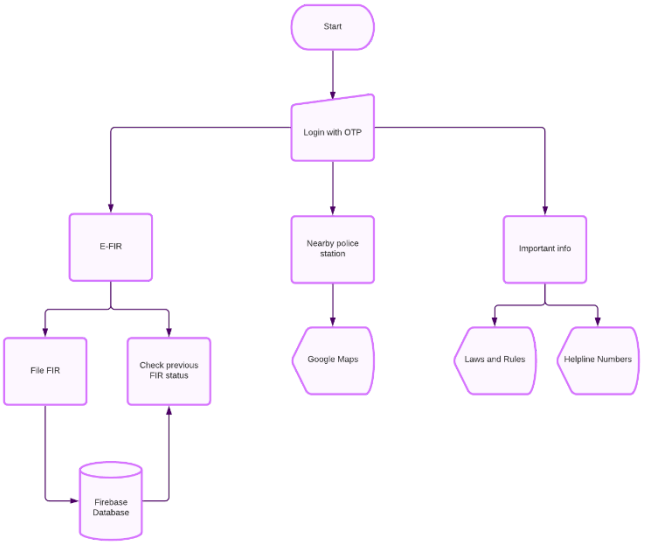
Firebase is a platform developed by Google for creating mobile and web applications. It was originally an independent company founded in 2011. In 2014, Google acquired the platform and it is now their flagship offering for app development.[4]

4) *Dart Language:*

Dart is a client-optimized programming language for apps on multiple platforms. It is developed by Google and is used to build mobile, desktop, server, and web applications.

Dart is an object-oriented, class-based, garbage-collected language with C-style syntax. Dart can compile to either native code or JavaScript. It supports interfaces, mixins, abstract classes, reified generics, and type inference.[11] It is the fastest growing language used on GitHub.[4]

C. *Work flow Chart*



V. FUTURE SCOPE

The future work on which we are focusing now is to implement and measure the performance of our proposed system so that we can justify that our proposed system is better in filing an FIR than all the previous proposed systems.

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REFERENCES

[1] Details about FIR gathered from the source: https://en.wikipedia.org/wiki/First_Information_Report
[2] Complaint Registration procedure information example obtained here: https://uppolice.gov.in/complaint. asp
[3] Flutter.dev
[4] Wikipedia