

## Software package for Issuing and Analyzing Traffic Spot fines

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### Introduction

This project is focused on creating software package for which will reduce the time of current traffic spot fine issuing and payment process by providing software package for police officers and post officers, do their current process with less time period and to reduce the time wastage of the offender. The main concept of this technology is to use a mobile phone for police man instead of a traditional walky-talky. The android mobile application is able to insert the offence information done by the driver as the input of the system. Web application can access the database and using that offender can pay the fine. In addition to that the Java application can connect to the database and it can analyze the records and generate the reports. This will effectively reduce the usage of time and resources in the phases of, issuing, paying, analyze traffic fine records, maintenance records.

There are several tools available for accessing database using mobile phone and analyze back data, but those are written in J2ME language. There is no similar tool available which provides this kind of architecture for issue, payments and analyzes traffic spot fines. Also tool has the capability of do the CRUD (Create, Read, Update, and Delete) operations for table records and analyzes records by charts.

### Materials

Sun java SDK 1.6	Implement the system and the virtually created analyzing software
Wamp Server 2.1	Data Base Management System and localhost server
NetBeans IDE 7.0	Implement the JAVA codes
ZendStudio 8.0	develop the web application
Eclipse indigo IDE 7.0	Implement the Android codes
Android SDK	Implement the mobile application and the virtually created
Jasper reports library 3.7	Implements the PDF files generating codes in XML
JFreecharts library 1.0.12	Implements the charts in java
Hibernate ORM tool	Mapping the relational database into OOP format

### Methodology

Present system of spot fines is time consuming and causes involuntary difficulties to the offender and there is no easy way to analyze the records.

But using this software package, traffic police can issue fines for offenders, offenders can pay their fine and police officers can analyze and scrutinizes records in an effective way. The procedure can be summarized as follows:

- Feed driver's offence information to the system from the police man through his mobile phone, which has android operating system. Records will be transfer to the database through a web service.
- Keep the driver's offence information in the server database and through the web application drivers can pay the offence. The web site access only allowed for post offices.
- Using the java application analyze the server database data and generate information which is needed to user. Information will be display as charts and PDF files.
- Using these analyzed data user will be able to get a broad explanation about traffic law violations.

As an example, if a policeman wants to insert the driver's information he can insert data using his android mobile phone which can run the mobile application.

Diver is able to pay his fine through the web application and police officer can analyze the records through the JAVA application.

## **Results and Discussion**

Using this tool

- Issue traffic spot fine to the offender; insert the offence records to the database through the android mobile application.
- Pay issued traffic spot fines; by updating the records of the database by using the web application
- Able to analyze traffic law violations records using Java application and generate the reports which required to the user.
- Able to add, insert and edit the traffic fine information, police station information.
- Able to add new user accounts manage the user accounts for give permission to access software

## **Conclusion**

Traffic spot fine issuing and analyzing software package is effectively support for current traffic spot fine issuing process. It helps to facilitates all these activities in levying fines and analyzes and scrutinizes the records. It is user friendly tool because User Interfaces are very simple and easy to use. Also use the attractive colors and icons.

## **References**

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