CHAPTER 2

OVERALL DESCRIPTION

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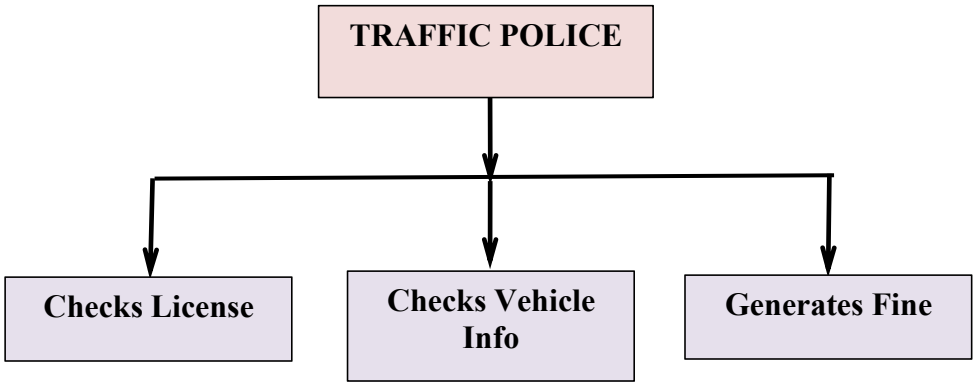
2.1 PRODUCT PERSPECTIVE



2.2 PRODUCT FUNCTIONS

2.2.1 Traffic Module

This module mainly focuses on providing the information only to the traffic police officers it consists of checks license checks vehicle information check insurance and also generate fines.

2.2.2 Check License

The Check License module takes a License number. As an input and returns the respective License information like Name, Photo, address, DOB, issued date, License status and Validity of the license. In case if the record doesn't exist it shows a respective message that record not found.

2.2.3 Check Vehicle

The Check Vehicle module takes a Vehicle Registration number as an input and returns the Respective Owner details like Name and Address. It also includes the Vehicle issued date and valid date of vehicle.

2.2.4 Generate Fine

The Generate Fine module mainly focuses on generating fines for the offences committed. It provides for selecting a variety of offences from a set of given offences for which the fine amount is auto-generated. The user (R.T.O officer) needs to enter other information related to Officer like Officer Id and Other important Vehicle information. This overall process requires internet for data transfer between the client and the server and the data is stored on server.

2.3 USER CLASSES AND CHARACTERISTICS

2.3.1 Traffic Police

Traffic police interface is used to check vehicle license, insurance, vehicle documents/papers and generate fine.

2.3.2 Vehicle Owner

The vehicle owner interface is used to store vehicle documents and add beneficiaries to drive a vehicle.

2.3.3 Beneficiary

They get the benefit of driving the vehicle they may or do not possess but has been added from the vehicle owner.

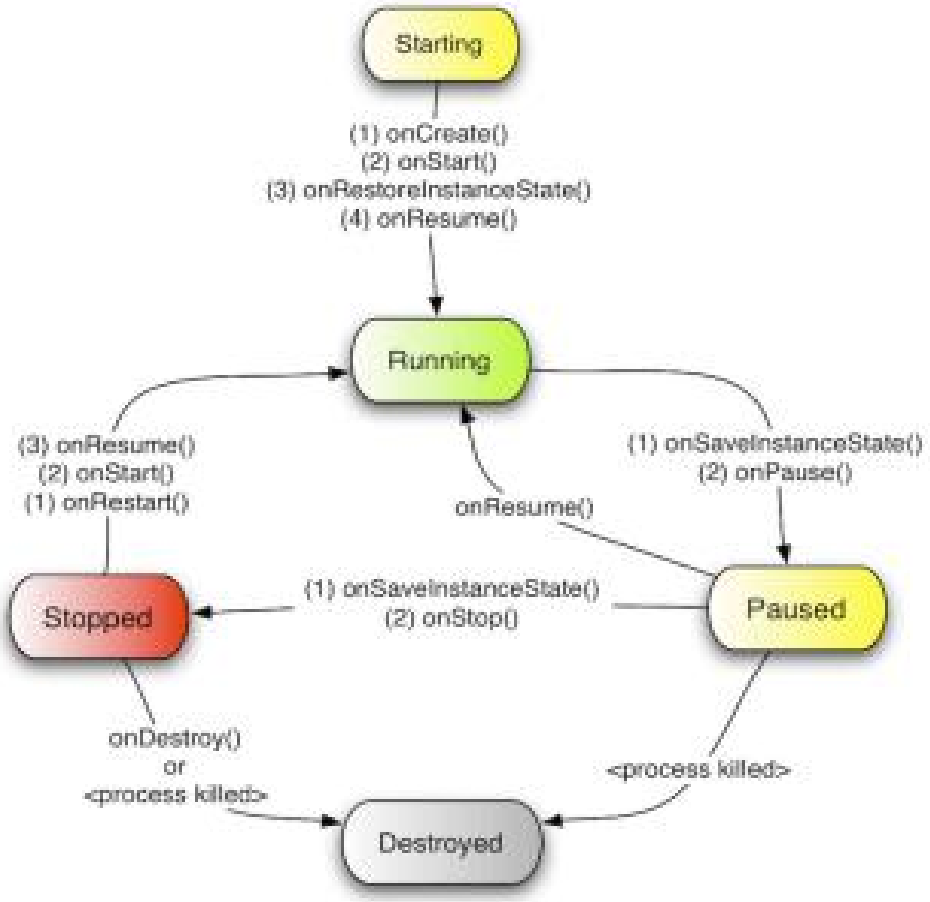
2.4 OPERATING ENVIRONMENT

Android Operating System

Android is a comprehensive open source platform designed for mobile devices. It is championed by Google and owned by Open Handset Alliance. The goal of the alliance is to accelerate innovation in mobile computing and offer consumers a richer, less expensive, and better mobile experience. Android is the vehicle to do so. Android is a Linux-based operating system mainly used for running mobile devices such as smart phones and tablet computers. Its usability

is not limited to mobile devices. Because of its open and customizable features, it is used in a wide range of electronics devices, like laptops, smart TV, cameras, headphones, wristwatches, game consoles, car CD and DVD players, home automations and many more [Marko Gargenta]. Android OS is hardware independent and runs on devices from different vendors, unlike other proprietary operating systems such as iOS (Apple Inc. products), Blackberry OS (Blackberry), S40 OS (Nokia), Windows OS (Windows Phone) etc., which are licensed and controlled by certain companies. As of May 2013, Android dominates the smartphone market accounting 74.4% of worldwide smartphone sales [Gartner].

Android is a full-fledged operating system and a complete software stack for mobile devices. Android APIs are a rich set of system services wrapped in an intuitive class files which provides easy access to several features like location, web, telephony, Wi-Fi, media, camera , and so on. All the tools, frameworks and software necessary to develop a mobile application are available for free.



2.5 DESIGN AND IMPLEMENTATION CONSTRAINTS

The mobile application is constrained by the data provided by the website and the verification at the block level. If the data provided by the site is not accurate and the block officials don't pay attention or do fraud then the system will have problem showing the stats.

The Internet connection is also a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function. The mobile application will be constrained by the capacity of the database. The database may be forced to queue incoming requests and therefore increase the time it takes to fetch data.

2.6 USER DOCUMENTATION

The application's user interface has been specifically designed with their customers in mind, giving them convenience while they travel. It makes sure at every point, that the customer spends most of the time using the device rather than figuring out how to use it.

The home screen offers a menu with a list of functions that the device performs. The user can select one of the options on the menu, and is taken to the respective screen. Every screen displays the menu on the bottom. The user can click on any one of the options and is taken to the screen of their choice.

The device offers easy scroll options to navigate the screens efficiently. To scroll down any screen, simply touch the scroll bar on the screen, and roll down. If the user does not know how to use any functionality or has any queries, the help option can be used. The help screen contains a text field to enter search terms. A list of search results pertaining to the query is displayed.

2.7 ASSUMPTIONS AND DEPENDENCIES

One assumption about the product is that the data on the database is accurate and the chances of fraud being done at block level are minimal. The user will have enough space in his/her phone to store the data fetched from the

database as the application will store the data in memory so that in case of zero updation or slow network it can show the last successfully retrieved data.