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# Implementation of Efficient Android App Monitoring for Cab Booking and Service

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**ABSTRACT:** Application based Cab Booking deals with an online application system designed for booking cabs as per the requirements of the customers at their convenience. The traveller this is highly important and in today's internet age people should be able to book taxis online without having to pick up the phone and the taxi company as all their bookings are now managed via cab booking application. The cab booking service provided to customers they have to login the app with individual login id/phone number and password. This brings together the cab operators/admin and the customers. Admin give the customer satisfaction the utmost priority and so give sample options to book cab by entering details like their journey date and time, origin, pickup point, destination and the drop-off point they need to reach. This admin deals with creating an application regarding cab booking and checking the availability of vehicles. The admin of the application have a full of authority to monitor and allocate the driver. For this application we will store some model names, their registration no, available cabs, rent rate on the basis of per day, each cab driver profiles for security purpose and the amount to be deposited accordingly. Our online cab booking app tracks your current location and offers a variety of online payment options via payment gateways. It allows your customer to make bookings and payments online at any time & from anywhere. If the driver while filling the fuel they have to update the liter and cost of admin using that app then Admin can easily monitor the driver.

**KEYWORDS:** Android app monitoring, Cab booking, Service, Efficiency, Performance monitoring

## I. INTRODUCTION

This system also takes records of the car and their permits and other documents. All cabs have proper permits and documentation so that the clients could not be hassled for the lack of documents. This system also keep records of the car drivers and admin can check driver related information like his name, address, id documents and which car he is driving on booking etc. Cab drivers are educated, polite, and reliable and are trained to handle acute breakdowns. In recent years, with the rapid development of mobile communication, GPRS technology has been widely applied, GPRS is General Packet Radio Service for short, it mainly consists of three parts: data acquisition module, GPRS network and a remote server. The system uses A GPRS 1090 module that supports dual band GSM/GPRS, it has a complete embedded TCPI IP protocol stack, and provides RS-232/485 interface and multiple data centers. Its main function is to transmit the data to the server via GPRS network. It abstracts the network request, and each request serves as a Service. And it objects the request parameters and return values, the callback function can be customized freely. In addition, the waiting process for return value is asynchronous, and simultaneously monitor and protect six batteries, and manage up to 192 batteries through the cascade. Cab Service is the first site in India, which provides reliable online (web based) cab booking facility to the people in various cities of India. free of cost. Our Cab Service acts like a bridge between the cab operators & the customers/ users/ people who book a cab. This is the online cab booking service provided to customers. This Paper intends to introduce more user friendly in the various activities such as record updating, maintenance, and searching. This service is provided by the young entrepreneur who is living in India. He is feeling something is missing in city to overcome people day to day problems.

## II. SYSTEM DESIGN

The proposed application Cab Booking project system ensures that the customer can book the cab as per their requirements by logging on to the app. Based on the microcontroller, it is composed of control module, WI-FI module, GPS module, power module, signal process module, USB interface with isolation. Android client collects and directly displays the batteries information by the powerful design of UI interface in android. Besides, the application stores the data in the local database and uploads them to the server.



IMPLEMENTATION



Figure 1: System Communication and Security.



Figure 2: System Architecture

The following Online Cab Booking having the following services:-

**Enhance Business Processes:** To be able to use internet technology to Paper the rental company to the global world instead of limiting their services to their local domain alone, thus increase their Return on Investment (ROI).

**Traveler’s registration:** A registration portal to hold traveler’s details, monitor their transaction and used same to offer better and improve services to them.

**Group bookings:** Allows the customer to book space for a group in the case of wedding or corporate parties or meetings.

**Eco-friendly:** The monitoring of the vehicle activity and the overall business becomes easy and includes the least of paper work.

**Availability:** The software acts as an office that is open 24/7.

**Efficient:** It increases the efficiency of the management at offering quality services to the customers.

**User friendly:** It provides custom features development and support with the software’s.

**Security:** The subsystem should provide a high level of security and integrity of the data held by the system, only authorized personnel of the company can gain access to the company’s secured page on the system; and only users with valid password and username can login to view user’s page.



**Economic Feasibility** is an application that runs on the Android system. Its main function is to provide convenience for users to real-time views their car state information and show the location of the car on the map.

**Technical Feasibility** collects and displays the batteries data down through Wi-Fi communication with onboard monitoring terminal, and at the same time uploads the data to the cloud up by Internet communication with the cloud server. It was implemented by designing an android application program.

**Political Feasibility** analysis is used to predict the probable outcome of a proposed solution to a policy problem through examining the actors, events and environment involved in all stages of the policy - making process, it is one frequently used compound of a policy.

#### **CAB SERVER**

This is total dynamic project i.e. everything can be changed by admin. Admin can add new type of cabs like hatchback, sedans etc. Admin can also set different types of different cities. Each city can have individual rate for different type of vehicles. Admin can also add new drivers with their vehicle type. Also admin can view bookings made by user and allot cabs for the same. Admin can also update/delete everything. If the driver while filling the fuel they have to update the liter and cost of admin using that app then Admin can easily monitor the driver.

#### **CUSTOMER**

In this module user will be able to sign up and login into the app. User can search cab for different cities and book for their preferred time. User can also see his booking history and status of booking like which driver has been allotted etc. Different Validations are applied in the project to ensure proper input by the user. User can also send messages and feedback to site admin. Using this system it is very easy for customer to book a car online and car-booking agency can also track their booking online. So it is also very useful for car booking agency.

#### **CAB SERVICE**

The admin of the application have a full of authority to monitor and allocate the driver. For this application we will store some model names, their registration no, available cabs, rent rate on the basis of per day, each cab driver profiles for security purpose and the amount to be deposited accordingly. Our online cab booking app tracks your current location and offers a variety of online payment options via payment gateways. It allows your customer to make bookings and payments online at any time & from anywhere.

#### **BOOK CAB**

The cab booking service provided to customers they have to login the app with individual login id/phone number and password. This brings together the cab operators/admin and the customers. It allows users to book their cabs online, manage their bookings and cancel their bookings at any point of time. The users will get notified about the driver and his mobile no. Customers may view the cab timing at a date their name and their type of booking. After checking the number of cab available the customers books a cab or number of cabs according to their requirements. After reserving the required cab, the customer pays the amount in advance (optional). If the customer wants to cancel the cab then 10% of the amount per person is deducted if the booking is cancelled before 30 mins of the service time.

### **III. RESULTS AND DISUSSION**

Cab booking project system ensures that the customer can book the cab as per their requirements by logging on to the app. It allows customer to book their cabs through online, manage their bookings and cancel their bookings at any point of time.

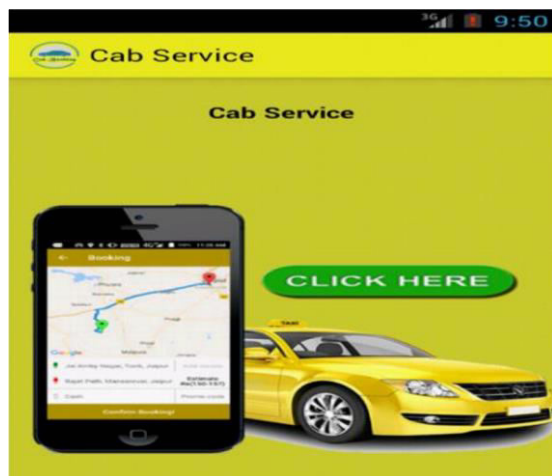


Figure 3: Cab Service

This is the online cab booking service provided to customers. This Paper intends to introduce more user friendly in the various activities such as record updating, maintenance, and searching.

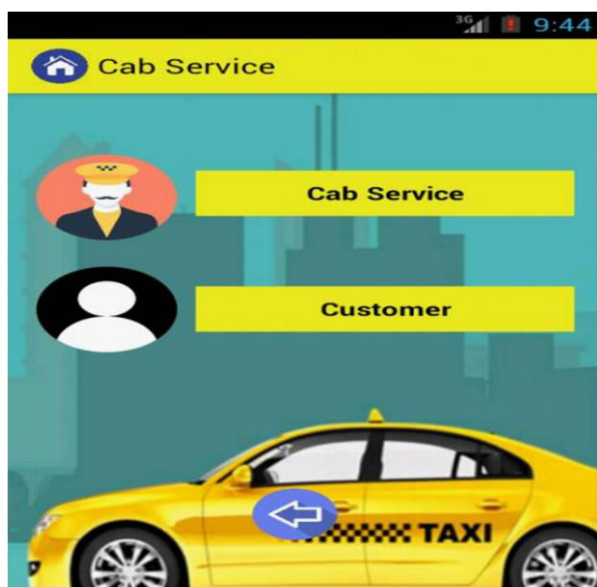


Figure 4: Book Cab

Location tracking facility is implemented using Global Positioning System (GPS) with the help of Google map. When the driver accepts the ride request of a user, location tracking is started one hour prior to the journey.

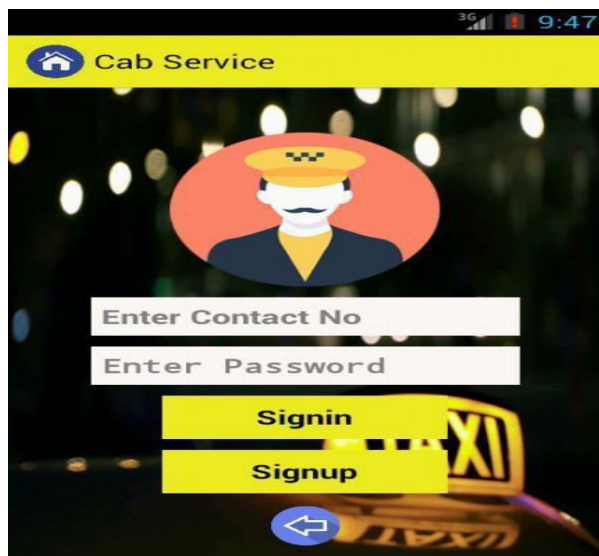


Figure 5: Cab Server

The customer will get notified about the driver and his mobile no. so as to communicate with others. Regular updates are provided to the customer so that they are aware of their bookings, driver details, and booking status.

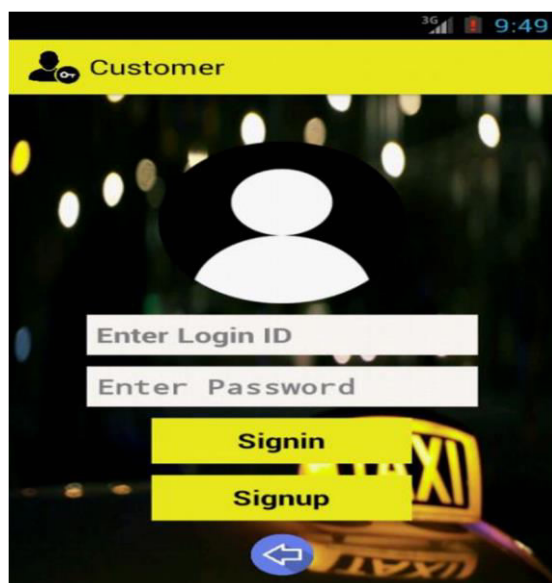


Figure 6: Customer

#### IV. FUTURE ENHANCEMENT

- In future our application overcome the flaws if occurred and attain new features offered to Employees for the flexible and easy transportation
- Provide good user interface.
- Provide access permission to the employees

#### V. CONCLUSION

The admin provide the feedback form to the customer can give the feedback in the app. The customer shall produce repeat business only then if the service availed and used by them creates a certain amount of satisfaction and therefore eventually raising the bar of expectation. The vehicle condition and staff behavior are aspects of a good quality business and, serve as an important metrics for evaluation overall performance of the system. Post the journey, the users are



asked to fill in the feedback form and post comments. It uses the information technology in an efficient way for providing better passenger services.

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