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Auto Rickshaw Booking System

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Abstract: The traditional system of Auto Rickshaws is quite perfect but still has some flaws from the perspective of drivers as well as passengers. Due to the mechanical meter system and the perceived amount of tampering that occurs, there is inherent distrust between the two parties. Drivers are used to being harassed or not paid correctly by passengers. Complaints from passengers was for long queues, refusals, lack of availability, overcharging, price disagreements and incorrect meters and women safety. Auto Rickshaw Booking Management System is developed to manage all auto hiring work online. Using this system, it is very easy for customer to book an auto online and auto rickshaw driver can also track their booking online. So, it is also very useful for the auto drivers as well as passengers. The system aims at reducing the complaints and inconvenience from both sides (drivers & passengers) and focuses on women safety.

Keywords: Auto Rickshaws, mechanical meter system, Auto Rickshaw Booking Management System, women safety.

I. INTRODUCTION

Auto Rickshaw Booking Management System is developed to manage all auto hiring work online. It is useful for auto union/agency that are specialized in hiring auto to customers. Using this system many unions are moving ahead to become efficient by completely focusing on customers. Using this system, it is very easy for customer to book a auto online and auto rickshaw driver can also track their booking online. So, it is also very useful for the auto drivers. It is an online system through which customers can view available auto; register the auto, view profile and book auto. Mostly peoples use auto rickshaw for their daily transportations need. The objective and scope of my project Online Auto Booking System is to record the details various activities of user. This system will simplify the task and reduce the paper work. Online Auto Booking System is a web-based application that allow users to book an auto online. With the use of this system, auto hiring company can manage all auto bookings and customer information. User can book auto and driver can confirm the booking and cancel the booking on the basis of availability. We have developed this system to produce a web-based system that allow customer to register and reserve auto online and for the auto driver to effectively manage their income. Standing in queue wastes a lot of time of customer but with our system driver can confirm the order within a minute So, this auto booking system is helpful to ease customer's task whenever they need to hire an auto.

II. REQUIREMENT ANALYSIS

A. Scope

This Auto Rickshaw Booking App is a modern-day tool to solve our day-to-day transportation related problems. There are a variety of issues when it involves travelling from one place to another, some people do not have their own vehicles, and the remaining don't want to use public transport like buses to travel, independent auto owners asking for higher fares and many more. This app aims to provide relief to people facing these issues by providing easy to book, cheap and pleasant auto rides to anyone with access to a smartphone. The Auto Rickshaw Booking app is a two - way tool that encourages both the customers in need of a ride as well as auto drivers to register with the app, thus diminishing the distance between customers and auto drivers. With the Auto Rickshaw Booking app eliminates the need of bargaining that the customers and the drivers have to go through as it makes sure that price one pay for a ride is minimum.

B. Feasibility Study

The advantages of such a service are that, "In today's fast-moving world, people realize the importance of their time and hence they need no wastage of it. So, most of the public is getting drawn towards excellent and professional service that ensures quality and no wastage of unnecessary time. In our opinion, the service provided by us to the people will benefit them largely as there are around 5,000 daily commuters in Thane, Mumbai, who still prefer auto rickshaw over buses or trains as they believe that travelling by auto would make them reach their destination early as compared to any other conveyance opted

C. *Hardware and Software Requirements*
1) *Hardware Requirements: Android Smartphone (Ice Cream Sandwich and above)*
2) *Software Requirements*
a) Android Studio
b) Internet
c) PHP
d) Cloud Server

III. PROBLEM STATEMENT

Auto Rickshaw Booking System is an online system through which customers can view, register and book rickshaw. The objective of this project is to automate auto rickshaw rental and reservation. So, customers do not need to call & spend unnecessary time in order for reservation. Mostly peoples use auto rickshaws for their daily transportations in such concentrated population, the purpose of this project is to eliminate the daily struggle of commuting
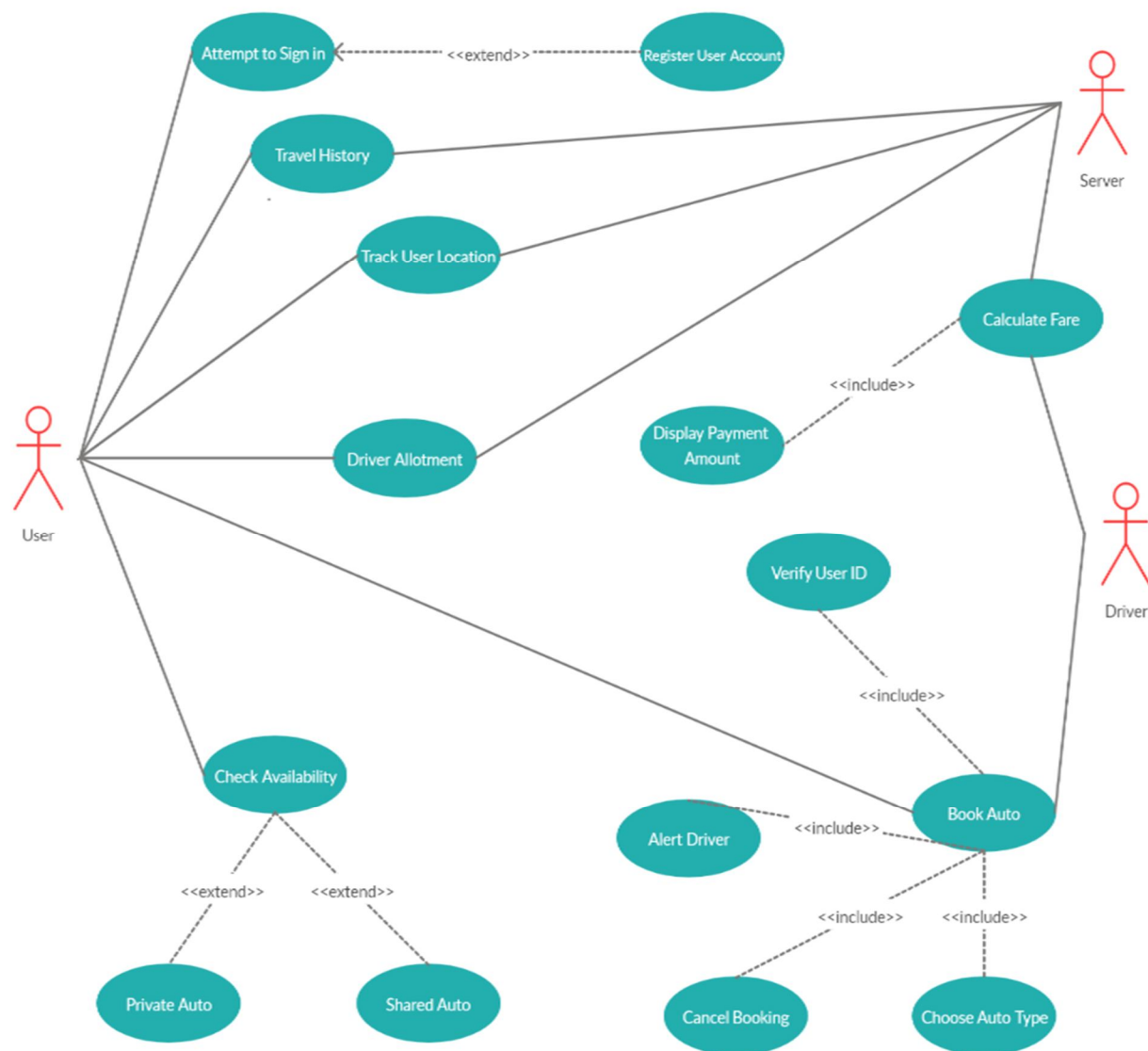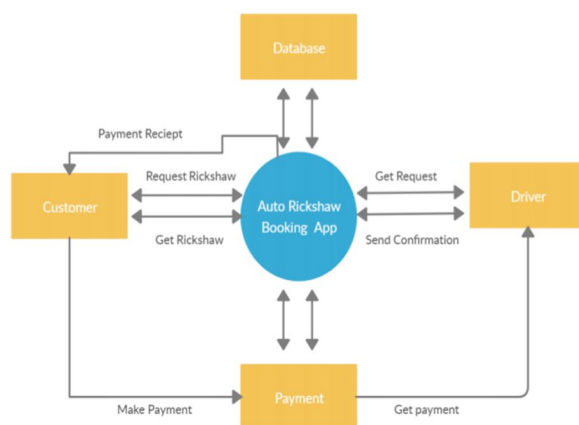
IV. PROJECT DESIGN

Fig. 1. Use Case Diagram

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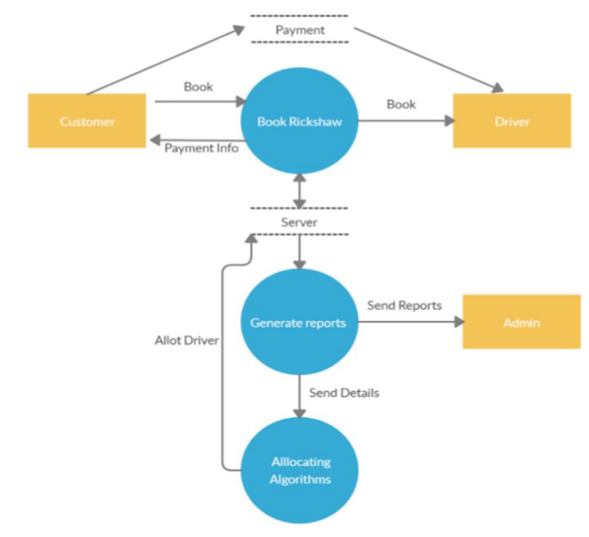
Fig 2. Data Flow Diagram (Level 0)

Fig 3. Data Flow Diagram (Level 1)

V. METHODOLOGY

A. Registration Process

User must be registered before booking a ride. Proper validations are going to be provided to allow only authenticated users to stay i.e. those users who will provide correct information. All the information supplied by the user will be stored in database and it'll be used for further validation and authentication. During registration, user is required to provide login and password of their choice. Login names and passwords are going to be stored within the database so that the user can directly login without registering again and again.

B. Login Process

In this, the customer is required to provide the login details i.e. user id and password so as to log in. The user id and password given by the customer are checked from the data stored within the database.

C. Ride Search

User can search ride for a specific location here. User is required enter Source and Destination of his desire.

D. Fare Calculation

After searching the path is highlighted on the map and the total estimation will be calculated according to user's pickup and drop point. Fare calculation is done based on distance, car type and timing of journey.
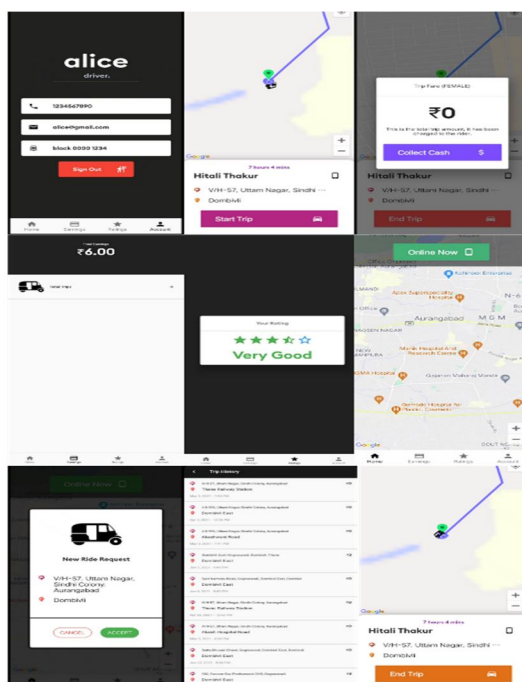
E. Booking Confirmation

After validating the entered information and getting approval from driver the system provides the visitor the notice on successful registration.

VI. RESULT

A. User's Interface
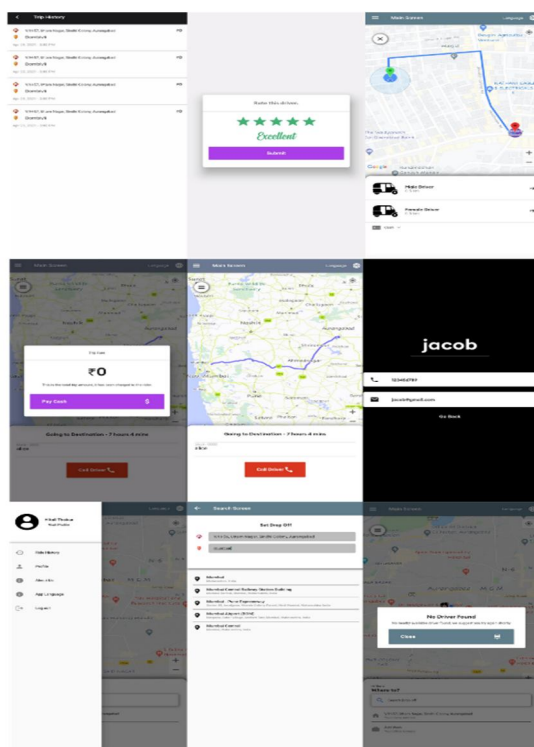
B. Driver's Interface

VII. CONCLUSION

In traditional system auto-rickshaw booking is done manually; by going to a fixed auto rickshaw stand and hiring an auto, sometimes requiring to stand in long queues during peak hours to hire an auto. The traditional system consists on various disputes between drivers and passengers such as refusals by drivers for service, refusal by passengers to pay, overcharging, lack of availability, and many more.

In proposed system auto booking is possible using android application by sitting at home without needing to go to a physical source location. The data of drivers and passengers is stored on server so there is no data loss. In this system customers request for ride and drivers uses this app to register their vehicle and fulfilling the service. Google map is also provided to display the distance between source and destination and using this distance fare is calculated.

The proposed system reduces the time required to reach a fixed auto-rickshaw stand and then hiring an auto. Online booking of auto-rickshaws help reduce complaints of passengers regarding refusals, lack of availability and long queues. The fare calculation based on distance and time of journey helps reduces the complaints of passengers regarding overcharging and also reduces complaints of drivers regarding refusal of payment by passengers. Thus, overall disputes between drivers and passengers is reduced and more peaceful journey is made possible for both.

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