

HUMSAFAR : TRANSPORTATION SHARING APP

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ABSTRACT

Many transportation modes are available in our country but, still transportation is a major issue nowadays in metropolitan cities. Increase in number of cars on road leads to many problems such as traffic congestion, health problems, air pollution, environmental degradation etc. This problem can be reduced by using a mechanism called as "Transportation Sharing or Car pooling", which allows you to share your car with other passengers. Car pooling is the sharing of car journeys so that more than one person travels in a car that reduces each person's travelling cost such as fuel cost, stress of driving and security to passengers etc. In this paper we have proposed to develop an android based application which helps user to share expense, not worry about hiring a cab and making new connections.

Keyword : - Cab pooling; android app; Location tracing service; car sharing; traffic congestion.

1. INTRODUCTION

India has second largest road network in world, because transportation requirement is more in India, which leads to more number of vehicles on roads. From past few years number of vehicles on road has increased which created many problems such as traffic congestion, pollution, environmental degradation etc. It will also result in reducing quantity of natural resources like petrol, diesel & natural gas. The main problem created due to this is vehicles emitting pollutants are affecting environment as well as human health badly.

In recent years, because of increase in vehicles on roads world is facing a problem "global warming". To overcome from this problem an effective solution is reduce the harmful factors in air emitted by vehicles. So in this paper, we have proposed a solution to reduce this problem is "Car sharing/pooling". There is another reason for applying this solution is inadequate public transportation system in metropolitan cities. In the absence of an efficient public transportation system in urban areas, there has been an increasing trend towards more and more ownership and utilization of personalized motor vehicles to commute which is not only more energy intensive and polluting, but also more expensive to the economy.

Transportation sharing scheme is designed to encourage commuters to share travel expenses and resources with colleagues. Carpooling (also known as car-sharing, ridesharing, lift sharing), is the shared use of a car by the driver and one or more passengers, usually for commuting. Carpooling arrangements and schemes involve varying degrees of formality and regularity.

The advantages of this scheme are :

- Number of vehicles on road will be reduced.
- Reducing traffic congestion.
- Emission of harmful gases by the vehicles can also be reduced.
- Increase vehicle occupancy.
- Parking requirement is reduced.
- Cost saving
- Decrease in pollution.

2. EXISTING SYSTEM

We exactly don't know where the cab is available and also whether the space is available in the cab or not this is the primary issue. There is huge problem of traffic on roads these days and the increase in fuel prices add to the misery of daily users of personal vehicles. Also use of vehicles causes pollution which has its adverse affects. Cab pooling is a solution for issues like security and trust which come into the picture.

Currently available system provides basic mechanism like user first create his/her account, After that either He/She search for a ride, select particular option and finalize the car. Sometimes in such type of applications the overall contains uses only mobile app, as there is a need of some message type notification directly to the registered number.

3. PROPOSED SYSTEM

In this paper we have proposed a system that is an attempt to make an application which is user friendly and provides an opportunity to share cars and also provides security to passengers. The mobile based Car Sharing system helps users to upload, view and register for journey. The administrator will upload the information like source, destination along with route selected and also capacity of vehicle.

This application provides security to users. When the users hire the cab immediately message will be sent to police and the persons in favorites list (secure persons). When the user are in danger then immediately message will be sent to police and secure persons. They can trace the location and save the user.

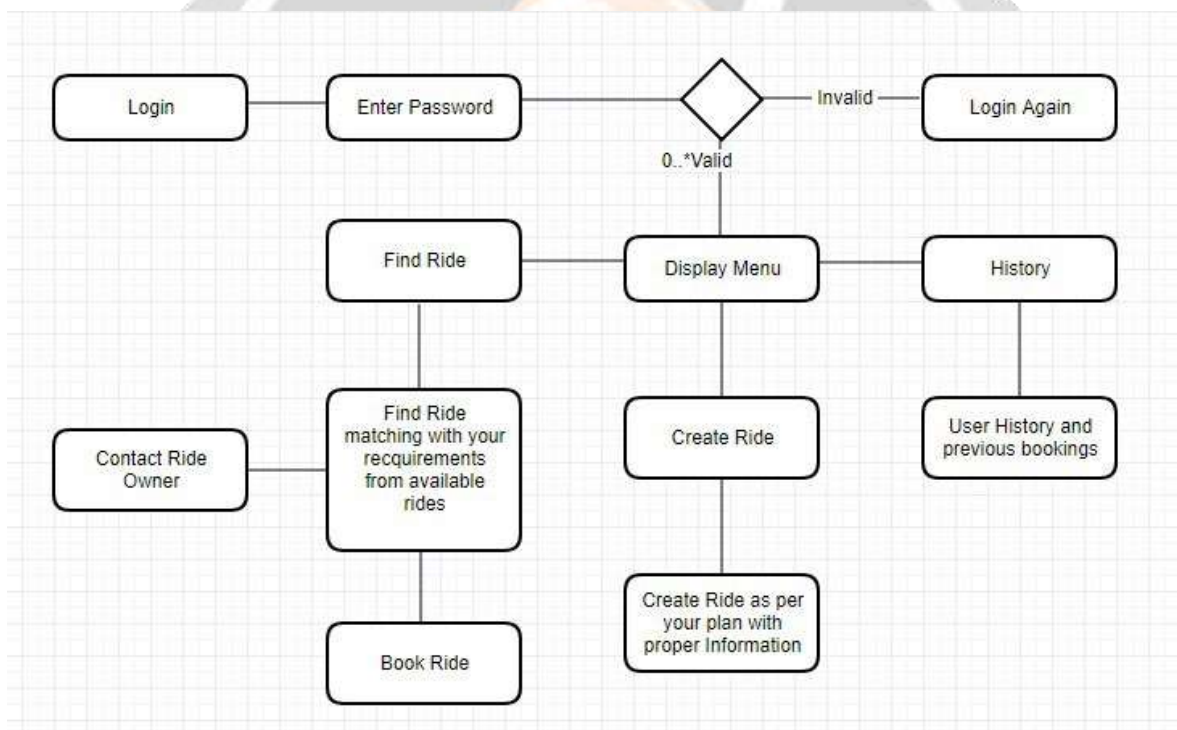


Fig -1: System Architecture

The architecture has shown in fig 1, show how the system will interact with user and admin. Our system has total four modules along with two major modules admin and user. The application will be installed on both devices i.e. user & driver device and they will interact with each other. The system module details are already discussed in previous section

The System contains following design modules :

3.1 User Profile management:

- User registers his/her basic details like name, contact number, e-mail id.
- User login with username and password.

- User can update his details like password, phone number and address etc.
- User can retrieve his password by entering his date of birth.

3.2 Car Details management:

- User can add or updates the details of cars.
- User selects the cars based on his requirements.
- User can updates information like capacity of vehicle.

3.3 Booking management:

- User selects his category based on his convenience i.e. sharing car or non sharing .
- Then the user books for the car.

3.4 Tracking management:

- When user selects the car , text message will be sent to the registered number.
- At the day of journey the user will be notified by the text message.
- User can track the current location of Vehicle.

4. TESTING

Testing is one of the most important phases in the software development procedure activity. In software development life cycle (SDLC), the main aim of testing process is the quality because quality gives guarantee about software; the developed software is tested against attaining the required functionality and performance.

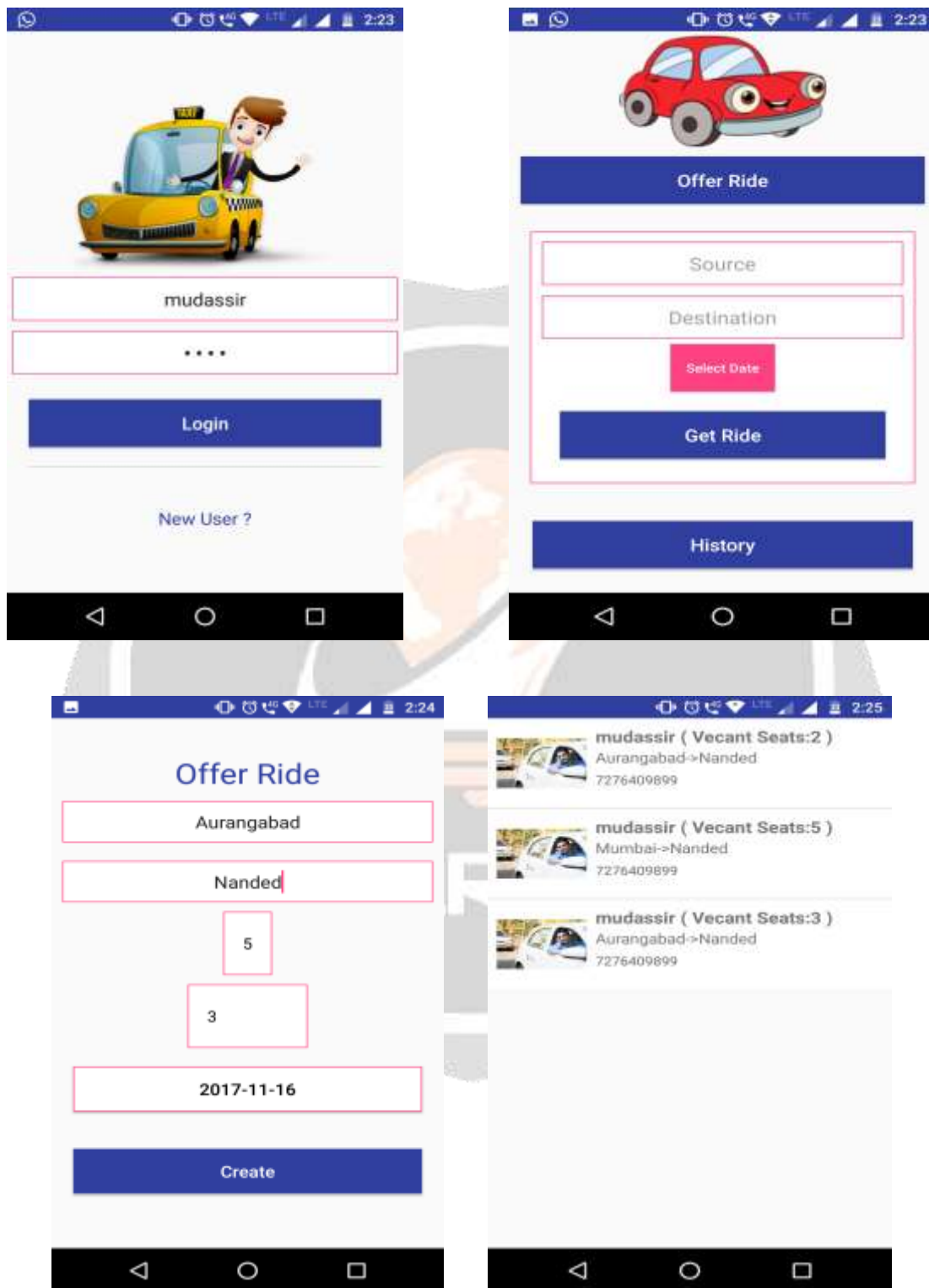
During the testing process the software is worked with some particular test cases and the output of the test cases are analyzed whether the software is working according to the expectations or not. The success of the testing process in determining the errors is mostly depends upon the test case criteria, for testing any software we need to have a description of the expected behavior of the system and method of determining whether the observed behavior confirmed to the expected behavior.

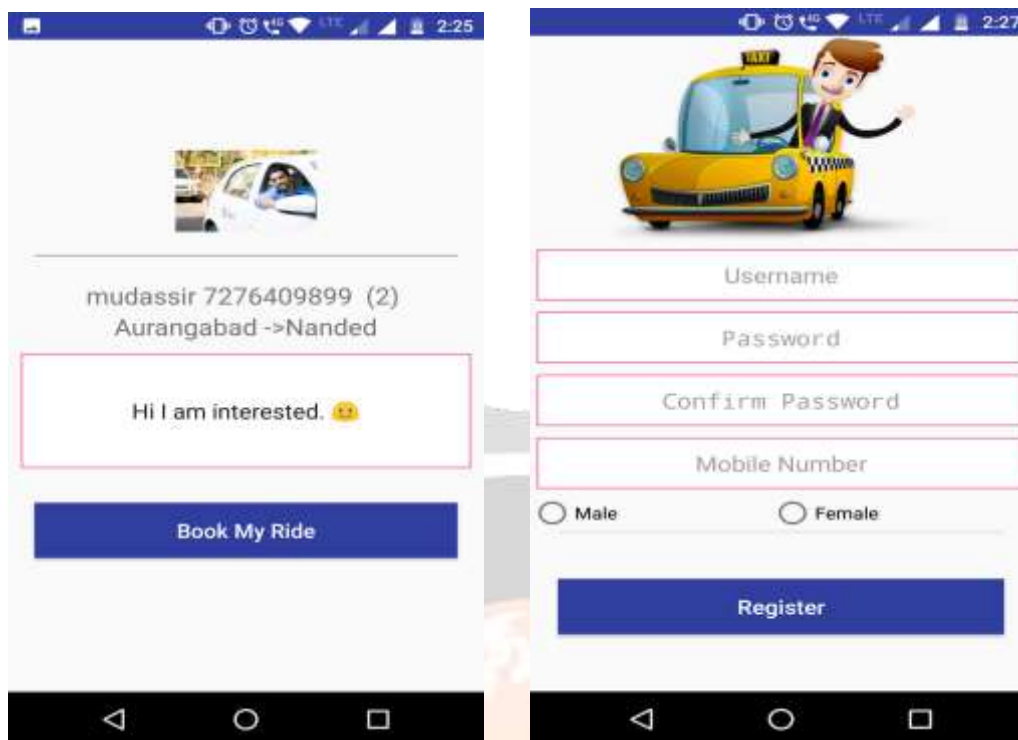
For our application we perform testing based on that some of the test cases are listed in below table:

Table -1: Test Cases

Sr No	Test case Name	Description	Input Data	Expected output	Observed output	Status
1	User Login	Username/ password is wrong.	Username/ password is wrong.	Enter correct username and password	Enter correct username and password	Success
2	User Registration	Enter name, dob, Contact number, email-id	Name, dob, contact number, Email is wrong	Enter correct details	Enter correct details	Success
3	Booking	Source, destination	Source, destination	Enter correct source and destination	Booked	Success
4	Location and tracing	By using gps or internet can trace the user location	By using gps or internet can trace the user location	Message will be sent favorite list members	Traced successful	Success
5	Tollgate details	Enter correct tollgate details	Enter correct tollgate details	Display correct details	Yes it is	Success

5. SCREEN SHOTS





5. CONCLUSION

Cab pooling system is very effective means to reduce pollution. It also provides an eco-friendly way to travel and also provides security to users. So for safe, secure and comfortable journey cab pooling is the best way to travel. Save your life by having a safe secure and comfortable journey. Cab pooling or ride sharing is convenient, great to save money and better for the environment. You can't really go wrong! I guess you need to know what is car pooling to start with, don't you? Cab pooling is basically sharing a ride with a friend who is going the same way. It might be a friend from work with a car who you share the same shift with – why not catch a lift with them? You might even take a ride with your flat mate or neighbor to the supermarket because you like to shop at the same place – the possibilities are endless you just have to ask around.

Here are some reasons car pooling is great for you:

- It reduces your travelling expenses and the need for a car.
- If you have a car then offering someone a ride might be some extra company for the trip or they might even help contribute to the fuel bill.
- It improves your travel time (it can sometimes be a little faster on highways because if you have more than one person in the car you can use „car pooling lanes“ which are generally less crowded.
- It provides you with an alternative and cheap travel option

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