

Implementation of Ride Pooling and Ride Sharing System on Android Platform

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Abstract— Ride Sharing commonly known as car-sharing or ride-sharing. Using Ride Sharing concept people can share cars that are travelling to same destination. Ride Sharing and Ride sharing applications depend normally on an architecture that has two multimedia user mobile devices and a server that collects the rides available and therefore the ride requests. The Carpool is an android application which will provide the best way to share rides by creating and browsing or searching rides through this application. With the assistance of this application number of vehicles on road are going to be reduced. Thus this application will help to scale back the issues of traffic jams. Fuel combustion also will be reduced. Application also helps to regulate the pollution and maintains green environment.

Keywords— Ride Sharing, Android, browse ride, create ride, Ride seeker, Ride creator

I. INTRODUCTION

Transportation is a major issue in our world today. Ride Sharing may be a solution to the issues of traffic jams, pollution, and additional use of fuel. Our application is an effort to form a system which is user friendly and provides a chance to share cars. The service will allow users to supply and request ride sharing journeys using their Android enabled phones. The main problem in Ride Sharing is the way to determine who travels to an equivalent destination as yours a day or who is curious about Ride Sharing. Ride Sharing allows an outsized number of passengers and drivers to be matched with one another automatically and instantly wishing to travel same destination. Using this developed android application car owner can create a ride by giving information like source, destination, beginning of journey, available seats etc. And ride seeker are going to be ready to search and browse the rides by providing inputs like source, destination, and time. The dynamic Ride Sharing system relies on the knowledge from two users i.e. ride creator or car owner and ride seeker.

II. PROBLEM DEFINITION

As a rapid increase in urbanization, there are huge problems faces in travelling. People are migrating from on city to other in search of jobs. This leads to increasing population and thus leading to insufficient transportation facilities. Due to this people like better to pass by their own vehicle than using public transportation. This results in problems like increase in number of vehicles, traffic, fuel combustion, heavy cost on resources, parking problems. Using two different vehicles results in a rise in personal expenses, stress. To overcome this hurdle, a quite different but realistic solution called Ride Sharing are often used.

III. PROPOSED SYSTEM

The users will have our developed Ride Sharing android application installed in their android smart phones. The carpool process are going to be initiated by registering the users. Then users are going to be ready to create and share rides. These ride creation and ride browsing processes involves following activities.

A. Creating Ride

Step 1: Car owner will enter the source, destination, beginning and available seats as input to the android application.

Step 2: This ride creation request are going to be transferred to the carpool server.

Step 3: Now server will check for existence of route between entered source and destination and can validate the opposite input information.

Step 4: Now ride is made and ride seeker are ready to search and browse this ride.

B. Browsing ride

Step 1: Ride seeker will enter the source, destination, beginning as input to the android application to look and browse for rides.

Step 2: This ride browse information are going to be transferred to carpool server. Step 3: Now server will validate all inputs specified by the user.

Step 4: After validation the server will show available rides to the ride seeker. Ride seeker can send an invitation to anyone of those ride creators.

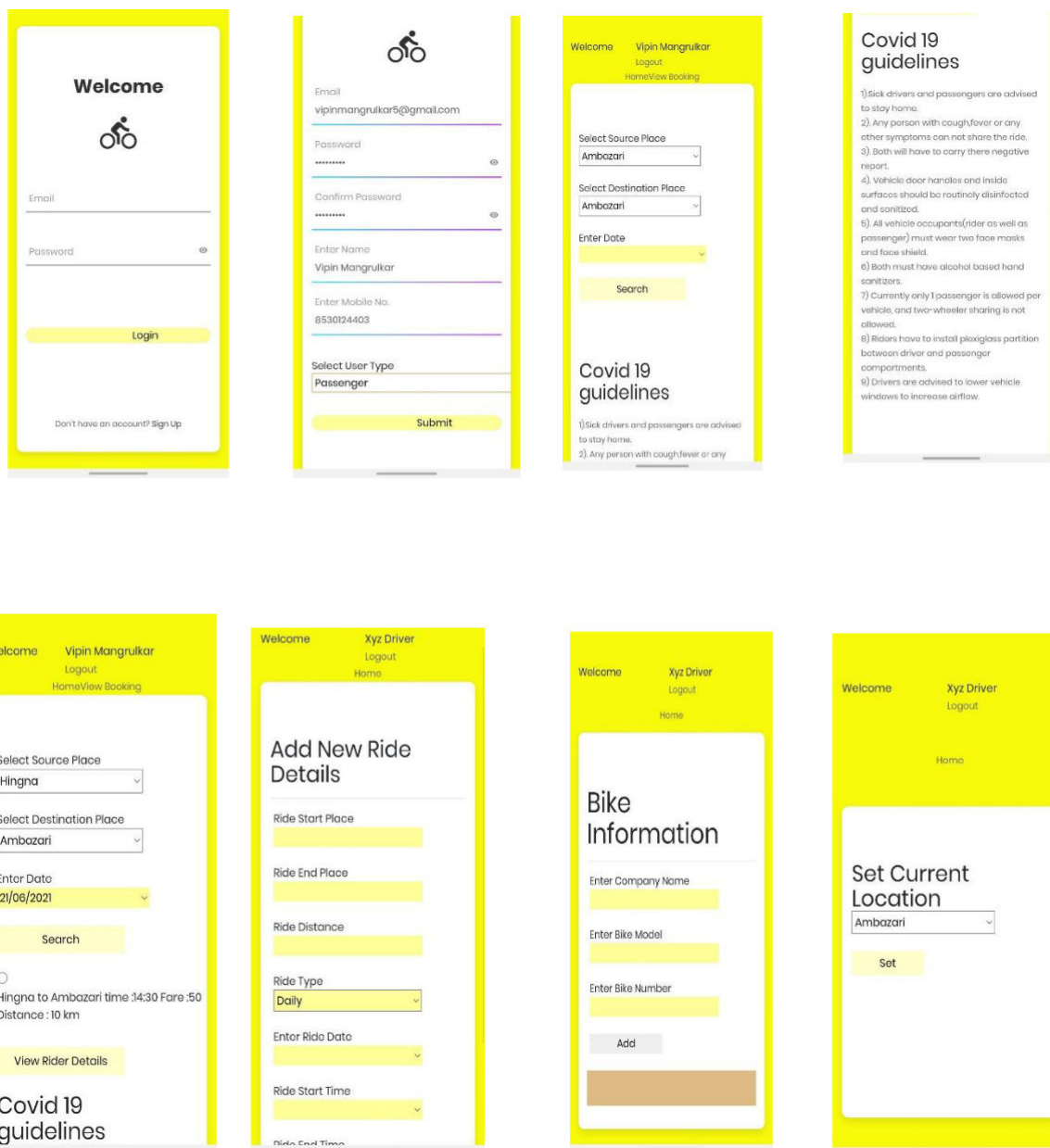
IV. MATHEMATICAL MODEL

Functionality of the system is showed using following tuples of Finite State Machine.

(Σ, S, s_0, δ)

- Σ is that the set of input alphabets (a finite, non-empty set of symbols).
- S may be a finite, non-empty set of states.
- s_0 is an initial state, a component of S .
- δ is the state-transition function.

V. OUTPUT



VI. CONCLUSION

Ride Sharing system is very effective means to reduce pollution and the congestion of vehicles in cities. It provides an eco-friendly way to travel as well as an opportunity to meet new people. Nowadays most people prefer personal vehicle to travel due to delay caused in public transport system and luxuries provided by private vehicles. Pre-registration ensures that only identified people get into the vehicle so that trust can be established.

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