

Ride for Students

Rachita Chotalia

Master's Candidate, George Washington University

Abstract

Reservation system is an application for GWU staff, faculty and students for secure travel option during night. This application enables you to book a ride from specified pick up and drop locations along with the date, time, and number of passengers, cell phone number and e-mail address.

Introduction

People use the handheld devices to access the Internet for any day-to-day activity. Internet has revolutionized the way people work. This true mobility power of Internet could be used to make a secured shared ride application for any university where the shared ride system is available. I have tried to implement the same thing for the George Washington University where the shared ride could be booked using the application for the android phones.

This android application can help reduce the time required to book a ride from point A to point B and will be very handy for the students who want to commute late night. Students will feel more secure with this handy application. Also this application will make the system of reserving the shared ride much easier and more accessible.

In this application I have provided a simple system for logging into the system to access the data that is necessary to decide the location requests and the number of people who want the ride. People can reserve a ride, view the reservations that have been made and even cancel the reservations in case they do not want to go. The application requires the data service on the phone or the wireless Internet connectivity namely Wi-Fi.

Functionalities:

1) Login

Students can log into his student account simply by putting in his username and password that are already stored in the database.

Ride_For_StudentsActivity.java class is used for login purpose. This class will accept username and password pairs and it will determine whether the user is a valid user or not. And it will grant access only to the valid user whose name and password is pre-stored in the database.

Ride_For_StudentsActivity.java class makes use of 'main.xml'. This xml file has the UI for login.

2) Reservations

User can specify the pick-up and drop-off location along with the number of passengers and time. You can make reservations only for the day of the reservation. You cannot make prior or future reservations with the system. Once you have made the reservation you cannot alter it.

Book_Ride.java class is used for gathering all the information from the user. It stores all the information like pick-up and drop-off locations, time, number of passengers etc. This class plays an important role in this project. This class is associated with 'bookride.xml'. This xml file helps to achieve the interface to book a ride.

3) View Reservations

If the person has made the reservation he can view his reservations.

Reservation.java class is used for displaying the user information. Even though a user can not modify any data once he/she books a ride, he can view it. And

'reservation.xml' file is used to display the stored user information.

As long as use of available API's goes, I have not really used any available code online. I started from scratch and it was the best part of my project.

Problems

Since I was new to mobile development field I faced quite a number of problems. First and the main problem I faced was the remote server connection plus it was very difficult to connect an android application to a remote database (sql server 2005) through java. I needed my mobile client to send and receive data from a server who has the capability of processing the sent information too.

Second problem I faced is that I did not know how to transfer parameters between activities.

And last but not the least I devoted most of my time for the server connection and hence could not add more functionalities, which are now listed as future enhancements.

I did face lot of problems while developing applications all throughout the semester but I am glad that I challenged myself and took up this course. I have really learnt a lot and now I have got the start to learn more.

Solutions

I am still working on the database connectivity for remote server. And I did learn how to pass parameters between activities using intent and supporting class.

Future enhancements

First thing I want to do is to add an alarm system to notify the person about the reservation of the ride. Secondly, I wish to Add Email notification. And thirdly I want to add Google Maps feature to enhance the user experience.

Conclusion

Given a little free time, I am sure that I will be able to overcome the problems that I am facing currently. This application really helps one to save time and money as one do not need to call and wait in a long queue to book a ride during peek-hours. With few additional features this application is ready to use publically.

