

A STUDY ON TRANSPORT SERVICES AND IMPLEMENTATION IN TERMS OF BUDDY POOLING SMARTPHONE APPLICATION FOR CITIZEN

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Abstract: Buddy-pooling is also known as car/bike-sharing, ride-sharing. Buddy-pooling is the sharing of Car or Bike journeys so that more than one person can travel in a same car. Due to the increase of population and rapid increase in urbanization, there is lot of problems in transportation especially in India. This tends to problems like increase in number of vehicles, traffic, fuel combustion, heavy cost on resources, parking problems and stress. To overcome this hurdles, a quite different but realistic solution called “Buddy-pooling” Can be used. We are working to make an ANDROID based application that will enable to let people know if vehicles are available for carpool in their desired path and they can register for it. This will enable people using this application to share their everyday expenditure on travelling, not worry about hiring a cab and making new connections. People can have this application on their cell phone as well as on their tablets and can easily car/bike-pool with unacquainted people.

Keywords: Android, Buddy pooling, GPS Navigation, Ride-Sharing, Ride-Seeker

I. INTRODUCTION

With the increase of environmental concerns and the congestion of roads, Buddy-pooling has gained a lot of popularity when it comes to environment-friendly and cheap ways of travelling. Buddy-pooling is when two or more persons share a ride in one of their personal

Cars/bike. Buddy-pooling reduces pollution since we have fewer cars on the road. It's also economic since the travel expenses are shared among the riders. Travelling alone may be stressful, so having other persons with you on a trip reduces the stress and is also the occasion to socialize and make the trip funnier. Finding people to share a ride with is the challenge of carpooling as it is difficult to find a person going to the same place as you at a given time. The proposed system is developed in android. There are two main reasons for choosing Android operating system instead of another one. First is that Android is an open source operating system and thus allows reusing some pieces of program to create a new application. It is quite well documented and sources can be found on internet to learn how developing applications for this platform. Second is that Android is fast growing operating system and hence it will help for bringing more and more users for ridesharing. The purpose of this project is to develop an application that tries to overcome the disadvantages of the other available applications. The application is to be generic, which means that it may work for any car/bike- pooler. ‘Buddy pooling’, is the name chosen for this application.

It would help the users to upload, view and register for journeys both short distance (daily commute to work) and long intercity trips. The system will be designed taking into consideration the users need about safety. ‘Buddy-pooling’ is also a real-time application. People will not only share expenses but also will not have to worry about reaching late while making new connections.

STATEMENT OF PROBLEM

There is serious problem of traffic on roads these days and the increasing fuel prices making the condition worst. Also use of vehicles causes pollution which has its adverse effects on our environment. Car/bike sharing is a solution to this problem but issues like security and trust can arise. Solution to this problem is mobile based Car/bike pool system. The Buddy-pool system would enable its user a safe and secure way to share cars. This could include both short daily journeys such as going to workplace within the city and also long inter-city trips.

PROPOSED SYSTEM

Buddy-pooling system is a dynamic system which based on two underlying sources of information: which includes route Announcement by the user and route selection and registration by passengers. The user who is going to travel by his/her car will mention source and destination along with the route which is selected by him/her. He will also mention the capacity of vehicle. The user (passenger) who finds the path as per his request can register for the trip. Carpooling system has detailed phased registration system. For ensuring trust and security the system will check for any valid identity proof such as UID.

For displaying routes and users position we use digital maps. The systems GUI (graphical user interface) will be user-friendly and standard.

II. LITERATURE REVIEW

This chapter reviews the literature on buddy-pooling [1]. The review focuses on studies that have attempted to provide insight into the following questions: What factors affect buddy-pooling? [2] What is the role of technology in the formation of buddy-pooling? [3] This application vitalises the enhancement of the understanding and use of your vehicle as a pooling device helping out others in the process, from the study of past few research paper and ideas of ride sharing. It helps in reduced traffic, open roads and also adds to the vast use of vehicles that pollute the environment. [4] The role of technology helps in cutting off the costs and work associated in booking cabs for short and long rides by overcoming it with the help of ride sharing application like buddy-pooling it helps in sharing the ride and also in less and minimal use of vehicles. This helps in spacious roads, less accidents, reduced traffic and more affects to the global warming resulting in fast recover of the current environment situation and also effectively inducing the cost of travel and mobility with friendly nature and naked transaction with every seconds tracking effectively. [5]

III. Design:-

SYSTEM ARCHITECTURE:

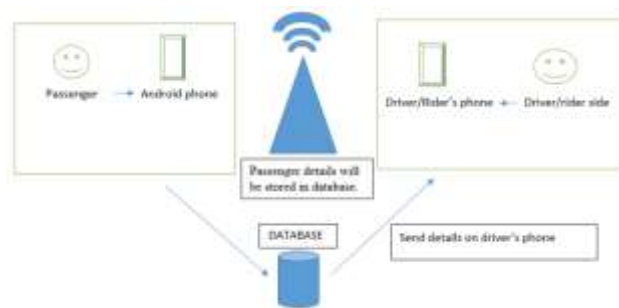
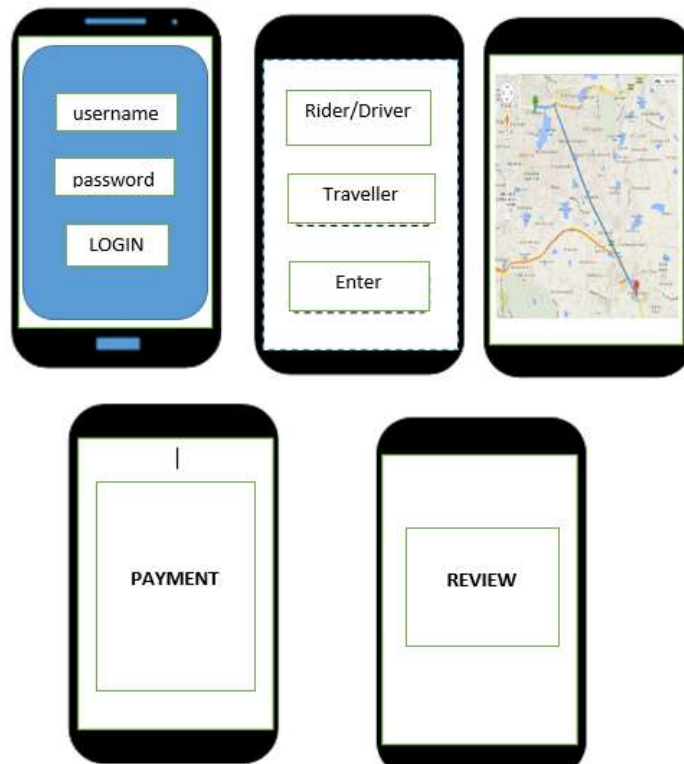
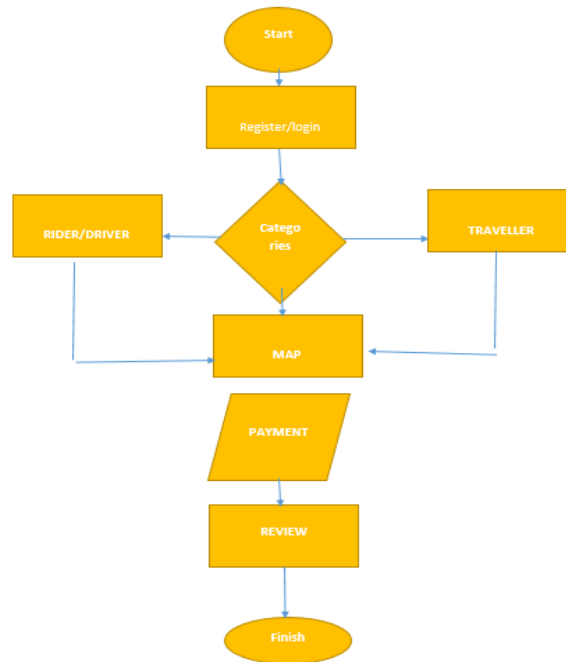


Fig 1.0 system architecture of buddy pooling

User Interface:-



Flow chart:-



Data Flow Diagram:-

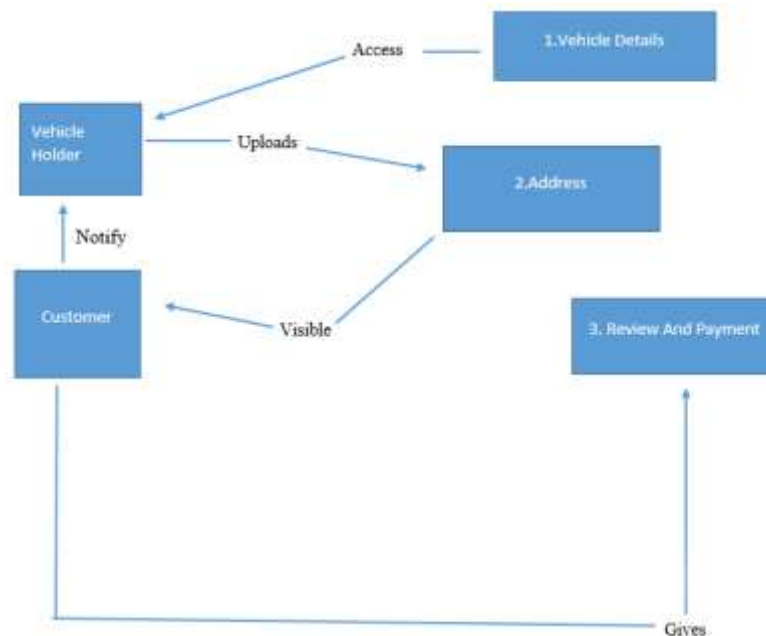


Fig 4.0 Data Flow Diagram of Buddy pooling

ADVANTAGES:

1. Reduced traffic issues due to less usage of vehicle and it also helps in saving fuel costs and fuel efficiency which leads to a major impact.
2. Low cost rides assures rides at minimal rate with live tracking of the rides and also reducing the money involved in fuel and other vehicle impairments and affordable listing.
3. Due to less usage of vehicles there will be eco-friendly behaviour within the vehicle owners and helping in conservation of the environment and global warming and pollution made by vehicles.
4. It is a time saving application which always helps in saving the time lapsed in booking cabs and waiting for the cabs and also minimal contact and more connectivity.

CONCLUSION

This application is highly useful for in areas where it is densely populated and where there is no convenient mode of transportation. Also Buddy-pooling system is very effective way to reduce pollution and the congestion of vehicles on the roads in cities. It provides an eco-friendly way to travel in both intercity and intra-city trips. It also provides an opportunity to meet unknown person. As today most people prefer private vehicle to travel due to delay caused in public transport system. Pre-registration ensures that only verified people get into the vehicle so that trust can be established. Thus the proposed Buddy-pooling application is beneficial in both social as well as environmental aspect.

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