



COMSATS UNIVERSITY ISLAMABAD
ISLAMABAD CAMPUS
HUMAN COMPUTER INTERACTION

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The increase in petrol prices has led to more and more people looking for options to commute. As a temporary solution even in COMSATS faculty has created a group that is meant to help people find options for ride sharing. You have decided to create a ride sharing app for people of COMSATS University that would help people commuting to and from COMSATS find cheaper ways to travel.

a. Do a brief PACT analysis for this application.

People: People are different from each other w.r.t their physical characteristics, abilities and character. Following are the factors that we need to consider while thinking about the people who will use this ride sharing application.

People Analysis:

Primary stakeholders – Students (Undergraduate and Postgraduate), Academic staff, Non-academic staff.

Secondary stakeholders – Parents

Physical Differences:

- This COMSATS ride-sharing application will be used by the people from 18 years or above of age.
- The users will be both male and female.
- The application must be friendly, usable, and pleasurable for all kinds of people by making sure that it caters all the people with physical disabilities such as, visual impairment (short/long sight), hearing impairment, color blind, wheel chair users.

Psychological Differences:

- The users of the ride-sharing application are diverse and belongs to different cultures and use different languages. Hence, English will be used as the medium language.
- Almost the users of application have good educational level. Hence, new technologies, level and duration of attention will be easy to learn.
- The icons and the signs used in application must be clear and does not have negative meaning in the target culture.

Usage:

- The user will be able to share their information over the app and get rides to their destination with other customers and their fair will be evenly divided among them.
- The personal information will be kept safe from the other customers only their ride details of pickup and drop off will be shared.

Social Differences:

- The desires of the users differ. For instance, some riders prefer cheap rides while some prefer to be on time. So application needs to cater all the cognitive abilities.
- The application will be heterogeneous since it is designed to cater different people in Pakistan who wants to travel to COMSATS.
- The interface must be designed in a way that infrequent users can easily learn and frequent users can perform desired task in few steps as possible.

Activity:

People sharing information:

- Students, professors, and staff members can enter their personal data into the system to notify the application about them and their details for sharing information with when they book rides. For example, if a person is travelling and books a ride, the system will communicate information about that individual, such as name, age, and gender, so that the other passenger will know who they are sharing the journey with and may decide whether they feel comfortable doing so.

User checks for the available ride options:

- The user must enter their information along with their personal information. Every time user wants to book a ride has to enter its pickup and drop-off point, after choosing the departure location the user is provided with the option to share the ride with people who are going to the same location and can also know their ride method such as if a person is on the bike and wants to share a ride, or on car etc.
- The user must provide both their personal information and their information. Every time a user wants to book a ride, they must enter the pickup and drop-off locations. After selecting the departure location, the user is given the option to share the ride with others who are travelling in the same direction. They can also see their preferred mode of transportation, such as whether they prefer to ride a bike or a car.

User accepts the ride requests:

- The user who is offering the ride can also check for the information and details to make sure he wants to share the ride with the person, if he wants to reject he can and accept another feasible request.

Activity Attributes:

- It is not safety critical.
- All the above activities will be taken whenever the user wants to book a ride, has to provide a ride's destination and pickup location each time and has to check the rider's details before accepting the request.

Context:

Physically:

The activity can take place at any time of the day, and the environment can be indoor or outdoor.

Socially:

There is a need for privacy in this as if someone doesn't want the person to know about where they are going so this application is used on the mobile phones of the user so he can book rides easily.

Organizationally:

This activity will take place around 6 am to 10 pm which is university time.

Technology:

Current technology:

- Currently there is no sharing ride process properly like user can be sharing a ride with a friend or can look for a ride outside in taxi stands where he has to wait and it can also be the situation the user has to book a ride on the full fair which is expensive, in all these ways of getting a ride the user is lacking in safety, paying more or wasting time.

Proposed system:

- Input:
User personal information, ride details through text, and ride detail using the map.
- Manually entering the ride details:
By inputting the ride specifics and looking for the desired ride, the user must manually process the information. They may also enter the expected fare for the desired ride, and if the next passenger thinks it appropriate, they can share the journey.
- Choosing the ride location using a map:
The user can input the location using the map that will automatically enter the user pickup and drop off location as well as the fair for the ride.

- b. Which Need Finding Technique would be most suitable for this application. Discuss how you would carry out your chosen technique(s)? Write a proper plan. If you choose interview/ Survey/ Focus groups provide some sample questions.**

Need finding technique:

The suitable need-finding technique for the application is using the questionnaire method and asking people more about their needs and requirements for the application.

Carry out technique method:

This need-finding technique can be carried out using the surveys and interview method by asking a group of people questions to answer and find out their plan and need from the application.

Questions for the survey or interview:

1. Do you drive a car?
2. Do you take public transport?
3. What is your primary mode of transportation for commuting (making work trips)?
4. Why did you choose your mode of transportation?
5. Most days, how long is your commute in miles (one way)?
6. What are the potential barriers to your use of ridesharing?
7. What are some reasons why you might want to use ridesharing?

If you could have the choice, would you prefer to drive or ride during ridesharing?