

Caraamad

Ajwa Shahid



Schedule A Ride

Available Drivers

Filter



Amna Naeem LEA-112
★ 4.3 (512)

 View  Confirm



Haris Khan LED-223
★ 4.7 (132)

 View  Confirm



Sana Kamal LEA-114
★ 4.5 (432)

 View  Confirm



Haider Ali LED-657
★ 4.5 (112)



Haris Khan
LEA-562

★ 4.7 (132)

 Student

 FAST University

 White Honda Civic

Condition: Good

Details Added: The A

Reviews



Fareeha Mohsin 1
Had a good experi



Amna Khalid 04 M
The driver is really



Ahmad Ali 02 Ma
Really cooperative

My Role

- Team Lead
- UX Researcher
- UI/UX Designer

Process

1. Problem Identification
2. Desk Research
3. User Research
4. Information Synthesis
5. Ideation
6. Prototyping
7. Outcome and Reflections

Duration

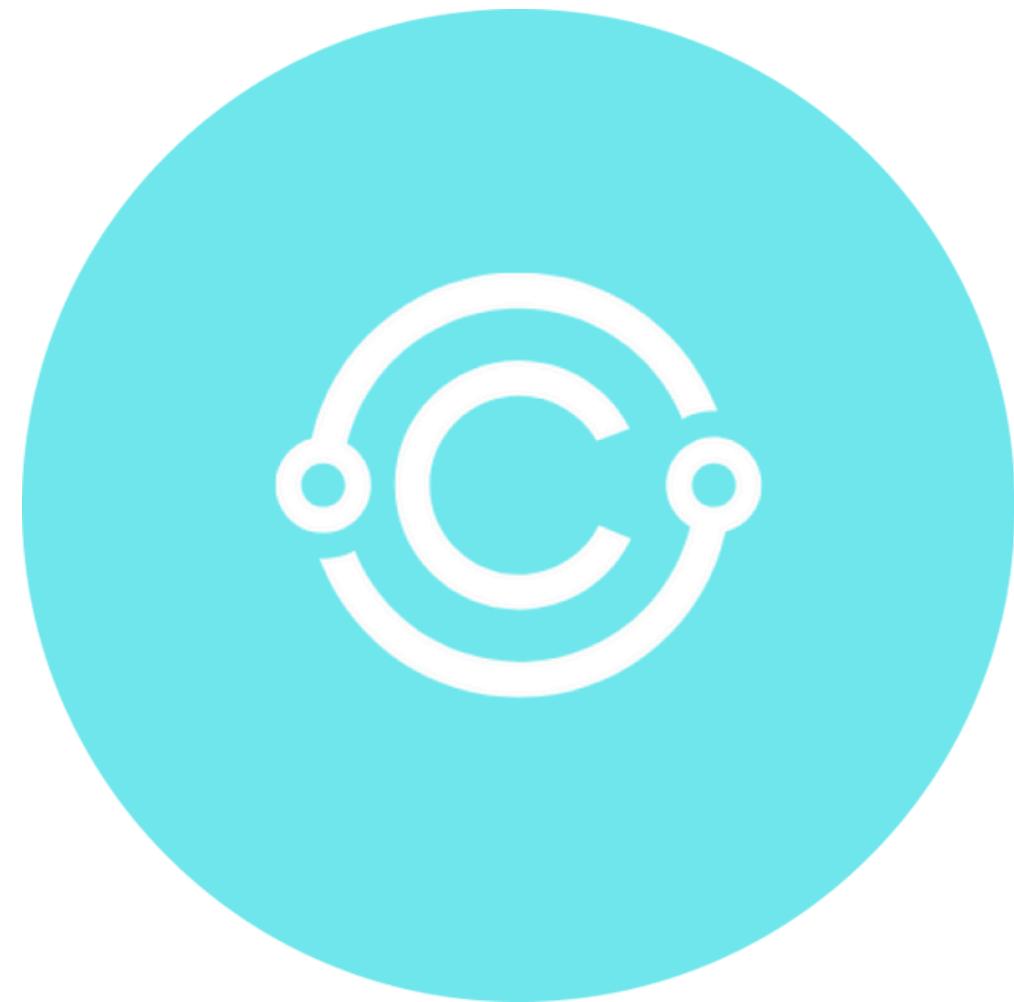
October 2022-December 2022

Team Members

Taha Zakir | Rayyan Ali | Fareeha Mohsin

Translation

Caraamad is a portmanteau of the word “Car” and the Urdu word “Aamad,” which means Advent. It is also a pun, as the word “Karaamad” in Urdu means productive.



Logo for the Caraamad App

Problem Identification

In urban areas of the **Global South**, transportation has become increasingly essential for women. Yet, navigating these routes is fraught with challenges. From the **rising costs of ride-hailing apps** like Uber due to inflation to the **threats of harassment** on buses and rickshaws, safe and affordable options are limited. In regions like Pakistan, the situation is compounded by poor road conditions, inadequate lighting, and **high crime rates**. As a result, many women are **trapped in a cycle of fear**, unable to confidently commute to their destinations.



How might we design a solution to help women find safe, reliable, and cost-effective transportation?

Desk Research

My literature review focused on the gender disparities in urban mobility in developing nations. In this review, I identified the main challenges women encounter both inside and outside vehicles while traveling.



Gender Disparities in Urban Mobility

1. Travel Patterns: Women have unique travel patterns, making more trips and relying more on public transport than men. Despite this, transport infrastructures don't cater to their specific needs, with societal attitudes further limiting their mobility.
2. Smart Mobility: Smart mobility apps were meant to aid disadvantaged groups like women but often sideline their needs, resulting in safety concerns. Limited tech literacy or phone access greatly hinders women's use of these apps.
3. Social Attitudes: Societal norms, such as the expectation for married women not to travel without their husbands, are just one of many barriers limiting women's mobility. Deep-rooted beliefs about honor further restrict their independence and opportunities.



Issues Faced by Women During Travel

1. **Outside Vehicles:** Women grapple with long, unpredictable wait times at bus stops, inadequate lighting on routes to these stops, the necessity to traverse longer distances due to limited routes, and frequent encounters with harassment while waiting.
2. **Public Transport:** The tightly-packed public transport often exposes them to harassment, with unwanted contact, lewd gestures, and catcalls from men. These experiences deter women from public transport, affecting their educational and career decisions as they prioritize safety.
3. **Personal Vehicles:** Male drivers often show less respect to female drivers on the road. Additionally, traffic inspectors and mechanics may attempt to overcharge women, capitalizing on perceived vulnerabilities.

User Research

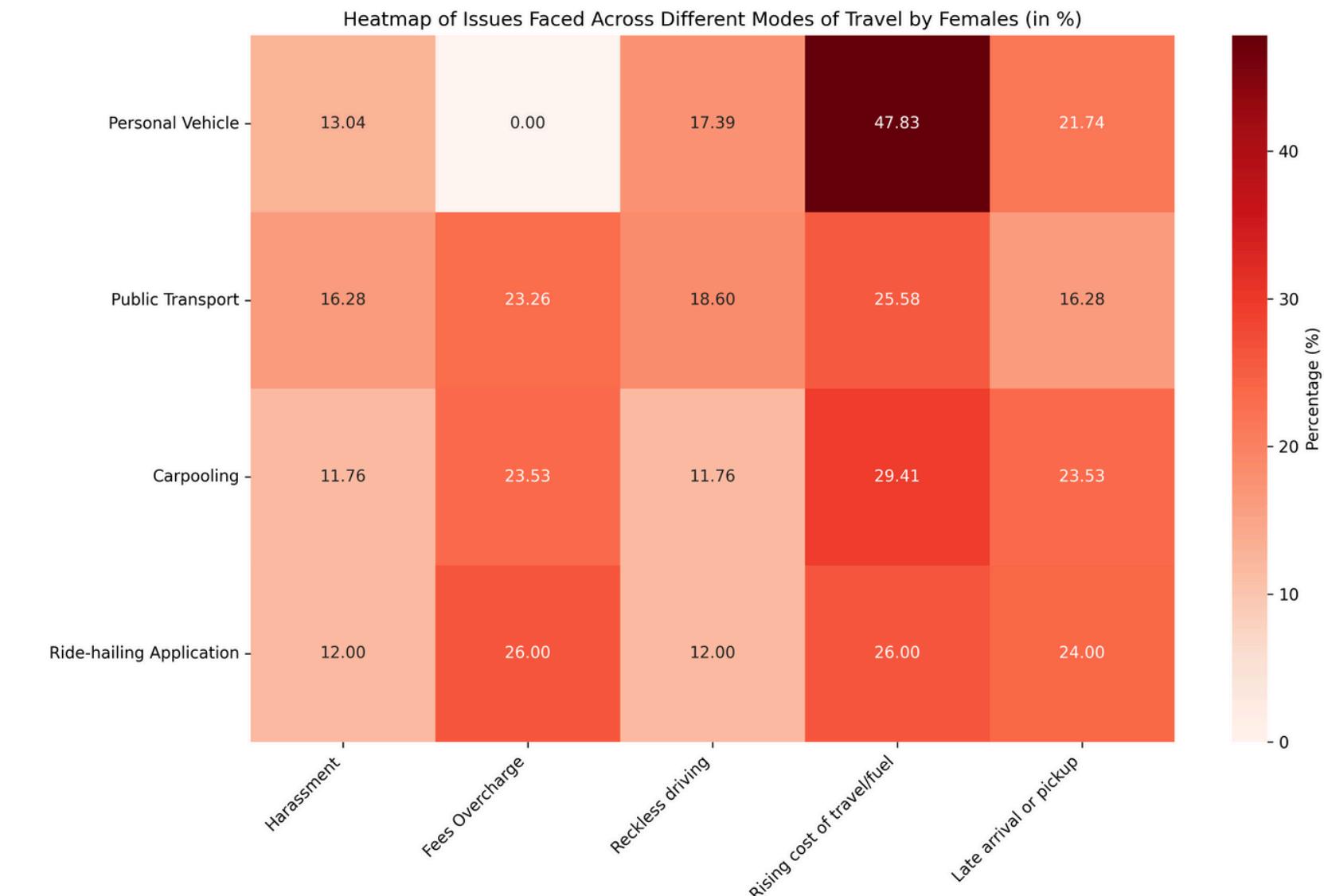
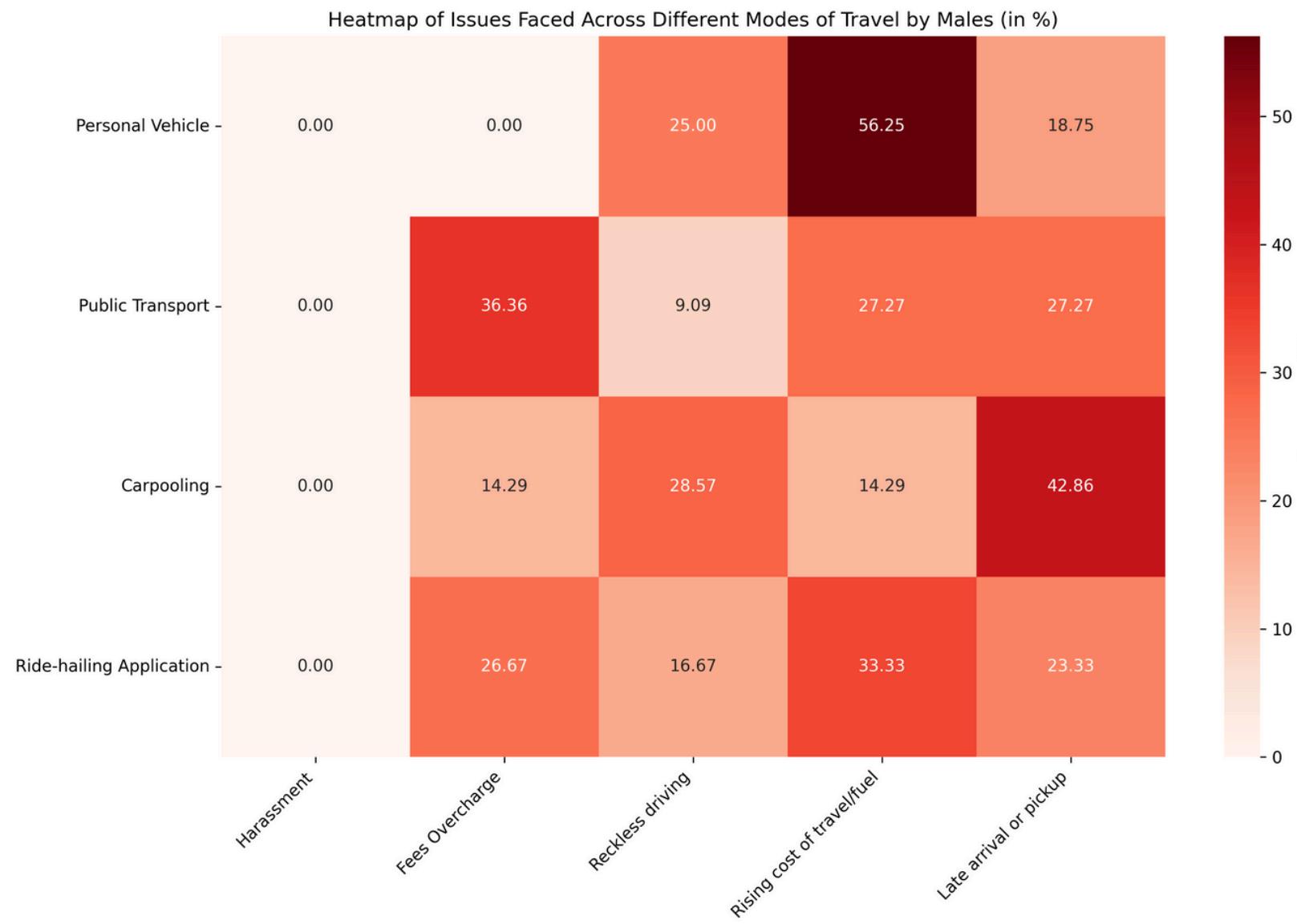
- **Target Audience:** Undergraduate students who would commute daily. We also included male participants in our study for a comparative analysis.
- **Study Design:** Our mixed-methods approach included a quantitative survey (with 84 respondents) to collect statistical travel data from our audience. This was followed by semi-structured interviews with 11 participants (3 M, 8 F) to gain deeper insights into the pain points, needs, and desires of our audience regarding commute options.

Research Questions

1. What factors **influence** women's decisions when selecting a mode of transportation for their daily commute?
2. In what ways do existing transportation options **fail** to meet the specific needs of female commuters?
3. What types of **support systems** are female commuters seeking within the transport infrastructure to feel safe?
4. How do the commuting patterns of female commuters differ from those of their male counterparts?

Insights

Quantitative



We can see from our data that women are disproportionately affected by harassment during their travels, with 16% of female commuters who utilize public transport having faced at least one instance of harassment. However, it should be noted that the most commonly faced issues across both genders and all travel modes are related to the affordability of traveling. This helped us understand that one of the most important pain points for our target audience was the **rising travel costs** due to Pakistan's worsening economy.

Insights

Qualitative

Lack of adequate lighting or emergency call buttons for bus stops

Overcrowded vehicles that make it difficult to manage personal space and privacy

Societal norms, like cultural restrictions on women driving or riding bikes

Family pressure not to travel when the sun goes down or travel outside their town

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Factors Affecting Female Urban Mobility.

Visible presence of security personnel or trained staff to address safety concerns

Partnerships with local safety apps or services to provide real-time assistance

Awareness campaigns to promote respectful co-traveling.

Reliable ride-sharing to cut travel costs

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Needs and Desires of Female Commuters.

Information Synthesis

I synthesized the insights from our user research to create qualitative personas to stay anchored on user needs.

Persona



Name: Amna

Age: 21 years

Education: Majoring in Econ from Lahore School of Economics

Occupation: Student

Hometown: Lahore, Pakistan

Goal: To find a safe, reliable, and affordable commuting option.

“As a day scholar, I am constantly stressed because of the commute. I don’t have any affordable or reliable options for travel, so I can’t stay back for any university events later in the day. Whenever I go on public transport, I stay on call with my mother so she knows immediately if something goes wrong.”

Story

Amna is a junior-year student who is majoring in Economics. She does not have a personal vehicle and thus has to rely on public transport for her daily commute. She would prefer ride-hailing applications, but they are too expensive for her daily travels. Her plight with her daily commute is a cause of stress for her entire family.

Frustrations

- Feels that her stressful commute is greatly affecting her academic life.
- Feels betrayed by her society and government who have not been able to meet her basic travel needs.

Need

Any transport option that can offer any improvements in terms of safety, reliability, or affordability over her current commute.

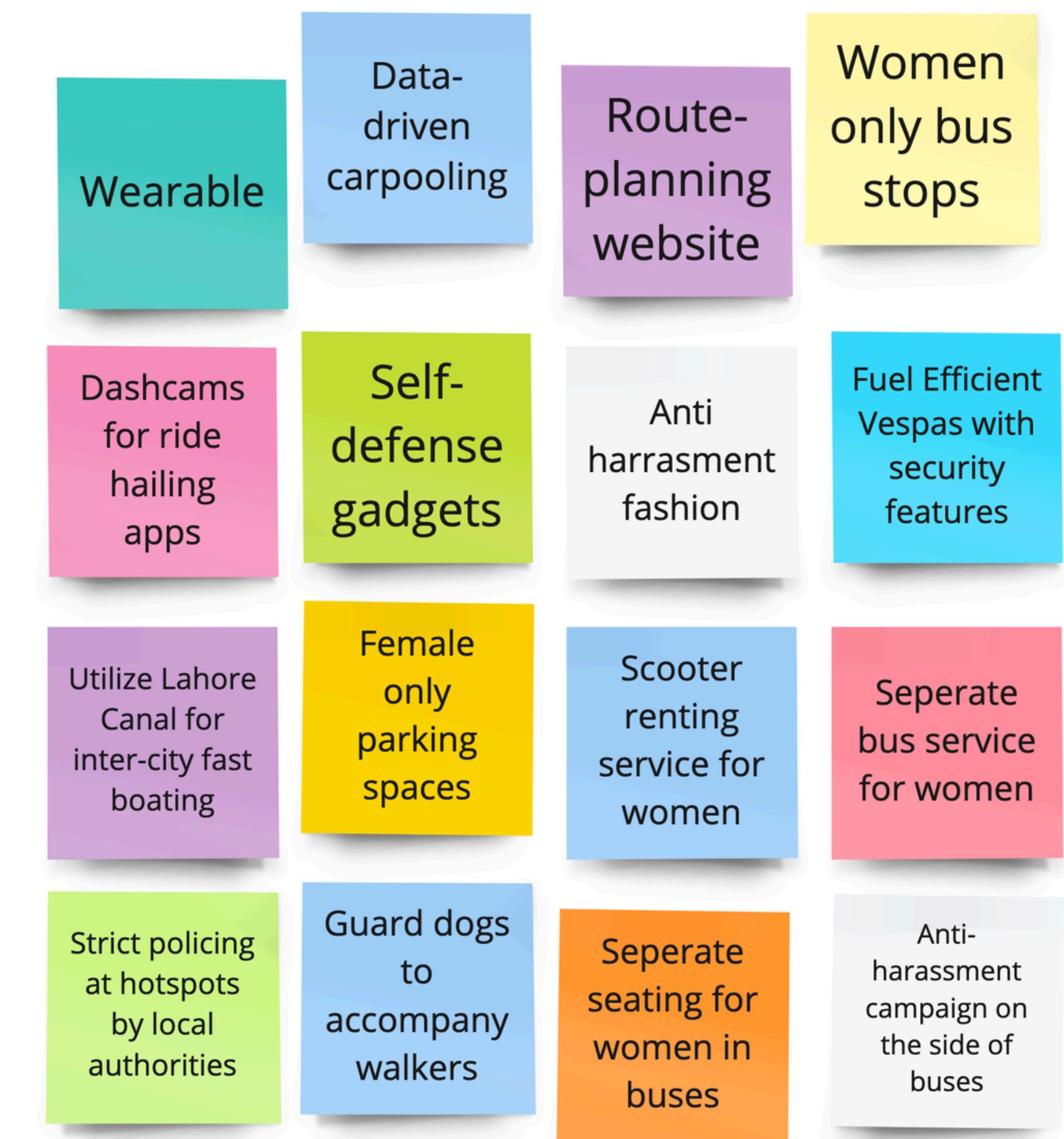
Ideation

Our ideation sessions focused on improving current options regarding three core tenets: **safety**, **reliability**, and **affordability**.

We used the **rapid ideation** brainstorming technique, where the group sat together to list down any and all ideas that came to mind in the next 10 minutes.

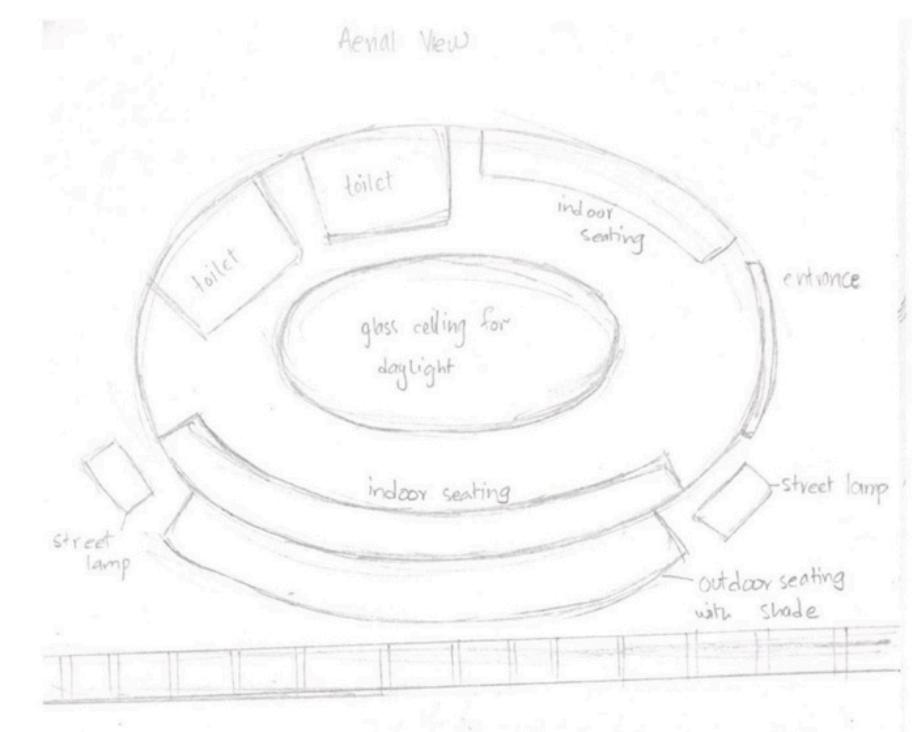
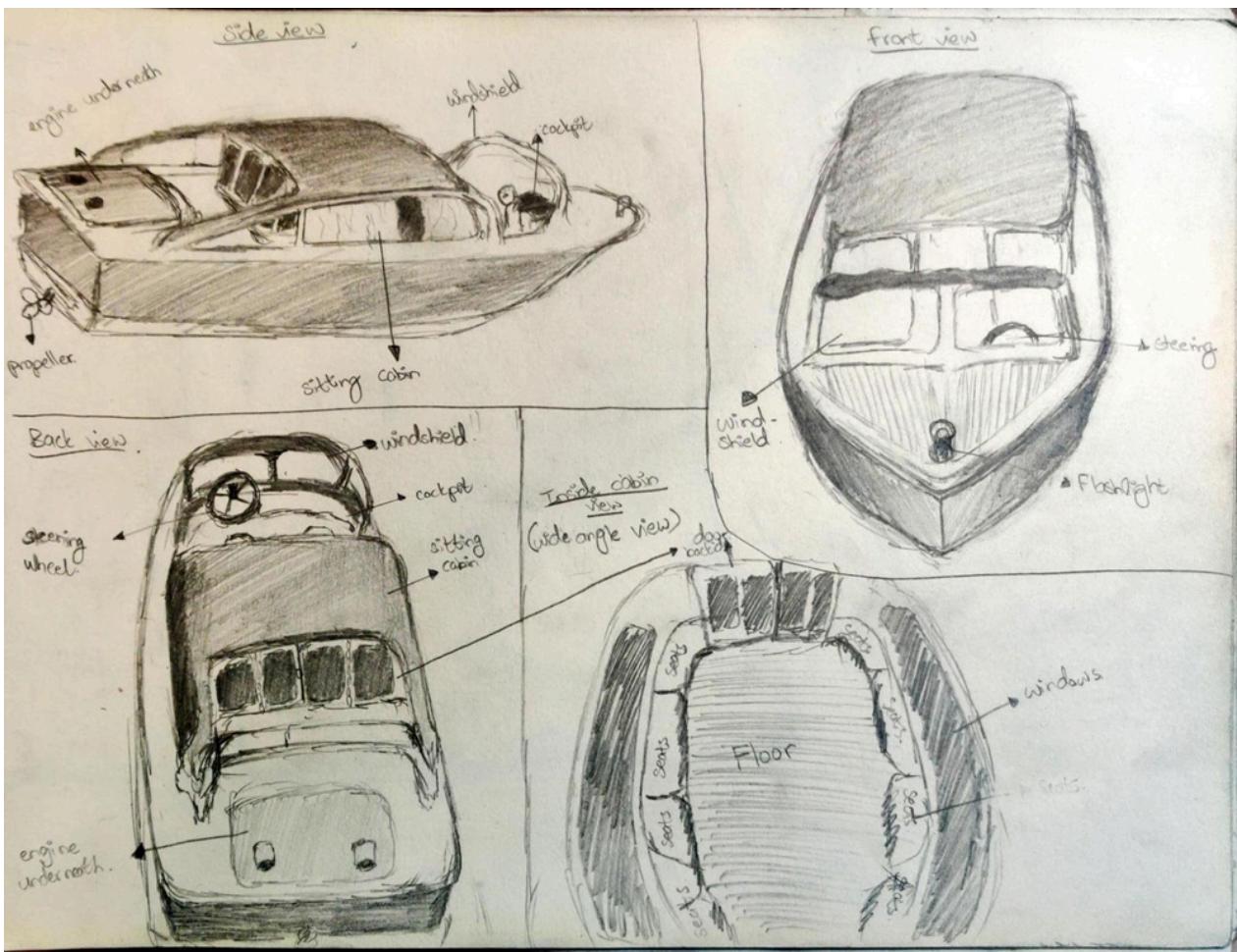
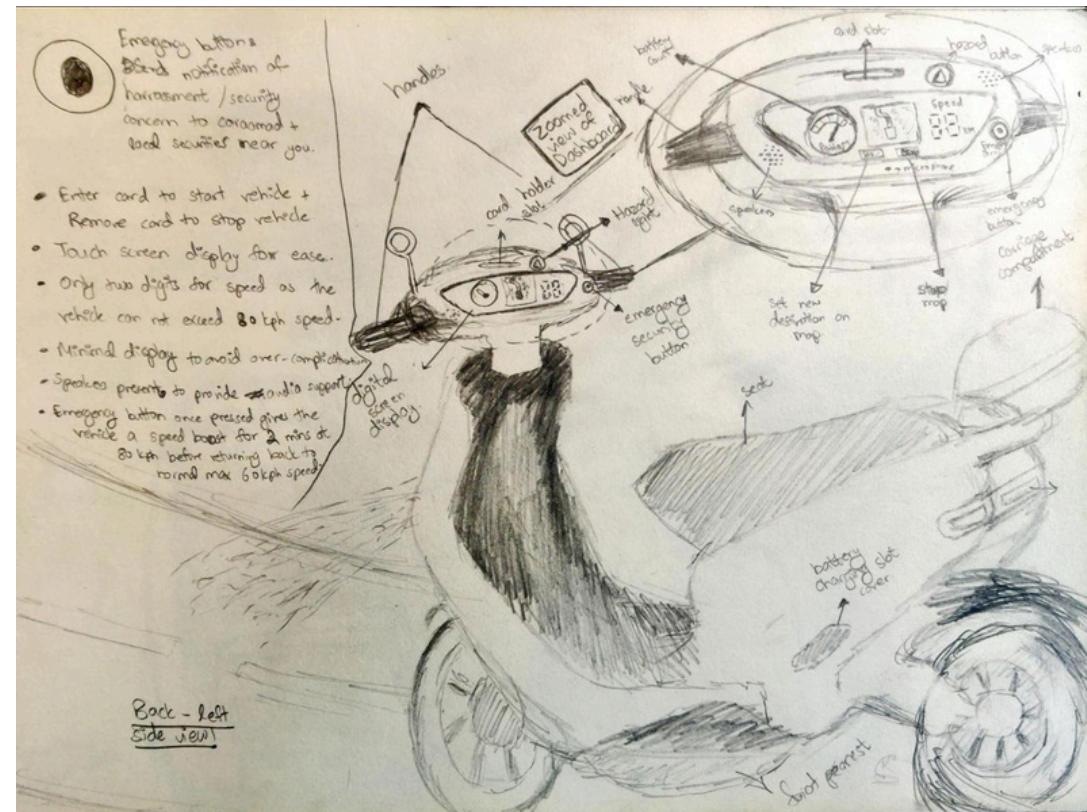
Next, we reviewed each idea and discussed its merits while exploring the feasibility through further desk research.

Collecting Ideas



We identified five promising intervention strategies and evaluated their potential to improve women's urban mobility in Pakistan, emphasizing cost-efficiency and their ability to address the multi-faceted challenges within the transport infrastructure:

1. Women-Friendly Bus Stops 
2. Wearable Self-Defense Gadget 
3. Lahore Canal Water Bus 
4. Electric Scooter Renting Service 
5. Data-Driven Carpooling 



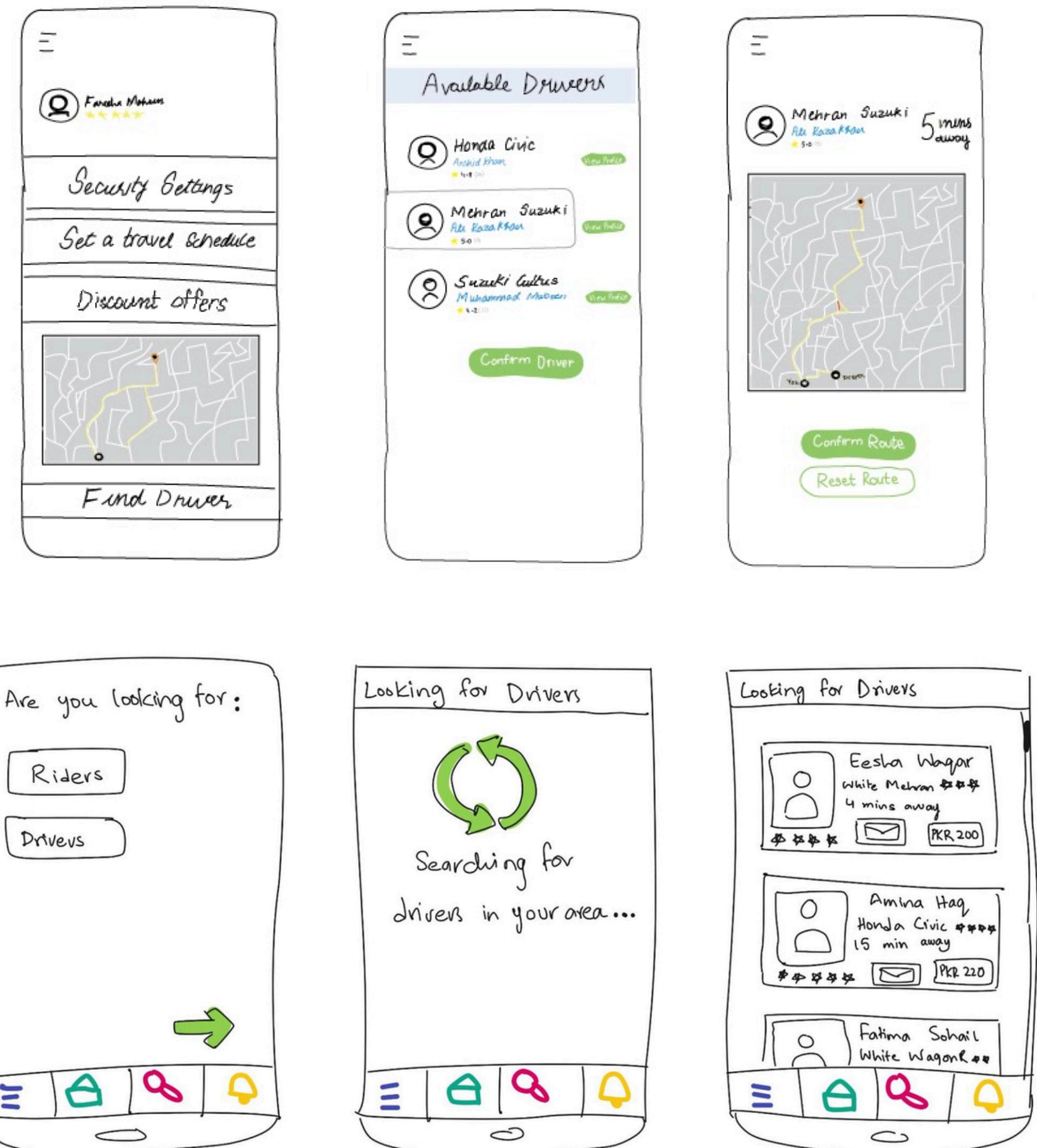
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(sketch made using graphic tablet)

Data-Driven Carpooling

Given the numerous advantages directly aligned with our fundamental design objectives – **safety**, **reliability**, and **affordability**. – we chose to proceed with this approach. After some brainstorming, we settled on the name **Caraamad** for our platform, which we hoped would create a welcoming vibe for our platform due to the wordplay.



List of Features

We conducted a quick **survey** to collect data about the most important features of Caraamad and finalized the following:

Security:
Verification

Personal
and Vehicle
Verification

Vett for
criminal
records, state
of the car by
experts

Mandatory
regular
checkups for
each
registered car

Security:
On the
Road

Safest routes
recommended
from data

App includes
alert button
for
authorities

Live
location
sharing

Affordability

Routes with
least traffic
times will be
recommended

Non-rush hour
times
recommended
at scheduling

Cost-
sharing due
to carpool

Reliability

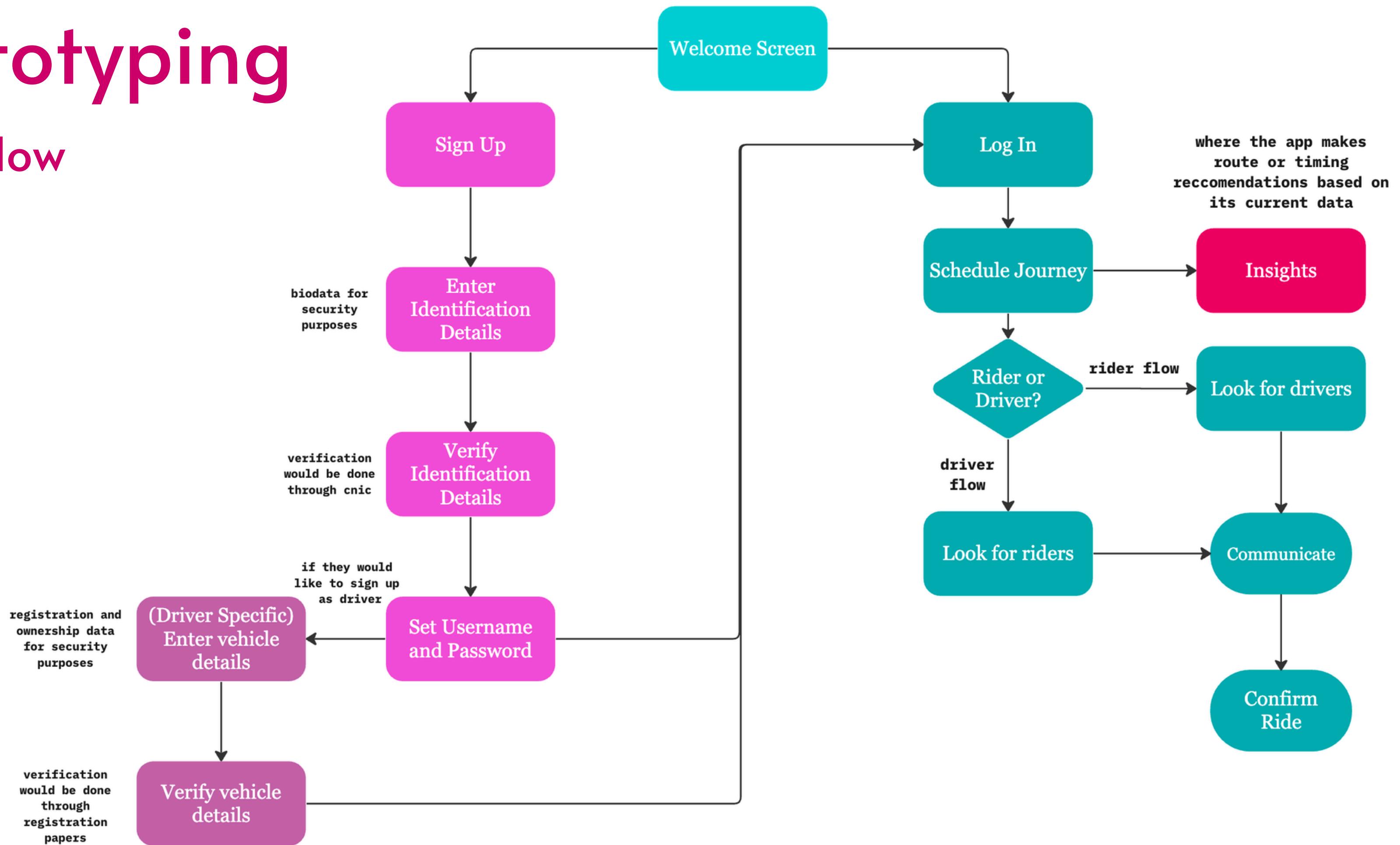
Backup
Drivers
available

Rating,
Review
Systems

App includes
hotline for
trusted towing,
auto
mechanics

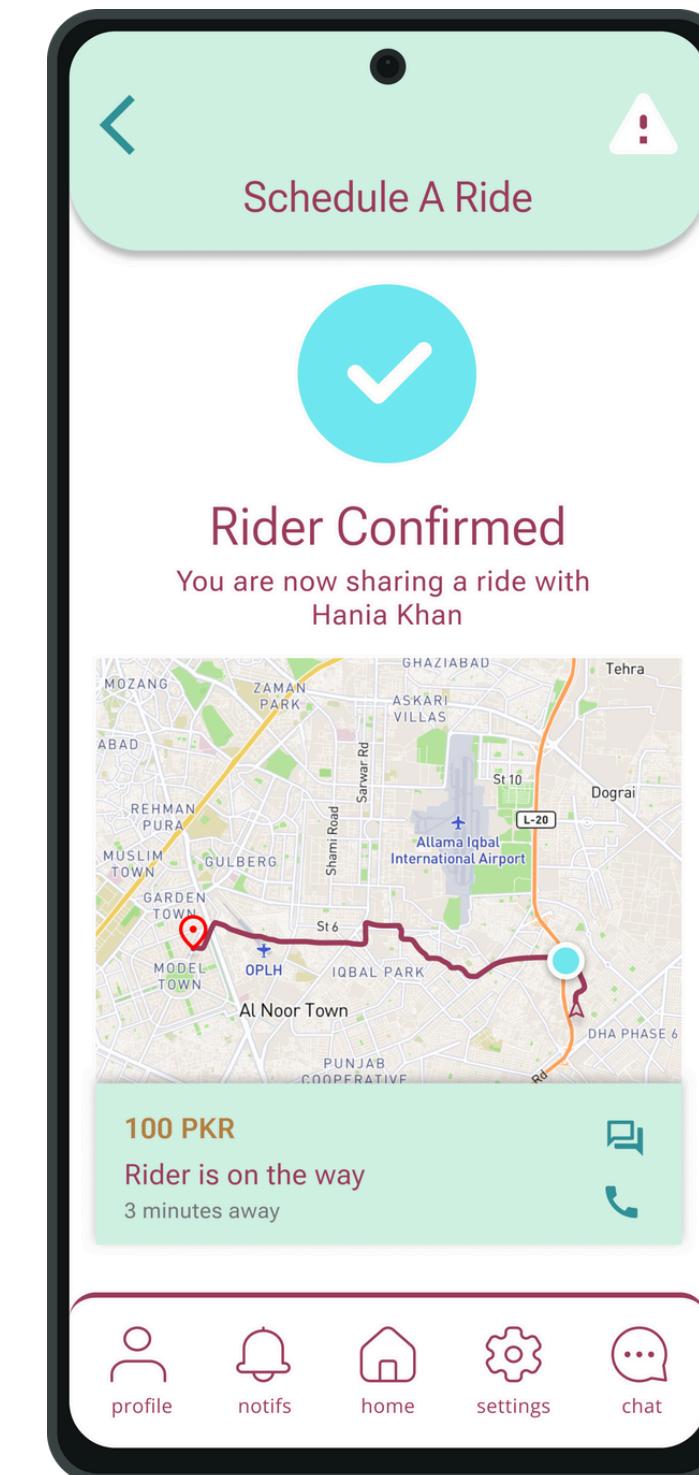
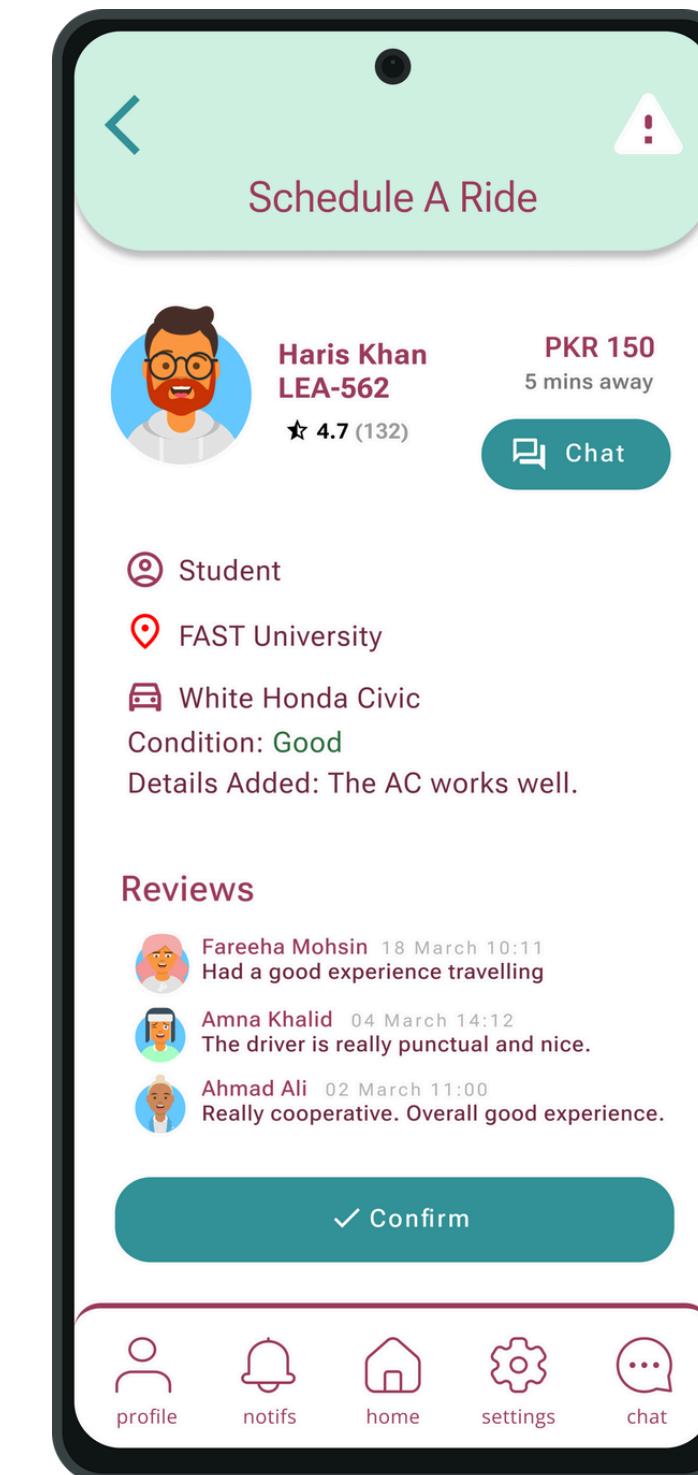
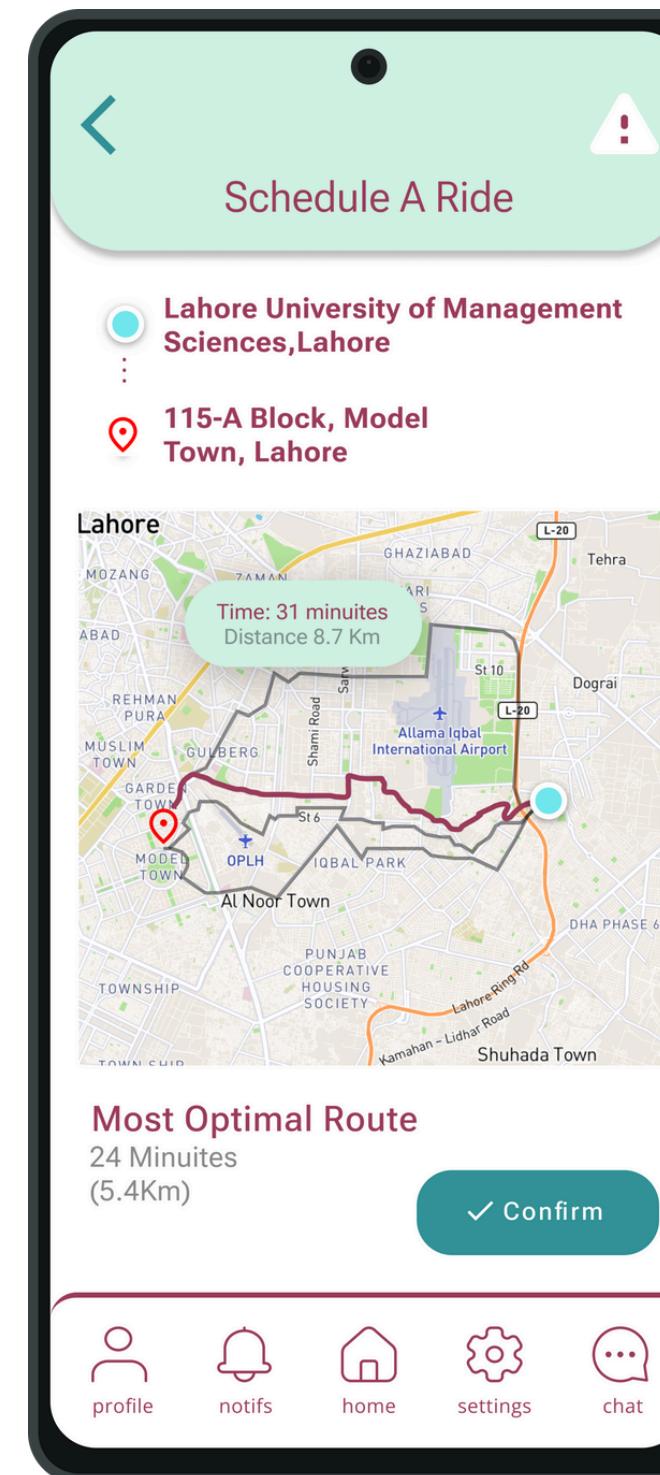
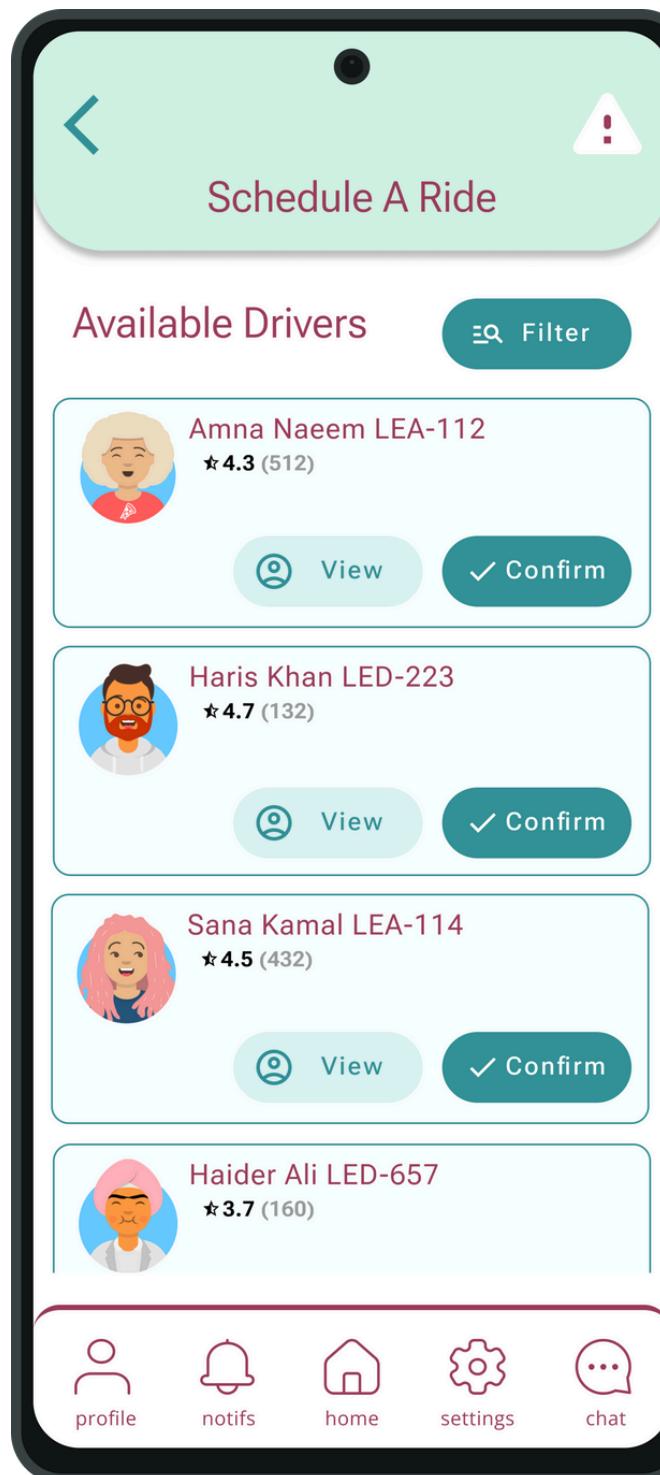
Prototyping

Task Flow

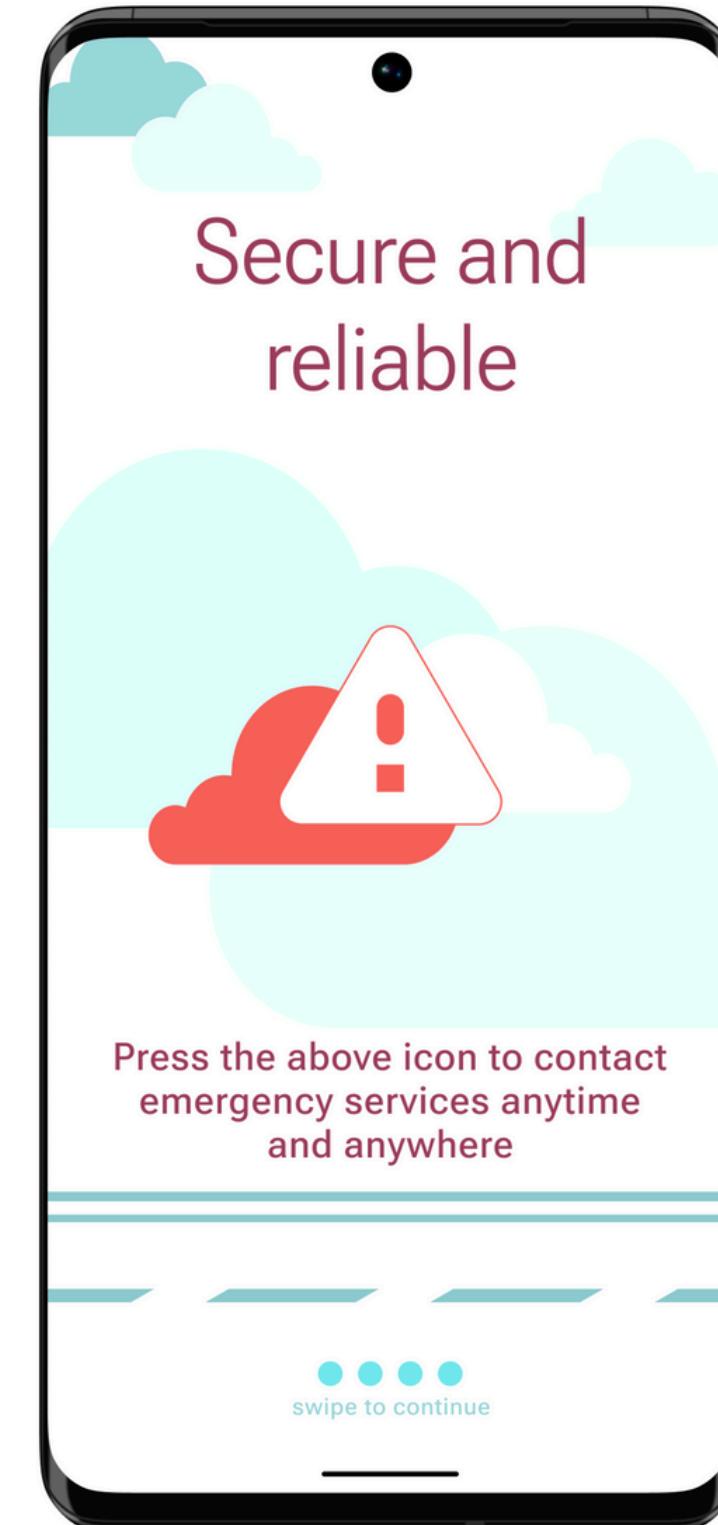
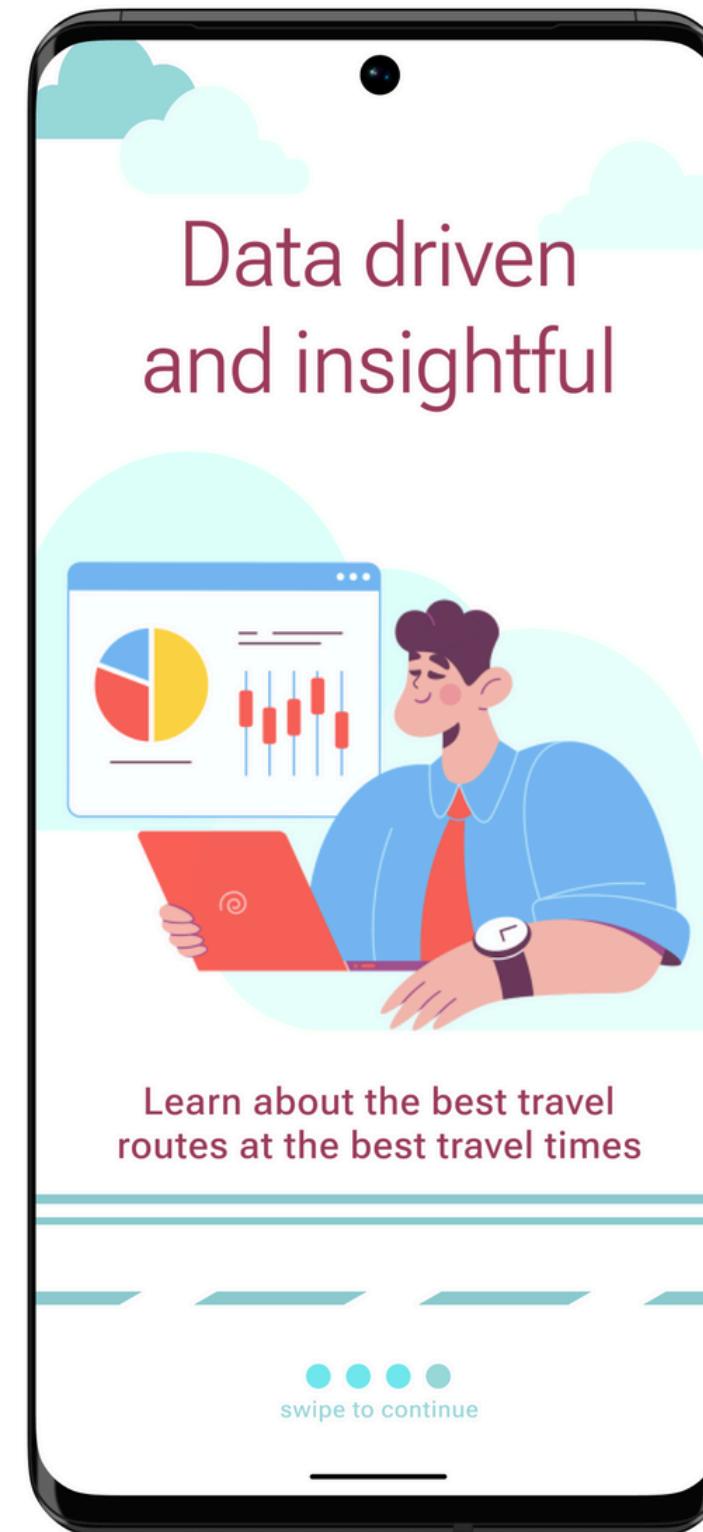
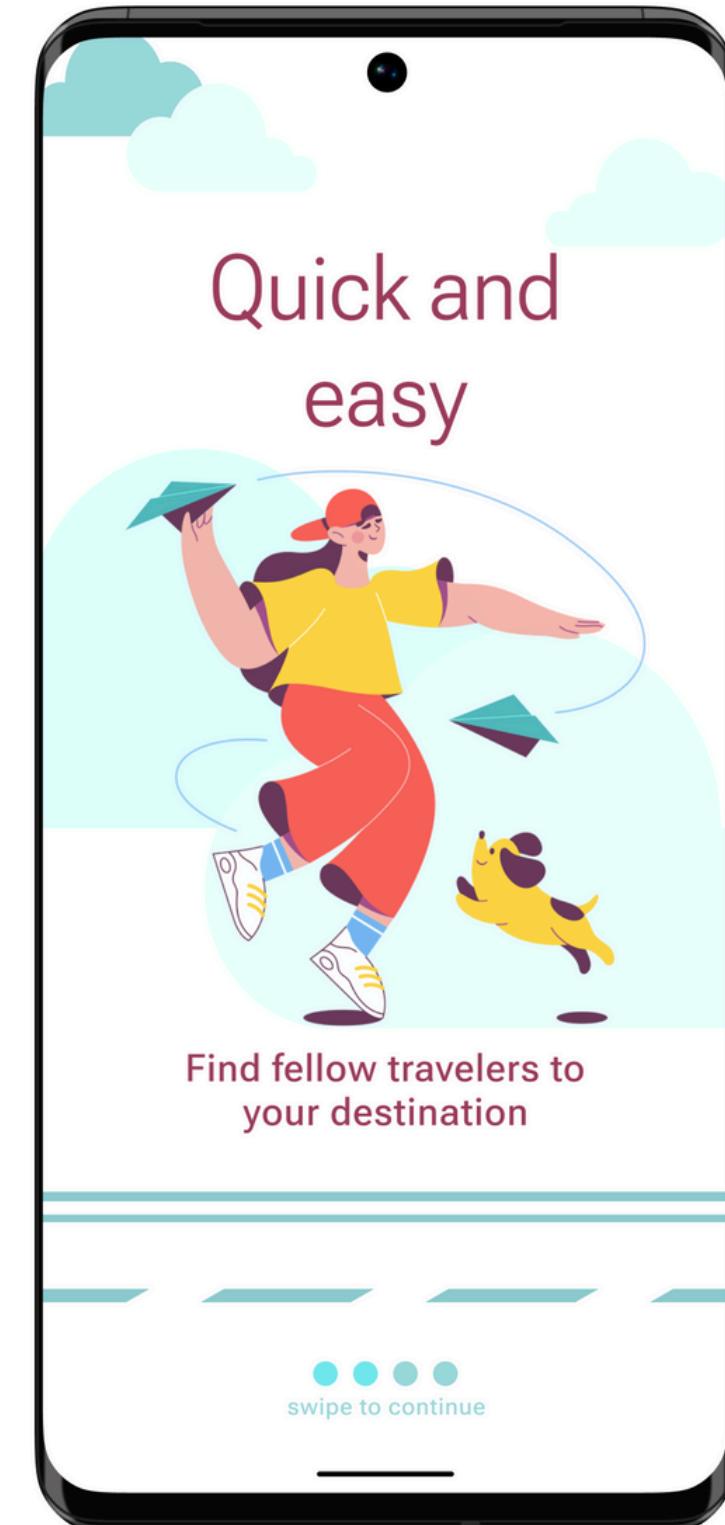
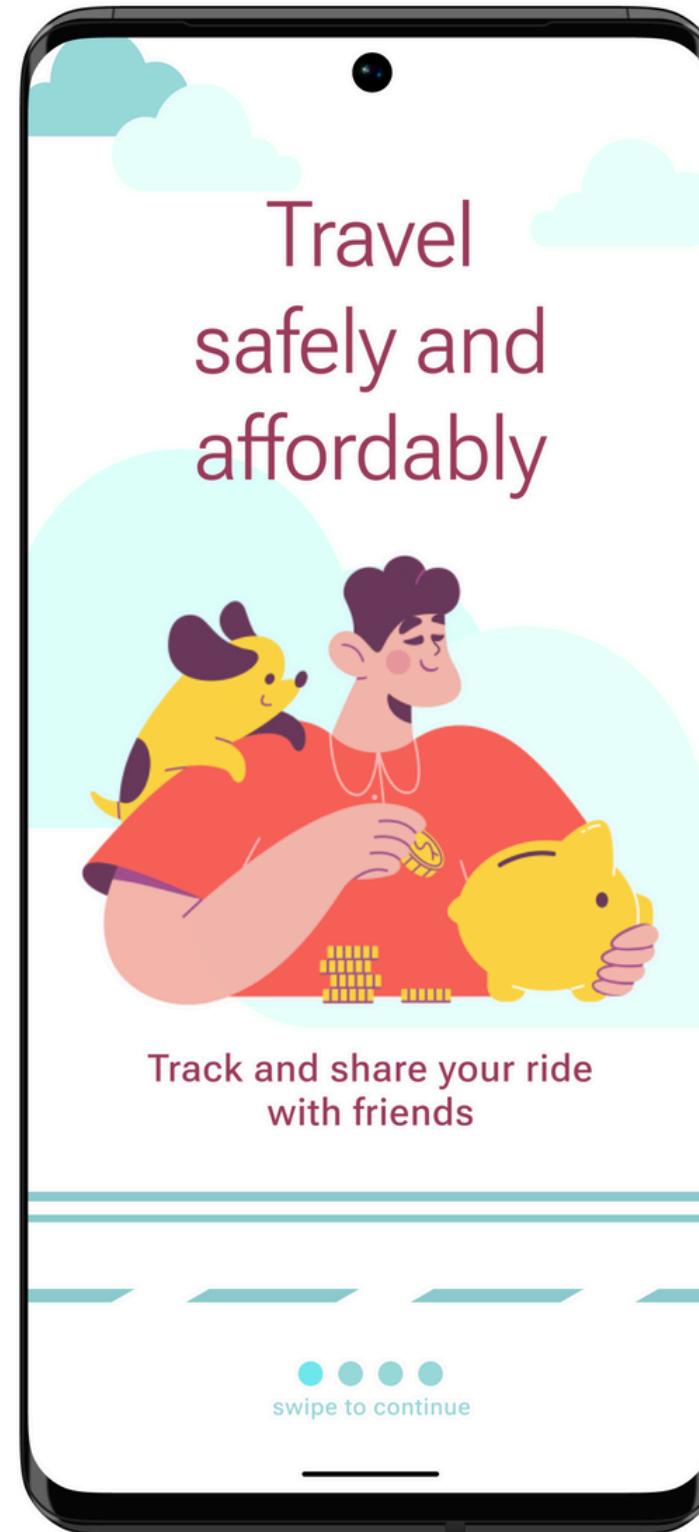


Hi-fi Prototype

Our design prioritized safety and reliability. For the theme, we decided to go with pastel hues as our primary tones evoke gentle and soothing feelings. This would make the users comfortable and feel at ease as they interact with the application.



🔗 The complete prototype can be found on this [link](#).



Outcome and Reflections

The Caraamad project has made significant strides since its inception. Together with [Dr. Suleman Shahid from Tilburg University](#), I showcased a high-fidelity prototype of Caraamad to the Punjab Safe City Authorities (PSCA). Pleased with our presentation, the PSCA integrated our design suggestions into their [Women's Safety Application](#). Since then, our team has been diligently enhancing the User Experience for the Women's Safety Application.

Working on this project was the highlight of my junior year at university. It marked my first foray into formal design education. Immersing myself in User Research, I [discovered a passion](#) I intend to follow as my life's work. I also take pride in knowing that this project made a tangible difference in addressing the critical issue of implementing safe and affordable urban mobility for women in Pakistan, and I hope all my future work can have such outcomes.