Group 3: Proj-4

RiderStop

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INTRODUCTION

Our project revolves around building an application that will help users to find vacant parking spots for their vehicles nearby. This will reduce the stress a user might have whenever he is looking for a parking spot. Since the application will then keep a note of the exact place the user parked his car, the user will then also not have to worry about remembering the place where the vehicle was parked.

Additional functionality provided by the application will be to keep the user stress free about stealing activities. This is because whenever the user vacates the car from the parking spot, the application will send the user a notification regarding the same. Due to this functionality, in case of a break-in into the car, the application will notify the user that the vehicle has left the parking spot and the user can then act on it immediately compared to now when most people notice a break-in several hours after they occur.

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01 → Requirement Gathering

Stakeholders

The most important stakeholders are going to be the users of the app. These people will run the application, and it is using them that the revenue will be generated to keep the entire project functional. Apart from them, as stated in the first project submission, we must acknowledge all developing team members as stakeholders. These people will be responsible for the entire development, coding, and smooth running of the technical side of the application, among other essential things. Besides the above-listed stakeholders, all the members of the management team are also going to be stakeholders. These are the people who are going to be responsible for all the user queries and complaints. Apart from that, they will also manage the project's human resources, ensuring that developers finish their work on time, etc.

Challenges

The major challenge faced by the users of our application is going to be that of not finding a vacant parking spot easily for their vehicles which is also nearby to their final destination.Not being able to remember the exact spot where they parked their vehicles and the constant fear of the vehicle being stolen are also a couple of challenges faced by the users.

01 → Requirement Gathering

Requirements

As can be seen from the challenges faced by the user, we can understand what might be the user's requirements. Based on that, the user requirements in the current problem scenario may be to have an application that helps them find the closest parking spot from a given venue. If the application can also remember the exact parking spot for the users and alert them as soon as there is a break-in into their vehicles, that would be an added advantage of the application according to the potential users of the application.

Expectation of users

The user would expect an application with a clean user interface and a minimal cognitive load that can solve all or most of the challenges listed above. The user would also expect the app to function smoothly and would expect that the application would never report a wrong vacant spot or a spot in a no-parking zone.

PERSONAS

Name: Dr.Kirti

Age: 33 Years

Job: Dermatologist

Marital Status: married

Bio: Dr.Kirti is a dermatologist and works in a small clinic situated in Vasant Kunj. She resides in Mahipalpur along with her husband and children.

Frustrations: She frequently gets late for her appointments despite leaving on time due to no proper availability of parking spaces near the clinic.

Needs: She requires some guidance in finding vacant parking spots as close to the clinic as possible so she can easily attend to her patients.

Name: Rajiv

Age: 25 Years

Job: Delivery Driver

Marital Status: Unmarried

Bio: Rajiv is a delivery driver who works for zomato food delivery app. He lives in Delhi NCR with his parents in a small house.

Frustrations: He often finds it difficult to find parking space while picking up orders from crowded restaurants and delivering orders to people in buildings. Many a times he has to park his vehicle in wrong space which sometimes lead to his vehicle getting towed.

Needs: He wants something which might help resolve his problems by providing locations of approriate parking space for faster and safer deliveries.

Name: Kabir

Age: 23 Years

Job: Travel Blogger

Marital Status: Unmarried

Bio: Kabir is a freelance travel blogger, living life on his own accords. He lives in Gurugram with his friends.

Frustrations: He faces difficulties in finding parking spaces especially while in foreign states. His car has been broken into many times due to parking in unsafe spots as there was no parking space available.

Needs: He desperately needs some help in finding out vacant parking spots nearby his location which are safe and secured.

Name: Raghav

Age: 28 Years

Job: Mechanical engineer

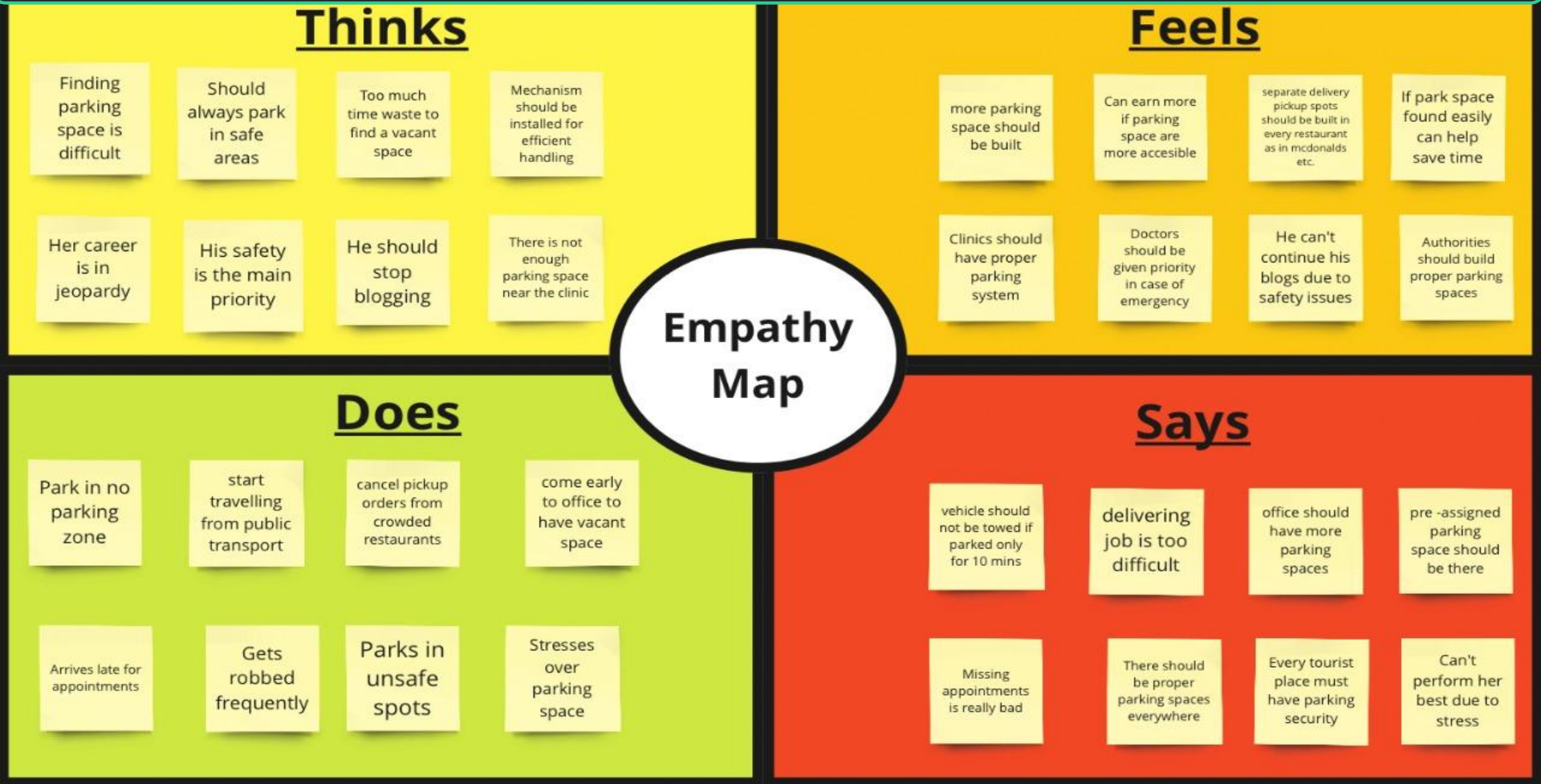
Marital Status: married

Bio: Raghav is a mechanical engineer who works in MNC situated in Noida. While he lives in North delhi with his wife.

Frustrations: Often he turn up late for office due to the large distance between his office and home which is further added up by unavailability of parking space. He finds it difficult to find a vacant parking space in multiple floors of paring during the peak hours . Sometimes due to filling up of all spaces he has to park to his vehicle outside office.

Needs: He thinks that if there was a tech which could inform him about vacant parking space in his office building he could save time and effort. He also thinks that if info on alternate parking spaces around his office was available it would also prove to be very helpful.

02 → Empathy Mapping



03 → Problem Understanding

Elaboration of solution

The application will use online tracking and data and services like google maps and google earth to locate vacant parking spots nearby exactly. Using the same services, the application will be able to store the exact coordinates in which the user parked his vehicle in. This will be helpful in case the user forgets where he parked his vehicle. These tracking services will also enable the application to notify the user when his vehicle leaves the spot he parked his car. This feature will help the user take prompt action in case the vehicle is stolen.

Specific Requirements

Finding the closest vacant parking spot from a given venue. Keeping a record of the exact spot the user parked his vehicle instead of the user having to remember it. Notifying the user as soon as the vehicle leaves the parking spot. It would enable the user to take prompt action and would increase the chances of catching the robber in the unfortunate case of a break-in.

03 → Problem Understanding

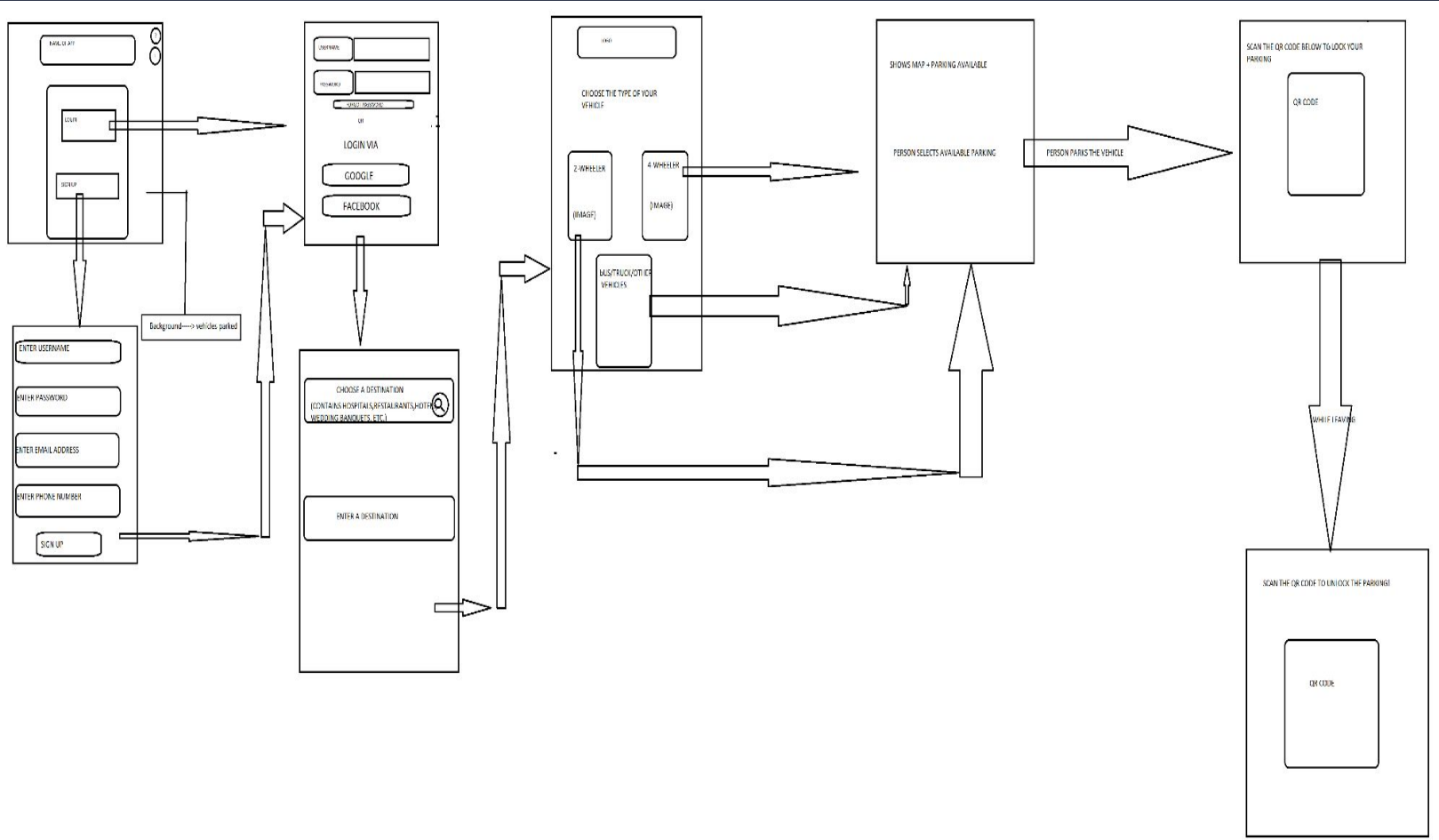
Targeted Users

Realistically and practically, anybody who drives any vehicle is a potential target user for our application because, honestly, who doesn't face the issue of finding a vacant parking spot.

In our first submission, we still tried to narrow down our target users, but we feel it would be unjust to our application because it holds the potential to have much much more users than would those narrowed categories were able to depict.

Hence we refined our target users and broadened our target user base by not limiting our thoughts to the ones we listed before. There are several hundreds of categories of people who can be our target users because this is a daily life problem faced by millions of people every day, everywhere.

4→ Initial Lo-Fi Design



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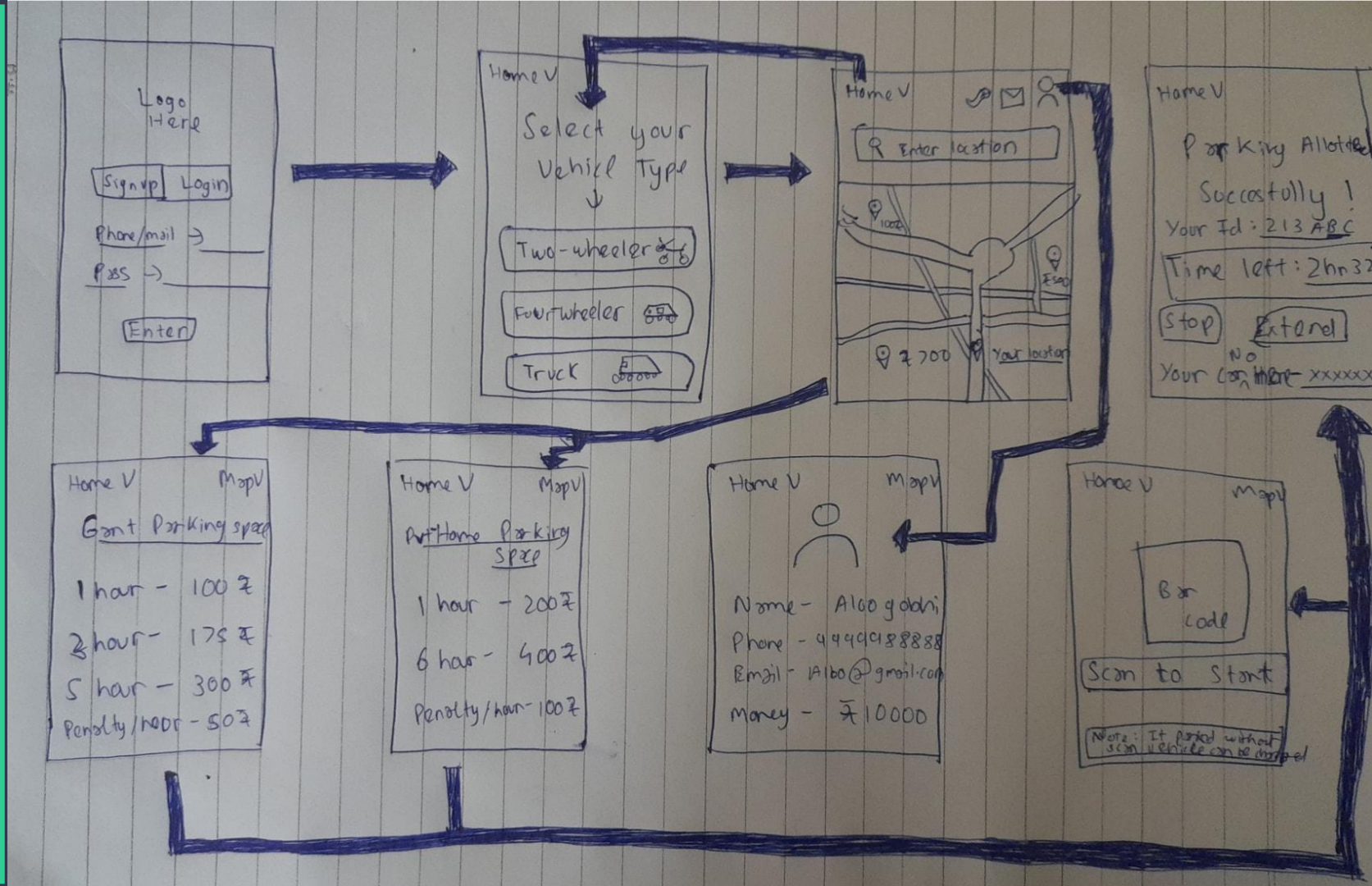
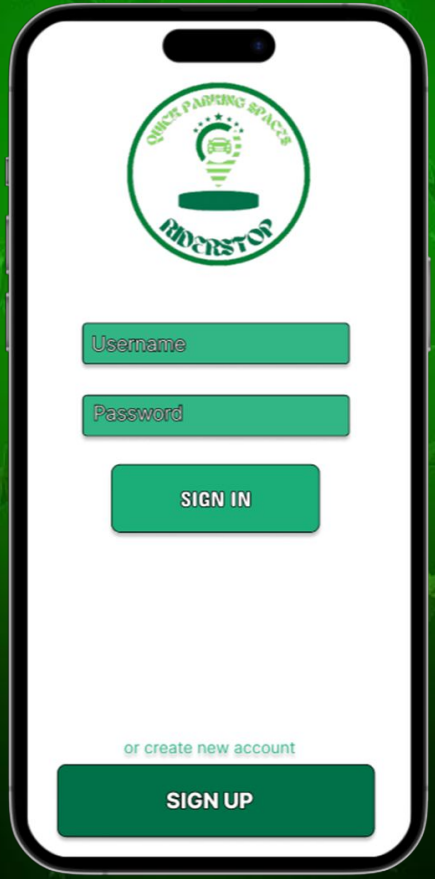
4→ Alternate Lo-Fi Design



5→ Hi-Fi Design



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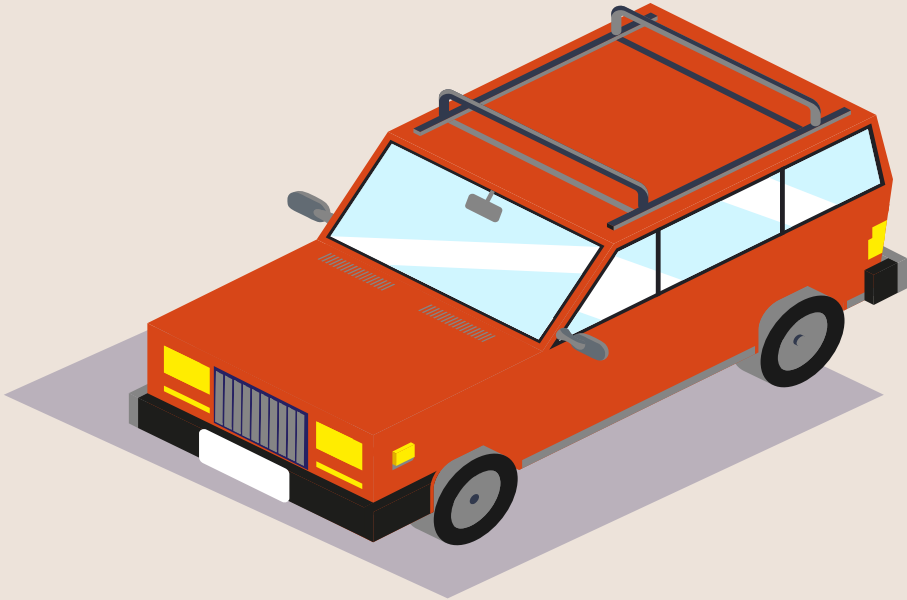
6→ User Evaluation –Report

In this section, we examined a wide range of audience to reach the following conclusions:

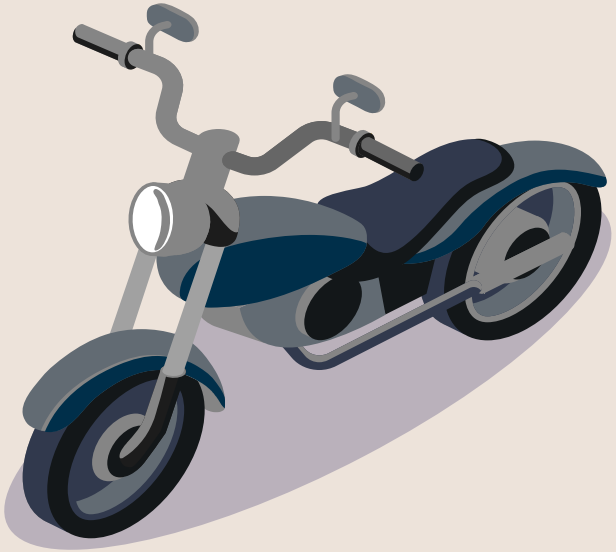
1. Majority of the audience (90%) found the login page attractive and easy to navigate through.
2. The home page received mixed reactions as 30% of the voters found the page easy to understand but not attractive, 15% found the page attractive but not easy to understand and 55% were satisfied with the page in both categories.
3. Almost half the voters (40%) believe that the parking spots were not listed properly and did not help in navigation.
4. Majority of the audience (80%) found the pricing mechanism and structure easy to understand and attractive.
5. Majority of the audience (80%) found the final booking page to be attractive and sufficient for the app.
6. According to the feedback, increasing the attractiveness of the user interface by adding colours and graphics is required.



Link to google form responses→https://docs.google.com/spreadsheets/d/1HVA9kRYkleohXCTs90t-v1RKrjm-iqRJczqAKqVM5Q4/edit?usp=sharing

7→ Learnings and Reflections

Working on the Riderstop app, which spots vacant parking spots nearby, was a precious learning experience. The most important lesson we learned as a team was understanding user needs and pain points when designing a solution for a specific problem. Collaboration and communication within the group were also essential for successful project execution and meeting deadlines. We incorporated a user-centred design approach, such as prototyping and user testing, which significantly improved the app's overall usability and user experience. We believe that combining real-time data and mapping features will dramatically enhance the app's functionality and usefulness. Considering the options of scalability and future expansion will ensure the app's sustainability and potential for growth. Analysing the market through user feedback helped us identify unique features and opportunities for the app to stand out. Considering the technical feasibility and limitations of the project helped us ensure that the final solution was viable and achievable. Continuous monitoring of user feedback and engagement helped improve the app over time. Reflecting on the project, one of our biggest challenges was coordinating and communicating effectively as a team. However, we believe that we were able to come together and deliver a solid final product. This project was an excellent opportunity for us to learn and improve our skills in designing, developing, and building our confidence that with the right team, we all have the ability to solve real-world issues.



OUR TEAM

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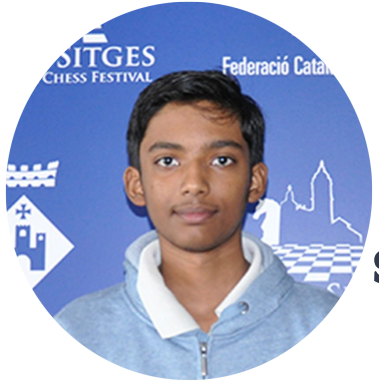

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