PROJECT REPORT

Group - 3_7

Members- Kartik Jain(2020440), Rahul Agrawal(2020456), Ojas Narang(2020448)

Contribution of all members is **EQUAL.**

FIGMA LINK-

https://www.figma.com/proto/2eHBt0u4k3N5y6JQlVtAKZ/Untitled?node-id=21%3A49&scaling=scale-down&page-id=0%3A1

DEMO VIDEO LINK-

https://youtu.be/AxliRQZPlMw

Abstract-The motivation for this project came from the problems faced by people in using different platforms for booking cabs online. The problem is the existence of so many applications for booking online cabs and motorcycles, which creates a mess for the users as there are many differences between each app like the difference between the total fare of the journey, time taken by the cabs to reach the destination, discounts provided to the customers, mode of payment, availability of option to cancel the cab after booking and many more. To solve these problems, we have come up with the idea of making an app named **EasyWay** which would compare different apps. The target users are all the people who book online cabs and autorickshaws for commuting from one place to another. The challenge in serving the purpose is compiling data of different apps and showing all the data in our own app. A challenge would also be to keep the safety of privacy of the users.

Introduction- The **motivation** for this project came from the problems faced by people in using different platforms for booking cabs online. For instance, one day, I was booking a cab to go to my uncle's house; when I looked for a cab on Uber, it was charging me Rs.150, and the cab was around 3-4 minutes away from my house. So, I checked a cab on Ola for the same route, which was charging Rs.125, and the cab was around 15 minutes away from my house. This same situation is faced by me many times when I have to make a decision whether to save time and pay more or to save money and spend time waiting for the cab. Many times it also happens that the rating for a cab on a particular app is high, whereas while travelling, the high rating is not justified due to some issues. Also, a problem that occurs is cancelling a cab after booking it.

The **problem** is the existence of many applications which serves the same purpose of booking cabs and autorickshaws online, which creates a mess for the customers due to different types of problems such as difference in the charges charged by different apps, the difference in the quality of services of different apps, different time of response from the drivers serving for different apps, availability of different modes of payment, availability of an option to cancel a ride after booking and last but not least availability of discount coupons in different apps. If a person uses a particular app without comparing it with other apps, then he/she might end up either paying much more than the other apps or waiting for a longer time for the cab to arrive. Also, there is no cab available in the locality where a person is booking a cab, then he/she will have to ultimately look for the cab on some other app which leads to wastage of time.

The **target users** are all the people who use online mode for booking cabs or autorickshaws without any age group distinction.

The **challenges** are compiling the huge amount of data from different applications and showing the relevant data in our own app. Another challenge is the safety of the data and privacy of the customers using our app. Also, the app should be easily understandable and easy to use, and the features of the app should be presented to the users in the most simple yet attractive way.

Our **proposed solution** is making an app that would serve the purpose of drawing a comparison between different apps in a single platform. We have prototyped an app named **EasyWay** which would draw a comparison on different bases like charges of the cab, reviews from the past customers, time taken by the cab to reach the location, mode of payment available. It will also include the feature to cancel the cab after booking. The app would start with the page having a photo and the name of the app. Then the next page would ask for login or register followed by login id and password if login is chosen or followed by the necessary details like name, email id, phone number and password if registration is chosen. Then after login, a page will be displayed showing three options named Book a Ride, My Account and History. The My Account option would take you to a page that will show your details entered by you and would show the cards, if any, saved by you. The details entered by you in the app can be edited by you anytime, and the details of the saved cards can be deleted by you anytime. The History option would show the past rides booked by you. The Book a Ride option will lead to a page of choosing the location then choosing the destination. After putting the destination, you would see various options of transport out of which you can choose one and proceed. After choosing the transport, a page will

ask you the mode of payment preferred by you for the ride. Then a list of different apps would appear on the screen showing the prices charged, discount if available, how much time is taken for the cab to arrive and the time taken to reach the destination. The list would be automatically sorted according to the cabs, with the best ratings at the top and the worst ratings at the bottom. After booking the cab, if you feel like cancelling the app, you would get a feature to cancel the app. Then the payment option will occur, which will be based on the option selected by you earlier like if you selected cash, then you will get an option of paying the cash at the end of the trip to the driver, and if you selected card, then you will get a payment getaway in the phone itself where you will make the payment through your card. Then a review page will come where you can fill the review, and also, if you faced any problem in the trip, you can state it on the review page itself.

Methodology-

Step 1-

Problem Statement- There are many different applications that provide the same functionality of booking cabs and autorickshaws for commuting which causes many kinds of problems to users like many times different applications showing different fares for travelling to the same place from the same location. Like if you book a cab for travelling from IIITD to Hauz Khas, then Ola may charge you Rs.180, whereas Uber may charge you Rs.150 for the same route. Also, the response time and arrival time of your transport is different for different applications. Like if you book a cab from Ola, it might come in 10 minutes, and if you book a cab from Uber, it might come within 5 minutes, which makes a difference to the users as it wastes their time waiting for the cab.

Manual comparison between different apps is a challenging and time taking process.

Target Users- All the people who use public transports like cabs or autorickshaws for commuting between different places.

Step 2-

Requirements Gathering-

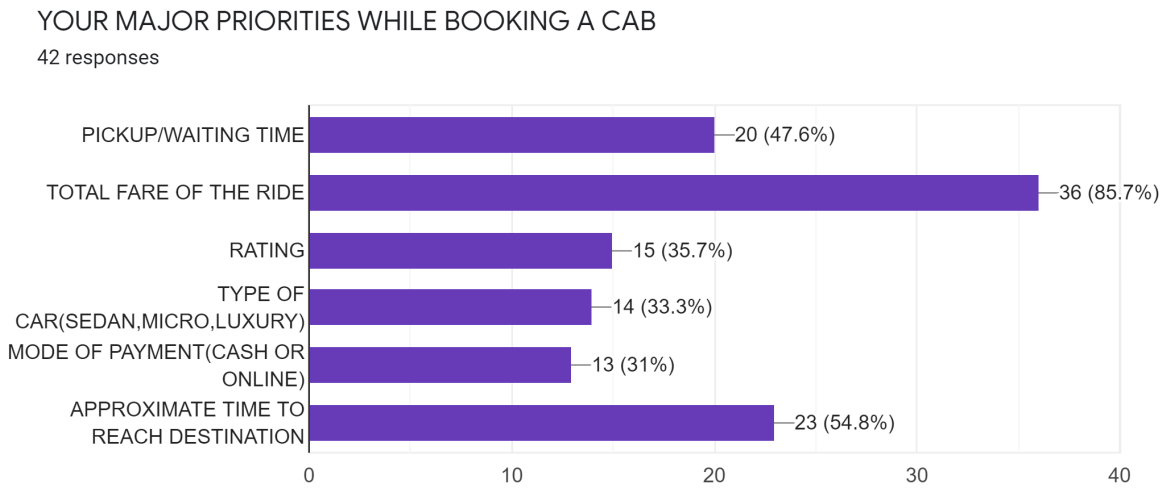
According to the data collected through surveys and questionnaire forms the majority of the people were affected by the problem of using multiple platforms for bookings cabs and wanted a

solution which could make a comparison between the multiple platforms and provide the best solution to them.

QUESTION TABLE

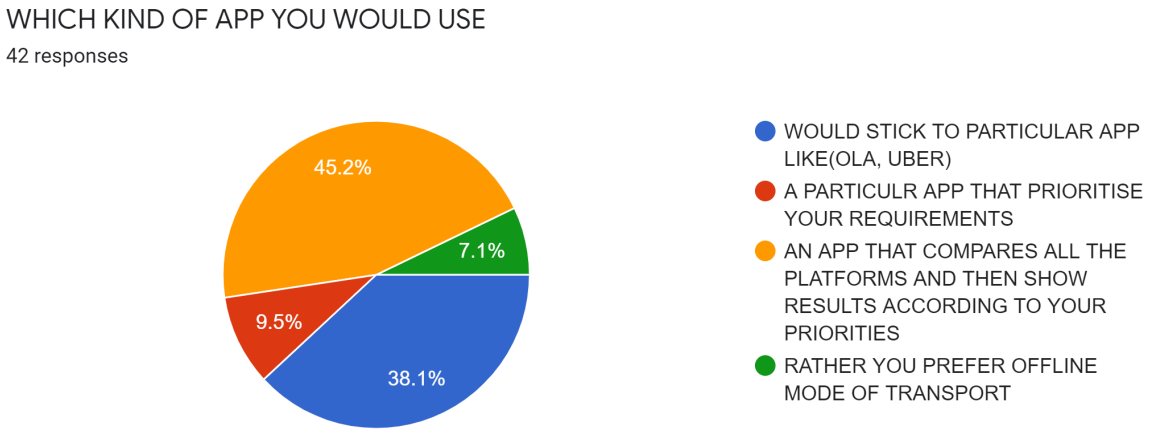
S NO.	QUESTIONS
1	WHICH METHOD DO YOU PREFER FOR TRANSPORTATION
2	YOUR MAJOR PRIORITIES WHILE BOOKING CAB
3	WHICH KIND OF APP DO YOU USE
4	HOW FREQUENTLY DO USE A CAB
5	PROBLEMS FACED WHILE BOOKING A CAB
6	MAJOR THINGS WHICH WE SHOULD INCLUDE IN OUR APP

According to our survey major population(85.7%) prefer online cab services for transportation. And after that 45.2% of people prefer to use local transportation like autorickshaws and a very less amount of people use public transportation and prepaid taxis. Hence the majority of students and corporate executives prefer online cab services.



In our survey, we found that major priorities differ from person to person and it was found that the most important point which people look up to while booking a cab is the total fare of the cab

And the approximate time that it will take from pickup to destination. A significant number of people also gave importance to rating and type of car. So from this, we concluded that our app should give the user an option to decide his/her priorities and the major focus should be on comparing prices across multiple platforms and to focus on reducing waiting and reaching time



When we asked the users about the kind of app they would like to use we got very mixed responses majority of people wanted an app that priorities their requirement and then compares their requirement across multiple platforms and shows them the best result available but also a significant amount of people wanted to stick to a particular app like uber, ola etc. this survey shows that people don't want to install an extra app and wanted to a stick to a particular app that they are familiar with and are using for a very long time. This shows that we need to make an app with a very close UI to existing apps out there in the market to make the user comfortable and provide the best experience.

Now we asked the users how frequently they used cab and here the response was a bit disappointing because we came to know that only 7.1% of our target users use a cab on a daily basis and 73.8% users use cab rarely in a month. There may be multiple reasons for this but one of the major reasons is covid-19. Due to online education students are not travelling and also corporate workers are working from home. One of the things is clear that due to covid the transportation has been hit very hard.

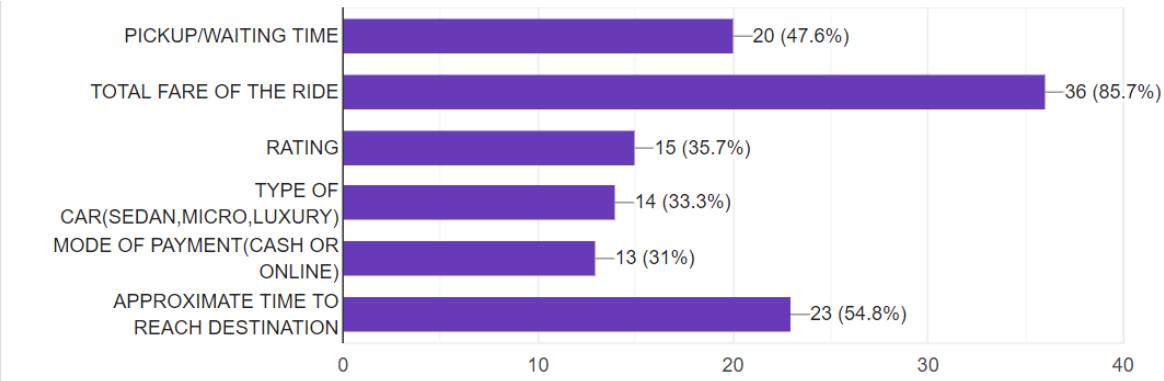
Problems that are faced by users in booking a cab online:

Users face many problems while booking a cab online and a major of them are multiple platforms which create difficulty for them as they have to switch between apps to compare

between many things like comparing prices and comparing their priorities like waiting and destination time.

Also, users have mentioned that many times when they book a mini/micro that is a small car which is usually cheap shows a long waiting time that is 10-15 mins but when they try to book a sedan or pro the waiting is usually only 2-3 minutes but these rides are usually costly and cost 1.5 times the above ones, this is a very major issue that is faced by the users. These companies force users to grab the expensive ride so that they can make a major amount of profit rather than those in mini/ micro etc.

Also many times after booking the cab, users have mentioned that they face an issue of cancellation of the ride which creates a very ugly situation for the user if he/she is in a hurry and causes a delay in reaching the destination. According to our survey, almost 57% of the users have faced this issue while booking a cab.



Now we asked the users about the major things that we should include in our app to solve the current problem and major users said that our app should ask the user about their priorities like pickup time, fare, payment mode, reaching time, rating, type of car, mode of payment etc. and then compares all the priorities across multiple platforms and provide the best solution.

The major focus was on comparing prices around 85%(according to the survey) wanted this solution and almost 47% of our users wanted to compare the priorities

Also, we were surprised to see a good response on the rating that gave us the idea of including a rating feature in our app. People pay attention to drivers and the car rating while booking a cab was a new observation for us. The total time that is from pickup to destination also played a major role in user satisfaction on booking a cab.

After the survey, we asked the potential users their valuable suggestions and they are as follows-

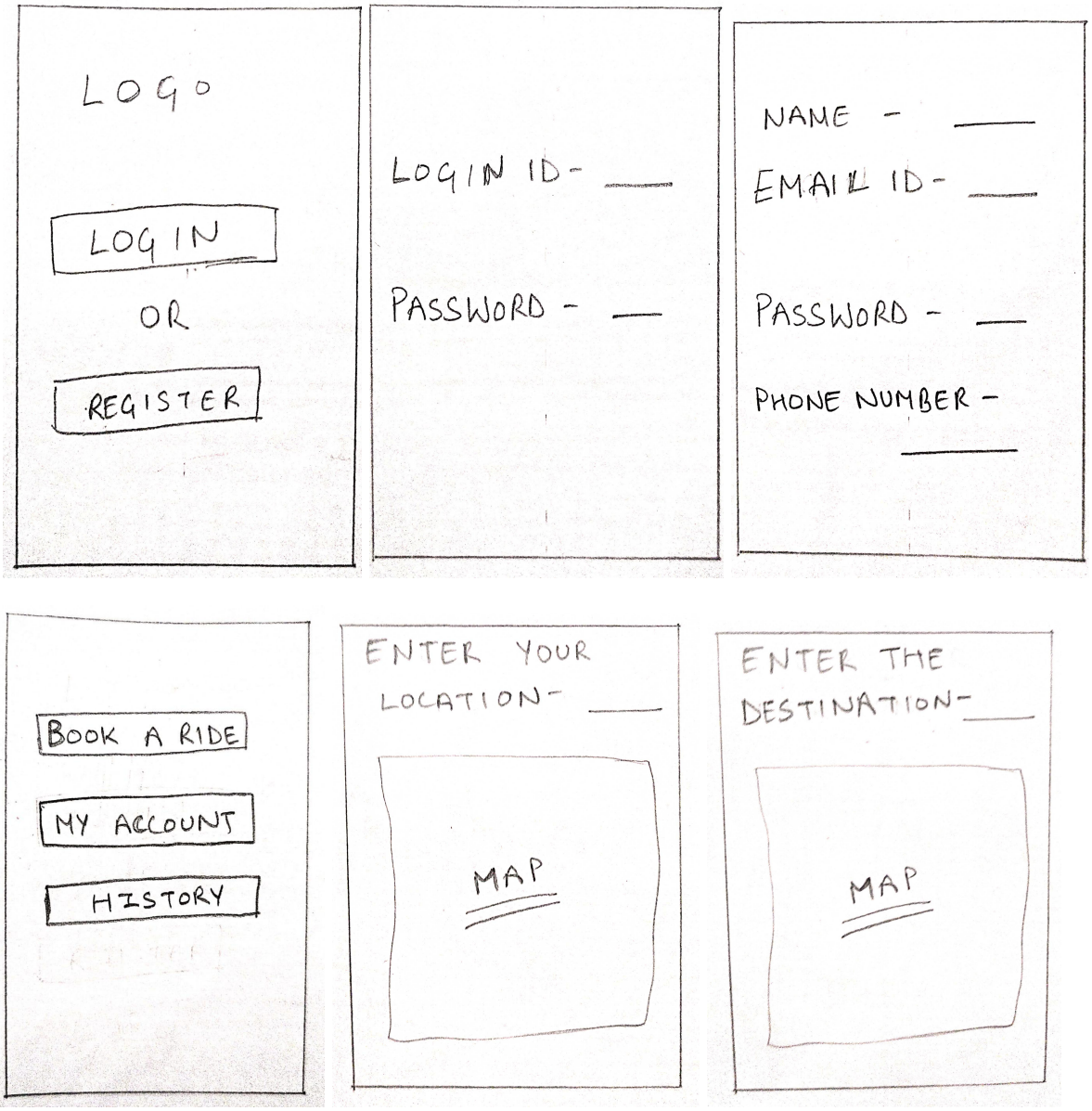
1. Music playlist according to mood and timing of the user which he/she can present while booking a cab.
2. If there can be a rating on the cleanliness of the car and driver which is very important in the current scenario.
3. There should be a feature within the app that allows the user to transfer a tip if the user wants directly into the users account so that it can help the drivers.

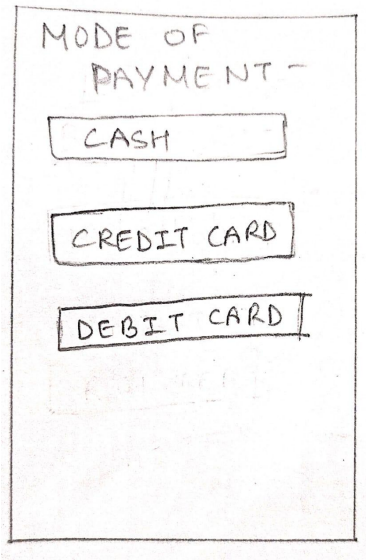
Step 3-

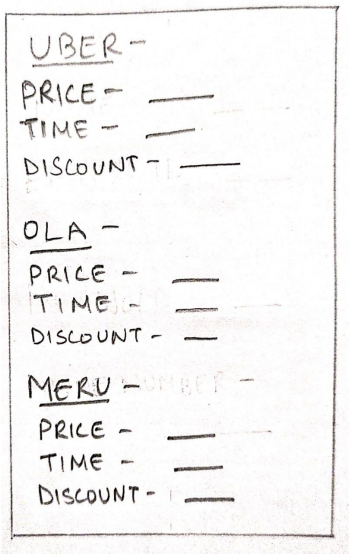
Ideation and Low-Fidelity Prototyping-

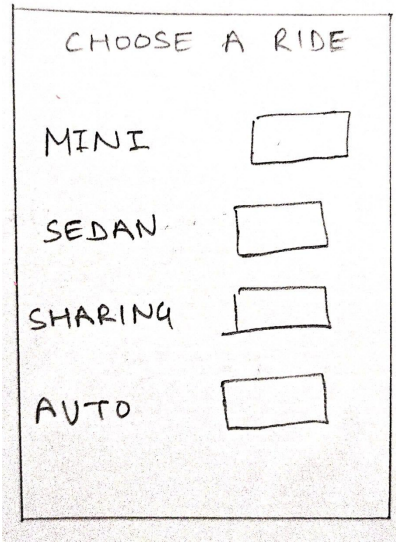
The best solution that we found is making an app that would serve the purpose of drawing a comparison between different apps in a single platform. We have prototyped an app named **EasyWay** which would draw a comparison on different bases like charges of the cab, reviews from the past customers, time taken by the cab to reach the location, mode of payment available. It will also include the feature to cancel the cab after booking. The app would start with the page having a photo and the name of the app. Then the next page would ask for login or register followed by login id and password if login is chosen or followed by the necessary details like name, email id, phone number and password if registration is chosen. Then after login, a page will be displayed showing three options named Book a Ride, My Account and History. The My Account option would take you to a page that will show your details entered by you and would show the cards, if any, saved by you. The details entered by you in the app can be edited by you anytime, and the details of the saved cards can be deleted by you anytime. The History option would show the past rides booked by you. The Book a Ride option will lead to a page of choosing the location then choosing the destination. After putting the destination you would see various options of transport out of which you can choose one and proceed. After choosing the transport a page will come asking you the mode of payment preferred by you for the ride. Then a list of different apps would appear on the screen showing the prices charged, discount if available, how much time is taken for the cab to arrive and the time taken to reach the destination. The list would be automatically sorted according to the cabs, with the best ratings at the top and the worst ratings at the bottom. Also, after booking the cab if you feel like cancelling the app, then you would get a feature to cancel the app. Then the payment option will occur, which will be based on the option selected by you earlier like if you selected cash, then you will

get an option of paying the cash at the end of the trip to the driver, and if you selected card, then you will get a payment getaway in the phone itself where you will make the payment through your card. Then a review page will come where you can fill the review, and also, if you faced any problem in the trip, you can state it on the review page itself.









Step 4-

Hi-fi Prototyping-

In this step, we browsed through some different apps that enable people to book cabs online like Uber, Ola, Meru etc and analysed their interfaces and compared it with the interface of our proposed app. We found out that our app was quite similar to the interface of the existing apps which would solve the issue of the learnability of a new app. So we made a Hi-Fidelity Prototype on Figma.

FIGMA LINK-

https://www.figma.com/proto/2eHBt0u4k3N5y6JQlVtAKZ/Untitled?node-id=21%3A49&scaling=scale-down&page-id=0%3A1

Step 5-

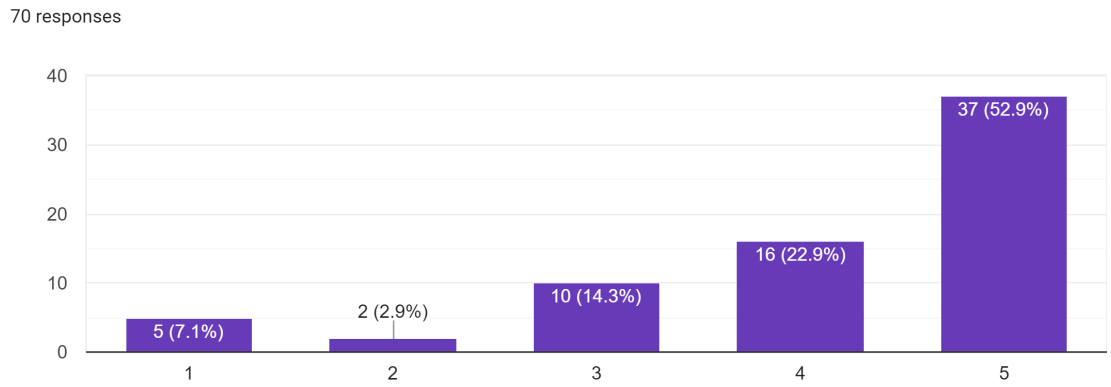
Evaluation-

For evaluating our prototype we made a google form consisting of 5 questions which would give us relevant feedback about the app.

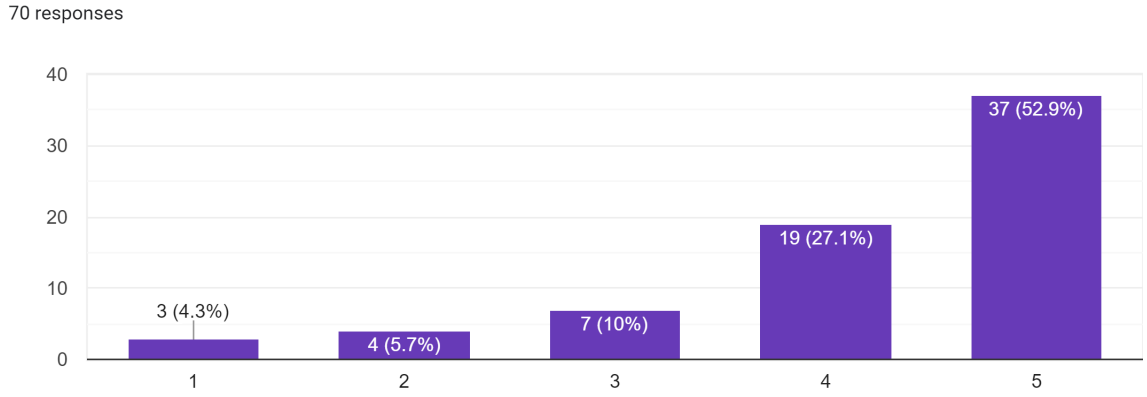
Q No.	Question
1	How was the overall experience of the app?
2	How was the UI?
3	How easy was it to navigate through the prototype?
4	How close was the UI of our app to the other online cab booking apps?
5	Did you find this app useful in comparing across different platforms to provide the best option?

We received different responses but most of them were favouring the app.

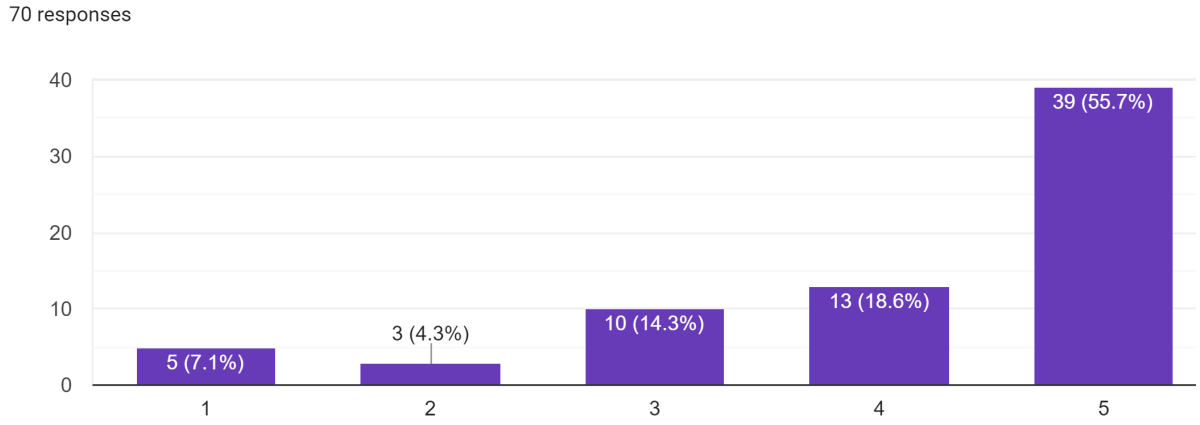
For the first question the responses were -



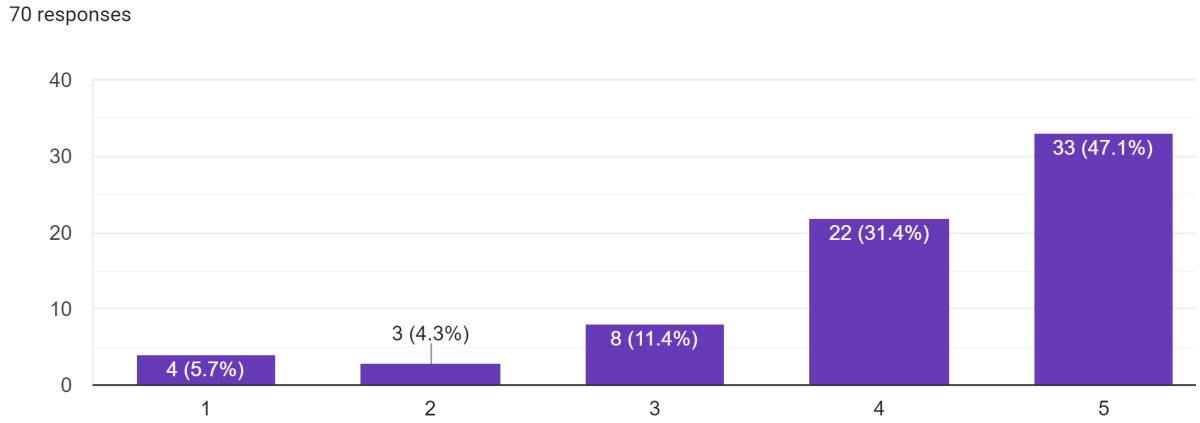
For the second question the responses were-



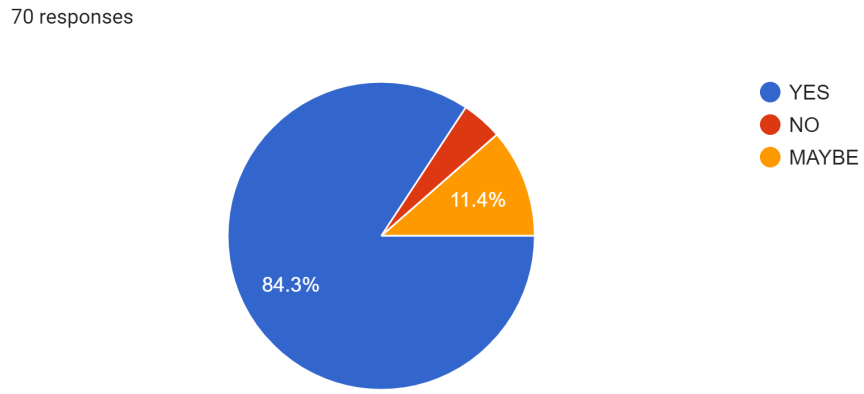
For the third question-



For the fourth question-



For the fifth question-



By looking at the responses it seems that most of the people found it easy and comfortable to use the prototype and also the app solved their difficulties that they faced in other apps. Also, the app served the purpose that it is made for i.e. providing a useful comparison between different apps and providing the best options. We also ensured through the evaluation that the interface of the

app was easy and simple to use. It also ensured that the interface of our app was similar to the other apps which ensures that the new users find it easy to use our app. Also, it was easy to navigate through the app and use its features.

Analysis and Future Work-

So the reviews we got from potential users who evaluated our prototype were mixed. Some of them liked the idea that this app can provide them with the best solution according to their requirements, and some of them were not very much in favour of this idea. For most of the potential users, this idea was of very much benefit as these online cabs are growing daily and have become an integral part of our daily transportation. Students and most of the corporate employees prefer to use online cabs, and hence through this prototype, they get significantly helped because now they do not need to switch between multiple apps to book a ride; instead, they only need to login to a single app and enter their requirements, and they are ready to move. According to reviews, the layout of our prototype was very simple and clearly labelled, which enables a new user to navigate through the app very efficiently. Also, the users mentioned that the layout of our prototype was very similar to the apps that are already out in the market. The users find it very easy to understand the working of the prototype, and the design was simple and sober. Also, some of the users demanded an option that was not included in the prototype, and that was to add a music section so that the user can add music according to their mood and it can be directly synced to the ride, which was a very interesting feature to include. Some of the limitations that the users mentioned were that the prototype only compares from a few apps which are very famous in the market. Also, most of the users wanted to stick to a particular app and do not want to install a new app.

So in the future, I think we would work on our prototype so that most of the users get attracted to our app. Also, we will try to apply 2-3 designs according to the user age, for eg. For the people of age group 18-25 we will try to implement a techy prototype and for some people we will try to keep the prototype very simple and easily learnable so that they find it comfortable to use. Also, in the future we will try to implement new features so that the prototype doesn't become very outdated or boring for the user. Also we will try to implement some designs according to festivals of India and put out some offer sections in which users could get rewards and cashbacks. We need to expand our market so in the future we will also try to include bikes in our

app so that people can get the best transportation according to their convenience online very easily. Also, we would include some suggestions or feedback sections so that the users can provide their valuable feedback and we could rework on our prototype accordingly so that users feel more attracted to our prototype.

Conclusion-

So in this project, we tried to make the prototype for an app that compares various cab services available online and provides the user with the best result according to his requirements. As we can see, there are various cab service providers out there in the market that have different results for the same locations so it becomes challenging for the user to switch between multiple platforms. In our prototype, we first ask the user to log in through his account, enter the destination, mode of payment, type of car, and then show the different results across multiple platforms and the best possible option so that the user gets maximum benefits. Also, in our prototype, we tried to keep the UI as close as possible to the existing application in the market so that the user gets very comfortable with the UI very quickly, and we kept the UI simple so that it is easy for the user to navigate through the UI. Also, we asked users for some of their valuable feedback and tried to include it in our prototype. Our main objective was to offer the user a clean and simple experience and provide him with the best results. We can have some value addition to the user's life and make their commuting easier.

References-

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