IHCI Second Project Submission

Rules

- Submit a Google Doc, NOT a PDF or a Google slide.
- Use the default fonts, line spacing, and font size unless specifically required in the assignment.
- After submission, the Google Doc will get automatically locked, so you won't be able to make any changes.
- Standard plagiarism rules apply.
- Your submission will only be considered for grading and feedback if you follow these guidelines.

Names of Group Members:
Project Group Number:
HCI Group No.: Ansh-2023099
Akshat-2023063
Abhishek-2023026
Anamalla Rishith Rohan- 2023081
Aarehant- 2023008
Aditya Kak- 2023044

Refined Gathering

<Identifying stakeholders and their roles, challenges, requirements and expectations of users through tools like interviews, mind maps, use-case diagrams etc.>

Stakeholders:

1 Restaurants/food providers: Want an extremely easy way to donate excess food at the end of day to reduce waste, manage timely pickups/drop-offs, get tax benefits for donations. Concerned about potential liability issues.

2 Food banks/shelters: Need significant increase in volume of food donations, better management of inventory and coordination of volunteers to meet growing demand. Want to be able to reach and serve more people in need in their community.

3 Volunteers: Want to donate their time to help others in need in their local area. Need seamless shift signups based on availability, reminders, routes etc.

4 People in need: Require increased access to free, healthy meals and groceries. Very interested in finding locations nearby, arranging pickup or delivery if possible, accommodating dietary restrictions.

5 App developers: Primary goals are driving social impact and building a sustainable business model. Key focuses are drastic reduction of food waste and seamlessly connecting providers with recipients in need.
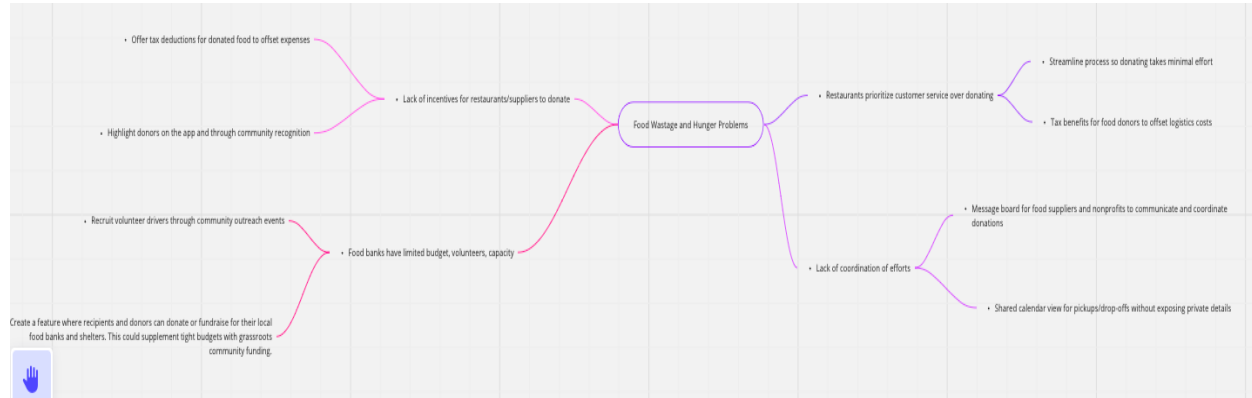
User Research:

- In-depth interviews with restaurants reveal excess edible food is often thrown out at end of day simply due to logistical issues and lack of easy transportation options. Most state they would happily donate this food if system was straightforward and convenient.

- Surveys distributed to large sample of food banks indicate the unpredictability of day-to-day food donations makes inventory management and long-term planning very difficult. More volume of donations and advance notice would aid greatly in serving their communities.

- Focus groups of volunteers highlight strong desire to devote free time to helping those in need in their area. However, current systems are highly unorganised with poor coordination leading to frustration. Technology for optimized scheduling and routing seen as major opportunity.

- Ethnographic observations of at-risk communities demonstrate expanded access to food donations is critical, especially in underserved urban and rural areas. Important factors are accessibility, dietary restrictions, and cultural preferences.
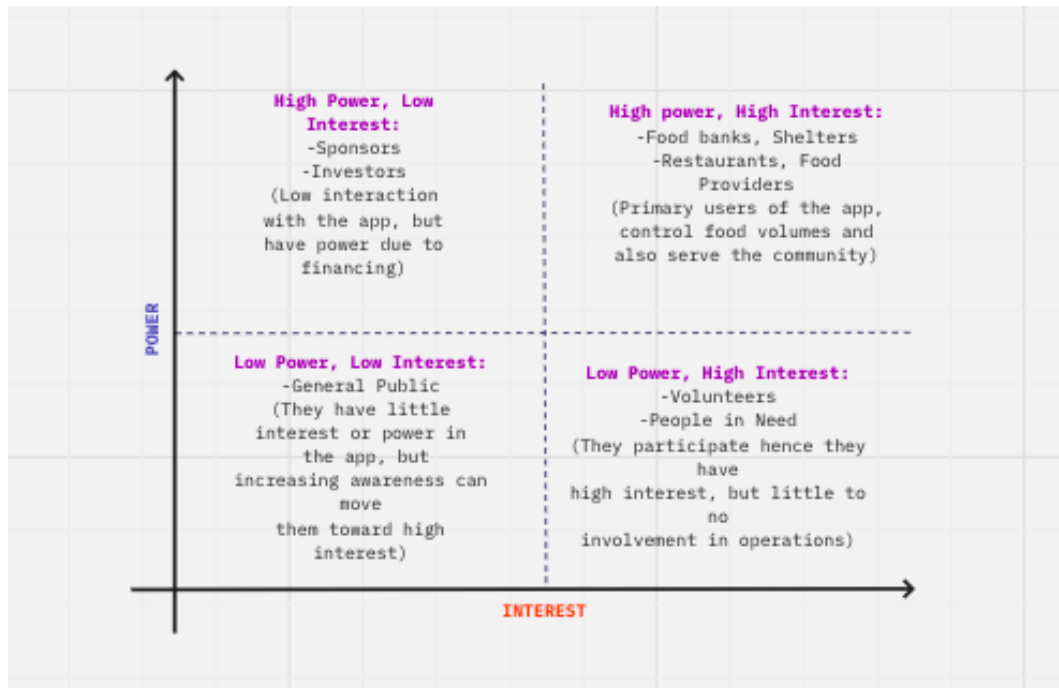
Key Requirements:

- Extremely seamless automated food pickup scheduling, coordination, reminders for restaurants/caterers. Integrations with Point of Sale systems to track excess.

- Robust inventory tracking, forecasting of demand, optimization of routes and schedule for food bank managers and volunteers. Ability to reach more recipients.

- Easy to use shift signups, reminders, and directions for volunteer drivers based on real-time availability and traffic data. Satisfaction from helping community.

- Searchable databases of food bank locations displaying availability, delivery options, dietary options. Favorites list and notifications for recipients.

- Gamified participation through points/badges, social community building. Ratings systems for providers, food quality assurance.

- Powerful analytics for all parties on food waste reduction, carbon footprint, people served, demographics. Impact reporting for grants and sponsors.

-Above mentioned points/badges can be used as coupons in other applications, also giving way for sponsorships to make application profitable.
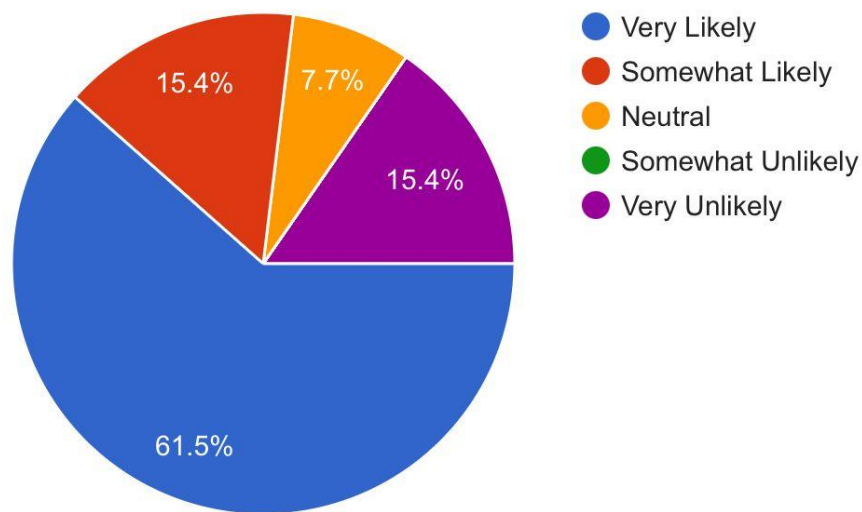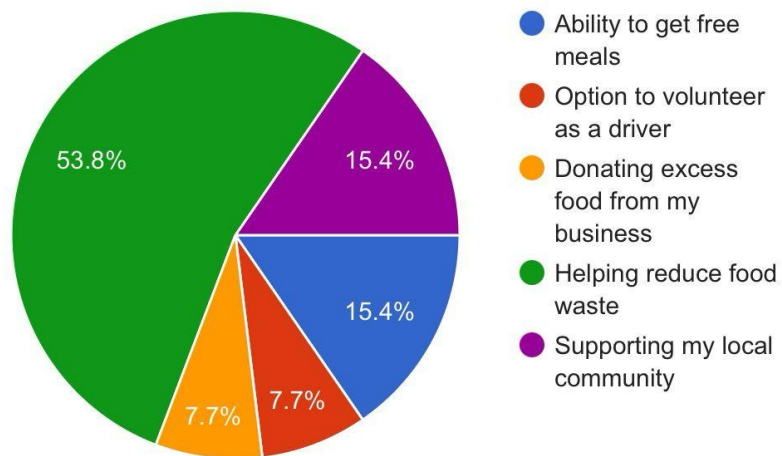
High Power, Low Interest:
-Sponsors
-Investors
(Low interaction with the app, but have power due to financing)

High power, High Interest:
-Food banks, Shelters
-Restaurants, Food Providers
(Primary users of the app, control food volumes and also serve the community)

Low Power, Low Interest:
-General Public
(They have little interest or power in the app, but increasing awareness can move them toward high interest)

Low Power, High Interest:
-Volunteers
-People in Need
(They participate hence they have high interest, but little to no involvement in operations)

POWER

INTEREST

MIRO LINK-
https://miro.com/app/board/uXjVNWPjWnc=/?share_link_id=263500970910
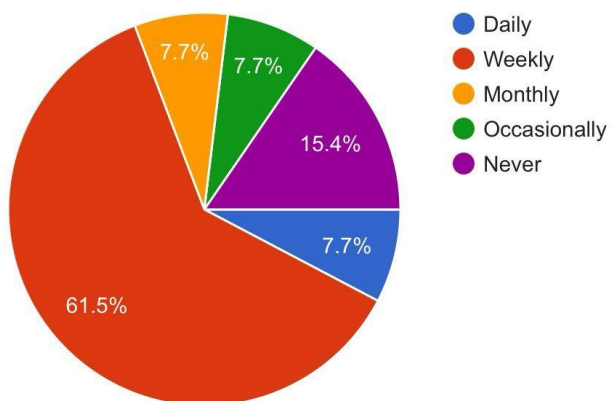
How likely would you be to use an
app that connects excess food
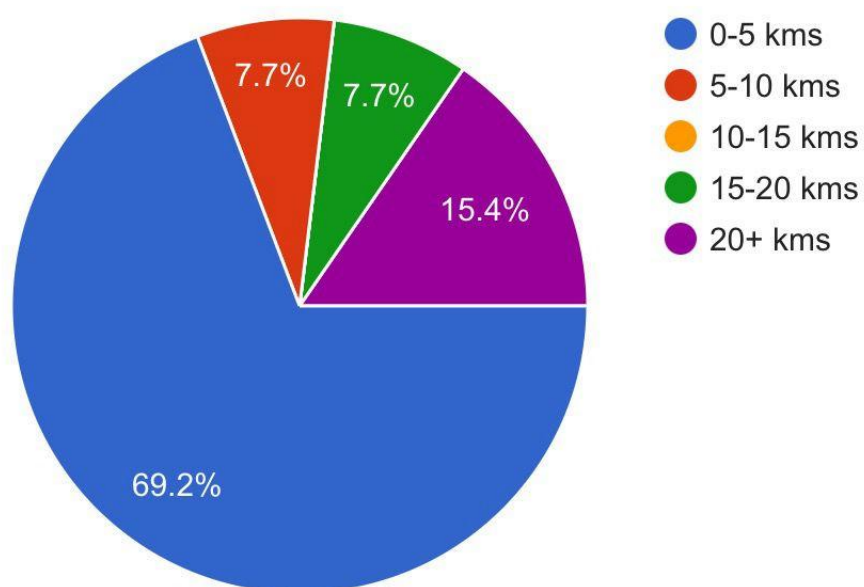from restaurants to food banks
and people in need?

Very Likely
Somewhat Likely
Neutral
Somewhat Unlikely
Very Unlikely

15.4% 7.7%

15.4%

61.5%

What feature would convince you to try this app?

- Ability to get free meals
- Option to volunteer as a driver
- Donating excess food from my business
- Helping reduce food waste
- Supporting my local community

53.8%
15.4%
15.4%
7.7%
7.7%

How frequently would you use the app?

- Daily
- Weekly
- Monthly
- Occasionally
- Never

61.5%
15.4%
7.7%
7.7%
7.7%

How far would you be willing to travel to pick up free donated meals?

Legend:
- 0-5 kms
- 5-10 kms
- 10-15 kms
- 15-20 kms
- 20+ kms

69.2% — 0-5 kms
7.7% — 5-10 kms
7.7% — 15-20 kms
15.4% — 20+ kms

What type of meals would you hope to get through this app?

- 🔵 Only fresh meals
- 🔴 Whatever is available
- 🟠 Packaged and canned goods
- 🟢 Culturally appropriate meals
- 🟣 Specially dietary restricted meals (veg/non veg/vegan)

15.4%
15.4%
7.7%
15.4%
46.2%

How far would you be willing to travel to pick up free donated meals?

- 🔵 0-5 kms
- 🔴 5-10 kms
- 🟠 10-15 kms
- 🟢 15-20 kms
- 🟣 20+ kms

7.7%
7.7%
15.4%
69.2%
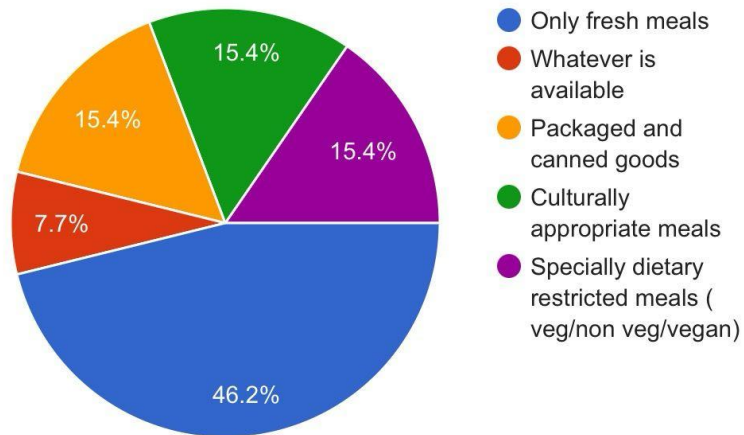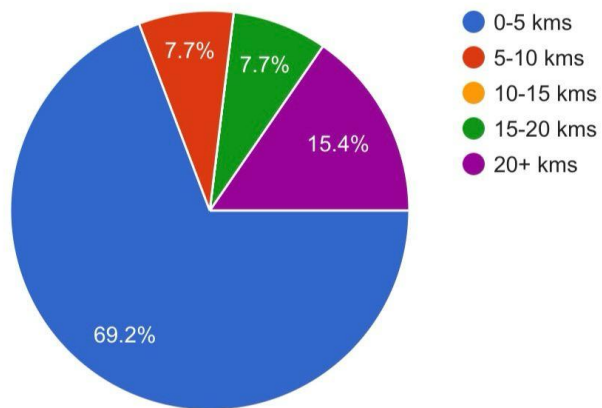
How often do you eat out at restaurants currently?
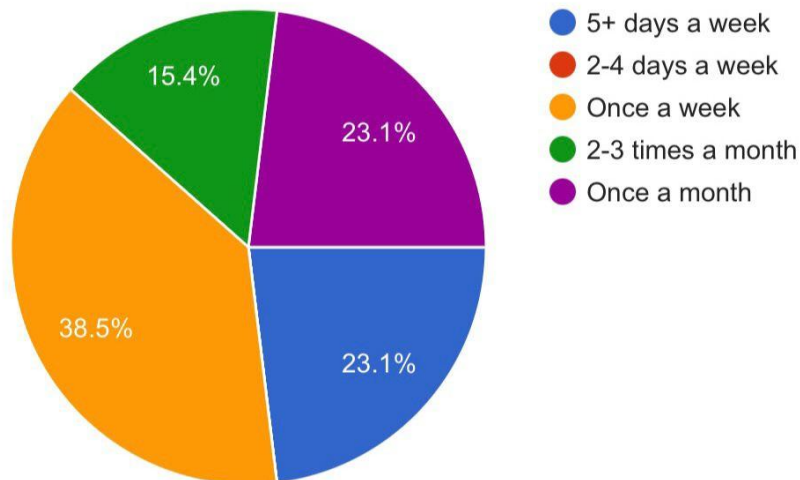
- 5+ days a week
- 2-4 days a week
- Once a week
- 2-3 times a month
- Once a month

15.4%
23.1%
38.5%
23.1%

Survey analysis:-

1 : Around 39 percent of users goes out weekly to restraunts and 23 percent goes once in a month and 16 percent goes 2-3 times a month
and rest goes once in few weeks.

2 : Approx 62 percent of users are ready to use an app that connects excess food from restraunts to food banks and people in need.And around 16 percent were somewhat likely to use,rest were unlikely to use.

3 : Around 54 percent of user are convinced to use this app because they belive it can reduce food waste,and around 32 percent(16% each)belives that it can support their local community and provide free meals and approx 15.4 percent(7.7%)each are convinced to use because they are ready to volunteer and donate excess food from business.

4 : A total of 61 percent of user says that they use this on weekly basis. And approx 7.7 percent each on a daily,monthly basis.

5 : Around 70% percent of our total user are willing to travel between
    (0-5)kms to pick up free donated meals. 16 percent are wiling to travel
     more than 20 kms and rest users can travel upto (5-10)kms.

6: A total of 47 percent hopes that they could get free meals through this app. 15 percent each belives that they would get (packed and canned goods) and (culturally appropriate meals) and approx 8 percent beilves hopes that they would get whatever is available.

Refined Personas and Scenarios

Ben Zamaowski

FRUSTRATIONS(RECIPIENT)

- **Affordability: People in need may struggle with high food costs. Your app can offer lower-priced, accessible options for quality food.**

- **Availability: Access to donated food can be inconsistent.**

NEEDS

- **Need for Affordable Food: Recipients need access to low-cost, nutritious food to address financial constraints.**
- **Need for Accessibility: Recipients in underserved areas need a solution that provides equitable access to affordable food.**

DEMOGRAPHICS

AGE: 22
GENDER: MALE
LOCATION: NEWYORK, USA
EDUCATION: High School Graduate
YEARLY INCOME: >8 LAKH
MARITIAL STATUS: RELATIONSHIP

PHYSICAL ATTRIBUTES

VISION: NO GLASSES
DISABILITIES: FRACTURED LEG
MEDICAL CONDITIONS: NONE
MENTAL HEALTH: AVERAGE

PRIORITIES

Consistency: ▣▣▣▣☐
BUDGET(5- most expensive; 0- cheapest): ▣☐☐☐☐
Accessibility: ▣▣▣☐☐
Privacy: ▣▣▣☐☐

Max Trevor

FRUSTRATIONS (VOLUNTEER)

- **Scheduling: Some potential volunteers may be unable to commit to fixed schedules.**

- **Recognition: Volunteers may desire recognition or incentives for their contributions.**

NEEDS

- **Need for Opportunities: Volunteers seek opportunities to contribute to their community and make a positive impact.**
- **Need for Flexibility: volunteers need flexible volunteering options that can accommodate their availability.**
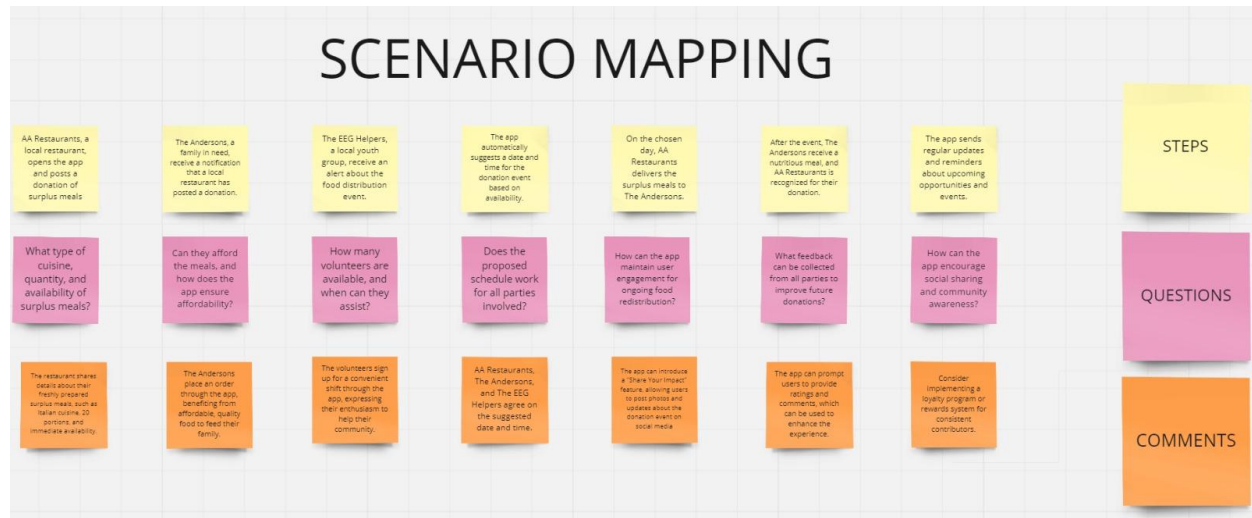
DEMOGRAPHICS

AGE: 27
GENDER: MALE
LOCATION: TOKYO, JAPAN
EDUCATION: MASTERS IN FINANCE
YEARLY INCOME: >50 Lakh
MARITIAL STATUS: ENGAGED

PHYSICAL ATTRIBUTES

VISION: GLASSES
DISABILITIES: NONE
MEDICAL CONDITIONS: HIGH BP
MENTAL HEALTH: STRESSED

PRIORITIES

Motivation: ▣▣▣▣☐
Flexibility: ▣▣▣▣▣
Opportunities: ▣▣▣▣☐
Recognition : ▣▣▣☐☐

SCENARIO MAPPING

							STEPS
AA Restaurants, a local restaurant, opens the app and posts a donation of surplus meals	The Andersons, a family in need, receive a notification that a local restaurant has posted a donation.	The EEG Helpers, a local youth group, receive an alert about the food distribution event.	The app automatically suggests a date and time for the donation event based on availability.	On the chosen day, AA Restaurants delivers the surplus meals to The Andersons.	After the event, The Andersons receive a nutritious meal, and AA Restaurants is recognized for their donation.	The app sends regular updates and reminders about upcoming opportunities and events.	

							QUESTIONS
What type of cuisine, quantity, and availability of surplus meals?	Can they afford the meals, and how does the app ensure affordability?	How many volunteers are available, and when can they assist?	Does the proposed schedule work for all parties involved?	How can the app maintain user engagement for ongoing food redistribution?	What feedback can be collected from all parties to improve future donations?	How can the app encourage social sharing and community awareness?	

							COMMENTS
The restaurant shares details about their freshly prepared surplus meals, such as Italian cuisine, 20 portions, and immediate availability.	The Andersons place an order through the app, benefiting from affordable, quality food to feed their family.	The volunteers sign up for a convenient shift through the app, expressing their enthusiasm to help their community.	AA Restaurants, The Andersons, and The EEG Helpers agree on the suggested date and time.	The app can introduce a "Share Your Impact" feature, allowing users to post photos and updates about the donation event on social media.	The app can prompt users to provide ratings and comments, which can be used to enhance the experience.	Consider implementing a loyalty program or rewards system for consistent contributors.	

https://miro.com/app/board/uXjVMk9SK_Q=/

SCENARIO

1. Donors - The Local Restaurant:

Need: The restaurant, named "AA RESTAURANT," has just closed for the day and realizes they have a surplus of prepared, high-quality meals.
Priority: Their priority is to minimize food waste and reduce disposal costs.

In the same neighborhood, the Andersons, a hardworking family, were facing tough times. They were struggling to make ends meet, and putting food on the table had become increasingly challenging.

2. Recipients - The Family in Need:

Need: A family in their neighborhood, the Andersons, are going through a financially challenging period and are struggling to put food on the table.
Priority: Their primary concern is affordable, nutritious meals for their family.

Meanwhile, a local youth group, known as the "EEG Helpers," was always on the lookout for opportunities to make a positive impact on their community.

3. Volunteers - The Local Youth Group:

Need: A local youth group is always on the lookout for volunteer opportunities that help the community.
Priority: They prioritize opportunities to make a positive impact and are looking for flexible options to accommodate their schedules.

HOW OUR APP MAKES THE IMPACT:

1. Donors (Restaurant): AA RESTAURANT opens your app and posts a donation of surplus meals. They input details like the type of cuisine, quantity, and availability. The app provides guidelines on safe food handling and tax incentives for food donations. The restaurant is pleased that your app simplifies the process and helps reduce food waste.
2. Recipients (Family in Need - The Andersons): The Andersons are registered users of your app. They receive a notification that a local restaurant has just posted a donation of freshly prepared meals at an affordable price. They place an order through the app, knowing that they can enjoy quality food without breaking their budget.
3. Volunteers (Local Youth Group): The youth group is part of your app's network of volunteers. They receive an alert about a food distribution event happening at AA RESTAURANT. They sign up for a volunteer shift that suits their schedules, and your app provides them with all the necessary information

STORY FORMAT :-
Harmony in Cityscape: A Night at AA Restaurants
In Cityscape, AA Restaurants, led by chef Rajeev, embraced generosity by donating surplus Italian meals. The Andersons, facing tough times, received a timely app notification, securing an affordable dinner. EEG, a spirited youth group, eagerly volunteered for the food distribution event. On the chosen evening, the community gathered at AA Restaurants, where surplus meals turned into shared joy. Social media buzzed with heartwarming posts, capturing the impact. AA Restaurants, inspired by gratitude, continued the partnership, sustaining a rhythm of shared meals and community spirit—a testament to the power of kindness in the heart of Cityscape.

Refined Problem Understanding

<Elaborate on the proposed solution, its target users, and the specific requirements it would fulfil >

Target Users:

Community Members: Individuals and organizations willing to donate surplus food to reduce waste and support their local communities.
Local Governments: Municipalities and city authorities interested in promoting food waste reduction and supporting community well-being.
App Developers: Tech-savvy individuals or companies interested in creating and maintaining the MealConnect platform.
Food Rescue Teams: Organizations and volunteers dedicated to rescuing and distributing surplus food to those in need.

Recipients: Individuals or families in need of food assistance, including homeless shelters and other food distribution centers.

Food Providers: Restaurants, cafes, grocery stores, and other businesses with surplus food to donate.

Proposed Solution:

The proposed solution, "mealconnect" is a comprehensive approach to tackling food waste and ensuring more efficient food sharing. It seeks to create a harmonious ecosystem for food providers, community organizations, and individuals to reduce waste and help those in need. meal connectoffers several features and services to achieve these goals:

Food Rescue Service: FoodHarmony offers a food rescue service where volunteers can sign up to collect surplus food from providers and deliver it to community organizations. This service should include a scheduling system for volunteers and real-time tracking of food rescue efforts.

Donation Matching: The platform should intelligently match food donations with the specific needs and preferences of community organizations and recipients. This includes considering dietary restrictions and cultural preferences.

Inventory Management: Food providers can list surplus food items with details such as type, quantity, and estimated expiration date. The platform tracks the available inventory to minimize waste.

Sustainability Metrics: FoodHarmony promotes sustainability by providing data on the amount of food saved from waste, the environmental impact of the saved food, and the carbon footprint reduction.

Payment Integration: To support the operational costs of the platform and facilitate donations, FoodHarmony may integrate a payment system for users to make financial contributions.

Communication Hub: The platform serves as a communication hub for all users, enabling messages, alerts, and notifications about food availability, volunteer opportunities, and food donation events.

User-Friendly Mobile App: FoodHarmony offers a mobile app for users to access the platform on the go, making it easy for food providers, volunteers, and recipients to participate.

Educational Resources: The platform provides information and resources on food waste reduction, sustainable living, and community engagement to raise awareness and foster a sense of responsibility.

Local Partnerships: FoodHarmony actively seeks partnerships with local businesses, government agencies, and community organizations to create a network of support and resources.

Privacy and Security: Ensuring the security of personal information and payment details is a top priority. The platform complies with data protection regulations.

MARKET ANALYSIS:-

1) Too Good To Go: Too Good To Go is an app that connects users with local businesses, including restaurants and grocery stores, to purchase surplus food at discounted prices before it goes to waste.
FLAWS:
 Limited Availability: The service may be available in urban areas or specific regions
Quality Control: Users may receive a variety of items, and the quality of surplus food can vary

2) OLIO: OLIO is a food-sharing app that connects neighbors and local businesses, allowing them to share surplus food rather than letting it go to waste. Users can give away or receive items for free.

FLAWS:
 Dependency on User Participation: The effectiveness of OLIO relies on active user participation.
Logistical Challenges: Coordinating and completing transactions between users

3) Food Cowboy: Food Cowboy is an app designed to reduce food waste in the supply chain. It connects food donors with charities and facilitates the donation of surplus food from farms, distributors, and retailers.

FLAWS:
Supply Chain Limitations: Food Cowboy primarily addresses waste in the supply chain

4) Karma: Karma is an app that partners with restaurants, cafes, and grocery stores to sell surplus food at a discount to users. Users can browse and purchase unsold items through the app.
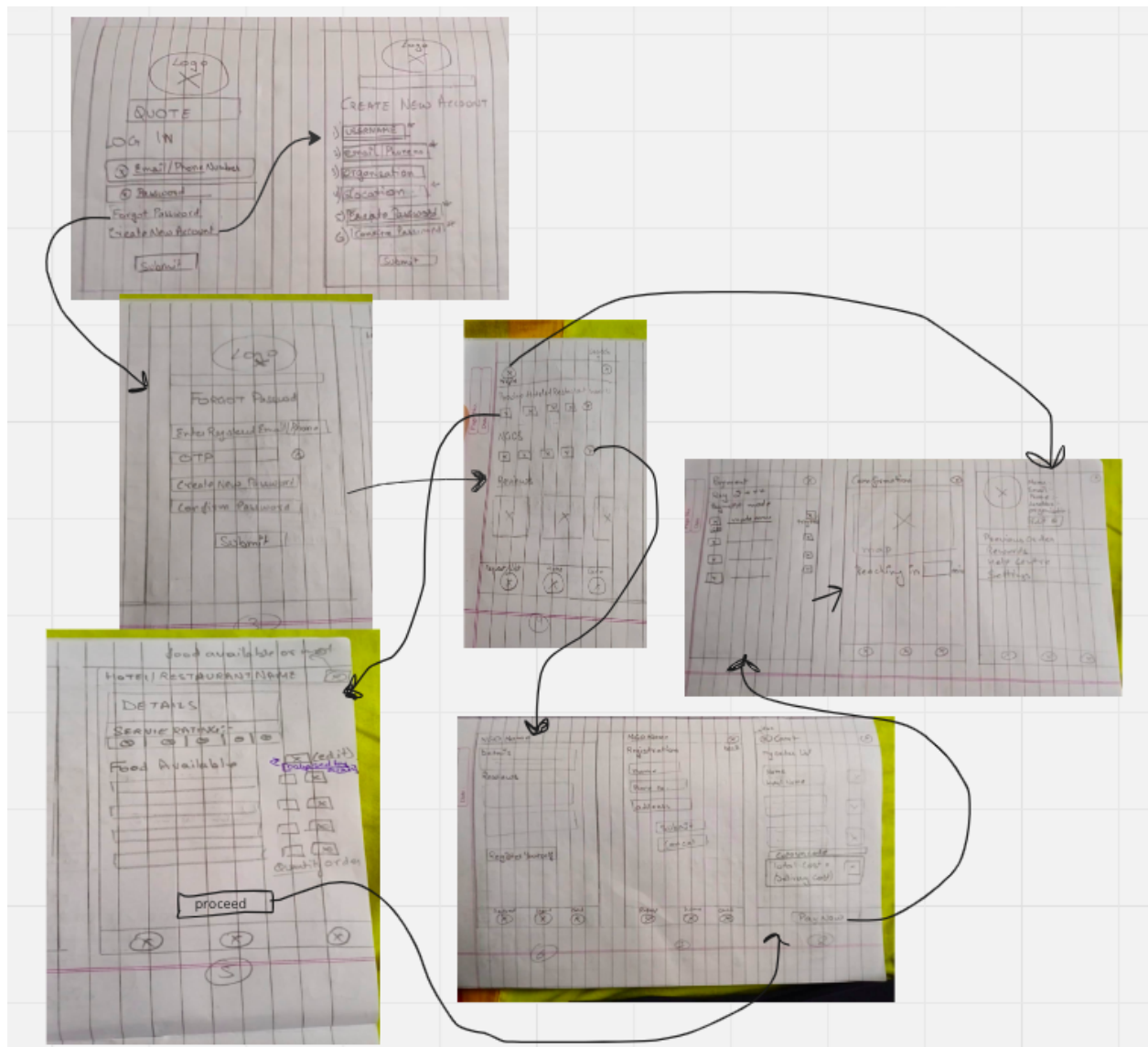
FLAWS:

User Dependency: Similar to Too Good To Go, the quality and variety of surplus food are dependent on user participation.

Limited Merchant Adoption: The success of Karma relies on the willingness of restaurants and stores to partner with the
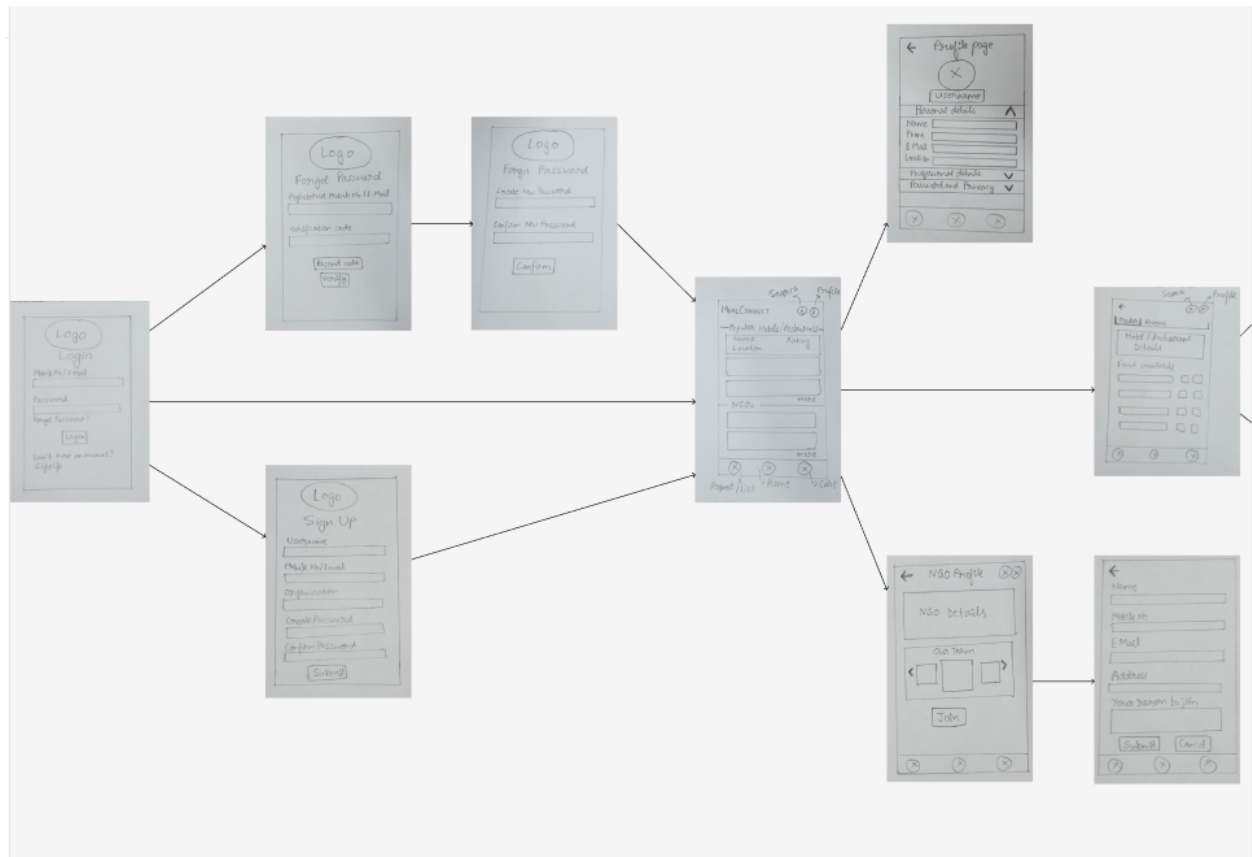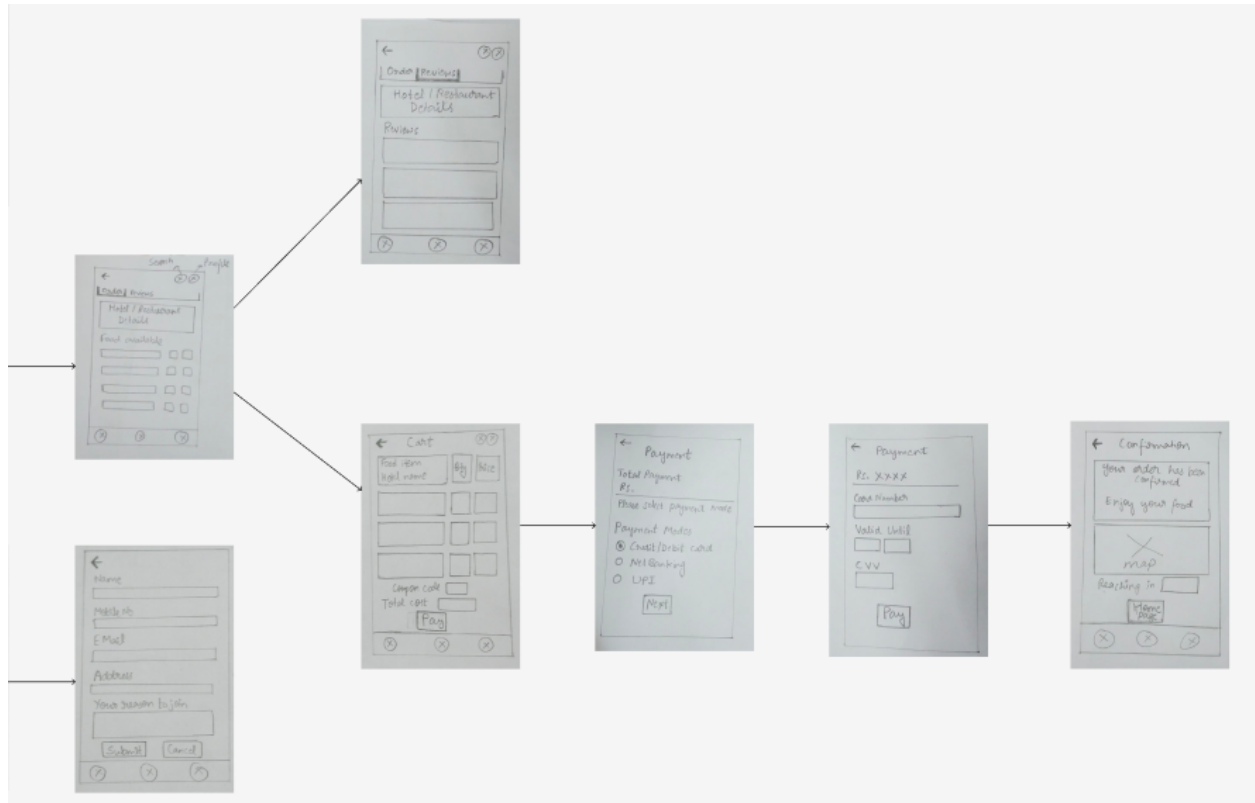
Refined Lo-Fi Design

<Insert images along with the changes you made>

https://miro.com/app/board/uXjVNPJb_xw=/

Alternate lofi from previous submission

https://www.figma.com/file/GtcTBDnr4fRFeLICc6WFNF/Meal-Connect---Alternate-Design?type=design&node-id=0%3A1&mode=design&t=JcxiBtrihDdMNfnj-1

Working Hi-Fi Prototype along with User Evaluation

<Insert Figma Link and the user evaluation>

https://www.figma.com/file/PtQvkO9GR8N9dRFGe9rb5U/Untitled?type=design&node-id=41%3A2444&mode=design&t=HHdp51aw0rfF1fJ0-1

Prototype link

https://www.figma.com/proto/PtQvkO9GR8N9dRFGe9rb5U/Untitled?type=design&node-id=3-7&t=iFx6LtqFy1WT3rsu-0&scaling=scale-down&page-id=0%3A1&starting-point-node-id=36%3A964

User Evaluation is done by google form:-

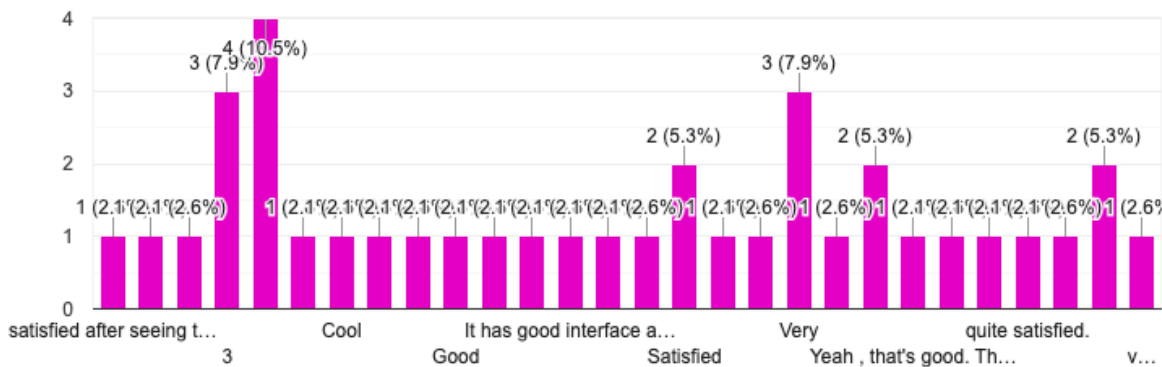https://docs.google.com/forms/d/e/1FAIpQLSfSKY1CMnbJq0dgh2Z0ZW9Z-6NqJaCpfPtNz1yHdqxnDAPUmg/viewform

How would you rate the overall user interface of the app on a scale of 1 to 5 ?

Copy

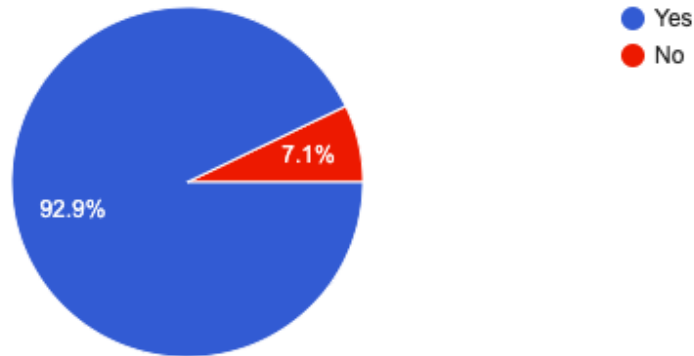|						
5 (11.9%)	12 (28.6%)	1 (2.4%)	2 (4.8%)	1 (2.4%)	1 (2.4%)	20 (47.6%)
3	4	4.5	4.8	4.89	4.9	5
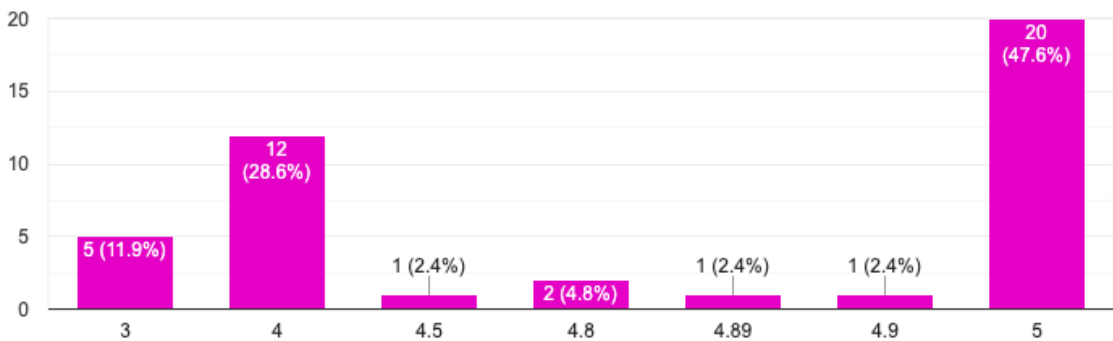
How satisfied are you with the placement and visibility of key functions within the app?

Copy

Does the app's design make it easy for you to customize orders or preferences?

- Yes
- No

92.9%

7.1%

Are there any specific design features from other food apps that you would like to see incorporated into this app? 39 responses

No

no

NA

no best

not really

yeah i think it would be better if you could add the logo at the top of the home screen and remove one of the profile buttons.

No it's perfect

Everything is good

May be looking for more advanced options.

Not as of right now

Could look up features from zomato or Swiggy

delivery time bar

Gold membership

Cost for a restaurant

Use of discount coupons

Option to see the menu in full

None

Display various food items to provide an instant choice for the user

None

Good clarity pictures

Good

Nothing that I can think of

No .

To get feedback regarding how well the event was carried out, total contributions etc

Zomato side scroll

Settings Tab

One click payment

Are there any aspects of the app's layout that you find confusing or challenging?39 responses

No

no

NA

yes landing page

i don't find any aspect of the app's layout confusing.

Nope

No

No , they are clear.

True

Nope it's perfect

Yep, why is it somewhat weird?

Colour theme was not that much nice

Uhh not much

NO

Not really

None

None

Nothing

Good

No everything is simple

Not at all .

Are there any particular design elements that you think could be enhanced to better suit your preferences?39 responses

No
no
Nope
NA
no i am happy with the design elements of the app.
Everything is perfect
No,they are pleasant.
Yeah
No
Mo
Maybe
checkout
Visibility
Almost all the design elements of the app are nice.
Profile page could contain less information
None
Restaurant list can be made linear
None
The loading page

Good

No,they all are perfect

I think being able to interact with more things visible on the prototype would enhance the experience

Better layout

no ,it is fine

How well does the app's design align with your expectations for a food delivery app?39 responses

Good

Very well

Pretty much

very

very well.

it aligns quite properly with my expectations but i think the color scheme could be a little different with orange and black or with yellow and white.

It's perfect

It's good

Can make a good negotiation with the present apps 👍.

Nice

5

No

I don't think there is a market for another food delivery app, already the aggregators are taking 30plus percentage of from the orders so I think people should now work with the restaurants for better results.

very likely

good

Met expectations

Decent

It's a nice app and provides good user experience.

Very wellllllll 😌🤝

It delivers my expectations

Smooth and user friendly

Excellent

Still needs some work for easy access

Yes

It's perfect.

it's my type of design.

Few customisations are required for it to be good delivery app

It aligns well

Perfect

Pretty good

Almost all of the expectations. Although this app is not polished right now, it can be in the future projects.

great

very well

Comfortably well

Very Well

Report:

The method of user evaluation is survey.
This is a report made on the basis of the responses we have received from the users who have participated in the survey.
Through survey we have found that:
i)majority of the users have liked the overall user interface of our app's design.
ii)almost all the users are quite satisfied with the visibility and placement of key functions within the app's design.
iii)Most of the users believe that the app's design makes it easy for them to customize their orders or preferences but a minority of people believe that we still need to improve the app's design in order to make it more user friendly so they can customize their orders.
iv)There are few design features from other apps that the users have mentioned that they want us to incorporate into our app's design like the use of discount coupons, the option to see the menu in full, one-click payment, a few features from swiggy or zomato and a few advanced features.
v)a few users found the app's layout confusing.One of the users did not like the color scheme and another user found the app's layout weird. While many appreciated the color scheme and layout too.

vi)some users are not completely satisfied with the design and have recommended a few design features like visibility, less information on the profile page, more smooth UI, being able to interact with more things visible on the prototype and restaurants to be classified in a linear manner.
vii)some of the users have felt that the app's design does not align properly with their expectations as they believe that few more customisations are required for it to be good and it still needs some work for easy access etc. A few users also think that there is no market for another food delivery app.

Contributions

<Mention the individual contributions of the group members>

Ansh-2023099
Akshat-2023063
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All have contributed equally