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BSc (Hons) in Information Technology

Media – Year 3, Semester 2 **Lab sheet 04**

SE3050 – User Experience Engineering **Semester 2, 2024**

Lab Practical 04 – Plan and Conduct User Research

Introduction

This user research plan is designed to evaluate the usability and user experience of the HungerBuster mobile application, a platform designed to connect food donors with people in need, such as low-income families, elderly individuals, and single parents in Sri Lanka.

The primary goal of this research is to gain insights into the needs, behaviors, and pain points of our target users to refine the application's design, improve its usability, and ensure it meets the needs of its diverse user base. By conducting this research, we hope to uncover specific areas of improvement and validate our design choices.

The results will be used to guide future development and enhance the overall user experience of the app.

Test Objectives

1. The objectives of this research are:
2. **Understand User Needs and Pain Points**: Identify the motivations for using the HungerBuster app, and the challenges users face during interactions.
3. **Evaluate Usability and Accessibility**: Assess the usability of the app's interface, focusing on accessibility for less tech-savvy users, such as elderly individuals and users from low-income backgrounds.
4. **Gather Feedback on Key Features**: Obtain user feedback on specific features, including browsing donations, making requests, and managing profiles.
5. **Identify Opportunities for Improvement**: Uncover areas where the app's design, functionality, and interface can be improved to enhance user satisfaction.

Methodology

A mixed-method research approach will be used, incorporating both qualitative and quantitative data collection. The research will consist of:

1. **Interviews**: One-on-one semi-structured interviews will be conducted to gather in-depth insights into user experiences, pain points, and suggestions for improvement.

2. **Video Recordings**: Participants will be recorded while interacting with the app, capturing their behavior and challenges encountered in real time.

3. **Questionnaires**: A structured questionnaire will be distributed to gather quantitative data on user satisfaction, usability, and overall experience with the app.

Participants: Four participants have been selected based on the personas developed for Hunger Buster. Each participant represents a different target demographic:

1. A low-income single mother.(IT21827662)
2. A school principal.
3. A community volunteer.
4. A Health Expert

Location: The user research sessions will be conducted remotely via video calls to ensure participant convenience and accessibility.

Interviewing

Interview Process

The interviews will be conducted remotely via video conferencing platforms and will last approximately 20 minutes. The focus will be on understanding the needs, expectations, and preferences of the users before the HungerBuster app is fully developed. This will allow the team to gather valuable insights that can guide the app's design and functionality.

The discussion will explore:

- User expectations for a food donation/request platform.
- Key challenges participants face in accessing or donating food.
- Features they believe would be essential for the app.
- Pain points and limitations in current food donation systems (if any).
- Suggestions for improving usability and accessibility in a new app.

Interview Script

it21827662(Dissanayaka S.D) to low-income single mother.

Interviewer:

Thank you for taking the time to speak with me today. I would like to ask you a few questions to understand your expectations, needs, and any suggestions you have about the mobile app my team and I will be developing. I hope you will answer as honestly as possible."

What would be your main reason for using our application?

Samanthi: "I want to make sure I can get food for my children, especially healthy meals. Sometimes, it's hard to find food we can afford, and the app could make it easier for me to see what's available."

How do you feel about using technology to help find food or community support?

Samanthi: "I'm not very good with phones and apps, but if it's simple and easy to use, I'm willing to try it. I just need it to be straightforward because I don't have a lot of time to learn new things."

What kind of features would be most important to you in an app like HungerBuster?

Samanthi: "I would want it to show me where I can get food nearby and what kind of food is available. It would also be good if it could give me ideas on how to cook meals for my children."

What challenges do you face when it comes to getting food for your family?

Samanthi: "It's mostly about money. Healthy food can be expensive, and sometimes I don't know where to find help. Also, I feel embarrassed asking for food, so I'd want the app to keep things private."

Would you be comfortable using an app to request or reserve food donations? Why or why not?

Samanthi: "If it's simple, yes, I would. I don't want to stand in lines or talk to too many people. If I can quietly reserve what I need and pick it up, that would make things easier."

What would make the process of getting food donations more convenient for you?

Samanthi: "It would help if I could choose a time to pick up the food so it doesn't interfere with taking care of my children. Also, getting notifications about what's available would be helpful."

Do you have any concerns about using the app for food assistance?

Samanthi: "I don't want to feel embarrassed or judged. I want to make sure the app keeps my information private and that no one else can see what I'm doing."

How often do you think you would use the app to find food donations?

Samanthi: "It depends on what's available and what we need. Maybe once or twice a week if the food is healthy and suitable for my children."

What kind of information would you like to see about the food before deciding to get it?

Samanthi: "I'd like to know what type of food it is – vegetables, fruits, grains – and how fresh it is. If there are any recipes or ideas on how to cook it, that would be very helpful."

Do you think the app should offer other services or resources besides food donations?

Samanthi: "Maybe some tips on how to manage money better or find ways to get more support. And definitely recipes, so I know how to cook meals my kids will like."

What do you expect from the app in terms of reliability and ease of use?

Samanthi: "It should be easy to use, even for someone like me who doesn't know much about apps. I don't want it to crash or be confusing, and it should show what's really available so I don't waste time."

What would make you feel supported and respected when using the app?

Samanthi: "I want to feel like I’m being helped, not judged. If the app can do this quietly, without drawing attention to me, that would make me feel much better.

Interviewer:
Thank you, Samanthi Jayasinghe, for your insightful responses. It’s clear that your expertise and experience make you a strong candidate for this role. We’ll be in touch soon regarding the next steps.

Key Focus Areas:

- **Expectations from the Platform:**
  The platform should provide accurate, up-to-date information for informed decisionmaking in food safety. Tools to streamline the verification process without compromising safety are essential.

- **Support for Research and Professional Growth:**
  The platform should offer reliable, organized data that can be used for research and continuous professional development. Recognition of contributions within the public health community is also important.

- **Necessary Features:**
  A dashboard for easy management and verification of food submissions is needed. It should include features to review images, estimate shelf life, and ensure compliance with food safety standards.

- **Challenges and Concerns:**
  The manual review of food submissions is time-consuming, especially with large volumes. Ensuring the accuracy of donor-provided information is crucial. A feedback mechanism would be valuable for understanding community perceptions.

- **Personal and Professional Impact:**
  Contributing to community health and safety is rewarding, but there is a strong sense of responsibility to maintain high standards. Efficient verification processes and recognition of efforts are important.

- What suggestions do you have that could help us ensure the app meets the needs of people like yourself?

Video Recording

Link to Interview: interview with Dissanayaka S.D IT21827662

Questionnaire

Link to the Questionnaire: https://forms.gle/N1nGWCmE7PYZabsP9

Participant Profiles

Participant : Female, mid-30s, low-income single mother, lives in a suburban area, primary user of the food request feature.

Plan for Data Analysis

Interviews:

- **Qualitative Data**: Transcripts of the interviews will be coded to identify common themes and patterns related to user needs, pain points, and suggestions.

- **Analysis Plan**: Thematic analysis will be used to categorize user feedback into usability issues, feature requests, and overall user satisfaction.

Video Recordings:

- **Qualitative Data**: Observations from video recordings will be analyzed to identify usability challenges, navigation patterns, and areas of confusion.

- **Analysis Plan**: Video segments will be categorized based on specific user interactions and tasks, highlighting successful completions and errors.

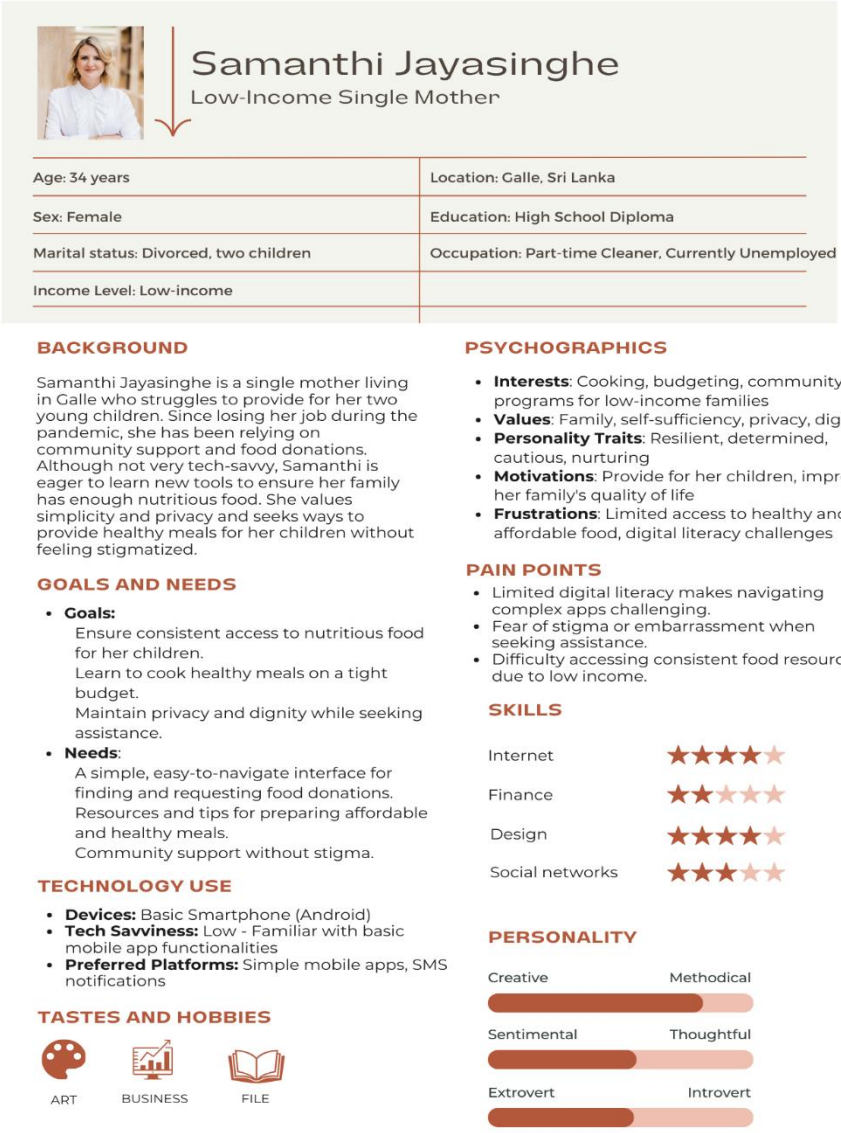
Questionnaires:

- **Quantitative Data**: Data from Likert-scale questions will be analyzed using descriptive statistics to summarize user satisfaction and usability scores.

- **Analysis Plan**: Open-ended responses will be reviewed for additional insights, and crossanalysis with interview findings will be conducted to identify consistent trends.

Personas

IT21827662 : Samanthi Jayasinghe - The Low-Income Single Mother



1. Persona Overview:

- **Name**: Samanthi Jayasinghe
- **Age**: 34
- **Gender**: Female
- **Location**: Galle, Sri Lanka
- **Occupation**: Part-time Cleaner, Currently Unemployed

- **Education**: High School Diploma
- **Income Level**: Low-income
- **Marital Status**: Divorced, two children

2. Background:

Samanthi Jayasinghe is a single mother living in Galle who struggles to provide for her two young children. Since losing her job during the pandemic, she has been relying on community support and food donations. Although not very tech-savvy, Samanthi is eager to learn new tools to ensure her family has enough nutritious food. She values simplicity and privacy and seeks ways to provide healthy meals for her children without feeling stigmatized.

3. Demographics:

- **Age Group**: 30-40
- **Education Level**: High School Diploma
- **Professional Status**: Currently Unemployed, Part-time Cleaner
- **Family Status**: Divorced, two children

4. Psychographics:

- **Interests**: Cooking, budgeting, community programs for low-income families
- **Values**: Family, self-sufficiency, privacy, dignity
- **Personality Traits**: Resilient, determined, cautious, nurturing
- **Motivations**: Provide for her children, improve her family's quality of life
- **Frustrations**: Limited access to healthy and affordable food, digital literacy challenges

5. Goals and Needs:

- **Goals**:
  - Ensure consistent access to nutritious food for her children.
  - Learn to cook healthy meals on a tight budget.
  - Maintain privacy and dignity while seeking assistance.
- **Needs**:
  - A simple, easy-to-navigate interface for finding and requesting food donations.
  - Resources and tips for preparing affordable and healthy meals.
  - Community support without stigma.

6. Pain Points:

- Limited digital literacy makes navigating complex apps challenging.
- Fear of stigma or embarrassment when seeking assistance.
- Difficulty accessing consistent food resources due to low income.

7. Technology Use:

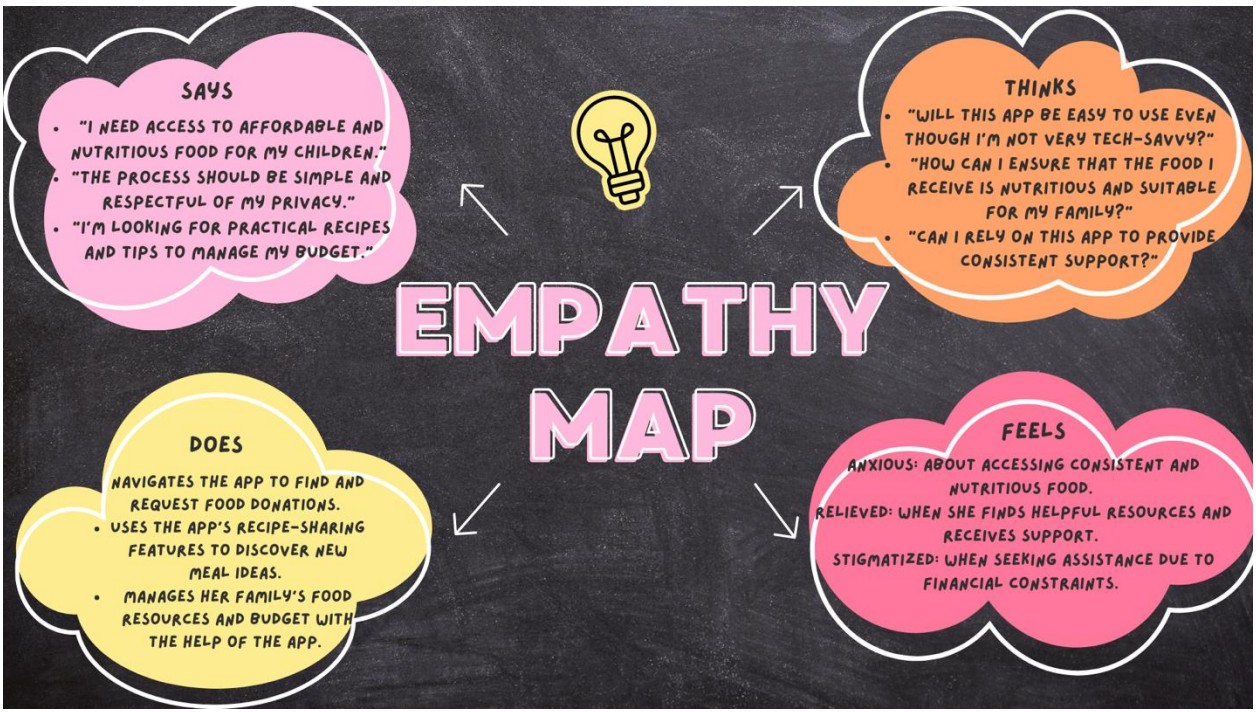
- **Devices**: Basic Smartphone (Android)
- **Tech Savviness**: Low - Familiar with basic mobile app functionalities
- **Preferred Platforms**: Simple mobile apps, SMS notifications

8. Scenario/Situation:

Scenario 1: Samanthi receives a notification from the HungerBuster app about available food donations nearby. She easily navigates the app to reserve a food package and chooses a pickup time that fits her schedule. The app's user-friendly design allows her to manage her resources effectively without feeling overwhelmed.

Scenario 2: Samanthi uses the recipe-sharing feature on the HungerBuster app to find new meal ideas that are both nutritious and affordable. She tries out a popular recipe and shares her experience with other users, receiving positive feedback and building a sense of community.

IT21827662 : Samanthi Jayasinghe - The Low-Income Single Mother



1. What Samanthi Says:

- "I need access to affordable and nutritious food for my children."
- "The process should be simple and respectful of my privacy."
- "I'm looking for practical recipes and tips to manage my budget."

2. What Samanthi Thinks:

- "Will this app be easy to use even though I'm not very tech-savvy?"
- "How can I ensure that the food I receive is nutritious and suitable for my family?"
- "Can I rely on this app to provide consistent support?"

3. What Samanthi Does:

- Navigates the app to find and request food donations.
- Uses the app's recipe-sharing features to discover new meal ideas.
- Manages her family's food resources and budget with the help of the app.

4. What Samanthi Feels:

- **Anxious**: About accessing consistent and nutritious food.
- **Relieved**: When she finds helpful resources and receives support.
- **Stigmatized**: When seeking assistance due to financial constraints.

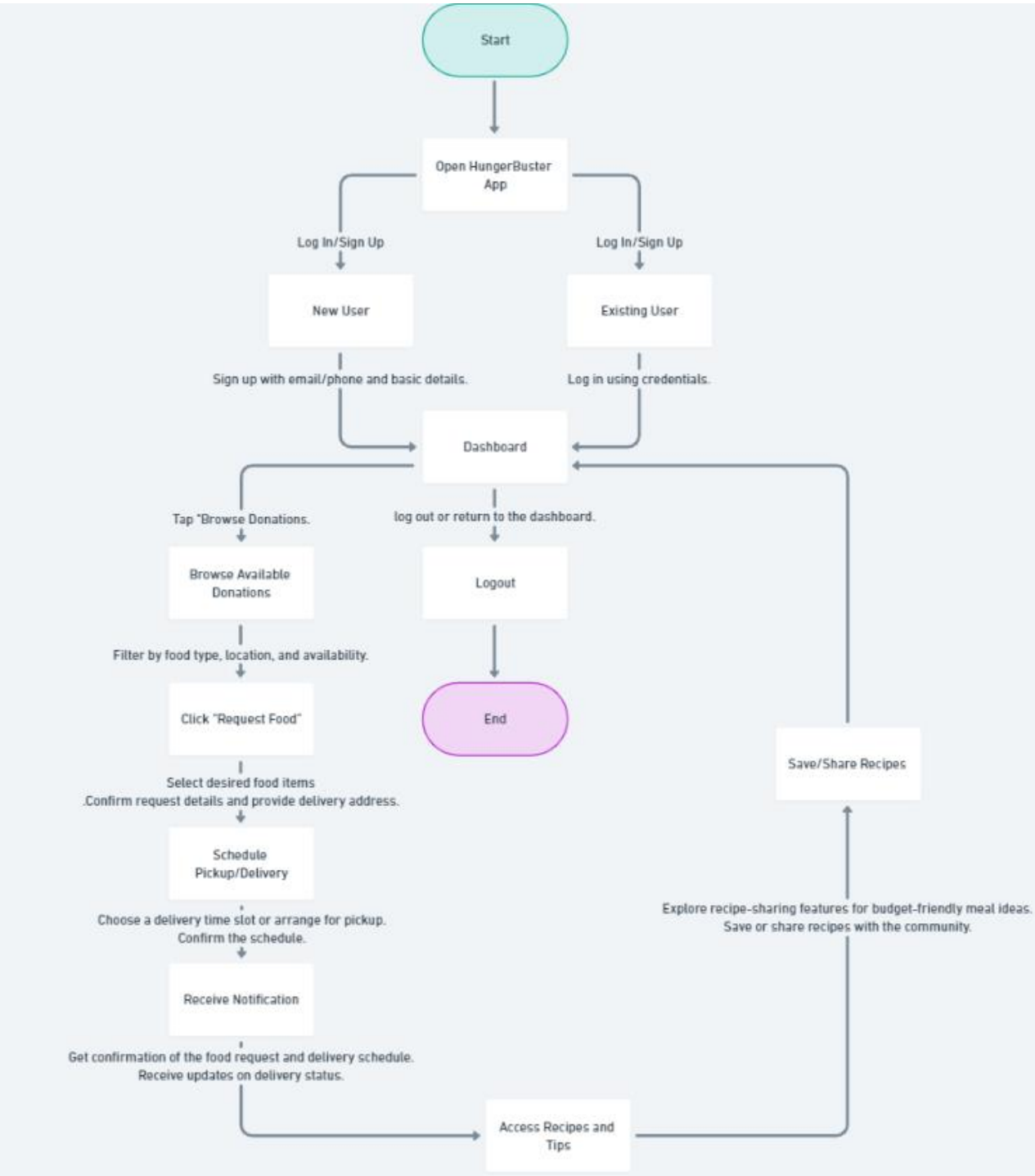
5. Pain Points:

- Limited digital literacy and challenges navigating complex apps.
- Fear of stigma associated with seeking food assistance.
- Difficulty accessing consistent and affordable food resources.

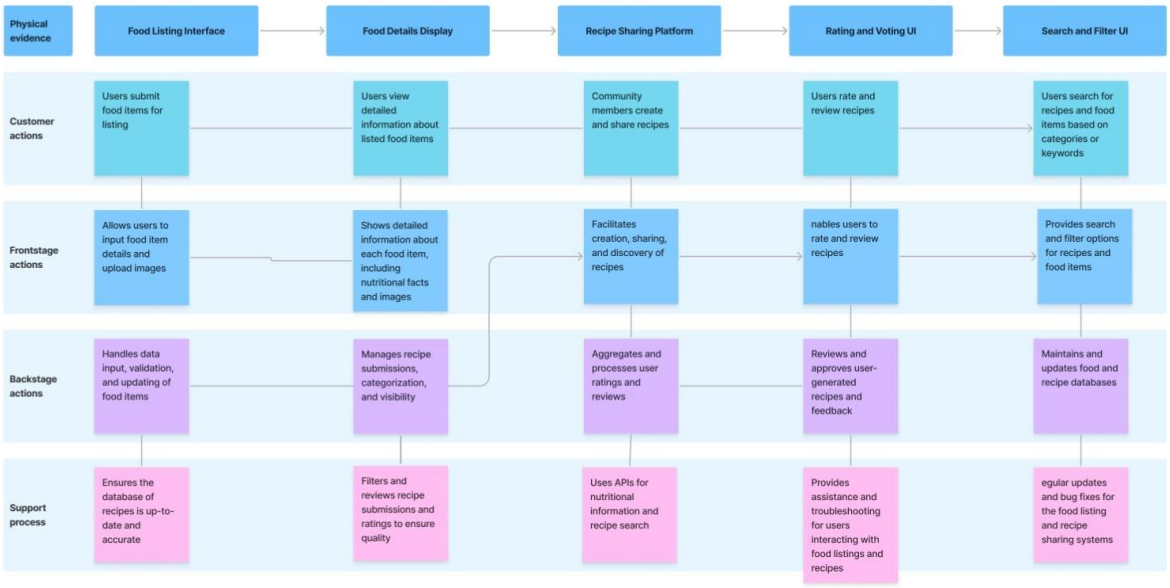
6. Gains:

- Simplified access to food donations and nutritional resources.
- Supportive community without judgment.
- Practical tips and recipes to manage a tight budget effectively.

IT21827662 – A Low income single mother



Service Blueprint(s)


Physical evidence
Food Listing Interface
Food Details Display
Recipe Sharing Platform
Rating and Voting UI
Search and Filter UI
Customer actions
Users submit food items for listing
Users view detailed information about listed food items
Community members create and share recipes
Users rate and review recipes
Users search for recipes and food items based on categories or keywords
Frontstage actions
Allows users to input food item details and upload images
Shows detailed information about each food item, including nutritional facts and images
Facilitates creation, sharing, and discovery of recipes
nables users to rate and review recipes
Provides search and filter options for recipes and food items
Backstage actions
Handles data input, validation, and updating of food items
Manages recipe submissions, categorization, and visibility
Aggregates and processes user ratings and reviews
Reviews and approves user-generated recipes and feedback
Maintains and updates food and recipe databases
Support process
Ensures the database of recipes is up-to-date and accurate
Filters and reviews recipe submissions and ratings to ensure quality
Uses APIs for nutritional information and recipe search
Provides assistance and troubleshooting for users interacting with food listings and recipes
egular updates and bug fixes for the food listing and recipe sharing systems