SI 612
M2 Presentation
Team 3

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Introduction

Opportunity: Meal Plan

Problem:

- Balancing academic, work, and social time, with meal planning
- Limited time for meal planning and cooking
- Maintain a balanced diet with various and ingredients
- Develop recipes with the ingredients available

What we can offer:

- Meal planning solutions that are:
  - Convenient
  - Healthy
  - Cost-effective
  - Time-saving
  - Dietary

Motivation:

- Growing trend towards healthier eating habits
- Increasing demand for quick and healthy meal plannings
- Limited meal preparation time for special requests: health conditions, dietary plans, etc.

Where the project was at the end of M1:

- Finalized our idea and project scope.
- Decided our research methodologies(diary study and survey)
- Finalized on diary study and survey plan
- Deciding how far to go with this project

Opportunity: Meal Plan

Value

We offer a solution that support meal planning and saving student time, effort, and money, while providing access to healthy meal options that support students in maintaining a balanced diet despite their busy schedules.

Constraints

- Technological limitations
- Compatibility issues

Research Objectives / Methodology Selection

What we want to learn?

- Insights on daily meal planning activities, experiences, and challenges
- Frustrations/pain points associated with the meal planning process
- Devices/systems that students use to plan meals or maintain their diet

User Research Methods

- Diary Studies (8 participants)
- Survey

Audience

- College students who cook for themselves

Method 1:
Diary Study

Diary Study Setup

Method

- Anonymous Google Forms for users to enter data about their meal planning process
- 3 entries per day
- 5 days total
- 8 participants

Procedure

- Developed the questions based on our research goal
- Set up Google Forms
- Recruit participants
- Inform participants about how to input data
- Review and analysis the data received

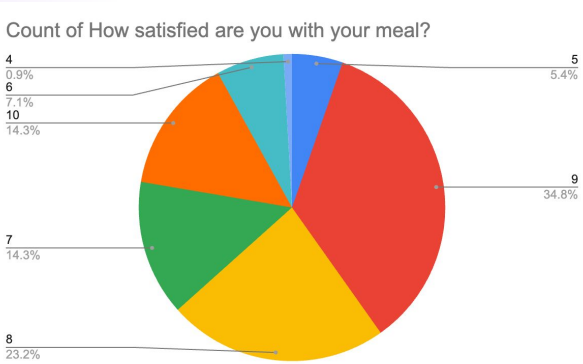
Rationale

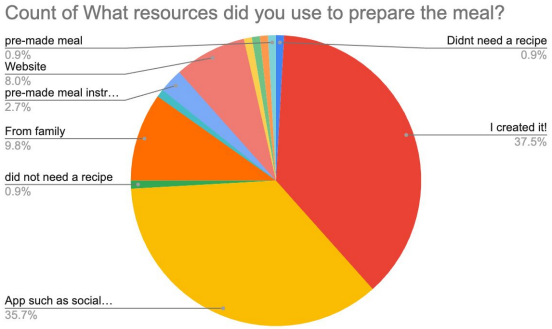
- Collect user behaviors, activities, and experiences in details
- Quantitative & Qualitative
- Real-time data

Data Analysis

- Charts generated by google forms
- Short answer question asking the struggles

Diary Study Data Analysis





Struggles while preparing meal

"I feel that bring breakfast can be time-consuming when I have to go to class early."

"I did run out of ingredients."

"I had struggle on deciding what to make with the ingredients I had, like I wanted to cook chicken but didnt know what to make with it."

"I had a late breakfast"

"Overcooked"

"I did not have much time to prepare lunch because I had a very busy day all day. So i just took whatever I could find in my fridge with me to school"

"I was too tired tonight to cook or even eat anything. So I had left overs from yesterday and earlier today"

"I did not cook anything, just had a protein bar and coffee"

"I did not cook I attended an event that had wraps for us so I had those for lunch"

"Did not have time to prepare"

"Doesn't taste good"

Method 2:
Survey

Survey Setup

Method

Anonymous Survey through Google Form
49 Response

Rationale

Surveys allow us to gather both qualitative and quantitative data from a large number of participants efficiently in a relatively short amount of time.

Procedure

- Wrote out all the survey questions based on our research goal
- Set up the Google Form
- Send out the anonymous Google Form to college students
- Review and analysis the data received

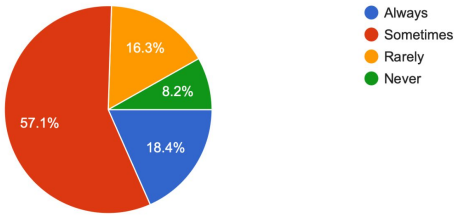
Data Analysis Tool

We plan to analysis the qualitative data using the charts generated by Google Form. The data was collected and organized in a Google Sheets document.

Survey Data Analysis

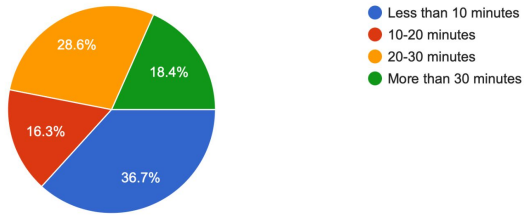
How often do you meal prep?

49 responses



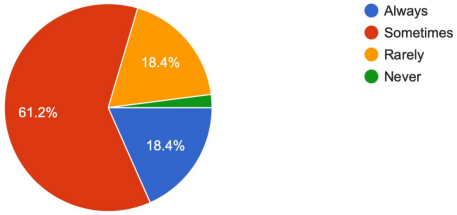
How much time do you usually spend on meal prep every day?

49 responses



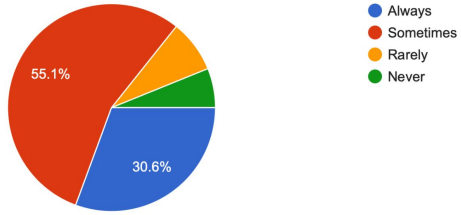
How often do you shop for meals?

49 responses



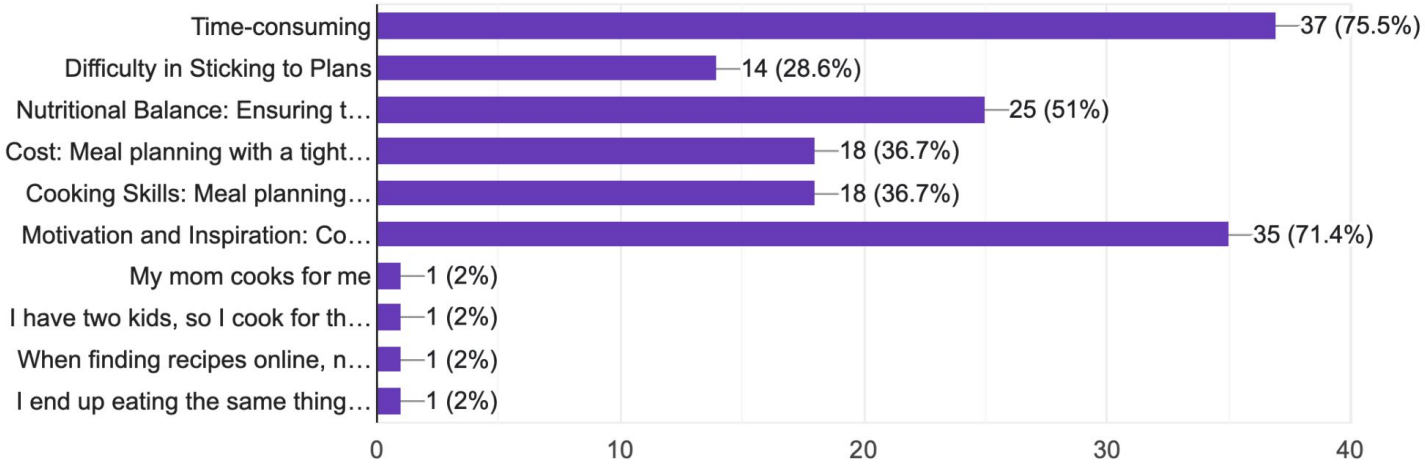
How often do you use online tools to search for recipes?

49 responses



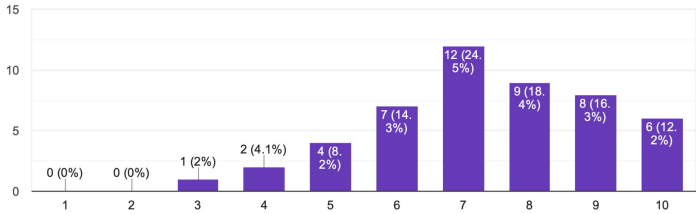
Survey - Discover the Pain Points

What are some pain points you experience with meal planning?

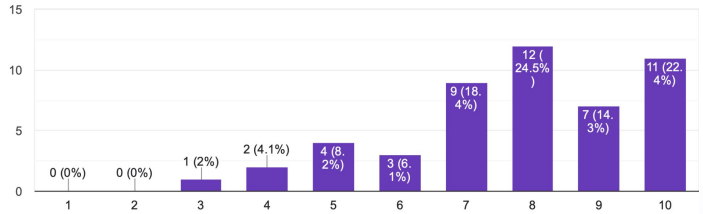


Survey - Feature Preference

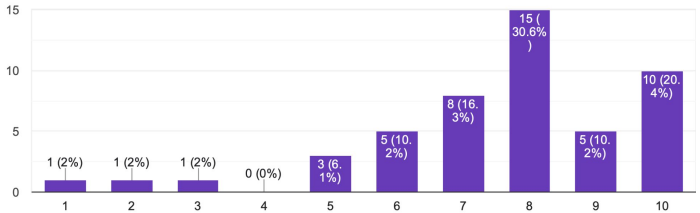
Smart Shopping List Generation Feature



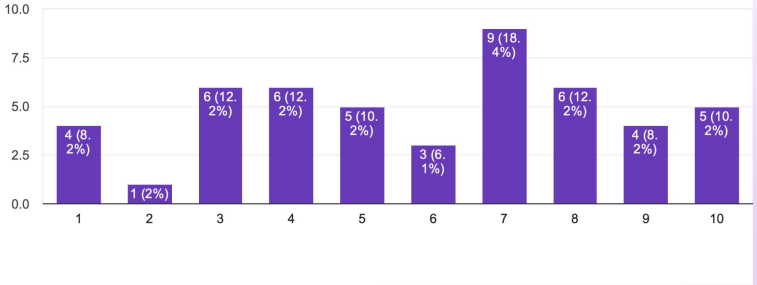
Recipe Recommendation Feature



Nutrition Analysis and Tracking Feature



Meal Prep Reminder Feature



Synthesized Results

Features Recommendations

Shopping List Feature

Low-cost Meal Idea

Offering things to substitute in recipes

Meal Recommendations based on user preference

Estimate Cooking Time

Suggests Recipes to have overlap ingredients

Intuitive Interface

Special feature for kid meal

Calendar Feature

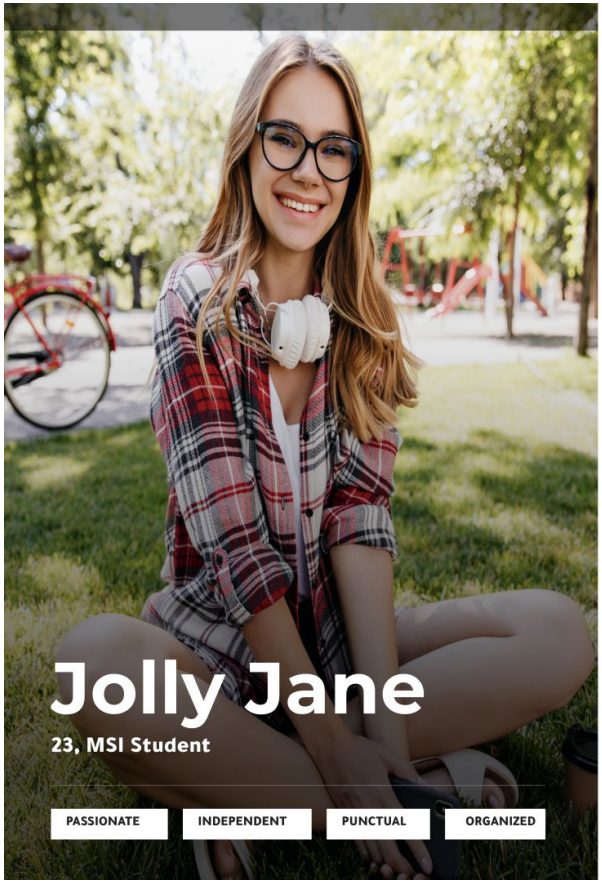
Calories Estimation

Estimate Cooking Time

Meals that similar users are making or frequently used ingredients

Suggest Recipes Based on Current Ingredients

Persona



> Living a healthy and organized life is what I value the most

ABOUT

Jolly moved to Ann Arbor for her graduate studies in Environmental Science. She lives in a shared housing arrangement with three other graduate students, each pursuing different fields of study. Jolly is passionate about her studies but finds herself constantly busy with research, classes, and academic commitments. She often spends long hours in the library or lab, leaving her with limited time for other activities, especially cooking.

While Jolly enjoys cooking when she has the time, her lack of meal planning skills leads to last-minute decisions and reliance on convenience foods. She wishes to adopt healthier eating habits but feels overwhelmed by the demands of her academic schedule.Although she doesn't have any specific dietary restrictions, she tries to stay away from fat food products, sugary drinks and salt. Jane exercises at the gym every morning as well.

GOALS

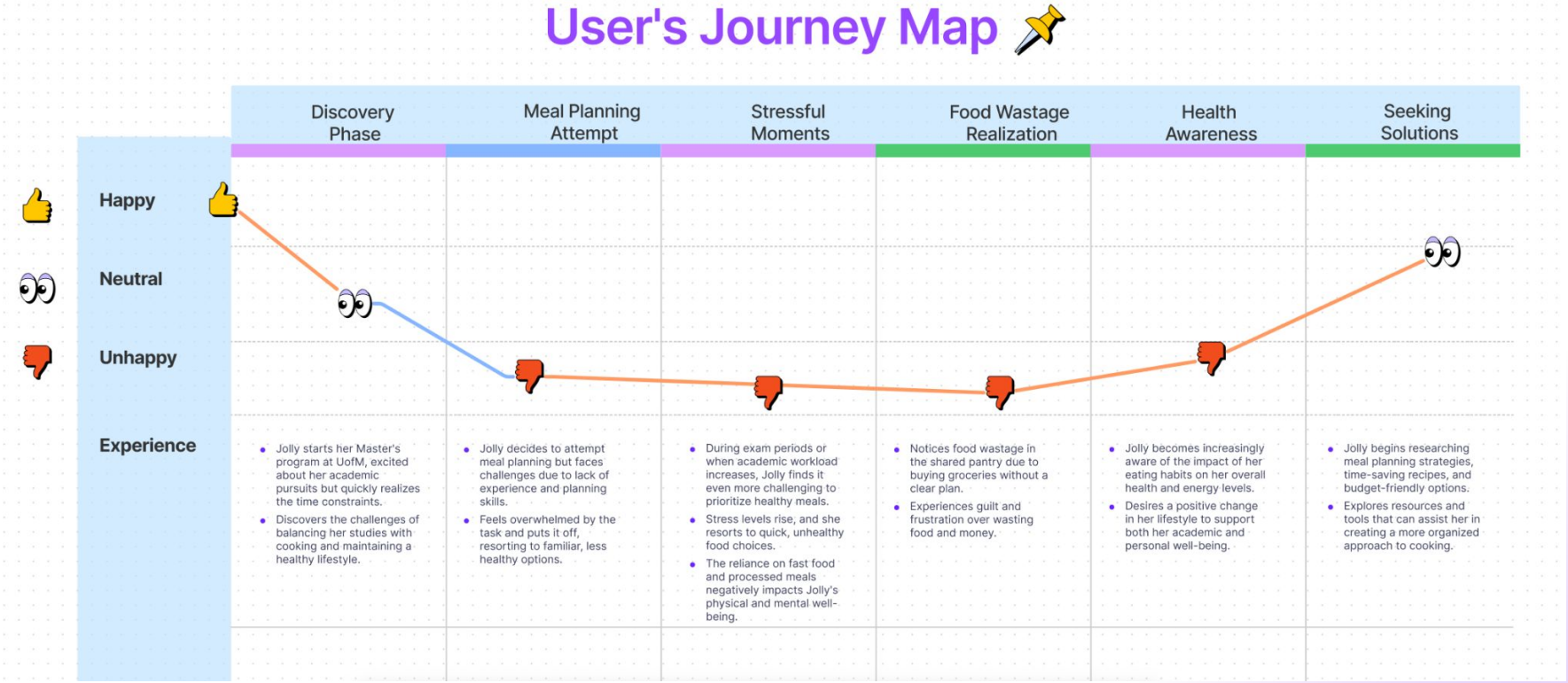
- Make meaningful contributions to environmental sustainability with less food wastage.
- Be able to balance work, study and nutrition.
- Store quick and easy meals in her refrigerator every weekend



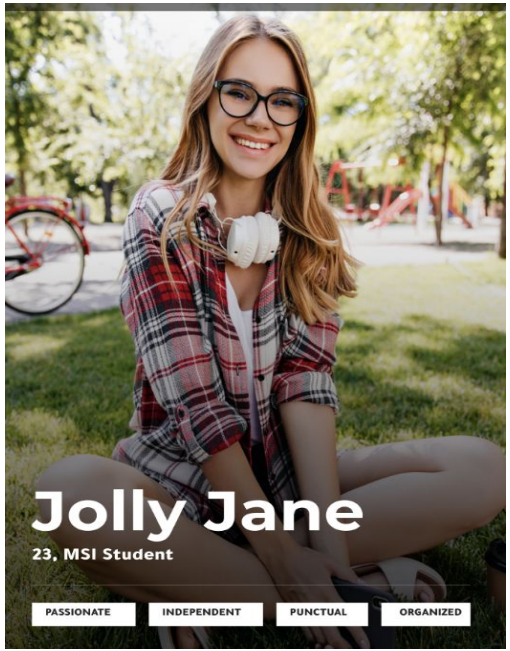
FRUSTRATIONS

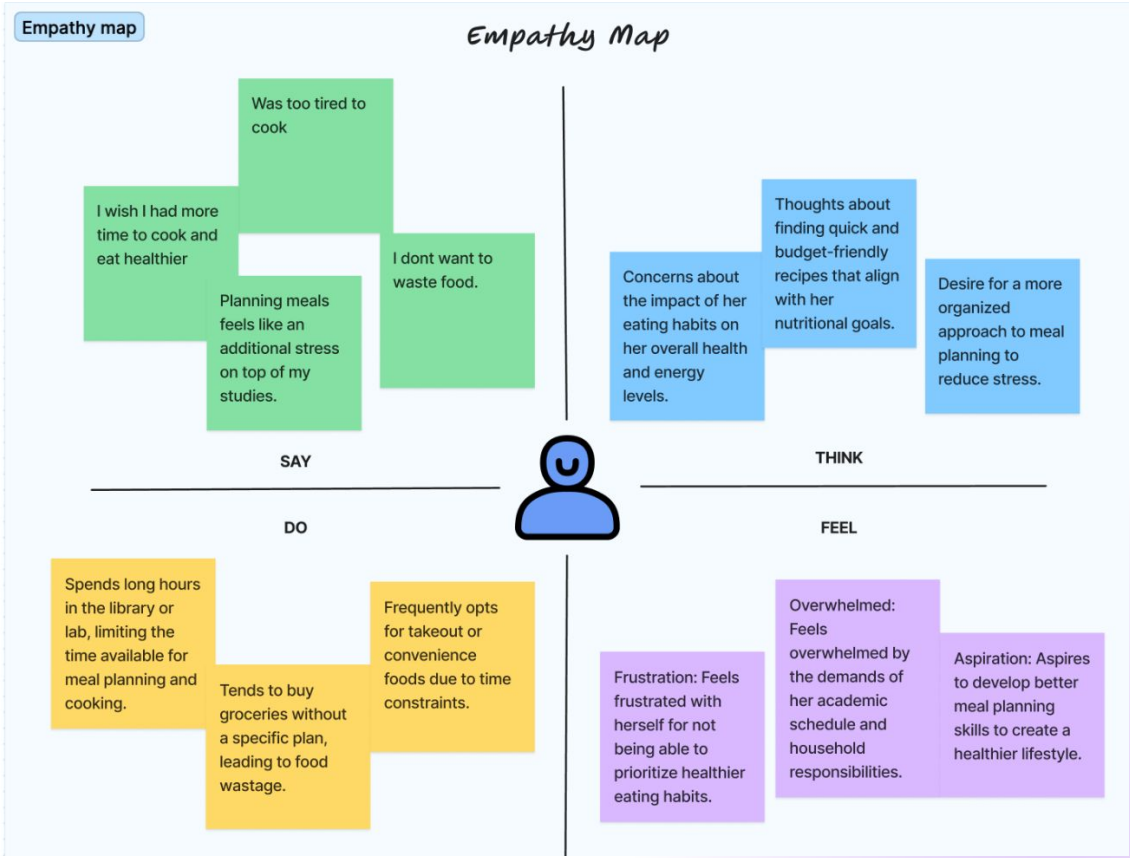
- Tends to eat unhealthy meals when not prepped.
- She has attempted meal prepping and maintaining healthy habits but can not always keep up.
- Sometimes, she's too busy to consume food at the right time

Journey Map


User's Journey Map
Discovery Phase
Meal Planning Attempt
Stressful Moments
Food Wastage Realization
Health Awareness
Seeking Solutions
Happy
Neutral
Unhappy
Experience
Jolly starts her Master's program at UofM, excited about her academic pursuits but quickly realizes the time constraints.
Discovers the challenges of balancing her studies with cooking and maintaining a healthy lifestyle.
Jolly decides to attempt meal planning but faces challenges due to lack of experience and planning skills.
Feels overwhelmed by the task and puts it off, resorting to familiar, less healthy options.
During exam periods or when academic workload increases, Jolly finds it even more challenging to prioritize healthy meals.
Stress levels rise, and she resorts to quick, unhealthy food choices.
The reliance on fast food and processed meals negatively impacts Jolly's physical and mental well-being.
Notices food wastage in the shared pantry due to buying groceries without a clear plan.
Experiences guilt and frustration over wasting food and money.
Jolly becomes increasingly aware of the impact of her eating habits on her overall health and energy levels.
Desires a positive change in her lifestyle to support both her academic and personal well-being.
Jolly begins researching meal planning strategies, time-saving recipes, and budget-friendly options.
Explores resources and tools that can assist her in creating a more organized approach to cooking.

Empathy Map


Jolly Jane
23, MSI Student
PASSIONATE
INDEPENDENT
PUNCTUAL
ORGANIZED


Empathy map
Empathy Map
Was too tired to cook
I wish I had more time to cook and eat healthier
I dont want to waste food.
Planning meals feels like an additional stress on top of my studies.
Thoughts about finding quick and budget-friendly recipes that align with her nutritional goals.
Concerns about the impact of her eating habits on her overall health and energy levels.
Desire for a more organized approach to meal planning to reduce stress.
SAY
THINK
DO
FEEL
Spends long hours in the library or lab, limiting the time available for meal planning and cooking.
Tends to buy groceries without a specific plan, leading to food wastage.
Frequently opts for takeout or convenience foods due to time constraints.
Frustration: Feels frustrated with herself for not being able to prioritize healthier eating habits.
Overwhelmed: Feels overwhelmed by the demands of her academic schedule and household responsibilities.
Aspiration: Aspires to develop better meal planning skills to create a healthier lifestyle.

Conclusion & Next Steps

Moving Forward...

- Further analyze data results and focus on the most prominent
- Brainstorm possible solution ideas/features to include
- Start thinking about how sensors and other IoT components can be implemented in the system
- Start wireframing some ideas

Thank you!

Questions?