What You Got Left?

SPJ3: Capstone 491 Spring Quarter

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Introduction

WHAT YOU GOT LEFT?

A RECIPE GENERATION AND INGREDIENT TRACKING WEBSITE AIMED TO HELP MINIMIZE FOOD WASTE
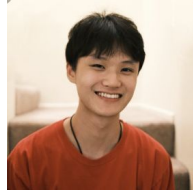
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Problem Context

- College students living independently for the first time deal with various problems

- Food waste is caused by lack of time and cooking ideas

- Procrastinating leads to perishable items expiring before use

- The impact of this inaction is is wasted food in individual households, especially among younger people

Problem Statement

How might **college students** efficiently utilize their existing kitchen ingredients to **create diverse and healthy meals**, so that they can **reduce food waste**?

Key Research Insights

Background:
- The U.S. wastes 31 to 40% of its post-harvest food supply.
- Impact of food waste includes environmental damage and food safety issues.

Pain Points:
- Challenges in utilizing leftovers creatively and effectively.
- Ingredients go bad because of long-time storage.

Top Desires:
- Recipe suggestions based on current ingredients.
- Portion size calculator.
- Expiration date tracking and reminders.

How concerned are you about food waste in your household?

- 1 Don't care at all
- 2
- 3
- 4
- 5 Very much care about food waste and hope to avoid

30.8% 25.6% 12.8% 28.2%
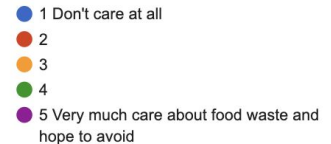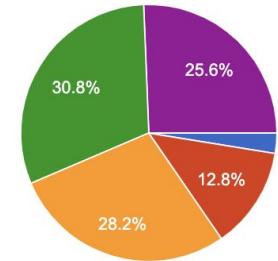
Persona

Olivia | College Student

- Off-campus housing
- Roommates
- Basic cooking skills
- Time constraints

Goals:

Olivia's goal is to reduce food waste by using all the ingredients she purchases before they go bad. She wants to do so by cooking healthy meals with her roommate. Her roommate has a peanut allergy and she wishes this was taken into account when generating recipes.

Morgan | College Student Parent

- Living far from his son Jamie.
- Care about Jamie's diet.
- Concerned about effectiveness of Jamie's grocery budget.

Goals:

Morgan's goal is to equip his son Jamie with cooking skills and shopping decisions, especially since he is living in the East Coast when Jamie attends University in the West Coast. Morgan would like to share recipes with Jamie and teach him to incorporate nutrients into diet.

Key Concepts

- Expiration date tracker and the recipe generator
  - Both of these help users make sure they use the ingredients they have

- Share fridge with roommates to better coordinate grocery shopping and cooking

Desired Features in a Food-Cooking App with Refined Categories
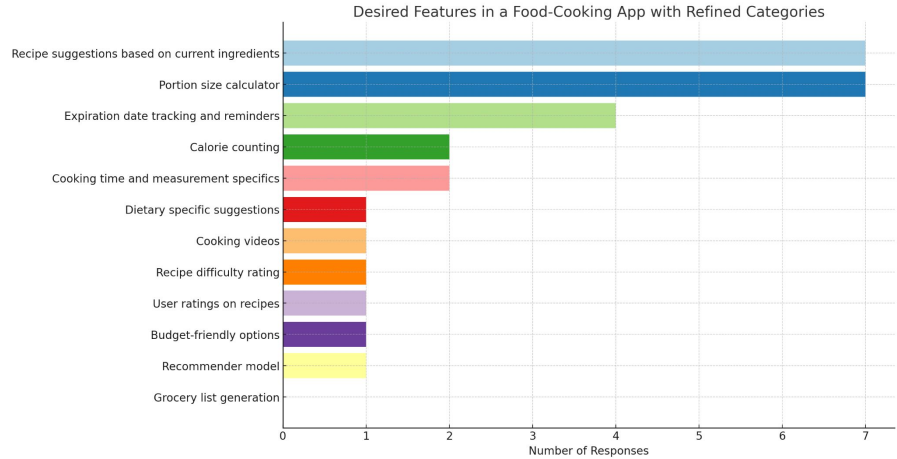
How likely would you be to learn new cooking techniques or recipes from an app where you input the ingredients you have, and it generates recipes for you?

39 responses

- Very likely
- Somewhat likely
- Neutral
- Somewhat unlikely
- Very unlikely
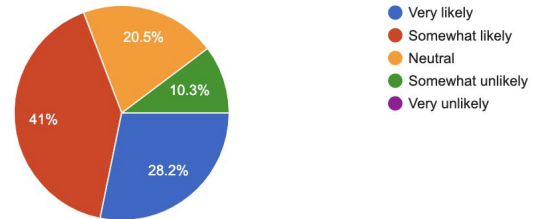
Concept Validation

Feedback:

- Graphics are visually appealing.
- Easy to navigate through features.
- Easily able to edit ingredients and dates.
- Would like to be able to share with roommates.
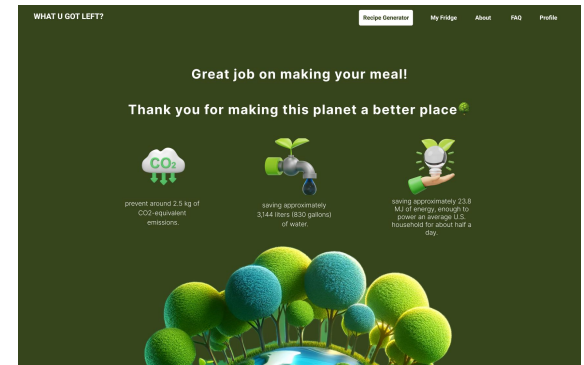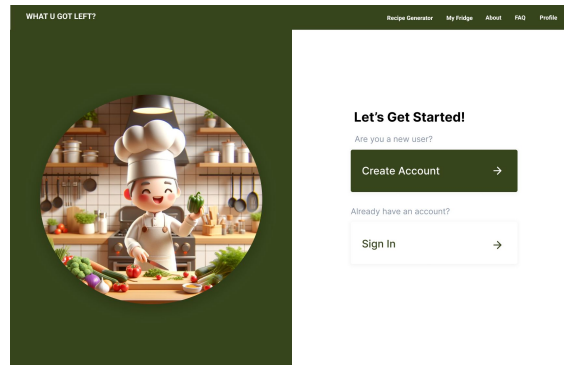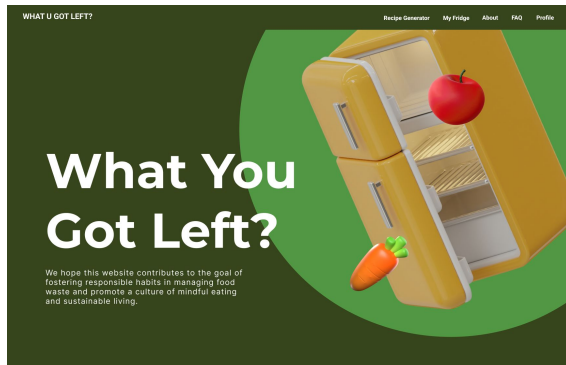- Like to know how much food waste they are saving.

Improvement Ideas:

- Add a tutorial on how to use each feature.
- Split up My Fridge into Fridge/Freezer/Pantry.
- Modify color system in indicating expiration.
- Deducted ingredients after cooking.
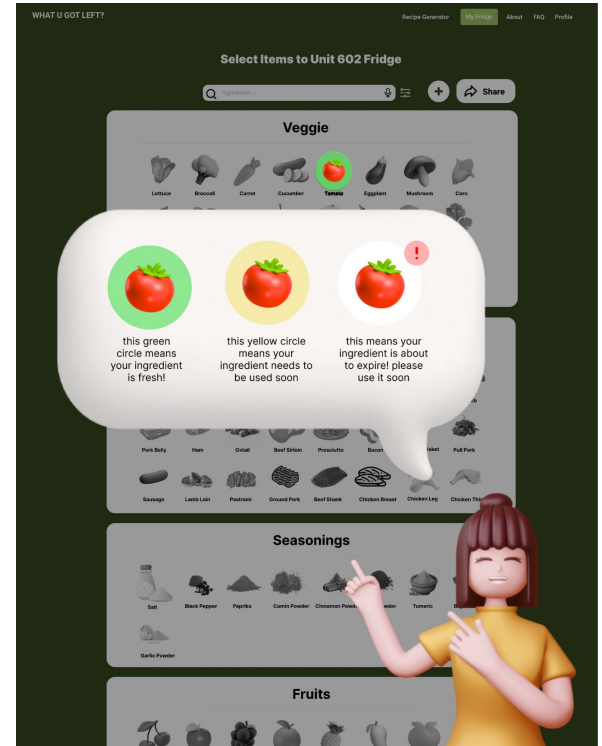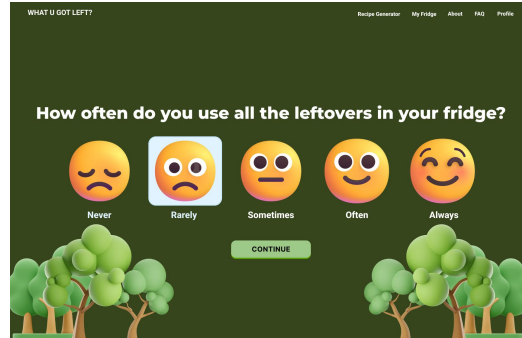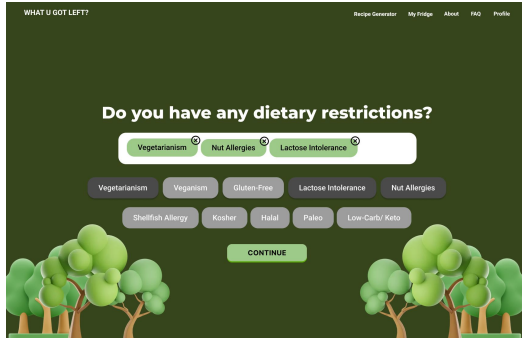- Expiration indicator.

Solution Approach / Key Features

➔ Tutorial / Onboarding

➔ My Fridge

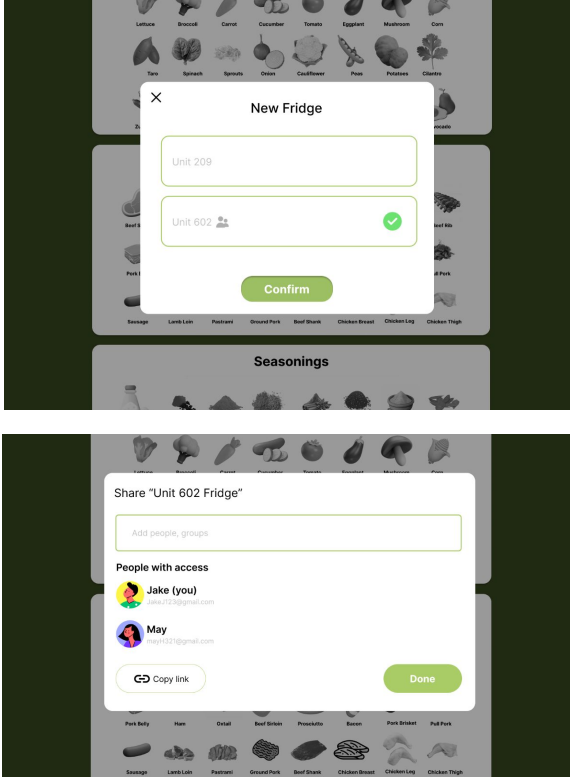➔ Recipe Generator

Onboarding / Tutorial

A small survey for new users to gauge preferences for food and cooking in order to best tailor their generating experience.

During user testing, there was some confusion on what the colors meant for the expiration tracker so we included a tutorial.

My Fridge

The My Fridge section allows for users to add their ingredients and adjust the expiration date/quantity of the item.
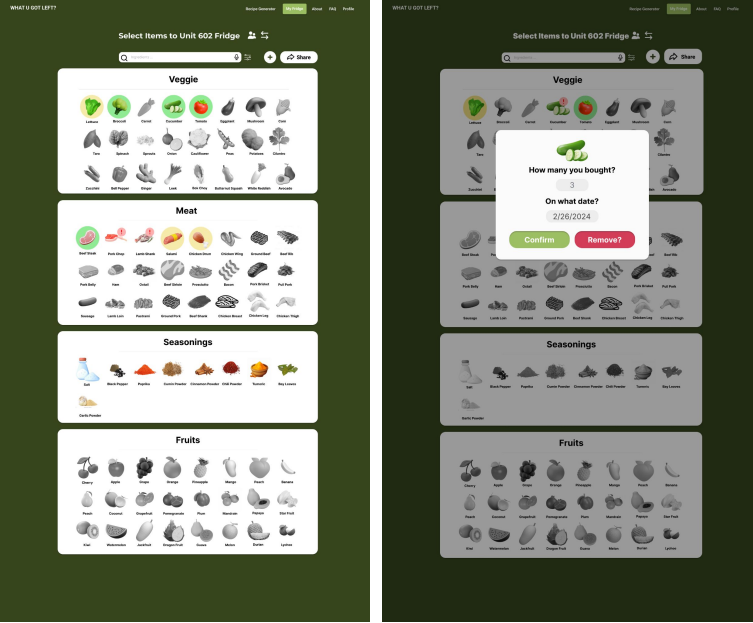
Through user research and testing we identified a user want for sharing capabilities.

Recipe Generator

What You Got Left

Veggie
Lettuce Broccoli Cucumber Tomato

Meat
Beef Steak Pork Chop Lamb Shank Salami Chicken Drum

Seasonings
Salt Black Pepper Paprika Cumin Powder Cinnamon Powder
Garlic Powder Chili Powder Tumeric Bay Leaves

My Selections
Broccoli Cucumber Tomato Beef Steak Chicken Drum

What Can We Make

Generate

What Can We Make

Nashville Hot Chicken
~ 20 min to cook
30 have cooked it!
18

Broccoli Beef
~ 30 min to cook
22 have cooked it!
16

Tomato Chicken Drumsticks
~ 45 min to cook
20 have cooked it!
16

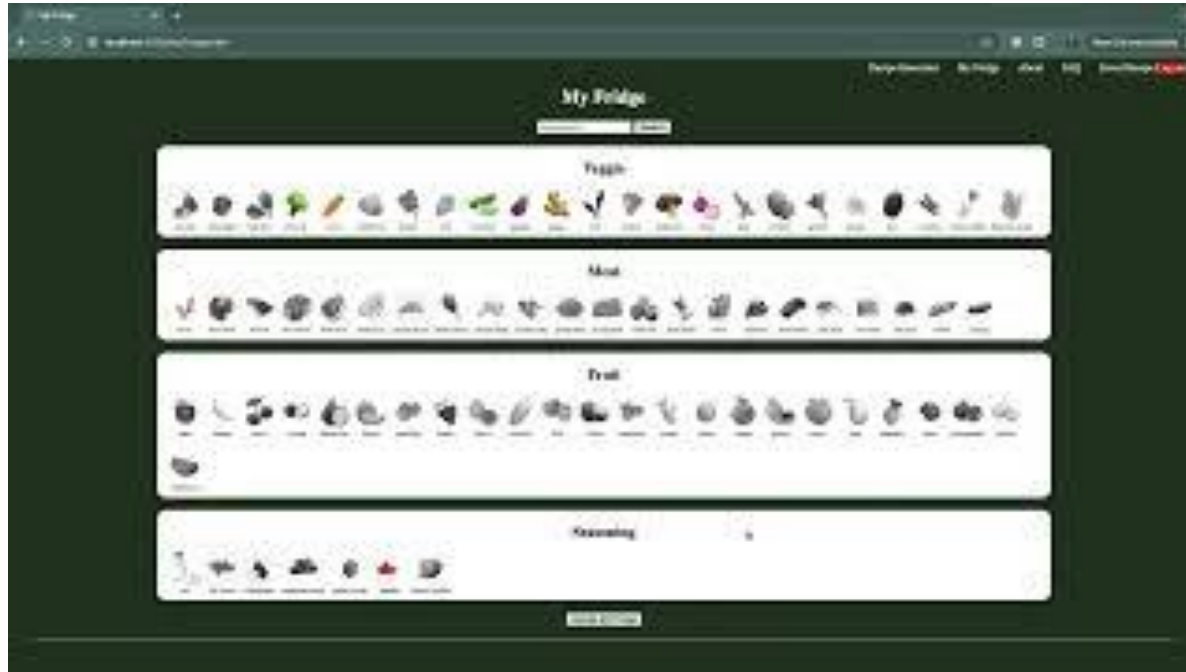**Grilled Beef Steak**
~ 65 min to cook
16 have cooked it!
15

Beef Stir Fry With Vegetables
~ 35 min to cook
15 have cooked it!
14

Cucumber and Tomato Salad
~ 15 min to cook
30 have cooked it!
18

The Recipe Generator takes in the items from the user's fridge and generates recipes based on their selections and preferences.

Demo Video

Ethical Considerations

➜ Our project's main values are **sustainability** and **convenience**.

➜ Ethical concerns that could impact our project's potential for positive impact are **accountability** concerns.
- ◆ How will we hold our users accountable? Will the website meet our goal of sustainability at all by helping prevent food waste?
  - ● Adding aspects if Community, Incentive, and Sharing.
- ◆ We also want to emphasize more of the **sustainability** aspect of our website but allowing more resources in how food waste could be handled before and after cooking.

User Testing & Validation

During User Testing, we held interviews with 5 college students, to do a 30 minute runthrough of our prototype.

➔ We received user's input on our goal in achieving sustainability and convenience.
➔ We tested the tutorial portion to understand usability of the inventory and expiration tracking.
➔ Gave tests to users to add ingredients to "My Fridge" and to generate a recipe with them.

Our key features seem to be working fine and have good responses from users however, there is an underlying problem of things being repetitive or time consuming.

Next steps beyond Capstone

➜ **Ongoing projects**: We are **open sourcing** our project.
   ◆ We are hoping to be picked up by future capstone groups to create a mobile application based on our website.
   ◆ We would also like to emphasize sustainability through more methods of tracking waste and convenience by improving upon the repetitive nature of entering in dates and ingredients within "My Fridge".

➜ These are the potential features we plan to have open for iteration:
   ◆ Mobile App Development**
   ◆ Profile Page
   ◆ Food Waste Tracker**
   ◆ Reviews + Ratings

Thank You

Any questions?