

# Starting Pitch



# PROBLEM



- College students have busy schedules and don't have a lot of free time to cook healthy meals
- College students live close together and need to prevent cross contamination of allergens in shared kitchens
- Students are not expert cooks usually and get frustrated when the food turns out poorly
- Everyone's diet and preferences are different but recipe books are the same for everyone

# GENERAL USER PERSONA

Amateur College Cooks

# PERSONA 1



**William Jones**

Age: 21

Occupation: Undergraduate Student  
Location: San Diego, CA

Education: UCSD Third-year Student (CS major)

## Bio

As a third-year CS student at UCSD, I often work in the labs in the basement in the CSE building. I have been tired of the food provided by UCSD restaurants after 2 years of study. However, I am so busy working on my CS courseworks and internship applications that I have little time researching new recipes that work for me. Even worse, I have not cooked before! As a result, I am looking for some sources which can provide me with simple recipes for cooking beginners.

## Goals

- Complete the CS degree at UCSD
- Find a position in a Technology company

## Pain Points / Frustrations

- Have little time cooking & washing dishes
- Unable to cook meals that are too complicated

## Needs & Expectations

- Cook simple & fast meals
- Clear information regarding potential allergy sources
- Doesn't require lots of fancy kitchenwares
- Nutritious and balanced meals

## Motivations

- Wants to eat healthier after always eating at the dining halls for two years
- Watched a bunch of cooking channels and wants to give it a try
- Saving money by cooking on my own instead of Uber eats/school cafeteria
- Have something to share/express on social media

# PERSONA 2



**Amanda Liu**

Age: 20

Occupation: Undergraduate Student

Location: San Diego, CA

Education: UCSD Third-year Student (Mathematics)

## Bio

Hello, I am a third year student in Mathematics. Abstract thinking and proofs are my jam, so is rock climbing and cooking. I like cooking because it is very therapeutic to follow instructions and turn out something you can enjoy. However, since I have severe peanut allergy, there is a big caveat in terms of things I can eat. Many times, I would start a recipe only to realize there is a peanut ingredient half way down the line.

## Goals

- Not having to constantly worry about cooking through a recipe that requires nuts

## Pain Points / Frustrations

- Peanut allergy restricts her from eating a lot of meals
- Always need to look through ingredient list for peanuts before cooking

## Needs & Expectations

- Recipes that have easy to follow instructions
- Recipes that are not too time consuming
- Very clear allergen information to account for her severe peanut allergy

## Motivations

- Difficult to eat out due to allergy, so easier to prepare own meals.
- Saving money by cooking at home instead of eating out with friends.

# USER STORY PRIORITIZATION



When initializing the application, fill out a form asking for allergies & dietary restrictions (ex. certain scope of calories).

Yizhou Wang

As a college student who is just starting to learn how to cook, I want to be able to quickly find simple recipes that do not require too many ingredients or equipments.

Anna Hsieh

I can sort the recipe with certain difficulty (easy, medium, hard, very hard, etc.) when I am searching for recipes.

Yizhou Wang

As a cook who needs to prepare food for people in a diet, I would like to monitor the calorie intake from each dish, or even each ingredient.

Harry Lei

As a body builder and college student, I want to be able to prepare food for 3 days or more to save my time and get enough nutrients I need.

Minjun Xu

People with allergy → while searching, sort with certain allergens so that recipes with such allergens would not be shown. Also, show the allergens in every recipe.

Yizhou Wang

I like certainty, so I tend to make the same set of meals. However, I can't remember the details. It would be great if my favorites are all one touch away.

Lexseal Lin

As a college student who wants to cook easy, healthy, and quick meals, I want to also not spend an arm and a leg for good food.

Prothit Halder

As an amateur chef, I want to be able to easily view the recipe in a page-by-page format.

Meshach Adoe

As a college student, when I get up in the morning, I want to search for the breakfast recipe with the ingredients I have now so that I can make my breakfast.

Yizhou Wang

As a home cook in college, I want to access chef recipes without paying over 50 dollars for a cook book.

Lexseal Lin

Just wanna to find something which is easy to cook and of which easy to buy the ingreds  
Probably some classic or traditional one

Bin Ni

## Priority 1 User Stories

## Priority 2 User Stories

# FEATURES



When initializing the application, fill out a form asking for allergies & dietary restrictions (ex. certain scope of calories).

Yizhou Wang

- In the sign up page, allow users to input their dietary restrictions or allergies
- In the recipe search page, the recipes should be displayed based on the user's preferences/restrictions.

As a college student who is just starting to learn how to cook, I want to be able to quickly find simple recipes that do not require too many ingredients or equipments.

Anna Hsieh

- For this, perhaps we can sort the recipe by their # of steps/time.
- Additionally, can sort them by special equipments
- Both in the search page

I can sort the recipe with certain difficulty (easy, medium, hard, very hard, etc.) when I am searching for recipes.

Yizhou Wang

- In the recipe search page, I can sort the recipe by difficulty
- In the recipe detail page, I can see the difficulty of the recipe

As a cook who needs to prepare food for people in a diet, I would like to monitor the calorie intake from each dish, or even each ingredient.

Harry Lei

- list the calories of the recipe (per serving size)
- filter recipes based on calorie range

As a body builder and college student, I want to be able to prepare food for 3 days or more to save my time and get enough nutrients I need.

Minjun Xu

- filter recipes that can be meal prepped: can store for several days

People with allergy → while searching, sort with certain allergens so that recipes with such allergens would not be shown. Also, show the allergens in every recipe.

Yizhou Wang

- In the recipe searching page, meals should be shown without the allergens.

As an amateur chef, I want to be able to easily view the recipe in a page-by-page format.

Meshach Adoe

- In the recipe detail page, I can click on a button to go into the slide mode.
- In the slide mode, every step is shown in a slide, and I can go to the last/next slide by touching the left/right button.

As a college student, when I get up in the morning, I want to search for the breakfast recipe with the ingredients I have now so that I can make my breakfast.

Yizhou Wang

- Each recipe can have a property of being breakfast ready.
- I think inputting the ingredients and doing searching might be hard since it's the intersection and typos might make the search garbage (need some powerful error correction).

I like certainty, so I tend to make the same set of meals. However, I can't remember the details. It would be great if my favorites are all one touch away.

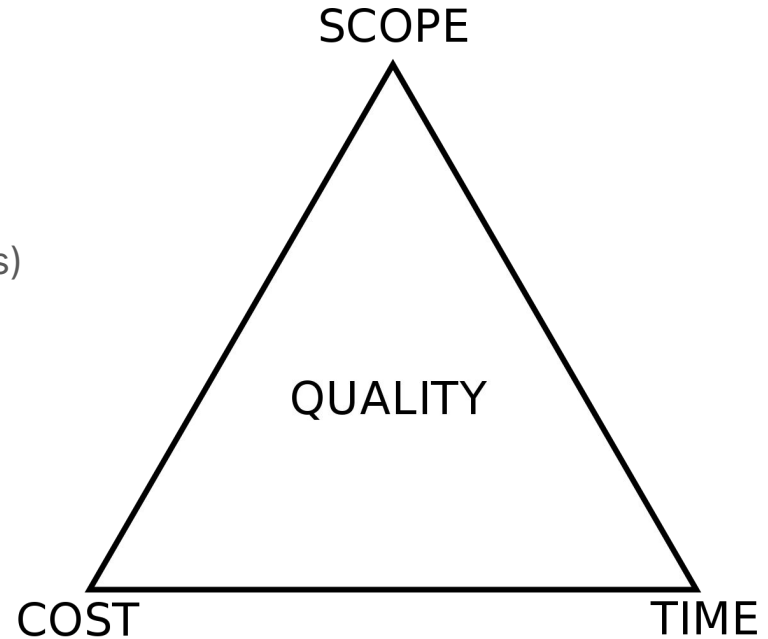
Lexseal Lin

- In the recipe search and recipe detail page, users should be able to like the recipes.

# APPETITE



- Time: 5 weeks
- Cost: None
- Scope
  - CRUD features for recipes
  - Foodie Mode (Step-by-step instructions)
  - Interactive features (Point system)





# ROADMAP



Week 6: Framework, Interface Design, Set up build system, Set up lint and testing framework (github action)

Week 7: Coding, Polish User Interface, Design test cases, Come up with more features (maybe)

Week 8: Coding, Unit Testing, Finalizing UI, Design more test cases

Week 9: Coding, DevOps and general repo clean up, Add more recipes

Week 10: Testing (very extensive inputs), Improvements learned from stress test

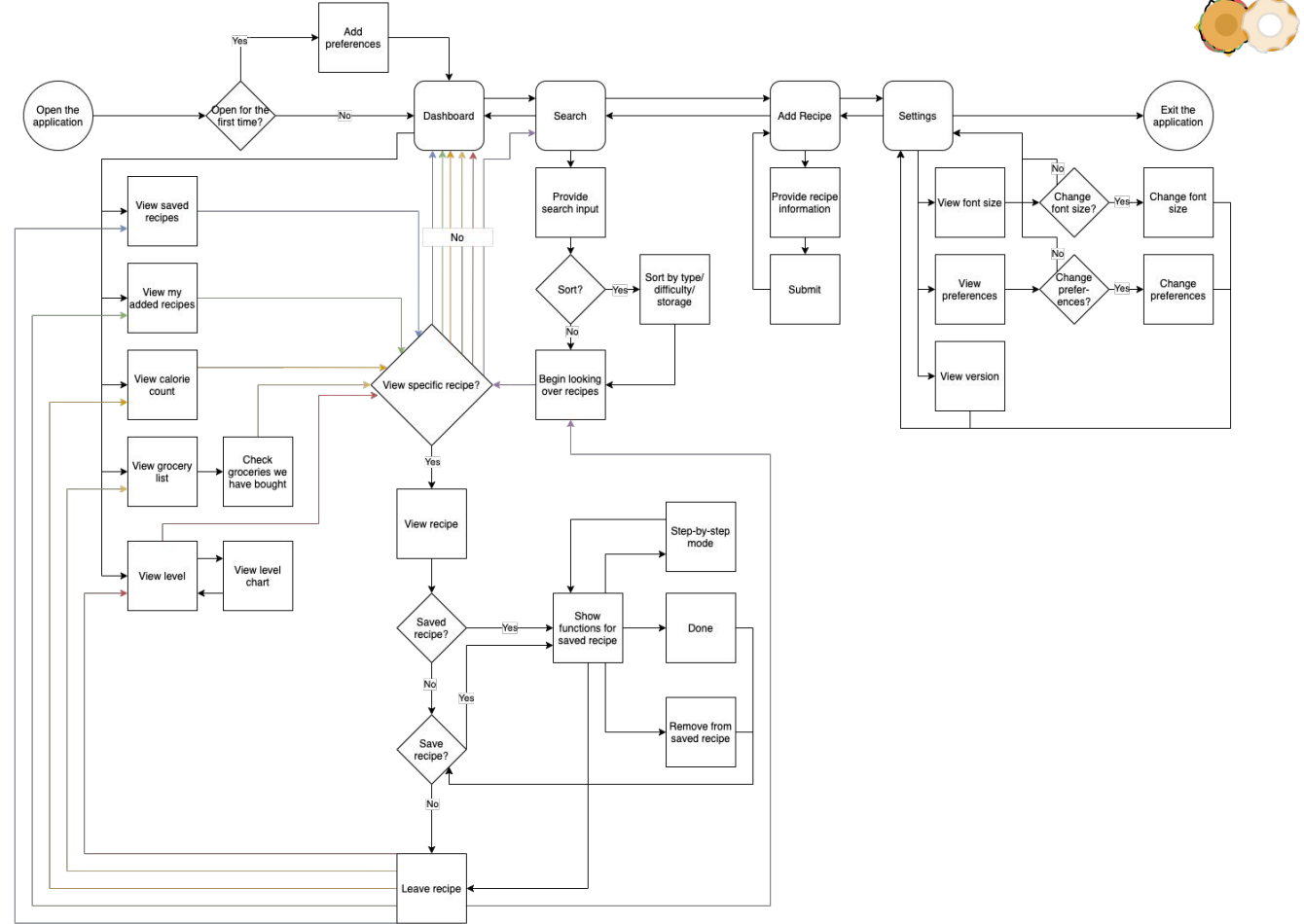
# SOLUTION



Big Picture: A recipe app that suits college students

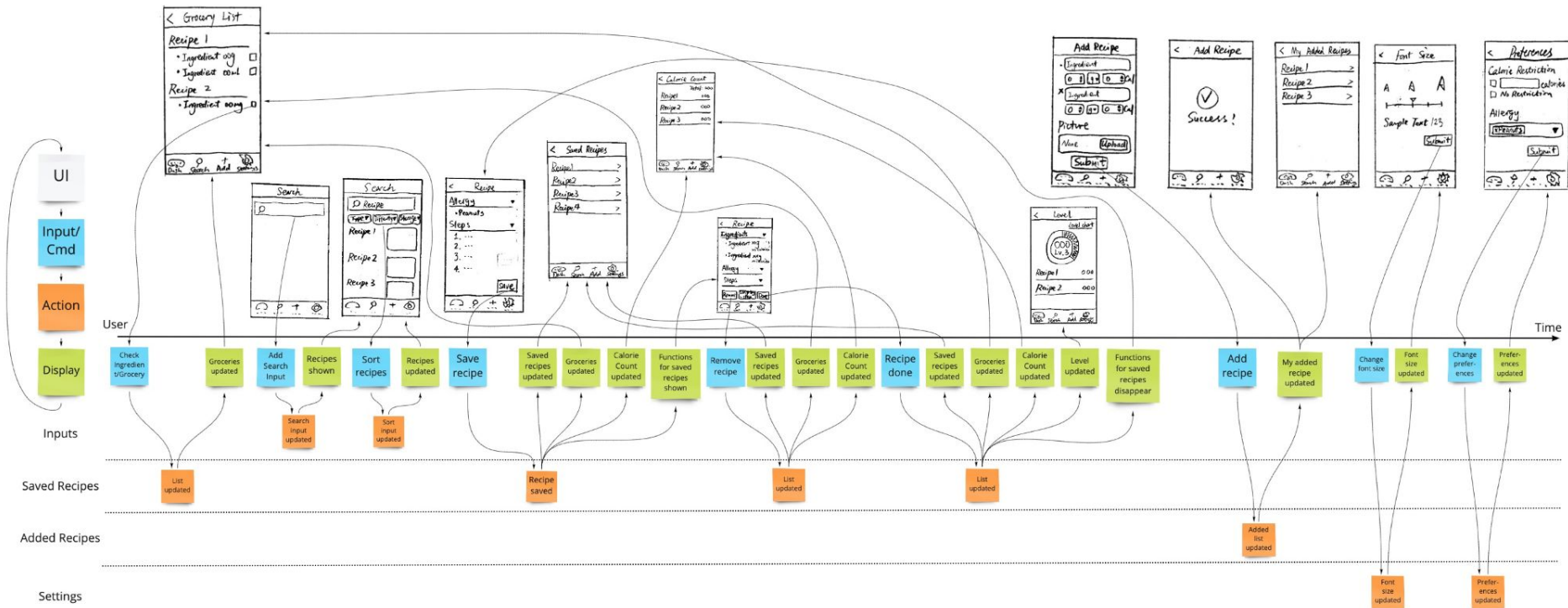
- Intuitive UI that saves time searching for a recipe and quality recipe to minimize confusion during the cooking process
- We need to design something that tracks and labels the allergens clearly
- The app should allow them to search for recipe within their ability (categorized as easy/medium/hard) and reward them points for accomplishing a recipe
- Option to filter recipes based on dietary restrictions, calories, etc.

# FLOW DIAGRAM





# EVENT MODEL



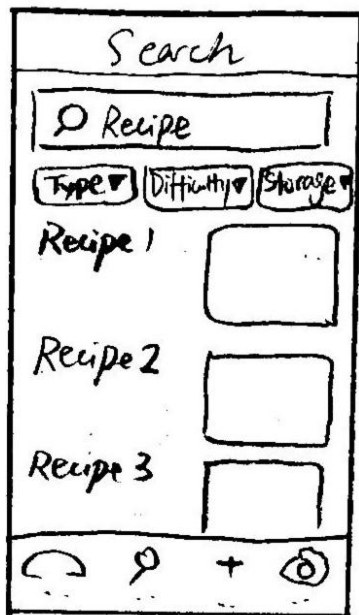
## KEY DESIGN DECISION

# Mobile-first Application

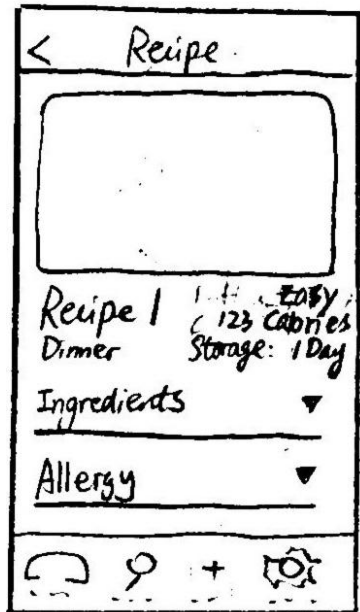
We decided to make a mobile-first application, since we assume our target users would be using the application in the kitchen. It would therefore be better to optimize the application for mobile, and have our desktop version use our mobile components.



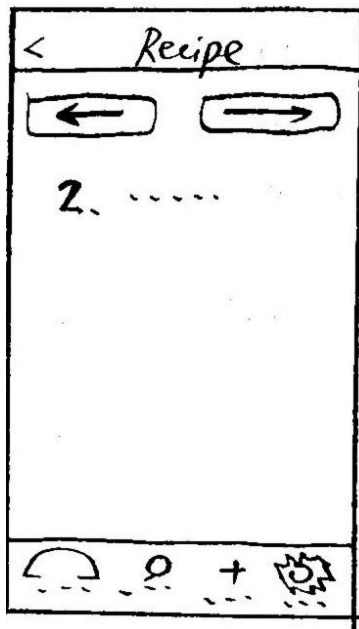
# LOFI WIREFRAMES



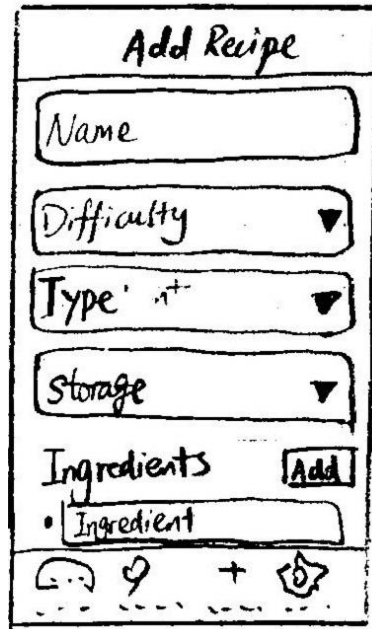
Search page with filters



Recipe page  
with recipe information



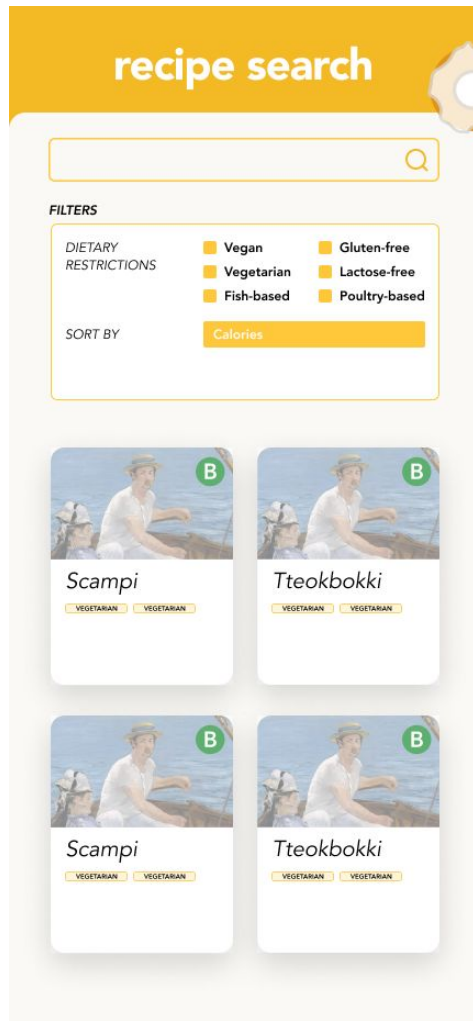
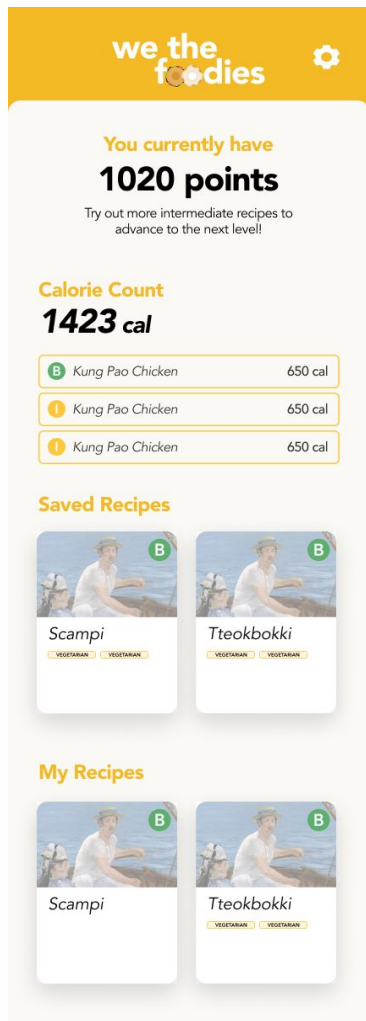
Foodie Mode  
(Step-by-step instructions)



Add Recipe page

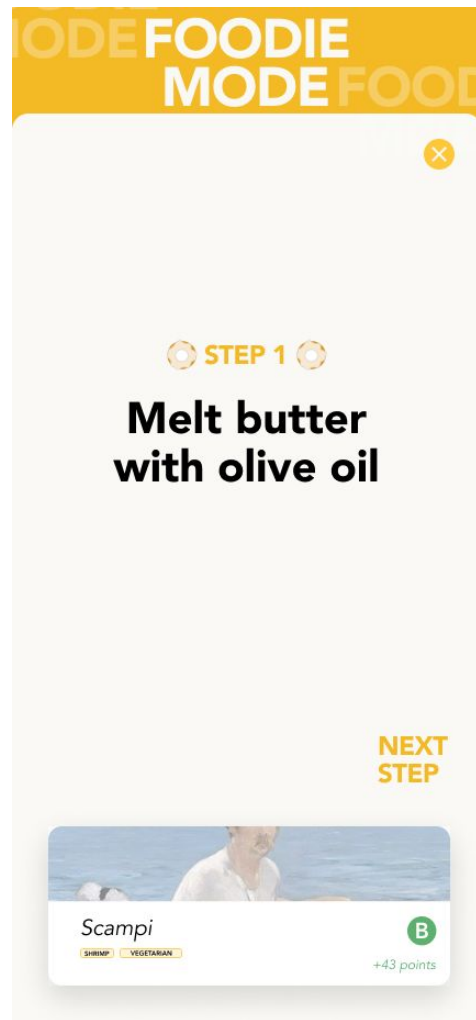
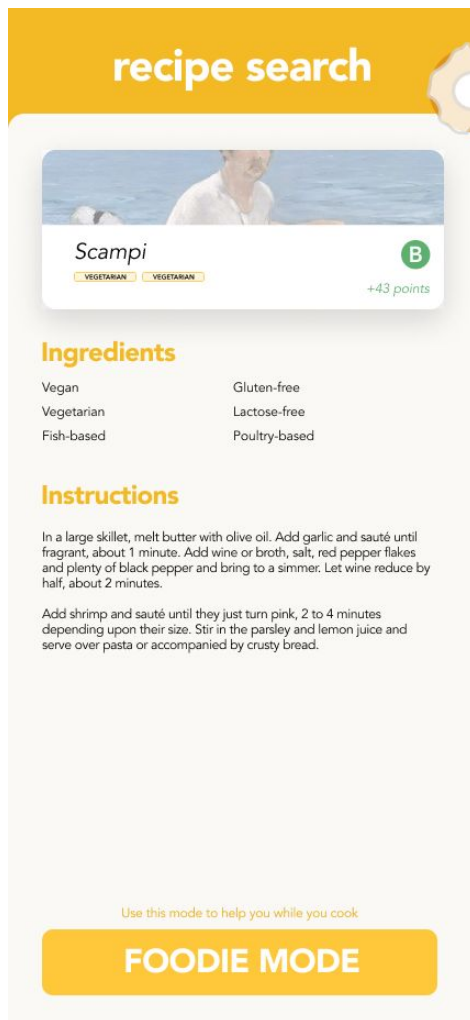
# HIFI WIREFRAMES

- Dashboard
  - Calorie Count based on saved recipes
  - Saved recipes
  - My Recipes Added
  - Points based on your recipes done
- Recipe Search
  - Filters
    - Dietary Restrictions
    - Sort by
      - Calories/Type/Storage
  - Recipes



# HIFI WIREFRAMES

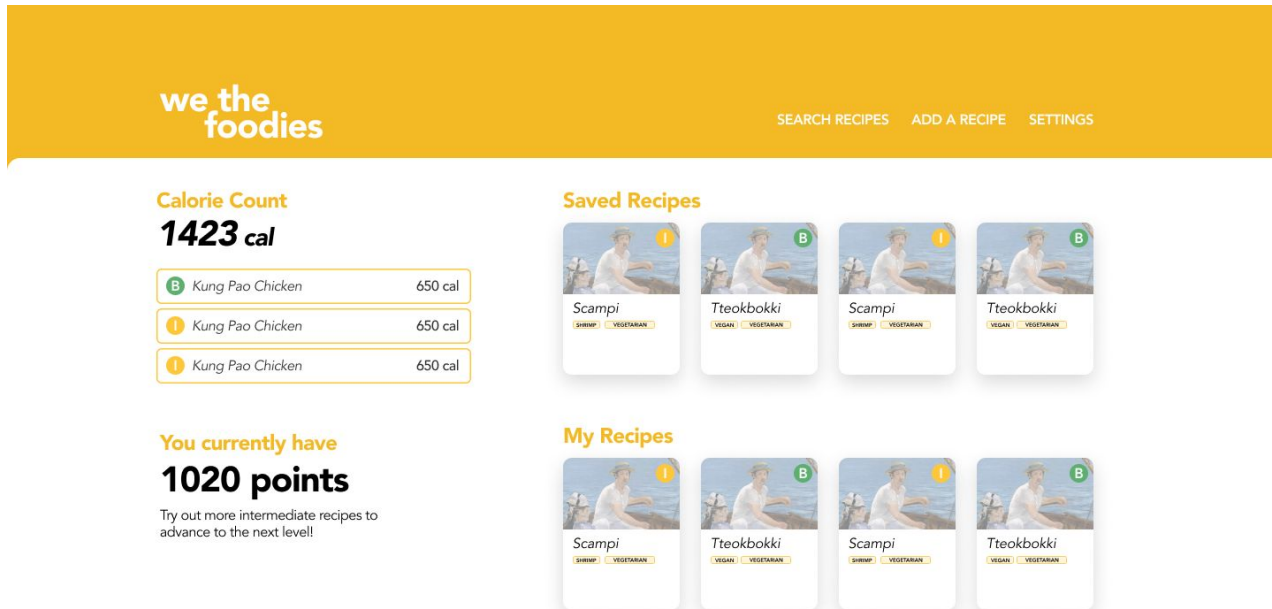
- Recipe Detail
  - Picture
  - Name
  - Dietary Restrictions
  - Difficulty (with points you can get)
  - Ingredients
  - Instructions
- Foodie Mode
  - Step-by-step instructions
  - Easy to refer in mobile mode while cooking





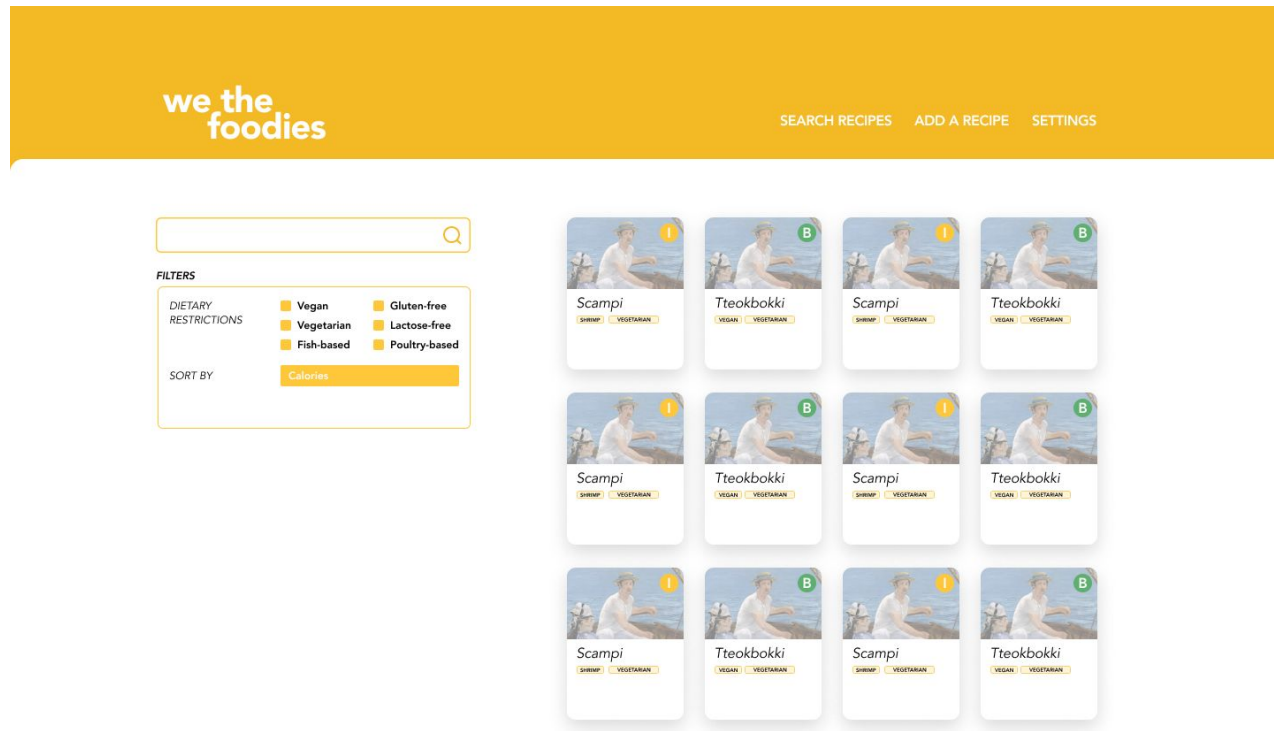
# HIFI WIREFRAMES

## Dashboard Desktop View



# HIFI WIREFRAMES

## Recipe Search Desktop View



# HIFI WIREFRAMES

## Recipe Detail Desktop View

we the  
foodies

[SEARCH RECIPES](#) [ADD A RECIPE](#) [SETTINGS](#)



### Ingredients

2 tablespoons butter	½ cup dry white wine or broth
2 tablespoons extra-virgin olive oil	¼ teaspoon kosher salt, or to taste
4 garlic cloves, minced	½ teaspoon crushed red pepper flakes, or to taste

Use this mode to help you while you cook

FOODIE MODE

### Instructions

In a large skillet, melt butter with olive oil. Add garlic and sauté until fragrant, about 1 minute. Add wine or broth, salt, red pepper flakes and plenty of black pepper and bring to a simmer. Let wine reduce by half, about 2 minutes.

Add shrimp and sauté until they just turn pink, 2 to 4 minutes depending upon their size. Stir in the parsley and lemon juice and serve over pasta or accompanied by crusty bread.

In a large skillet, melt butter with olive oil. Add garlic and sauté until fragrant, about 1 minute. Add wine or broth, salt, red pepper flakes and plenty of black pepper and bring to a simmer. Let wine reduce by half, about 2 minutes.

Add shrimp and sauté until they just turn pink, 2 to 4 minutes depending upon their size. Stir in the parsley and lemon juice and serve over pasta or accompanied by crusty bread.

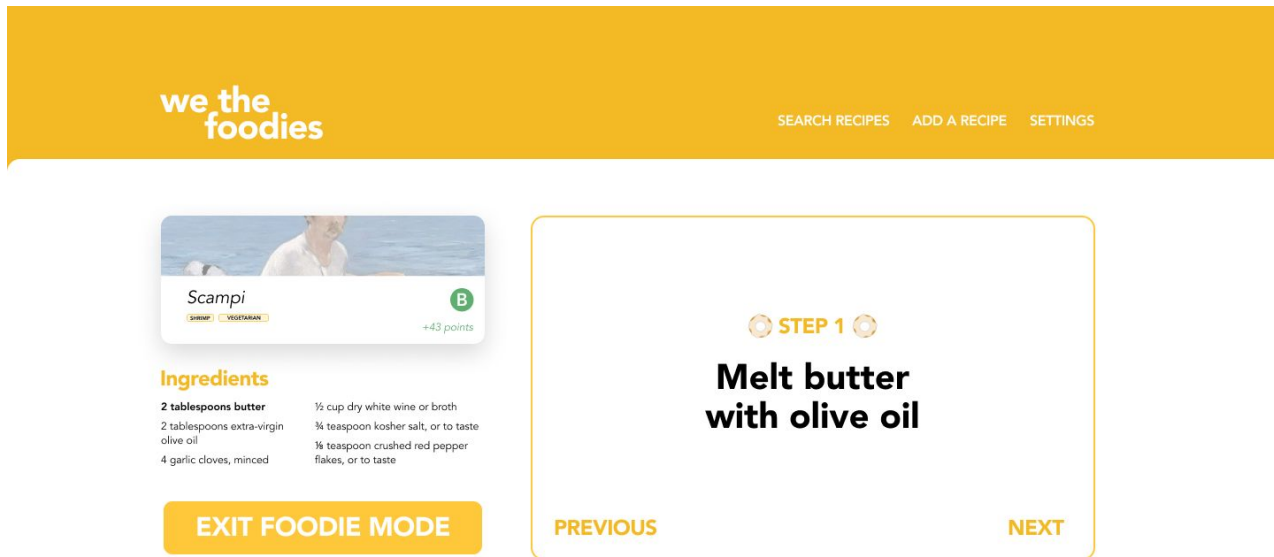
### Additional Comments

In a large skillet, melt butter with olive oil. Add garlic and sauté until fragrant, about 1 minute. Add wine or broth, salt, red pepper flakes and plenty of black pepper and bring to a simmer. Let wine reduce by half, about 2 minutes.

Add shrimp and sauté until they just turn pink, 2 to 4 minutes depending upon their size. Stir in the parsley and lemon juice and serve over pasta or accompanied by crusty bread.

# HIFI WIREFRAMES

## Foodie Mode Desktop View



# HIFI WIREFRAMES

- Add Recipes
  - Difficulty (Easy, Medium, Hard)
  - Type (Breakfast, Lunch, Dinner)
  - Storage (1 day, 2 days, > 2 days)
  - Picture
  - Ingredients
    - Name
    - Amount
    - Energy amount
- Recipes Added!
  - Edit recipe
  - Show recipe by clicking “LET’S COOK”

### Add Recipes

Name:  
**Shrimp Scampi**


Difficulty: easy medium hard

Type:

Storage:

Picture:

UPLOAD



Ingredients:

Ingredient Name:

0 grams 0 cal


Ingredient Name:

0 grams 0 cal

Add Ingredient

FINISH

### RECIPE



Scampi B  
+43 points

VEGETARIAN VEGETARIAN

Vegan Gluten-free

**RECIPE ADDED!**

EDIT LET'S COOK

Use this mode to help you while you cook

**FOODIE MODE**

# RABBIT HOLES



- Users may accidentally switch tabs on the bottom while cooking, so we will make sure the user's place on the screen is the same when they switch back.
- Users may not have enough space in their local device to add more recipes, so having a "max" number of recipes will be implemented.
- Users may be visually challenged, so we implemented "Foodie Mode," which allows users to see each step in big, bold font.
- Users may want to try out a recipe of a different level, so we should add settings to allow users to change levels.
- Users may delete the saved recipes by accident, so we need to have a browsing history to retrieve it.
- User recipe may be complex, so other sections may be included as well as custom options in the ingredient section.

# NO GOs



- No ability to access other user's recipes: Users can only see their own added recipes within the application, since we are only storing the recipes within the browser's local storage/cookies.
- No social features: users would not be able to add comments to the recipes, but they would be able to save certain recipes for their own use
- No camera import features: users would only be able to add a recipe through the user interface or a predefined JSON format, and there is no support for importing recipes from images.
- No cross-app interactions: User cannot share recipes to other apps/ cannot export list of ingredients to memo/text messages.
- No URLs for external recipes/cooking websites.