Starting Pitch

we the foodies

PROBLEM

we the foodies

- 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

- Able to conserve money by cooking at home instead of eating out.
- 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
- Nuitruious 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 allergent 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.

PERSONA 3

Roy

Age: 19

Occupation: Undergraduate student
Location: San Diego, CA

Education: UCSD First-year (undecided)

Bio

Hello! I am a first-year student at UCSD. This is my first time coming to the United States, so I'm exciting about the following lives! I'm pretty care about my weight, so I work out at the gym on campus at least twice a week. I also got a new girlfriend recently. I think I need to do something for her, so I consider to learn how to cook.

Goals

- Lose weight
- Eat healthy
- Have a variety of different foods

Pain Points / Frustrations

- most takeout food / cafetaria food have too many calories

Needs & Expectations

- needs to monitor calories
- expects to easily find calorie information for recipes
- Wants to be able to easily find recipes that are not too hard to make.

Motivations

- Roy got a new girlfriend, so he wants to be able to cook her delicious meals while also being on budget and easy to make.

PERSONA 4

Alice Doe

Age:20

Occupation: Undergraduate student
Location: San Diego, CA

Education: Fourth Year (Math-CS Major)

Bio

- Hi! I am a fourth year math-cs student. I'm in a sorority, and love engaging in Greek Life. Between studying for my classes and going out for my sorority, I don't have a lot of time to cook. I recently decided to become vegan after watching a documentary on how factory farms mistreat animals.

Goals

- Healthy Diet
- Not spend too much time cooking
- Have a variety of vegan-friendly selections.

Pain Points / Frustrations

- Little time for cooking and having meals
- Hard to find exciting, healthy vegan recipes.
- Most of meals are not vegan-friendly

Needs & Expectations

- vegan recipes
- Needs to find recipes that do not take too long, as she does not have a lot of spare time.
- She wants to easily monitor her calorie intake.
- Her kitchen is tiny, so she does not have space to have her laptop open with the recipe. She only has space to put her phone down.

Motivations

- Wants to control weight based on eating healthy.
- Wants to be a good cooker.
- Wants to make a delicious meal when treats friends.
- To share the cooking food to the social media

PERSONA 5

Matt Smith

Age: 22

Occupation: Undergraduate Student
Location: San Diego, CA

Education: UCSD Fourth-year Student (Physics)

Bio

Hello, I am a fouth year Physics major interested in cooking. For me, making food is like conducting an experiment with precisely measured ingredients and special equipments. However, I never had the motivation to learn how to cook for the past three years because I lived on campus and food was easily available. Now that I am off campus, I would really want a app with simple recipes that I can learn from.

Goals

- Make lunches and bring to school for 3 days a week
- Study for grad school application an hour a day

Pain Points / Frustrations

- Most recipes online require some good techniques which I don't have
- They also ask for equipments that I don't have since I am just starting out

Needs & Expectations

- Easy to follow recipes
- Good lunch menus because I like to have big lunches to fuel my afternoon activities

Motivations

- Moving off campus so need to procure own food
- Have more time not taking classes since it's the 4th year
- Interested in the process

BRAINSTORMING – APP INFLUENCES

Cookbook App

Target Audience: General Public – daily cooks
- Application has a wide array of features that can fit different use cases.

Meshach Adoe

Features
- Ability to import recipes from a website, or scan recipes on paper.
- Converting cooking measurements to different units (Imperial vs. Metric)

Meshach Adoe

Highlight Feature
- Ability to search for recipes based on the ingredients that the user has at the current moment.

Meshach Adoe

Highlight Feature
- Cooking mode: page by page instructions and converting text to speech.
- Timers are embedded into the text.

Meshach Adoe

Recipe Keeper

Features:
- Meal Planner
- Shopping List

Yizhou Wang

Target Audience:
- General, cooking people, in family

Yizhou Wang

Implement:
- Add meal button in a recipe
- Calendar
- add ingredients automatically into the shopping list when adding the recipe into the meal planner

Yizhou Wang

Looks pretty legit but is paid only. Has everything you need and nothing you don't. I like the rating feature. Also sharing seems really easy too in the sense you can just email other people, even if they don't have the app. We will be making a webapp so this will be a non-concern.

Lexseal Lin

Features are similar to others
- Plan meals
- Plan shopping list
- Easily scale for different number of people

Lexseal Lin

Target Audience: Probably people who are serious about cooking since it is 5 dollars.

Lexseal Lin

SOLUTION

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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.

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

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

Meshach Adoe

Priority 1 User Stories

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

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

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 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

Priority 2 User Stories

PRIORITY 1 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.
- PRO: Accounts for possible dietary restrictions of the users
- RISKS: May be an additional step for users who do not have dietary 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 determine the difficulty by their number of steps/time.
- Additionally, can also sort the difficulty by the need of special equipments
- PRO: A clear criteria for our difficulty tiers
- RISKS: A user may instead assume that difficulty is based on the level of cooking skill necessary → need to find a balance between the two.

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 (Very Easy, Easy, Medium, Hard, Expert)
- In the recipe detail page, I can see the difficulty of the recipe
- PRO: Enables our tiered system for the users, and makes it clear for amateur cooks that they are cooking something according to their level of skill.

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
- Accumulate the consumed calories at the current day
- Keep track of the previously cookied recipes.
- PRO: Allows for a dual feature of calorie tracking, and aids those who are on a strict diet.
- RISKS: May detract us from the purpose of the recipe manager, so this should be a second priority feature.

PRIORITY 1 FEATURES

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, user should only see recipes that is according to their dietary preferences set in the application settings.
- PRO: Gives dietary-restricted users the reassurance that none of the recipes contain ingredients that they are allergic to.
- RISKS: may add to the complexity of the search feature, since multiple filters will need to be applied.

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 step-by-step mode (named FOODIE 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.
- PRO: Makes it easier for users who cook while looking at the recipe.

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.
- In the dashboard, users would be able to see all the recipes they saved.
- PRO: Makes it easy for future reference for previously used recipes.
- RISKS: May potentially discourage users to explore new recipes and just keep doing the same ones.

FLOW DIAGRAM

EVENT MODEL

https://miro.com/app/board/o9J_lmxAyn0=/?invite_link_id=891075191634

APPETITE

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

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
  - Points system based on your recipes completed
  - Calorie Count based on saved recipes
  - Saved recipes
  - My Recipes Added
- 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

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”

RABBIT HOLES

we the foodies

- 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.
- To help retain users, we will implement a point system to encourage them to accumulate points and advance to higher ranks.

NO GOs

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- 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.

ROADMAP

we the foodies

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