

Chef Impastable

Team 9 - Project Backlog

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Problem Statement

Many people living alone may find preparing food to be an overwhelming ordeal. We are striving to make cooking easier for those new to cooking through an easy to use web application which takes what is in your pantry and recommends meals accordingly. While other recipe recommendation applications exist, none incorporate a depth of unique features that Chef Impastable does in addition to recipe suggestions, such as an integrated shopping list, simplified meal prep, and a review system.

Background Information

Problem/Domain/Audience:

The modern internet allows for people to search the web for numerous things including recipes and how to cook. Many types of people, including parents, college kids, and young adults are commonly searching for new ideas on what to cook for dinner. Creating a web application that allows for its users to browse and filter recipes and even list what ingredients they already have will take the unnecessary stress of meal planning off their plate.

Existing Similar Applications:

Many different recipe recommendation applications already exist such as Supercook, Yummly, and Tasty. While all of these services give customized recommendations to the user, they specialize in different areas. Yummly recommends recipes based on desired cuisine, and Tasty has a wider selection of options based on ingredients and food groups. Supercook allows the user to add what ingredients they have in their pantry and fridge for recommendations.

Limitations of Existing Applications/How we address them:

These platforms offer useful services, but are limited because none of them encompass both recommendations based on desired cuisine and what ingredients the user owns. Our app will include all of these features into one application with various improvements such as a more intuitive user interface design. Additionally, our application will add new features to provide further functionality to the user, such as the ability to meal prep and save recipes in folders.

Functional Requirements:

Account

- 1) As a user, I would like to be able to sign up for an account.
- 2) As a user, I would like to be able to login to my account.
- 3) As a user, I would like to be able to reset my account password.
- 4) As a user, I would like to be able to logout.

Recipe interactions

- 5) As a user, I would like to be able to save recipes.
- 6) As a user, I would like to be able to organize recipes into customizable folders.
- 7) As a user, I would like to be able to create recipes.
- 8) As a user, I would like to be able to view my saved recipes and recipes I have created.

Ingredient Interactions

- 9) As a user, I would like to be able to add ingredients to the ingredient database.
- 10) As a user, I would like to be able to pull ingredients from the database when creating a recipe.
- 11) As a user, I would like to be recommended possible substitute ingredients.
- 12) As a user, I would like to be able to tag ingredients as vegetarian, vegan, gluten-free, or by other allergens.

Profile

- 13) As a user, I would like to be able to view my profile page.
- 14) As a user, I would like to be able to edit my profile page.

Sharing

- 15) As a user, I would like to be able to share recipes with others.
- 16) As a user, I would like to be able to view my shared recipes
- 17) As a user, I would like to be able to add/remove friends.
- 18) As a user, I would like to be able to view my friend's profiles.
- 19) As a user, I would like to be able to see notifications of shared recipes and new friends.
- 20) As a user, I would like to add other users to my "household".
- 21) As a user of a part of a household, I want to see which recipes my household has favorited.
- 22) As a user of a part of a household, I would like to differentiate between shared fridge items and my own fridge items.

Reviewing Recipes

- 23) As a user, I would like to be able to review recipes.
- 24) As a user, I would like to be able to view a recipe's ratings and reviews.
- 25) As a user, I would like to be able to view the recipes I have already rated/reviewed.

Recipe Details

- 26) As a user, I would like to be able to see the ingredients and nutrition facts of a recipe.
- 27) As a user, I would like to be able to see the steps in making the recipe.

Fridge/Kitchen

- 28) As a user, I would like to be able to edit my “fridge” (owned food).
- 29) As a user, I would like to be able to view my “fridge”.
- 30) As a user, I would like to be able to edit my “kitchen” (owned equipment).
- 31) As a user, I would like to be able to view my “kitchen”.

Filtering

- 32) As a user, I would like to be able to edit my dietary restrictions/preferences.
- 33) As a user, I would like to be able to search for specific food recipes which include ingredients from my fridge.
- 34) As a user, I would like to be able to search and filter for recipes by various factors such as cuisine and meal type.
- 35) As a user, I would like to be recommended recipes based on my past history of liked/disliked recipes.
- 36) As a user, I would like to be recommended recipes based on my fridge and kitchen.
- 37) As a user, I would like to be able to search by event (birthdays, holidays, etc.).

Shopping lists

- 38) As a user, I would like to be able to add ingredients to my shopping list.
- 39) As a user, I would like to edit and combine ingredients in my shopping list.
- 40) As a user, I would like to be able to view my shopping list.

Meal Planning and Nutrition Goals

- 41) As a user, I would like to be able to plan my meals/snacks for the week by adding them to a weekly calendar.
- 42) As a user, I would like to view my meals, and their ingredients, planned for the week in a calendar.
- 43) As a user, I would like to be able to add planned meal ingredients to my grocery list, based upon fridge contents or disregarding fridge contents.
- 44) As a user, I would like to be able to define my nutrition goals for the day/week.
- 45) As a user, I would like to be able to view/visualize how my meal plan accomplishes my nutrition goals.

Non-Functional Requirements:

Architecture and Performance

The back-end of our application will use the Next.js, which will run on a server built by the framework Node.js. Next.js is a full stack framework built upon React that also handles requests and responses between the backend and frontend, and which can be integrated with our MongoDB database. It works well with our React.js front-end by adding more features and making our web application scalable. We will use MongoDB for our database, which will store JSON documents of information such as recipes that can be easily retrieved by Next.js and displayed on the front-end.

Security

Private information will not be collected from any user. The only information that will be collected about the user will be the pantry and fridge items currently available to them as well as keeping track of their preferences and favorite recipes. The user does not need to give their pantry and fridge contents to Chef Impastable if they would not want to. However, we will require our users to create an account. This account will need a username and password, so the password will be encrypted using a hash function to then be stored into our MongoDB.

Usability

The interface will be clean and easy for a casual user to navigate and understand. This will include a number of separate pages which will load quickly within 500ms and can be universally accessed throughout the website using the same simple icons. Additionally, it will be easy and efficient for users to find the recipes they are looking for by using our search function which will include multiple filters and suggestions. There are also multiple intuitive features which are customizable through user information input that can make finding recipes more efficient, but it is not necessary for the average user to find recipes. Overall, we want to ensure that users can quickly access the features they want even on different screen sizes.

Hosting/Deployment

We will be using Next.js with Vercel, a fullstack React framework for the web, maintained on

Vercel. This platform provides a native Next.js experience with enhancements for scalability, availability, and performance globally. Since our frontend and backend are already connected, they can be deployed and updated at the same time. So once we are further along with development, we can have Vercel host the frontend and deploy the backend.