

Project Proposal  
By: Yanmark Berube

Using the [TheMealDB API](#), I want to make an app that takes one main ingredient and 2-3 additional ingredients and shows the user a maximum of 3 recipes with those ingredients. I am most interested in this one because I love to cook for my partner and I often have troubles coming up with new recipes so this would actually solve a real life problem for me.

The goal of the website is to help people discover new recipes by providing the user with three meal ideas based on a main protein/ingredient and 2-3 additional ingredients. This addresses a real life problem for people who love to cook but do not know what they want to make. This app aims to make the process easier by suggesting recipes based on specific ingredients.

The uniqueness comes from the emphasis on a single main ingredient and additional ingredients to allow users to explore recipes that they might not usually think about or even try. This also allows them to make recipes from stuff they have readily available. This app could be practical for everyday use.

I wanted to start off by introducing three recipes to give more options to the user and to avoid overwhelming the user. This would make the app have a user-friendly experience so users can have an easier time making a decision.

This app would target people who enjoy cooking, but like to keep the cooking interesting on a day to day basis. No one wants to cook the same meal everyday but they also don't often have that many recipes ready to go. Cooking is also often a shared and social experience, and the app can help foster that sense of connection.

The app plans to use TheMealDB API to gather the information for the recipes. The desired data includes details on ingredients, cooking instructions, and other relevant information

for creating meals. If the user doesn't have all of the ingredients, they have the option to save the recipe so they can refer to the list later. I would also like to implement a feature that allows users to like recipes so they can be put on a list of "most liked" recipes so users can see popular recipes. I am using [TheMealDB API](#) to pull this information.

My database schema will most likely store information about each recipe, ingredients, and user preference. Each recipe will have details like ingredients, instructions, and user ratings. Though I am hoping the API gives me no issues, I will be accounting for possible changes in the API structure or the occasional unavailability. The app will handle such situations to ensure a smooth user experience.

Sensitive information will be encrypted using Bcrypt to ensure passwords are not in plain text. This involves a hashing algorithm that converts the passwords to irreversible hashes. This way even if the database is leaked, they won't have the actual passwords. We will also be using a unique salt before each hash. This will prevent two users having the same password by ensuring that the salt makes the hashed values different. Some sensitive information might include usernames, passwords, user preferences, ratings, etc.

Some functionality I would like to implement are choosing a main ingredient, then displaying up to three recipes containing those ingredients. Users can explore recipes, save favorites, and possibly rate them. User's will start at the homepage where they can input ingredients on a form, and the app will fetch and display matching recipes. To be able to save recipes to find them easier later, the user would have to make an account. This would implement CRUD with user accounts, saved recipes, and ratings.

Some stretch goals could be a shopping list generator that allows users to check off items with the app so it can be referenced. I would like to add recipe categories such as spicy, savory,

sweet, etc. Nutritional information could be useful for people who might be taking health into consideration. I would like to be able to filter the searches by cooking time too so users can see how long a recipe might take at a glance.