# RecipEz

## A healthier way to eat

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## Abstract

Create an application that can streamline the process of determining what to eat and cooking. The application helps the user determine what to cook and provide recipes to them with a more robust database of selections. As well as potentially adding a feature to help the user source their ingredients for the recipes via the application and grocery shopping.
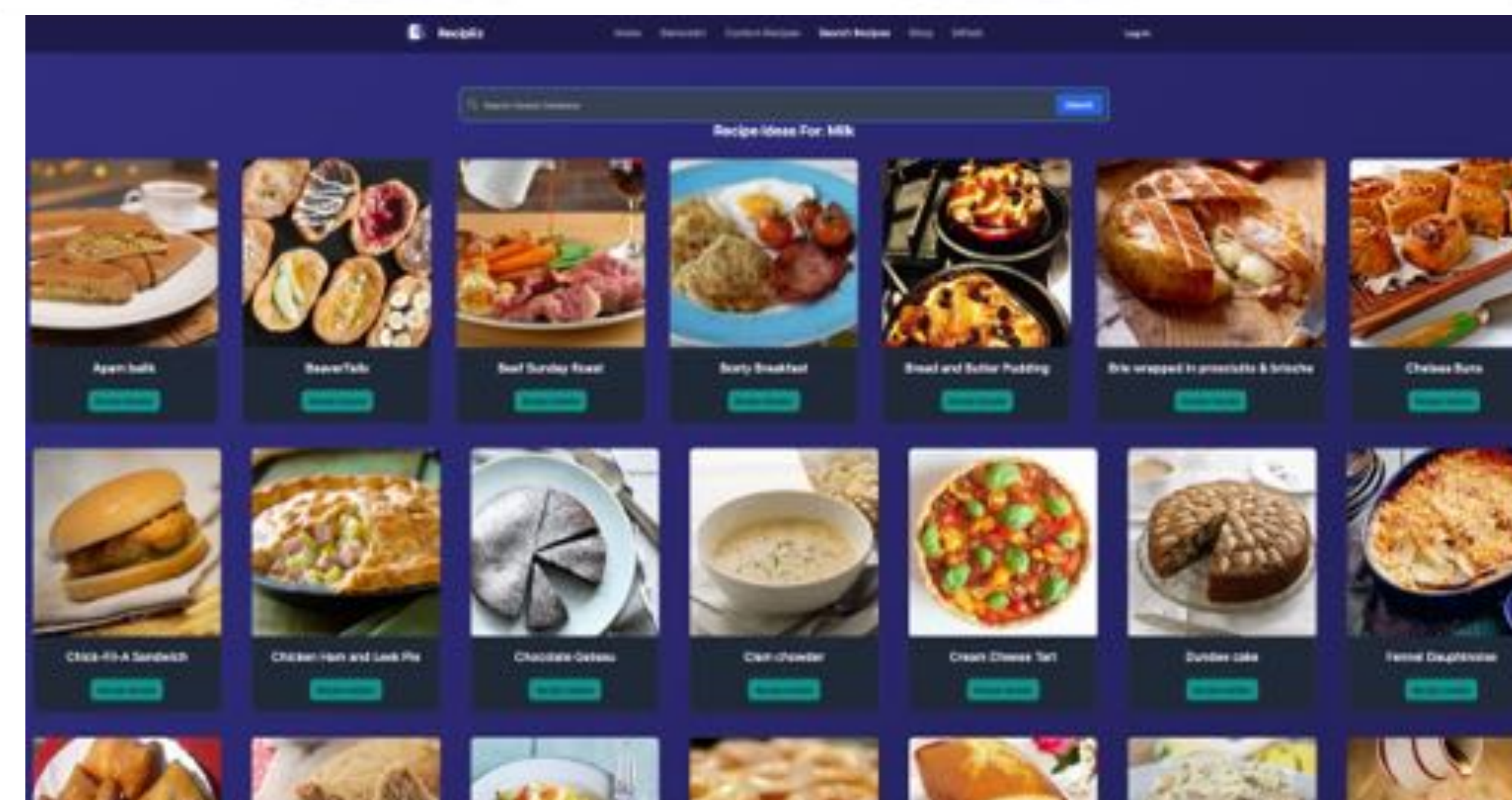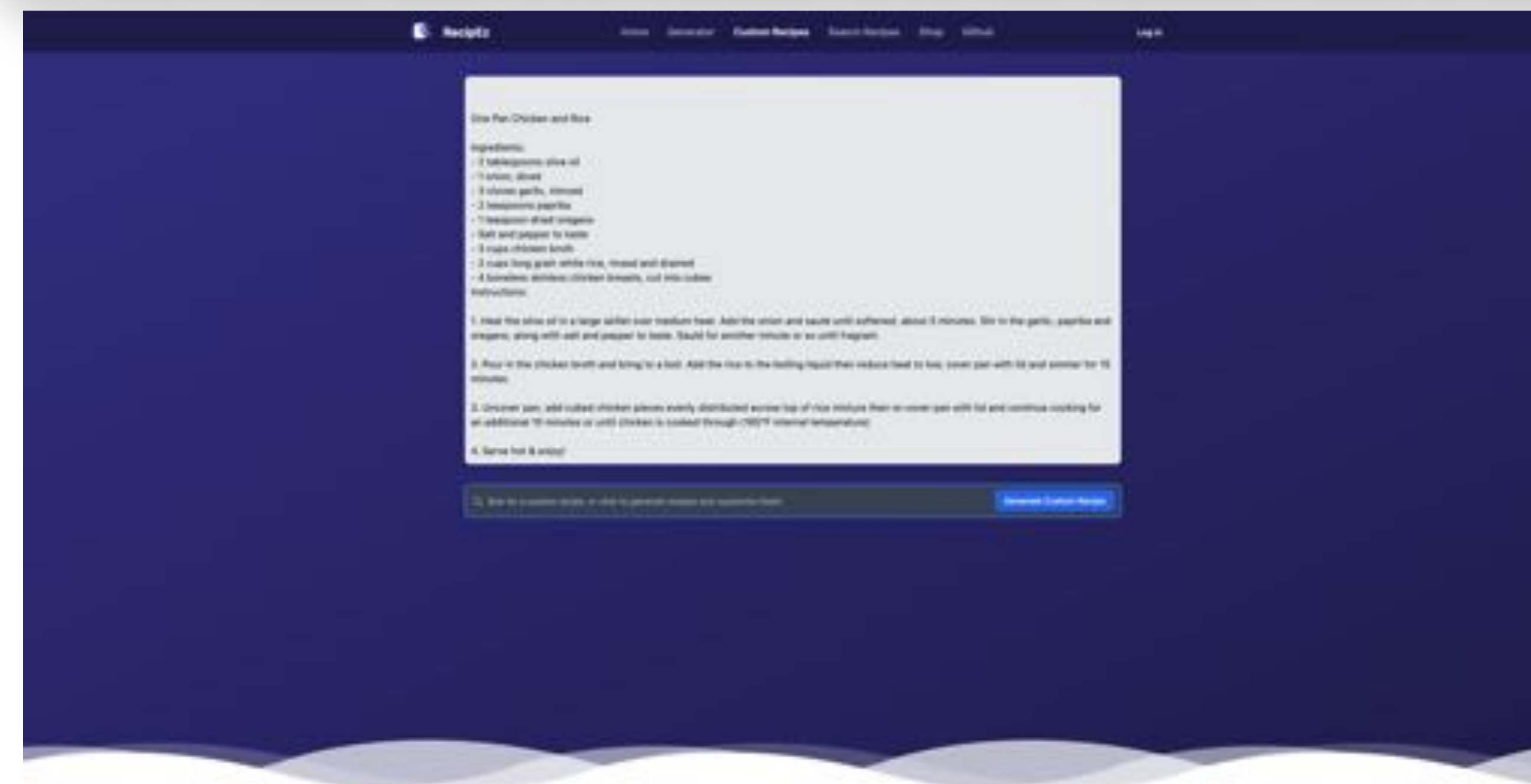
## Objective

- Generate random dish ideas.
- Provide the recipes for the generated dish.
- Access the whole database of recipes.
- Allow the user to create custom recipes based on dietary needs and restrictions.
- Have a clean interface.
- Easy navigation.
- Improve front end web development.
- Use technologies I have never used to build the project.
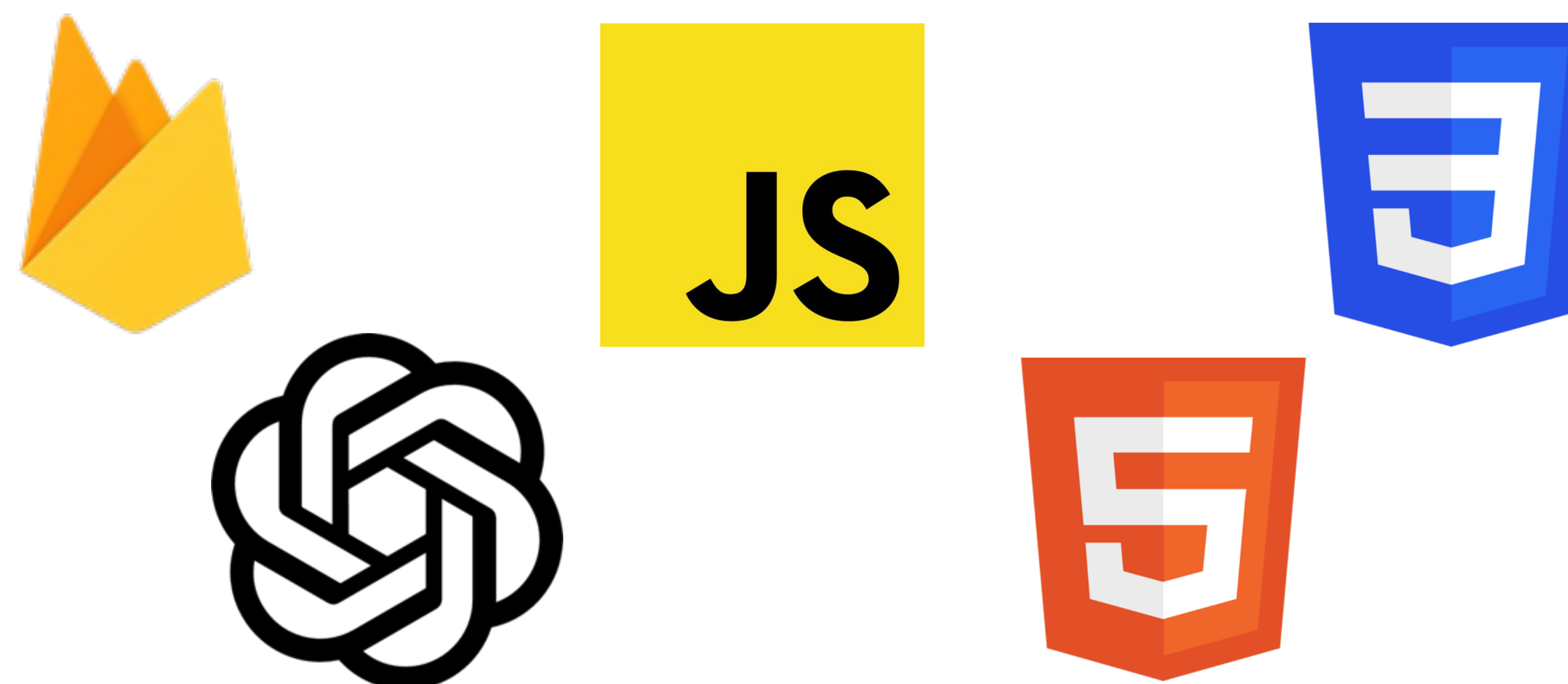
## Solution/Implementation

- Provide a simple web interface using JavaScript, HTML, and CSS .
- With Tailwind CSS, as the styling technology to provide a cleaner UI.
- OpenAI API to allow the user to generate custom recipes or generate random recipes.
- TheMealDB API to access the database of dishes, recipes, and various other food related data.
- FireBase to provide login and signup authentication and account creation with a Realtime database for user data

## Impact

- This application will help users by giving them more variety in their diet.
- Push them to cook more often at home which will provide many benefits such as having cheaper meals, eating out less and teach them essential cooking skills.
- With the bonus of helping them in the kitchen when a dietary restriction or change to a recipe is needed which can be tackled by the AI recipe generator.
- This could also lead to potentially having less food waste.

## Technologies

## Challenges

- Choosing the right tech stack and what platform.
- Learning the different tools and tech stacks used.
- Prioritizing the features that were able to be realistically implemented with the time provided
- Integrating the different API's
- Limited documentation on some API's and technologies
- Not having access to shopping API

## Results/Features

- The ability to generate a random dish with the click of a button.
- Pulling the recipe data for the dishes.
- Searching and filtering through the database of all the dishes using the API.
- Using AI to generate custom dishes and recipes or random ones.
- A login authentication and signup page to have custom user accounts with a Realtime database for user data such as favorites, history, and profiles.

## Future Improvements

- Allow users to be able to use the website, custom recipe generator, and recipe data in different languages.
- Implement a favorites page for users to save recipes.
- Grocery retailer API partnership to allow users to immediately purchase the ingredients in a recipe.
- Security improvements for both user login and developer back-end code wise.