COOK BOOK

Introduction

CookBook is a web-based application designed to streamline meal preparation by helping users find recipes based on the ingredients they have available. Built using a robust tech stack that includes MongoDB for database management, FastAPI for handling API requests, and React with TypeScript for a responsive and interactive frontend, CookBook offers a seamless user experience across devices. The platform intelligently queries a vast database of recipes, matching user-provided ingredients with relevant suggestions in real-time. By leveraging Python for backend logic and asynchronous processing, CookBook ensures fast, scalable performance, making it an essential tool for home cooks and food enthusiasts alike.

Tools Used

Main Features

Ingredient-Based Search: Users can input ingredients they already have at home and receive tailored recipe suggestions, saving time,reducing food waste.
Nutrition Filters: Users can filter recipes based on their nutritional preferences, such as calories, fat, and protein, catering to health-conscious cooks.
Always Accessible: Hosted online, CookBook is available on any device with an internet connection—no installation required, making it convenient.
Beginner-Friendly Recipes: With detailed, step-by-step instructions, even novice cooks can follow along easily, boosting their confidence in the kitchen.
Feedback Loop: Users provide feedback on the recommendations, improving the accuracy of future suggestions.
Multi-Cuisine Exploration: Whether it's Italian, Mexican, or Indian, CookBook enables users to explore a variety of cuisines, making it an ideal tool for culinary adventurers.

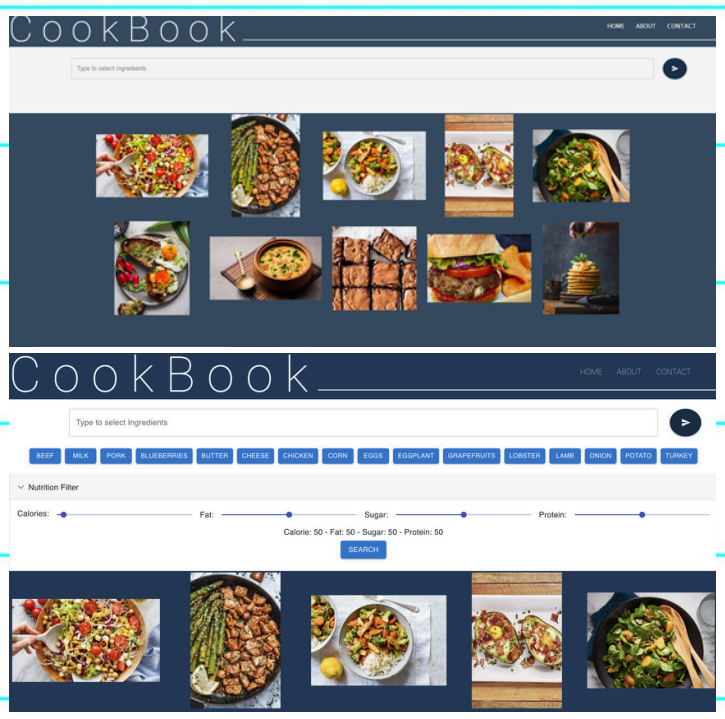
Testing Strengths

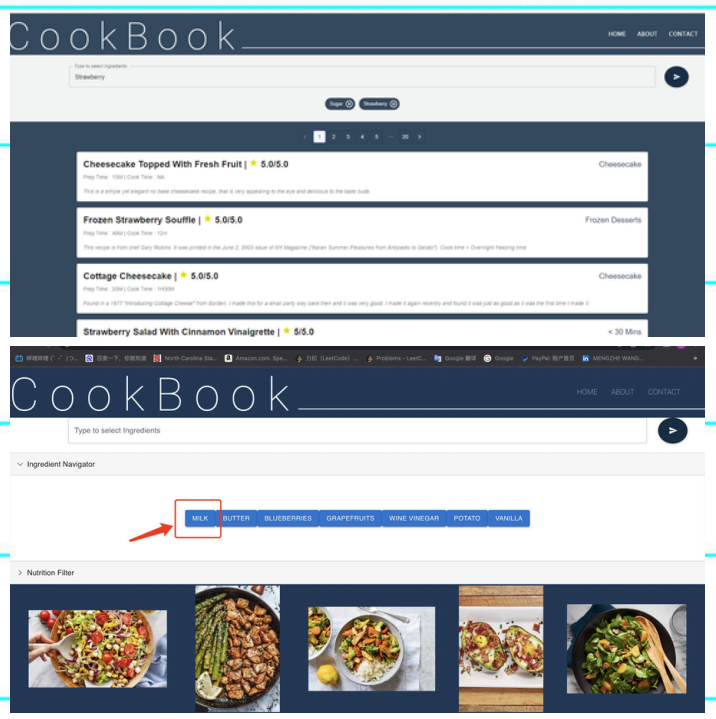
Backend Tests: CookBook's backend features comprehensive test coverage for recipe search algorithms, ingredient matching, and API functionality, ensuring reliability and performance.
Frontend Tests: Automated frontend tests verify the smooth functioning of key UI components like the ingredient search, recipe suggestions, and filtering options for a seamless user experience.
Continuous Integration: With GitHub Actions for continuous integration and Codecov for coverage tracking, every code update is rigorously tested to maintain system stability.

Future Implementation Milestones

Personalized Recipe Suggestions: Using data on users' dietary preferences and cooking habits, the next version will offer personalized recipe recommendations, tailoring each suggestion to the user's unique taste and nutritional needs.
AI-Powered Recipe Modifications: Leveraging AI, the platform will be able to suggest alternative ingredients or adjustments to recipes based on what's available, making it more flexible and adaptive to user constraints.
Meal Planning Module: Users will be able to create personalized weekly meal plans, optimizing recipes based on available ingredients, dietary needs, and cooking time preferences.
Voice-Controlled Search: Hands-free functionality will be introduced, allowing users to search for recipes using voice commands, making it easier to cook while multi-tasking in the kitchen.

Screen Snaps





<- Repo

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Demo ->