

NC STATE

Cookbook (Recipe Recommender)

Group 17

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Introduction

- 1) Cookbook is an open source recipe recommendation system that takes user's dietary preferences and uses AI to recommend other recipes that user might like.
- 2) Cookbook makes it super easy to navigate recipes, search and filter results
- 3) Cookbook uses Node JS backend with MVC architecture for robust authentication and authorisation mechanism with persistent storage and caching of data in MongoDB. React components are written for interactive UI and python scripts enable functionalities of AI. The software is hosted on AWS using EC2 instances

Before Cookbook

- 1) Manual searching for specific recipes from recipe books is time consuming.
- 2) Users needed to manually list ingredients and quantities,
- 3) Physical recipe books cannot be carried along wherever users go.
- 4) Users must buy a new recipe book every time a new version is released.
- 5) Nutritional information is often missing or static, and users must calculate it manually for each serving or recipe.

Scan Me

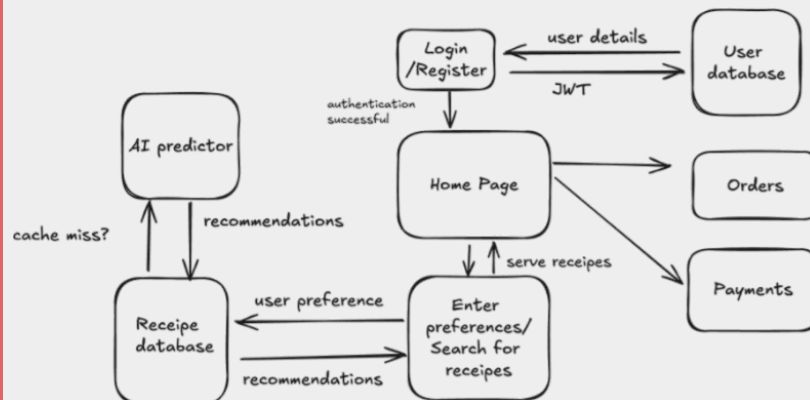


Technology Stack



User workflow

- 1) A new incoming user of the software first registers in the platform. Existing users can simply log in. The user details are stored inside the database and a session is maintained.
- 2) Users can now search for their favorite recipes or select from existing popular ones.
- 3) Based on user selection and preferences, the in house AI model predicts and serves similar recipes that user might enjoy.
- 4) For every recommendation, a detailed recipe is provided
- 5) User can also checkout the order and payments page.



What's new?

- 1) Using Google's OAuth 2.0 protocol for authentication and authorization
- 2) Communicating new recipes via email using subscription model
- 3) Using web scraping to find dynamic recommendations rather than using static csv data
- 4) Dealing with cache expiration by periodically performing AI workflow API calls to update the MongoDB database.
- 5) Fixing current login workflow
- 6) Using react testing + Cypress for frontend testing and mocha for backend testing.

