Project Specification Team 10

Team Members

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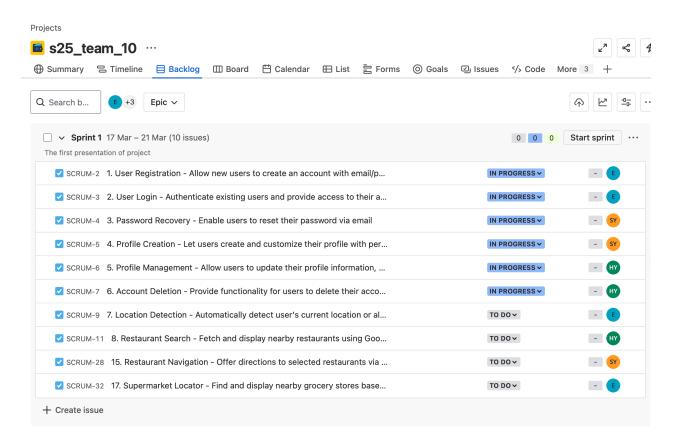
Product Backlog

Our application, Food Master, is designed to help users find nearby dining options and relevant cooking resources while also providing a social platform for sharing food experiences. Below is the complete list of core functionalities, organized by feature groups.

The whole backlog is attached in the appendix.

First Sprint Backlog

For Sprint 1 (March 17 – March 21), our team will focus on implementing the core User Management features and basic Location Detection so that users can sign up, log in, and allow the system to detect their location. This enables us to build a strong foundation for future sprints.



Work Allocation

• Eurus Zhong (Product Owner for Sprint 1)

Oversees the sprint, coordinates daily stand-ups, clarifies requirements for user registration and login. Contributes to the authentication part and location part.

• Siqi Yu

Implements the backend logic for user registration and login, sets up the database models for user credentials. Contributes to the authentication part and location part.

Hui Yang

Integrates the frontend for user registration/login forms and location detection using the Google Maps or Geolocation API. Contributes to the authentication part and location part.

Wireframes

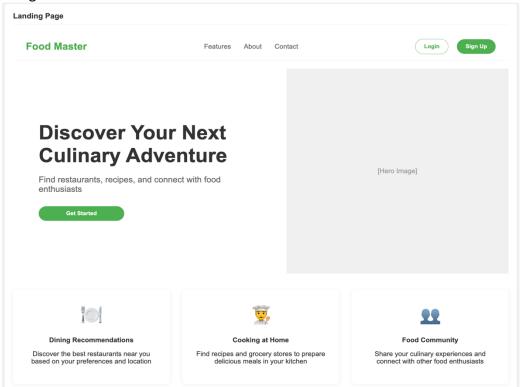
1. Landing Page

Purpose: The landing page introduces users to the core features of Food Master and encourages them to explore the platform.

Features:

- •Navigation bar with links to Features, About, and Contact.
- Call-to-action buttons for Login and Sign-up.
- •A hero section highlighting the platform's offerings.
- •Brief feature descriptions for Dining Recommendations, Cooking at Home, and Food Community.

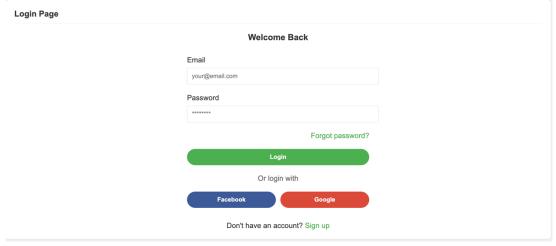
Navigation: Users can sign in to access the full platform or explore the features through the navigation menu.



2. Authentication Pages

Purpose: These pages handle user authentication, allowing users to create an account or log in. Login Page Features:

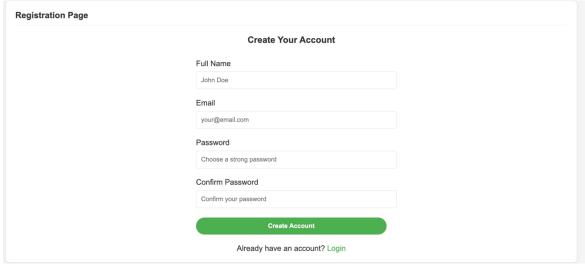
- •Input fields for email and password.
- "Forgot Password" link.
- •Options to sign in with third-party accounts (e.g., Google, Facebook).



Registration Page Features:

- •Input fields for full name, email, password, and password confirmation.
- •"Already have an account?" link for returning users.

Navigation: Upon successful login, users are redirected to their dashboard.



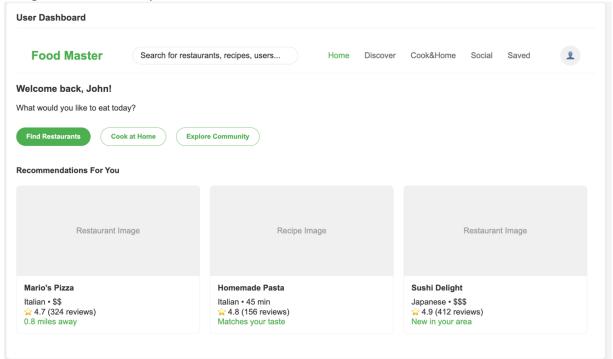
3. User Dashboard

Purpose: The dashboard provides an overview of personalized recommendations and quick access to core features.

Features:

- •A search bar for restaurants, recipes, and users.
- •Navigation menu with options: Home, Discover, Cook&Home, Social, and Saved.
- •Personalized greeting with action buttons for finding restaurants, cooking at home, and exploring the community.

•A recommendation section displaying suggested restaurants and recipes. Navigation: Users can click on a recommendation card to view more details, or use the navigation menu to explore other sections.



4. Restaurant Search & Details Pages

Purpose: These pages allow users to search for nearby restaurants and view detailed restaurant profiles.

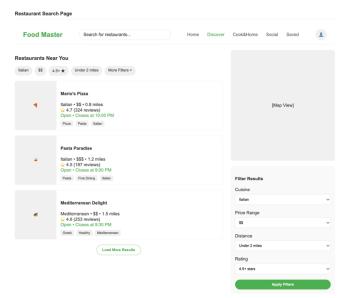
Restaurant Search Page Features:

- •Search bar for finding restaurants.
- Filters for cuisine type, price range, distance, and rating.
- •A list of restaurant results with name, cuisine, rating, and distance.
- •Interactive map showing restaurant locations.

Restaurant Detail Page Features:

- •Restaurant name, cuisine, pricing, and ratings.
- Opening hours and contact details.
- "Make Reservation" and "View Menu" buttons.
- Customer reviews and ratings.

Navigation: Users can filter and search for restaurants, click on a result for detailed information, and return to the search page if needed.



5. Recipe Search & Details Pages

Purpose: These pages help users discover and view recipes for home cooking.

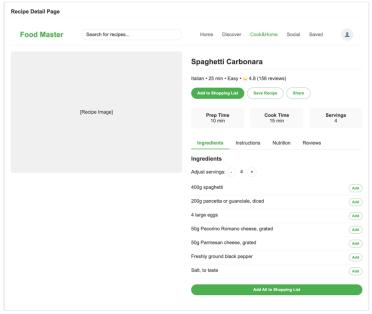
Recipe Search Page Features:

- •Search bar for finding recipes.
- Filters for meal type, difficulty level, and ingredients.
- •Grid display of recipe cards.

Recipe Detail Page Features:

- •Recipe title, image, and description.
- •List of ingredients with an option to add them to a shopping list.
- •Step-by-step cooking instructions.
- "Save Recipe" and "Share" buttons.

Navigation: Users can browse and filter recipes, click on a recipe to view details, and return to search results.

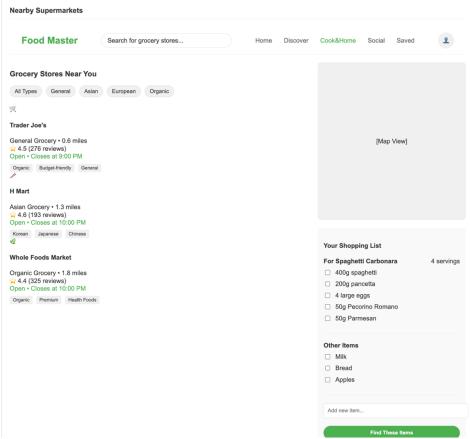


6. Grocery Shopping Assistant

Purpose: This page allows users to find nearby grocery stores and manage their shopping list. Features:

- Search bar for grocery stores.
- Filter options for grocery store types (General, Asian, Organic, etc.).
- •List of grocery stores with details like distance, reviews, and specialties.
- •Shopping list management with the ability to check off items and add new ones.
- •Interactive map displaying store locations.

Navigation: Users can explore nearby grocery stores, add ingredients from recipes to their shopping list, and manage their grocery items.



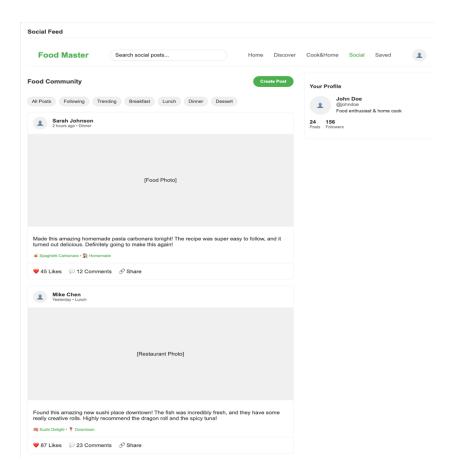
7. Social Community Page

Purpose: This page allows users to share their food experiences and engage with the community.

Features:

- A feed displaying posts from other users.
- •Ability to like, comment, and share posts.
- •A post creation feature for users to upload images and reviews.
- Filters for viewing different types of posts (Trending, Following, Meal Types, etc.).

Navigation: Users can interact with posts, visit other user profiles, and create their own posts.



Database

The content is provided in the file food-master-models.py.

Appendix – Complete Backlog

User Authentication Module

User Registration - Allow new users to create an account with email/password or social media authentication

User Login - Authenticate existing users and provide access to their account

Password Recovery - Enable users to reset their password via email

Profile Creation - Let users create and customize their profile with personal details, dietary preferences, and favorite cuisines

Profile Management - Allow users to update their profile information, preferences, and settings Account Deletion - Provide functionality for users to delete their account and associated data

Dining Out Recommendations Module

Location Detection - Automatically detect user's current location or allow manual input Restaurant Search - Fetch and display nearby restaurants using Google Maps API Restaurant Ranking - Sort restaurants based on distance, ratings, and cuisine type Restaurant Filtering - Filter restaurant results based on cuisine, price range, rating, and distance Restaurant Details View - Display comprehensive information about a selected restaurant Review Reading - Allow users to read reviews of restaurants from external sources Save Favorite Restaurants - Enable users to bookmark restaurants they like for future reference Reservation Integration - Provide links or integration with reservation services Restaurant Navigation - Offer directions to selected restaurants via map integration

Cooking at Home Module

Dish Search - Let users enter the dish they want to cook

Supermarket Locator - Find and display nearby grocery stores based on user's location Specialized Grocery Filters - Filter grocery stores by type (e.g., Trader Joe's, Asian markets, Korean supermarkets)

Recipe Search - Fetch relevant recipes for the selected dish from recipe API

Recipe Display - Show cooking instructions, ingredients, and preparation time

Ingredient List Generation - Create shopping lists based on selected recipes

Recipe Saving - Allow users to save favorite recipes for future use

Recipe Scaling - Adjust recipes based on desired number of servings

Alternative Ingredient Suggestions - Recommend substitutes for unavailable ingredients

Nutritional Information - Display nutritional content for recipes and restaurant dishes

Allergy Alerts - Flag potential allergens in recipes and restaurant menus

Social Media Community Module

Post Creation - Enable users to share photos and reviews of home-cooked meals or dining experiences

Post Categorization - Tag and categorize posts based on meal type (breakfast, lunch, dinner, dessert)

Social Interaction - Allow users to like, comment, and share posts

User Following - Let users follow other users whose content they enjoy Notification System - Alert users about interactions with their posts or from followed users Hashtag Support - Enable organization and discovery of content through hashtags

Mobile & Accessibility Features

Responsive Design - Ensure the application works seamlessly across all device sizes Mobile Optimization - Optimize performance and usability for mobile devices

AI Recommendation System (Optional)

Preference Learning - Analyze user behavior to understand preferences
Personalized Recommendations - Suggest restaurants and recipes based on past user choices
Seasonal Recommendations - Recommend seasonal dishes and ingredients
Trending Content Display - Show popular restaurants and recipes in the user's area
Similar User Matching - Connect users with similar taste preferences
Taste Profile Generation - Create a detailed taste profile for each user

Advanced Features & Integrations (Optional)

Meal Kit Services Integration - Connect with meal kit delivery services for recipe ingredients
Food Delivery Integration - Provide options to order from restaurants through delivery services
Calorie Counter - Track nutritional intake from meals
Recipe Modification - Allow users to customize and save modified versions of recipes
Cooking Class Discovery - Find local or online cooking classes related to user interests
Pantry Management - Track available ingredients and suggest recipes using them
Smart Device Integration - Connect with smart kitchen devices and appliances
Grocery Delivery Integration - Order ingredients directly through integrated grocery delivery services