

Recipe Finder Design Document

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Project Description

Recipe Finder is a full-stack web application that allows users to browse a curated collection of recipes, create and manage their own custom recipes, and save favorites for quick access. The application addresses the common problem of recipe management by providing an intuitive platform where users can both discover existing recipes and contribute their own culinary creations.

Core Features:

- **Recipe Discovery:**
 - Browse external recipes with pagination (20 recipes per page)
 - View detailed recipe information, including cooking time, ingredients, and step-by-step instructions
 - Navigate through multiple pages of recipes with Previous/Next controls
- **Personal Recipe Management:**
 - Create custom recipes with a name, cooking time, ingredients list, and preparation steps
 - Edit existing custom recipes through an intuitive modal interface
 - Delete custom recipes with confirmation dialogs
 - All custom recipes are stored separately from the external recipe collection
- **Favorites System:**
 - Add external recipes to a personal favorites collection with a one-click star button
 - View all favorited recipes on a dedicated page
 - Remove recipes from favorites
 - Duplicate prevention – cannot favorite the same recipe twice
- **User Experience:**
 - Responsive design that works on desktop, tablet, and mobile devices
 - Modal-based forms for creating and editing recipes
 - Real-time success/error messages for user actions
 - Clean, intuitive Bootstrap-based interface

Technology Stack:

- **Frontend**
 - HTML5, CSS3, Vanilla JavaScript (ES6 modules), Bootstrap Icons
- **Backend**
 - Node.js (v22.x), Express.js (v4.18.2), ES6 modules, serverless architecture via Vercel
- **Database**
 - MongoDB (for flexible data storage), MongoDB Atlas (for cloud hosting)
 - 3 collections: external_recipes, user_recipes, favorite_recipes

- MongoDB Node.js driver (v6.3.0) for database operations
- **Development & Deployment**
 - Vercel for production hosting and continuous deployment

User Personas & User Stories

Browsing & Discovery

- As a user, I want to view recipes in a paginated format (20 per page) so I can browse without being overwhelmed by too many options at once.
- As a user, I want to see essential recipe information (name, cooking time, ingredients) at a glance so I can quickly decide if a recipe interests me.

Favorites Management

- As a user, I want to click a star icon to save recipes I like so I can create a personalized collection.
- As a user, I want a dedicated favorites page so I can view all my saved recipes in one place.
- As a user, I want to remove recipes from my favorites so I can keep my collection relevant.

Personal Recipe Management

- As a user, I want to add my own recipes with ingredients and steps so I can digitize my personal collection.
- As a user, I want to edit my custom recipes so I can improve them after trying them out.
- As a user, I want to delete custom recipes I no longer need so my collection stays organized.

Design Mockups

Key pages:

- Homepage with carousel and feature cards
- All recipes page with pagination
- User Custom Recipes page with edit/delete buttons
- Favorite Recipes page with remove buttons
- Modal forms for creating and editing recipes

Recipe Finder Mockup Design

Recipe Finder Home Recipe Data

← Navigation bar

Recipe Finder

← Background image (carousel)

By Cuisine Genre
By Dietary Preferences
By Cooking Time
By Ingredient counts
Collections
Custom Recipe

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← footer

Submission-form.html
+modal

Name:

Cooking time:

Ingredients:

Steps:

Cancel Upload

Submission form

favorites - recipe.html

Recipe Finder Home Recipe Data

Favorite Recipes

Recipe(1) Remove

Recipe(2) Remove

Remove button

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all-recipes.html

Recipe Finder Home Recipe Data

All Recipes

Recipe(0) ☆

Recipe(1) ☆

☆

☆

☆

☆

☆

☆

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Add to Favorites Button

user-recipes.html

Custom Recipes

Recipe(1) Edit/Delete

Recipe(2) Edit/Delete

Recipe(3) Edit/Delete

Edit/Delete button