

# Software Design Document (SDD)

## Project Title: Recipe Book Organizer

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### 1. Introduction

#### 1.1 Purpose

The purpose of this project is to create a tool for managing a collection of recipes. Users can store, update, and search recipes, as well as organize them using categories, tags, and ratings.

#### 1.2 Scope

This is a terminal-based application designed for beginners. It allows users to keep track of recipes by adding ingredients, instructions, categories, tags, and personal ratings. Recipes can be searched, grouped, and edited easily.

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### 2. System Overview

The system maintains a list of recipes. Each recipe has several fields including name, ingredients, and instructions. Users can interact with the recipe list using menu options or commands to add, search, update, or group recipes.

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### 3. System Features

#### 3.1 Recipe Structure

- **Name:** The title of the recipe.
- **Ingredients:** A list of ingredients.
- **Instructions:** Steps for preparing the dish.
- **Category:** A label like "Breakfast", "Dessert", etc.
- **Tags:** Keywords for filtering (e.g., "vegan", "spicy").
- **Rating:** A number from 1 to 5.

#### 3.2 Recipe Management

- **Add Recipe:** Input all recipe details.
- **Edit Recipe:** Change any part of an existing recipe.
- **Delete Recipe:** Remove a recipe from the list.
- **View Recipe:** Show the full details of a selected recipe.

### 3.3 Search and Organization

- **Search Recipes:** By name, ingredient, category, or tag.
  - **Group Recipes:** Show recipes grouped by category or tag.
  - **Sort Recipes:** By name or rating.
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### 4. Optional Ideas

- Save recipes to a file for reuse.
- Add preparation time and serving size.
- Mark favorite recipes.
- Randomly suggest a recipe.
- Allow rating updates after making the dish again.