Test Plan for Verification

1. Unit Testing:

- Target: Individual components and functions within the system.

Unit Test 1: Recipe Storage Module

- Test Objective: Verify the ability of the system to store and retrieve recipes.
- Test Set/Vector: Create a sample recipe and store it, then retrieve the same recipe and compare the retrieved data with the original.
 - Test Scope: Ensures the correct functioning of the recipe storage system.

Unit Test 2: User Review Component

- Test Objective: Confirm the ability to submit and retrieve user reviews.
- Test Set/Vector: Submit a review for a recipe, retrieve the review, and compare it with the submitted data.
 - Test Scope: Validates the functionality of user reviews in the system.

Unit Test 3: Set User Preferences

- Test Objective: Confirm the ability to submit and search recipes by user preferences.
- Test Set/Vector: Set user dietary preferences, retrieve the user profile, and compare it with the submitted data.
 - Test Scope: Validates the functionality of user preferences in the system.

2. Functional Testing:

- Target: The interactions between different components and functions of the system.

Functional Test 1: Recipe Search and Filtering

- Test Objective: Ensure users can search for recipes based on various criteria
- Test Set/Vector: Attempt to search for recipes using different criteria, and verify that the search results are accurate and meet the specified criteria.
 - Test Scope: Validates the functionality of recipe searching and filtering.

Functional Test 2: Recipe Purchase and Ingredient Management

- Test Objective: Validate the process of adding ingredients from recipes to a shopping list and managing the list.
- Test Set/Vector: Add ingredients from a recipe to the shopping list, edit quantities, and mark items as purchased. Verify that the changes reflect accurately.
 - Test Scope: Ensures the reliability of the ingredient management feature.

3. System Testing:

- Target: The entire system as a whole, testing its end-to-end functionality.

System Test 1: Recipe Creation and Review Cycle

- Test Objective: Test the complete cycle of creating a recipe, submitting user reviews, and viewing those reviews.
- Test Set/Vector: Create a new recipe, submit a user review for it, and ensure that the review is visible when viewing the recipe.
- Test Scope: Validates the seamless integration of key system features.

System Test 2: User Profile and Dietary Preferences

- Test Objective: Ensure that user profiles and dietary preferences are accurately reflected across the application.
- Test Set/Vector: Modify user dietary preferences, log out, and log in again to verify that the preferences are retained.
- Test Scope: Verifies the reliability of user profiles and preferences.