

V&V

Group 10

Specification for program “FridgeSavvy” V1

Name

FridgeSavvy – Smart kitchen inventory and meal planning assistant

Usage

FridgeSavvy – input file as information input and result output on user screen

Description

FridgeSavvy is a mobile application designed to simplify kitchen inventory management, reduce food waste, and assist with meal planning. The application digitizes the user's kitchen inventory by allowing manual entry of grocery items. It tracks expiration dates, suggests recipes based on available ingredients, and generates shopping lists for planned meals.

The application consists of the following core modules:

- Digital Pantry: Stores all added grocery items with category and expiry date.
- Recipe Suggester: Allows users to manually create and remove recipes. Connecting API of ChatGPT to suggest recipes based on current pantry contents. Each recipe contains a list of ingredients, which can be added or removed manually.
- Meal Planner: Allows users to schedule recipes for specific dates.
- Shopping List Generator: Creates shopping lists based on planned meals and missing ingredients.
- Waste Analytics Dashboard: Provides insights into food waste and savings.

Options

Commands must be entered with single spaces and are case-sensitive.

Manual Item Entry

add <ItemName> <Category> <ExpiryDate>:

Adds an item to the pantry.

Example: add Milk Dairy 2025-11-01

remove <ItemName>:

Removes an item from the pantry.

## Create and Remove Recipes

create recipe <RecipeName>:

Creates an empty recipe with the given name.

Example: create recipe Pasta

remove recipe <RecipeName>:

Deletes the specified recipe and all associated ingredients.

Example: remove recipe Pasta

## Add and Remove Ingredients

Each ingredient added to a recipe must include a quantity and a unit.

add ingredient <RecipeName> <IngredientName> <Quantity> <Unit>:

Adds an ingredient to the specified recipe.

If the ingredient already exists, the quantity is replaced.

Example:

add ingredient Pasta TomatoSauce 200 ml

add ingredient Salad Lettuce 1 head

remove ingredient <RecipeName> <IngredientName>:

Removes a specific ingredient from the given recipe.

Example: remove ingredient Pasta TomatoSauce

## Meal Planning

plan <RecipeName> <Date>:

Adds a recipe to the meal plan.

unplan <RecipeName> <Date>:

Removes a recipe from the meal plan.

## Inventory Queries

list pantry:

Displays all pantry items.

list recipe <RecipeName>:

Displays all ingredients associated with the specified recipe, including quantities and units.

Example:

list recipe Pasta

Output example:

TomatoSauce – 200 ml

Pasta – 150 g

Cheese – 50 g

list expiring:

Shows items expiring within 3 days.

suggest recipes:

Suggests recipes based on current inventory.

Shopping List

generate list:

Generates a shopping list based on planned meals.

Input Data

Commands are entered manually. Format YYYY-MM-DD.

Limitations

- Manual item and recipe entry required.
- Suggestions may vary.
- Incorrect command formatting leads to errors.
- Users must manually update pantry when items are consumed.