Programming Project / C++ - Cooking App Management & Interaction System

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1 Task Description

Student 1: Managing the Kitchen

- Add, delete, modify recipes (ingredients, preparation time).

- View meal plans.

Student 2: Interacting with the Cooking App

- Add, modify, delete ingredients in/from a meal prep list.

- Create a meal plan from the prep list.

2 Data Structures Used by the Team

The following classes will be used:

- `Recipe`: `string id`, `string name`, `vector<string> ingredients`, `int prepTime`

- `Date`: `int day`, `int month`, `int year`

- `MealPlan`: `vector<Recipe> recipes`, `Date date`

3 File Structure

The following files will be used:

- `recipes.txt`
  Stores details about available recipes:

    - `<number of recipes>`

    - `<recipe1 id>`

    - `<recipe1 name>`

    - `<recipe1 ingredients count>`

    - `<recipe1 ingredient1>`

    - `<recipe1 ingredient2>`

    - `...`

    - `<recipe1 prepTime>`

    - `<recipe2 id>`

    - `...`

- `meal_prep.txt`
  Stores the meal prep list details:

    - `<recipe1 id> <recipe1 count>`

    - `<recipe2 id> <recipe2 count>`

4 Interacting with Executables

Application 1:

- `./app_1.exe view_recipes`
  View all available recipes.

- `./app_1.exe add_recipe <id> <name> <ingredient_count> <ingredient1> <ingredient2> ... <prepTime>`
  Add a recipe to the kitchen.

- `./app_1.exe delete_recipe <id>`
  Delete a recipe from the kitchen.

- `./app_1.exe modify_recipe <id> <prepTime | ingredients> <new_value>`
  Modify preparation time or ingredients of a recipe.

- `./app_1.exe view_meal_plans`
  View placed meal plans.

Application 2:

- `./app_2.exe view_prep_list`
  View the meal prep list.

- `./app_2.exe add_recipe <id> <count>`
  Add a recipe to the meal prep list.

- `./app_2.exe modify_recipe <id> <newCount>`
  Modify the count of a recipe in the prep list.

- `./app_2.exe delete_recipe <id>`
  Remove a recipe from the prep list.

- `./app_2.exe create_meal_plan`
  Create a meal plan based on the prep list.