

Advanced programming Project

(Recipe Organizer)

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Problem statement

Recipe Organizer:

1. Recipe Class:

Description: The Recipe class is the cornerstone of our Recipe Organizer, embodying a recipe with attributes such as RecipeID , Title , Instructions , and a list of Baseltem instances. It manages both Ingredient and Category items, showcasing inheritance for code reusability. Methods include functionalities for adding ingredients, editing instructions, and retrieving recipe details.

2. Baseltem Class: (Base class for Ingredient and Category)

Description: The Baseltem class serves as the base class for both Ingredient and Category . It encapsulates common attributes such as ItemID and Name . This class promotes code reusability and maintains a consistent structure for items associated with recipes.

3. Ingredient Class (Inherits from Baseltem):

Description: The Ingredient class represents individual ingredients that constitute a recipe. It inherits attributes from the Baseltem class and includes additional attributes like Quantity . This class enables the association of multiple ingredients with a single recipe.

4. Category Class (Inherits from Baseltem):

Description: The Category class represents the categorization of recipes. It inherits attributes from the Baseltem class and includes specific attributes like Color for visual distinction. Recipes can be organized into different categories to facilitate easy searching and management.

5. UserInterface Class:

Description: The UserInterface class is the dynamic heart of our Recipe Organizer. It serves as the front-end manager, orchestrating the interaction between users and the system. Beyond its previous responsibilities, it now actively maintains lists of ingredients and recipes, ensuring seamless data management. This means that as users add new recipes or ingredients, the UserInterface class keeps track of them for easy access and display.

Main Responsibilities:

1. Display Main Menu:

Upon starting the program, the UserInterface class presents a main menu, offering options like adding recipes, categorizing them, searching, and selecting a random recipe.

2. Add Recipe Page:

Users interested in adding a new recipe are directed to a dedicated page within the UserInterface class. This page guides them through entering details such as title, instructions, ingredients, and categorization.

3. Categorize Recipes:

The UserInterface offers functionality for categorizing recipes, allowing users to organize their collection efficiently.

4. Search for Recipes:

To simplify access to specific recipes, the UserInterface includes a search feature, enabling users to find recipes based on titles, ingredients, or categories.

5. Random Recipe Page:

For a bit of culinary adventure, the UserInterface provides an option to select a random recipe from the stored collection.

6. Program Class:

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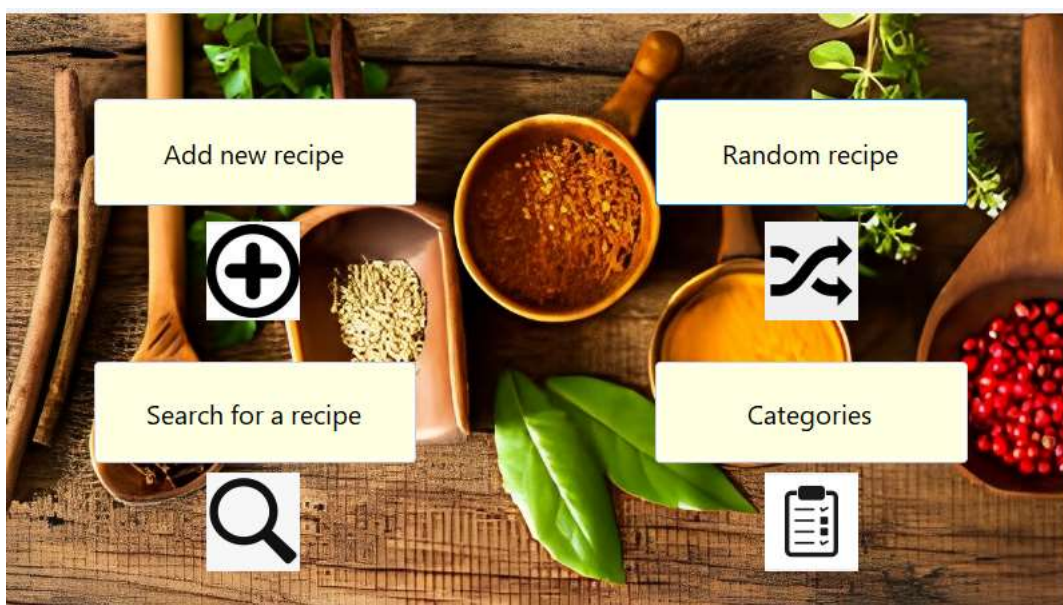
Description: The Program class serves as the entry point for the Recipe Organizer application. It contains the Main method, where instances of other classes are created, and methods are called to run the program. This class coordinates the flow of the application, ensuring a smooth and organized execution.

Project description

This application allows the user to have a digital recipe book which is editable and gives many additional features such as (search for a recipe/add a new recipe/get a random recipe/...). All the data collected from the user is inserted into a local database which saves all data in different tables which are all connected so all the data of the same recipe could be accessed. The program has an elegant and easy user interface so the user could navigate through easily.

The user interface mainly consists of 4 pages:

- Add new recipe (saves data to be used later)
- Random recipe (shows a random recipe previously entered)
- Search for a recipe (searches the data base for previously entered recipes by name)
- Categories (allows the user to sort the recipes as they please ex: blue/red/... or dinner/dessert/...)



Recipe_Page

Enter data for the new recipe

Title:
Grilled Chicken

Ingredients:
skinless chicken breasts

Quantity:
3

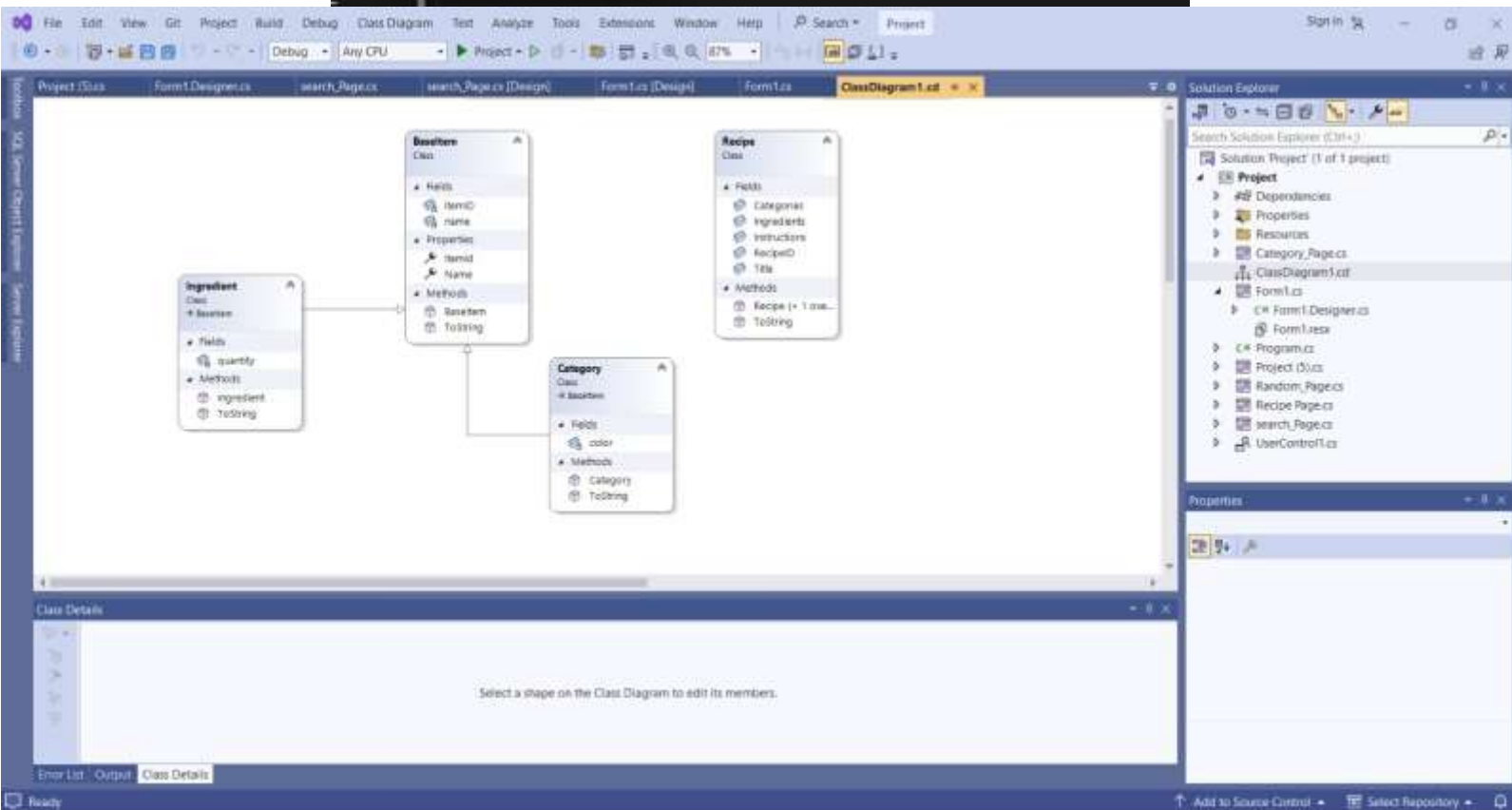
Instructions:
Marinate the Chicken:
In a small bowl, whisk together olive oil, soy sauce, honey, Dijon mustard, minced garlic, paprika,

Categorization:
Dinner

Submit

Data Successfully inserted

OK



Bonus (link program to database):

Recipe table:

| | recipie_id | title | instructions |
|---|------------|-----------------|---|
| ▶ | 1 | Grilled chicken | merinate the chicken then cook on high heat |
| * | NULL | NULL | NULL |

Baseitem table:

| | item_id | baseitem_name |
|---|---------|------------------|
| ▶ | 1 | boneless chicken |
| * | NULL | NULL |

Ingredient table:

| | ing_id | quantity |
|---|--------|----------|
| ▶ | 1 | 2 |
| * | NULL | NULL |

Category table:

| | cat_id | color |
|---|--------|--------|
| ▶ | 1 | Dinner |
| * | NULL | NULL |
