USER MANUAL

PROG POE

JUNE 13, 2024
AALIYAH ALLIE
ST10212542

Contents

Introduction

Welcome to the final part of my POE for Programming 2A. Within this document, you will find the instructions for navigating and understanding how to run my final application for my POE. This POE section is a combination of Part 1, Part 2, and Part 3 into one WPF Application. This POE section gave us the opportunity to select from two choices to add to our POE development; we had to choose between creating a feature that does filtered searches or creates a pie chart based on recipes added to the menu. For this part of my POE, I chose the option for doing a filtered search and implementing it in a user-friendly way.

My WPF Application makes use of a user-friendly interface and output interface to display the requirements of the rubric. There are two new features added to my POE since Part 2, and I will be discussing the navigation of my POE throughout this user manual. This will guide you through the entire application, ensuring a smooth and comprehensive understanding.

Firstly, you will find detailed step-by-step instructions on how to launch and use the application effectively. Each section of the application has been designed to be intuitive, but I have included screenshots and explanations to help you understand the functionality and navigation better.

Secondly, I will explain how the filtered search feature works. This feature allows users to search through the menu items using specific criteria, making it easier to find recipes based on ingredients, food group, or max calories. This not only enhances the usability of the application but also ensures that users can quickly find what they are looking for.

The Navigation of each window will be extensively covered to ensure user satisfaction and ensure that it can be navigated with ease.

How To Run My Application

Link To GitHub: https://github.com/AaliyahAllie/AaliyahAllieST10212542ProgPOEPart3.git

This is how to run/compile my prog POE (part 3) Initially if you are using Visual Studio 2022 if you have the project file open on your application you can press "F5" to run the project from the main window, or you can run it using the tab run with the little green triangle to run the main window. A more in-depth approach would be to:

How to Compile and Run To compile and run this WPF application, follow these steps:

Prerequisites

- Visual Studio: Ensure you have Visual Studio installed on your machine. This guide assumes you are using Visual Studio for compilation. Steps

Clone the Repository:

- Clone the repository containing the WPF application code. Open Solution in Visual Studio:

Launch Visual Studio.

- Go to File -> Open -> Project/Solution.... Navigate to the directory where you cloned the repository and select the solution file (*.sln) for the project.

Restore NuGet Packages:

- If prompted, restore the NuGet packages required for the project. Build the Solution: Once the solution is loaded, go to Build -> Build Solution (or simply press Ctrl+Shift+B) to compile the application.

Set as Startup Project:

- Right-click on the project (AaliyahAllieST10212542ProgPOEPart3) in the Solution Explorer. Select Set as Startup Project.

Run the Application:

- Press F5 or go to Debug -> Start Debugging to run the application.

Interact with the Application:

- The application window titled "Recipe App" will appear. You can interact with various buttons (Add Recipe, Display All Recipes, etc.) to perform actions as described in the application's functionality.

Exit the Application:

- Click on the Exit button to close the application.

Page/Classes in my program

My POE consists of interlinked classes and pages that connect to each other for user-friendly design and easy navigation, these pages are all linked to the Recipe.cs from part 1 and part 2 that contain all the methods and actions for capturing, storing, and displaying the data inputted by the user of the program. My program makes use of generic collections to store multiple user inputs (recipes) to be used and displayed throughout the program. Each wpf window application (xaml) file has a display code for users to interact with and a xaml.cs file which is the code behind the user interface.
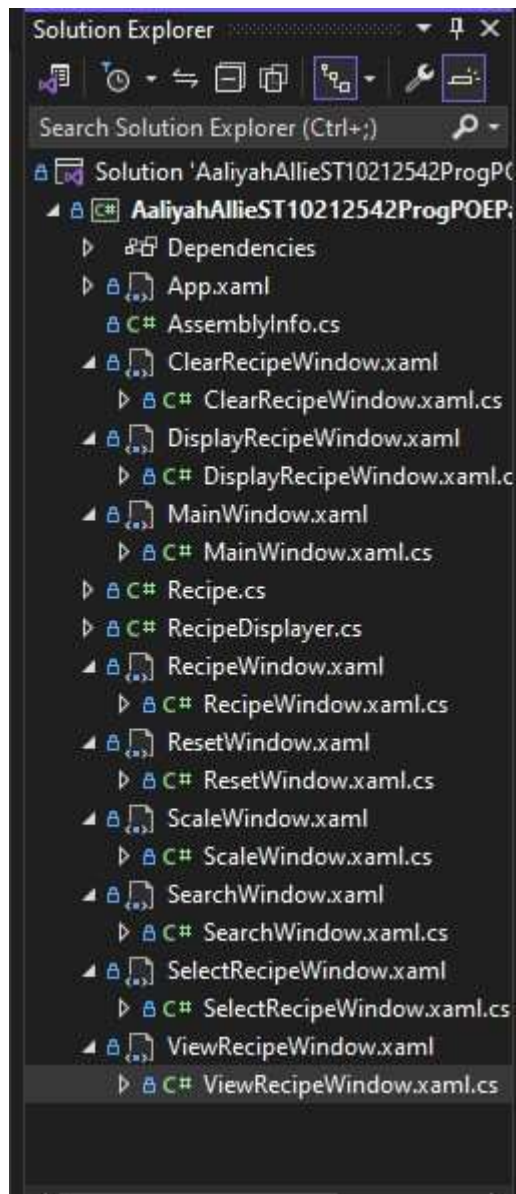
Figure 1 Classes.

Navigation of program output

MainWindow.xaml & MainWindow.xaml.cs

The first page that will run after following the compile instructions within this document will be the MainWindow.xaml and MainWindow.xaml.cs files. These files contain the user-friendly layout of buttons that connect to each other xaml file and xaml.cs file within the program and makes everything run smoothly. This page has different buttons that perform different functions and connects to different Windows. It is what will help you navigate to the different areas you want to be in. It also contains a textbox that will display multiple recipes stored within the generic collections when the display all recipes button is clicked. Figure 2 displays the Main Window and the buttons we will be navigating.
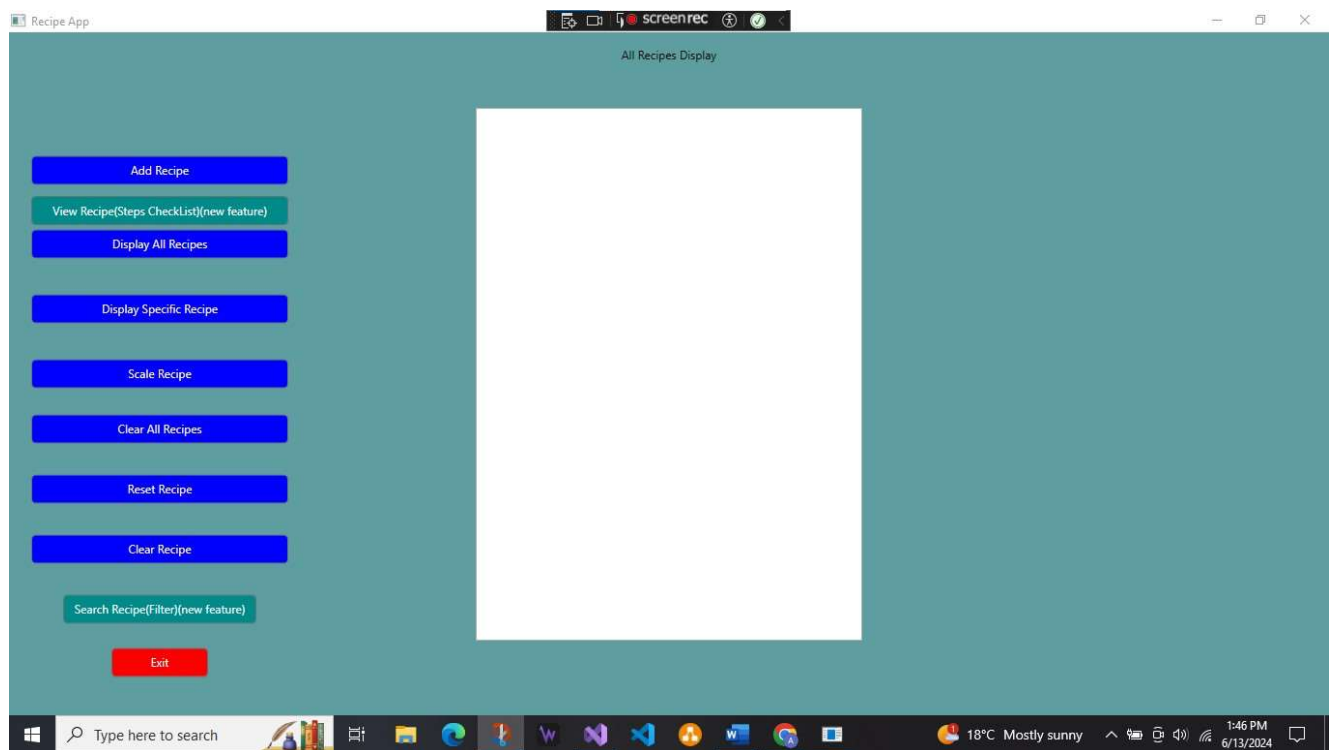

Figure 2 Main Window.

Add Recipe (Window/Button)

The Add Recipe Button will take the user to the next window where they can add a new recipe to the collection, without producing a recipe to be stored none of the other buttons will function and messages will display saying there are no recipes within the program.

The Recipe Window will allow users to add their recipe details, such as the recipes name, ingredients name, quantity of ingredients, unit of measurement, calories, food groups and steps for the recipe.

Figure 3 Recipe Window.

Figure 3 displays what the recipe window looks like with no inputs, the page works by each button storing the ingredients, steps, and recipes into arrays. Once all the ingredients information is inputted a user can save it, and once the desired steps are added it can be added to the steps list and it can be continuous until they add the recipe, add recipe only works if there is at least a recipe name, one ingredient and one step added to the lists before the add recipe is clicked.

Figure 4 Recipe Window Populated.

Figured 4 is an example of how this works with examples of how to input a recipe, add them to the list and how to add steps to the list, once this process is completed you can move on to add the recipe as depicted in Figure 5.
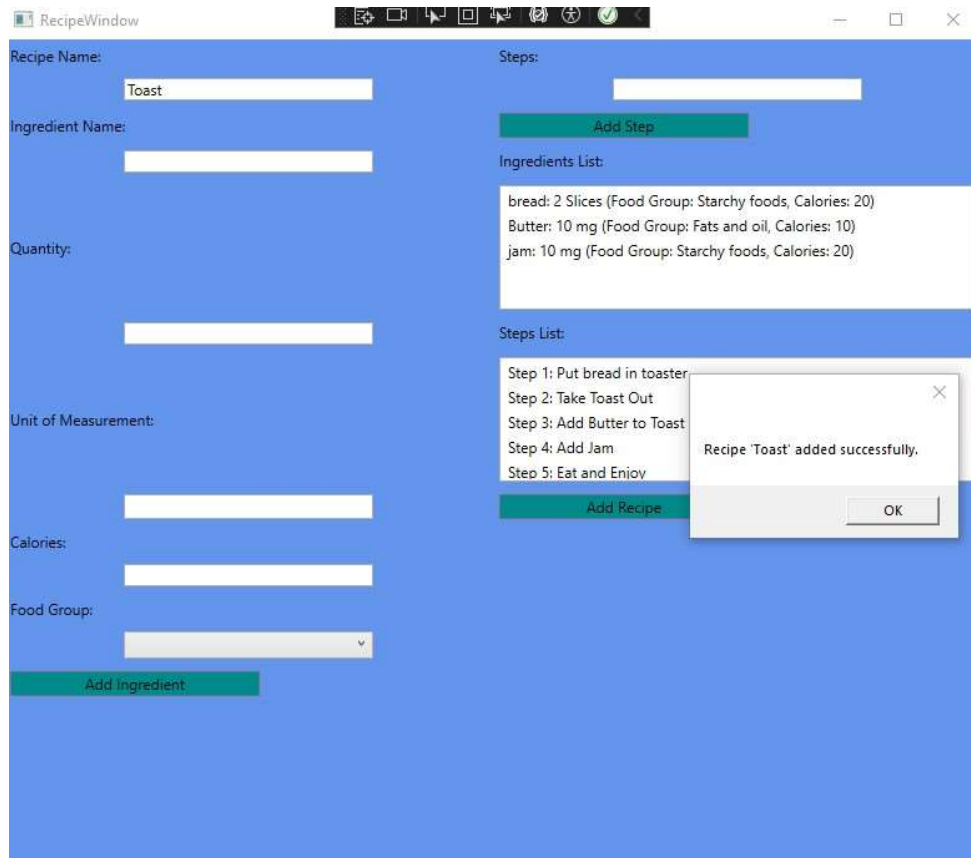
Figure 5 Recipe Saved.

Figure 5 is what it will look like when a recipe is successfully saved.

View Recipes Button/ Window

The next button on the Main Window is the view recipes button, this works by generating an alphabetic list of drop down options a user can select from, from the selected list the user can see the ingredients and steps from the recipe, and also do a checklist of the steps they have completed and select if their recipe has been completed to give them a sense of direction when carrying out saved recipes. This is the first new feature added to the program.
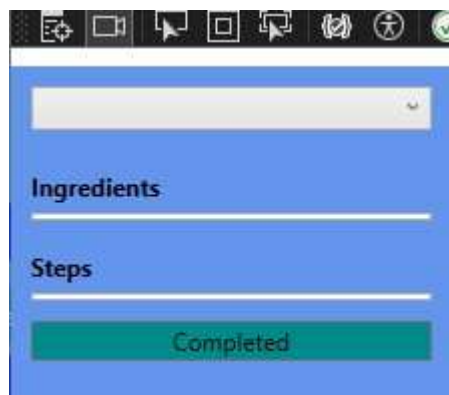

Figure 6 View Recipes Window, no selection made.

Figure 6 is what the display looks like without the user selecting yet.

Figure 7 View Recipes, with selection made.

Figure 7 is what the window looks like once a selection has been made and there are no steps completed.

Figure 8 is what the window looks like once all processes in the steps have been completed and user presses the completed button.
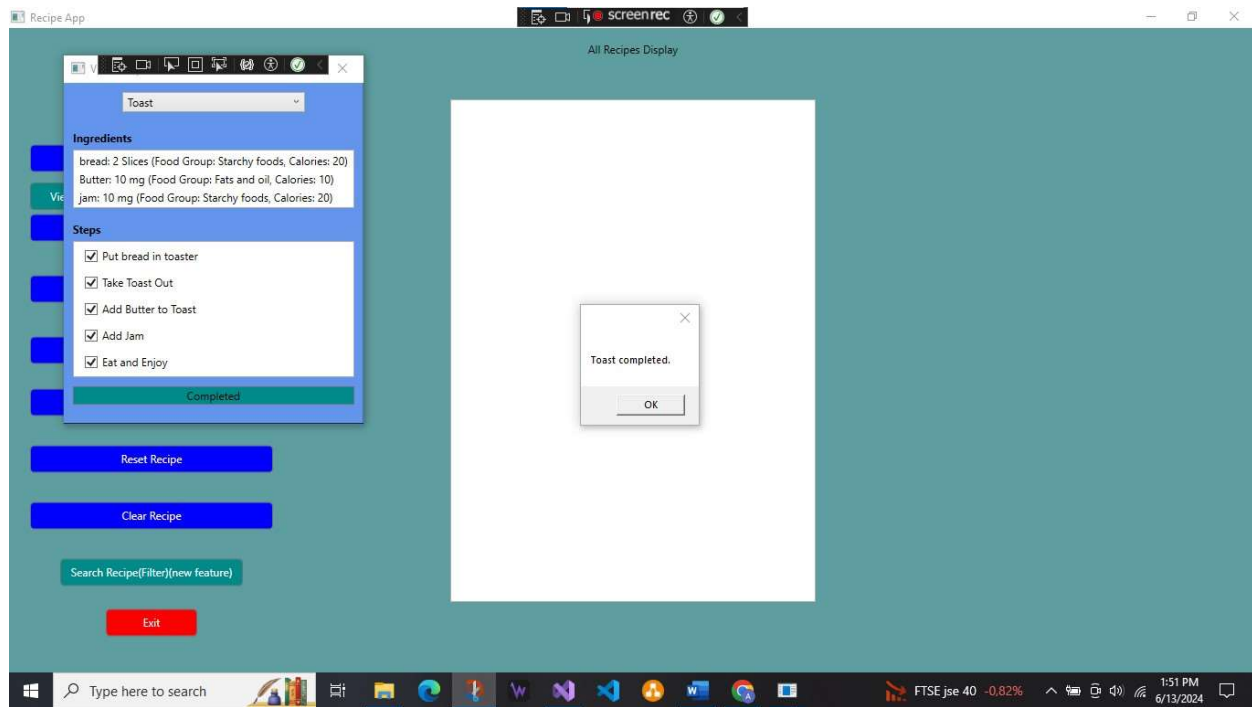
Figure 8 View Window Completed.

Display All Recipes Button

The display all recipes Button updates the Main Window's textbox and displays all the stored recipes within the program once the button is selected, Figure 9 displays this.
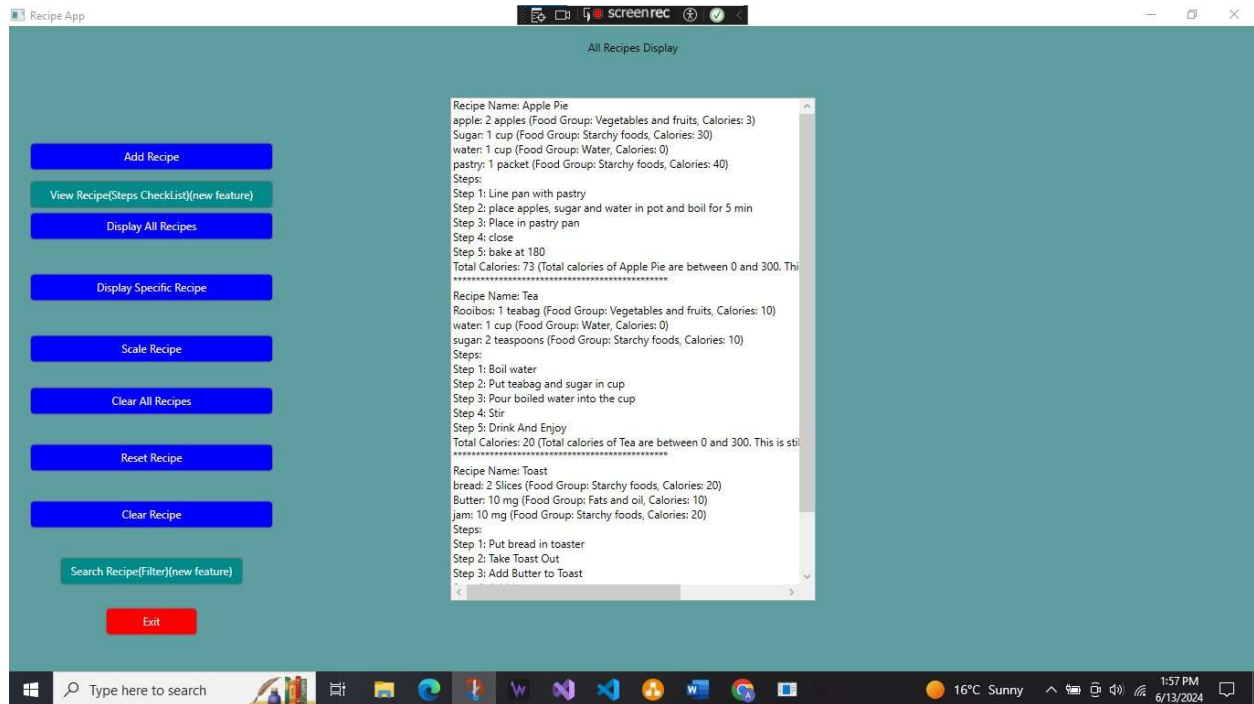

Figure 9 All Recipes Displayed

Display Specific Recipes Button

This display works by selecting a recipe from a drop-down menu of the recipe names sorted alphabetically and then displaying only the information for that recipe. Figures 10 – 11 shows how this works.
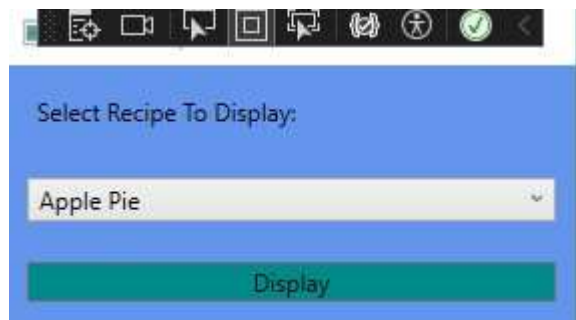

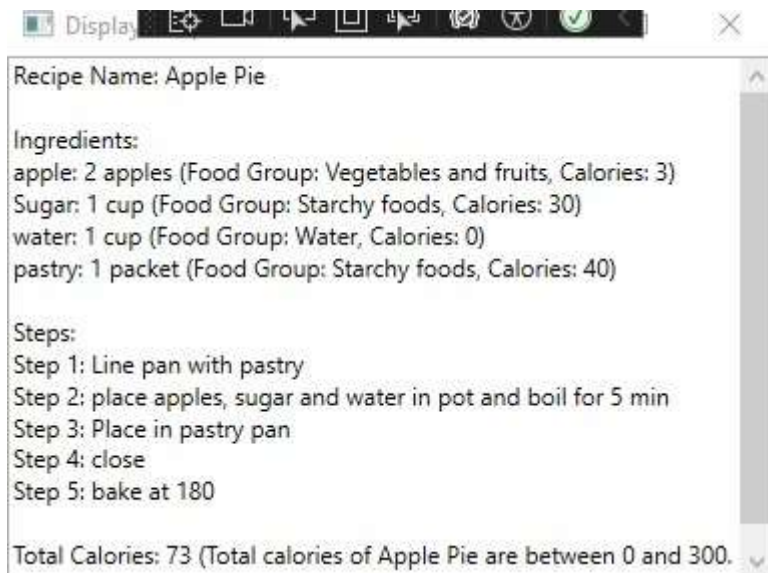
Figure 10 Display Specific Recipe.

Recipe Name: Apple Pie

Ingredients:
apple: 2 apples (Food Group: Vegetables and fruits, Calories: 3)
Sugar: 1 cup (Food Group: Starchy foods, Calories: 30)
water: 1 cup (Food Group: Water, Calories: 0)
pastry: 1 packet (Food Group: Starchy foods, Calories: 40)

Steps:
Step 1: Line pan with pastry
Step 2: place apples, sugar and water in pot and boil for 5 min
Step 3: Place in pastry pan
Step 4: close
Step 5: bake at 180

Total Calories: 73 (Total calories of Apple Pie are between 0 and 300.

Figure 11 Specific Recipe Displayed.

Scale Button

This button will scale any selected recipe by three options:

- 0.5
- 2
- 3

It works by multiplying the quantity, calories, and total calories of a recipe by the selected factor and it will update the recipe within the main textbox or the display specific recipe textbox. Figures 12-14 shows how these functions.
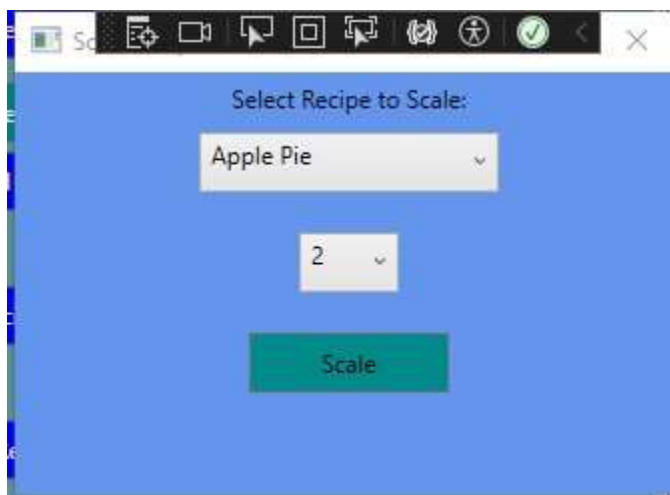

Select Recipe to Scale:

Apple Pie
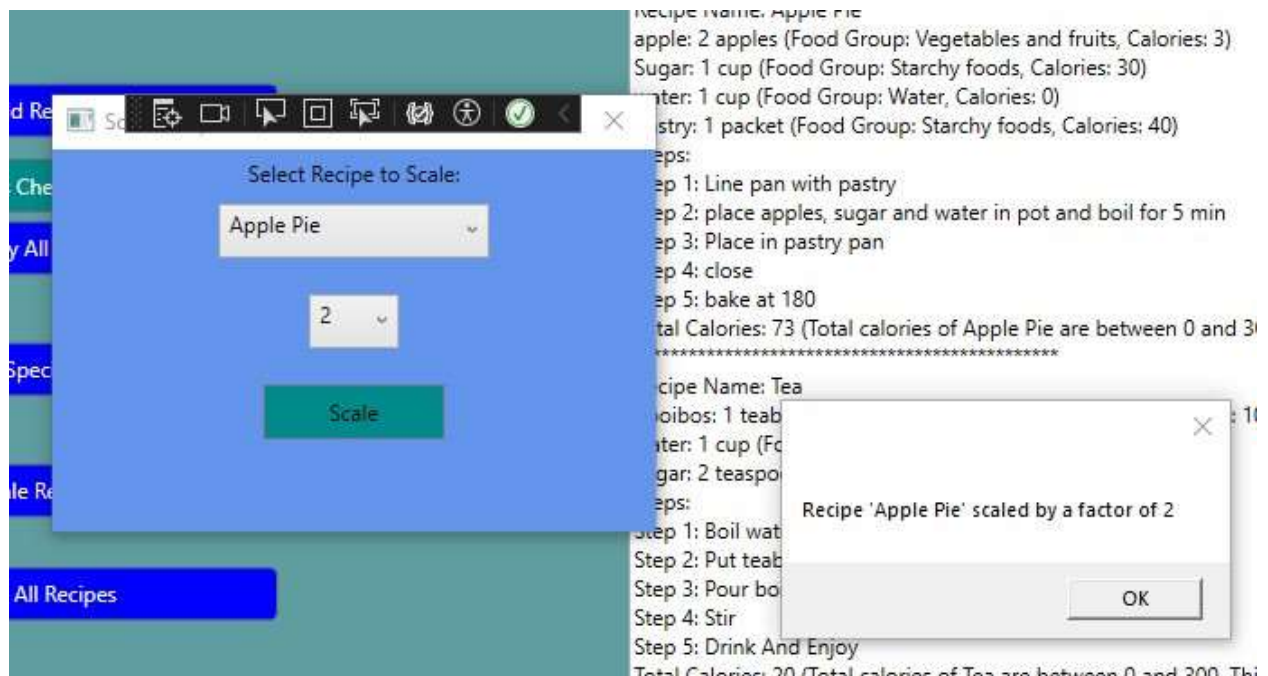
2

Scale

Figure 12 Scale Window.
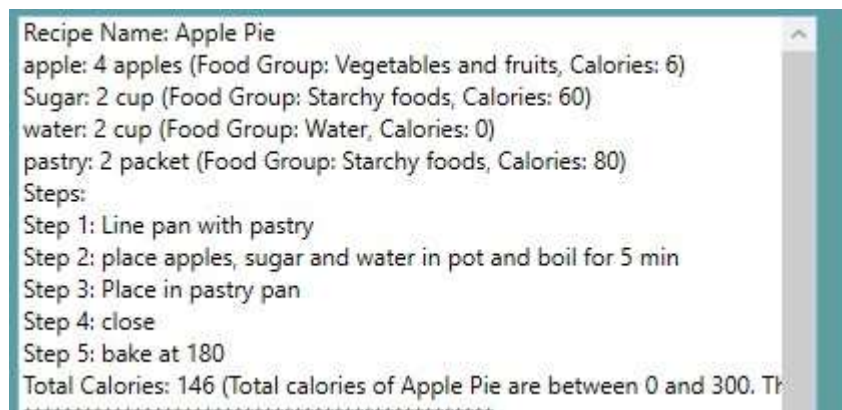
Figure 13 Scale Successful.

Figure 14 Scaled Output.

Clear All Recipes Button

The next button on the display of the main window is the clear all recipes button, when this button is pressed it deleted all the recipes in the collection and deletes all the recipes from all the displays.
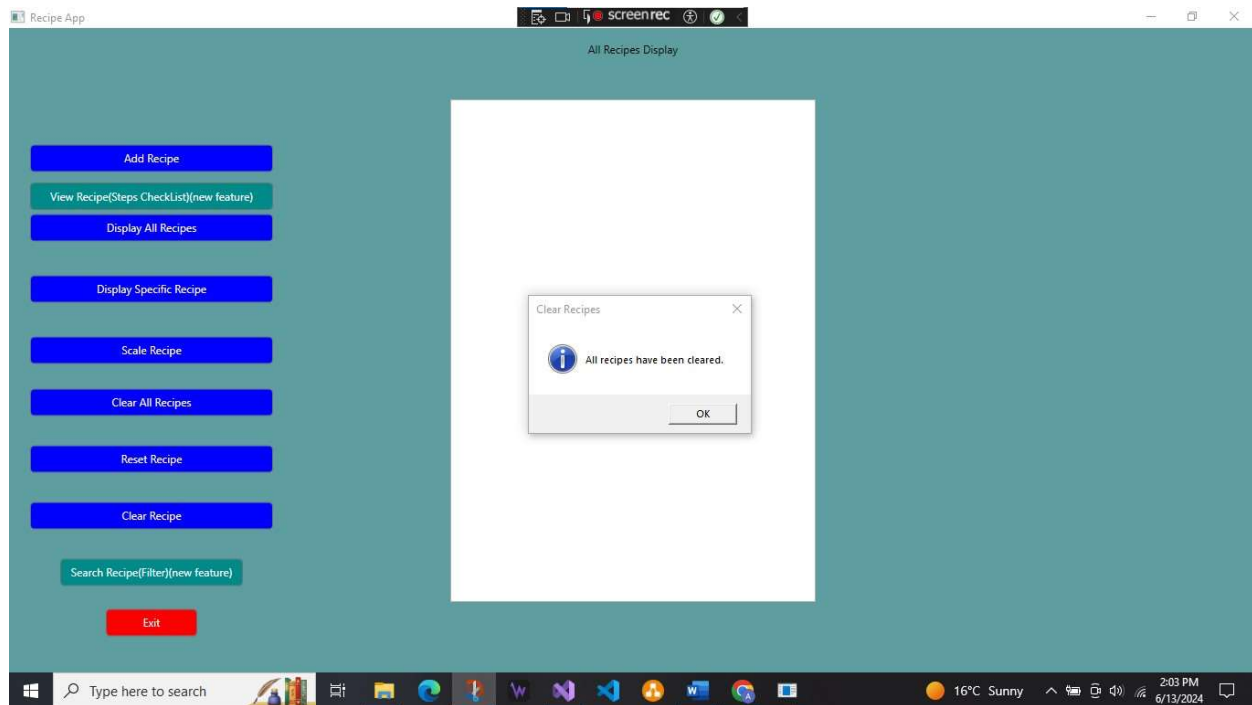
Figure 15 Clear All Recipes.

Reset Recipes Button

This button changes the scale factors back to the original values stored at the beginning of the program, it works by selecting a recipe to reset and resets it, as depicted in Figure 16.
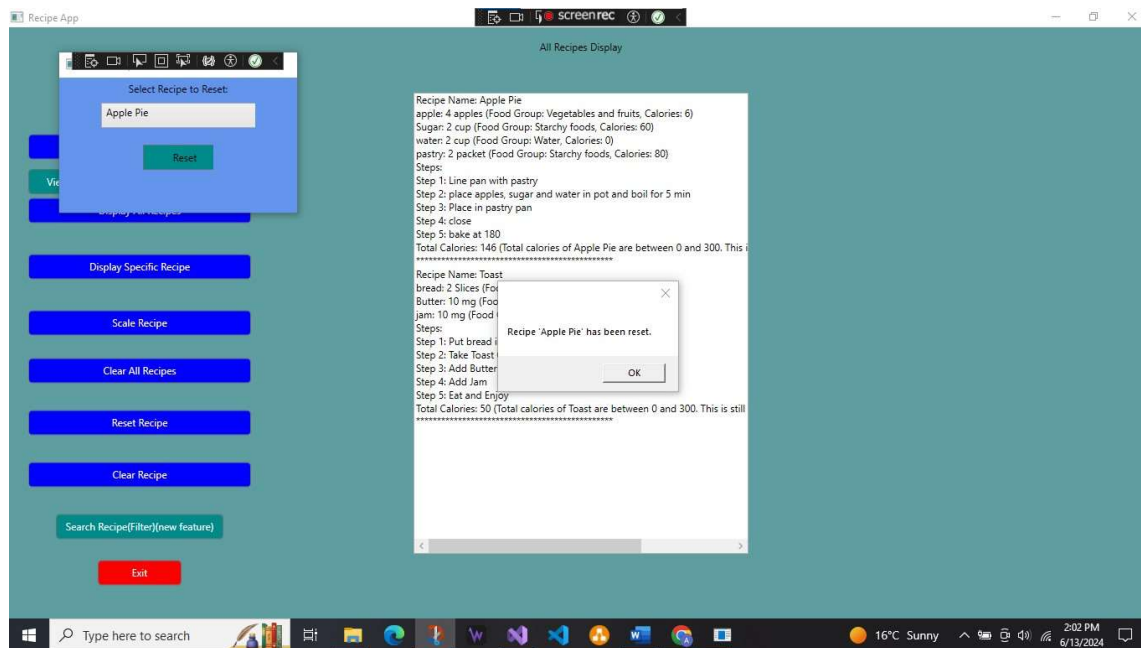

Figure 16 Reset Recipe.

Clear A Recipe Button

This next button in the main window deletes a specific recipe from the recipe collection but selecting a recipe name and clicking the clear recipe button to delete the recipe. It is show how it works in the following figures.

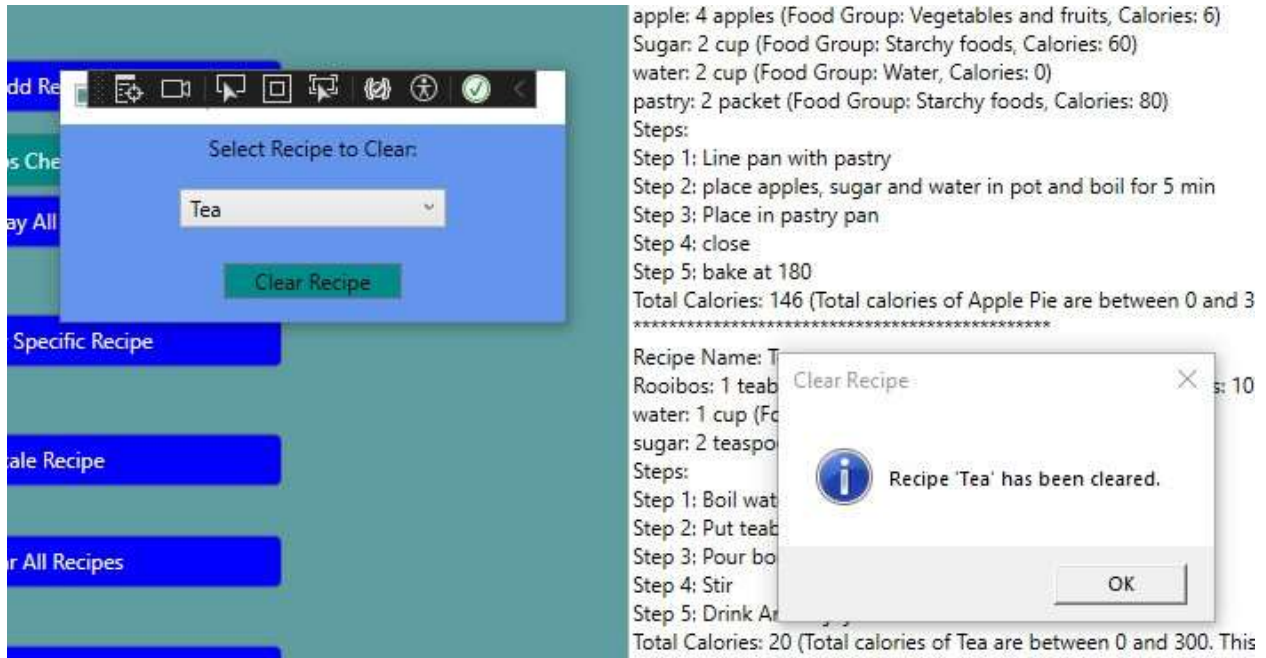*Figure 17 Recipe Selected to Delete.*

Figure 18 Recipe Successfully Deleted.

Figure 19 Updated list with recipe deleted.

Search Recipe Button

This is the next button in the main window and the feature we were asked to add to our POE, this feature works by searching for a specific ingredient name, food group and max calories within the list of recipes and displaying the recipes that match the search, the following figure shows how it works.

Figure 20 Filtered Search.

Exit Button

The final button is the exit button, in red. This button completely closes the program.
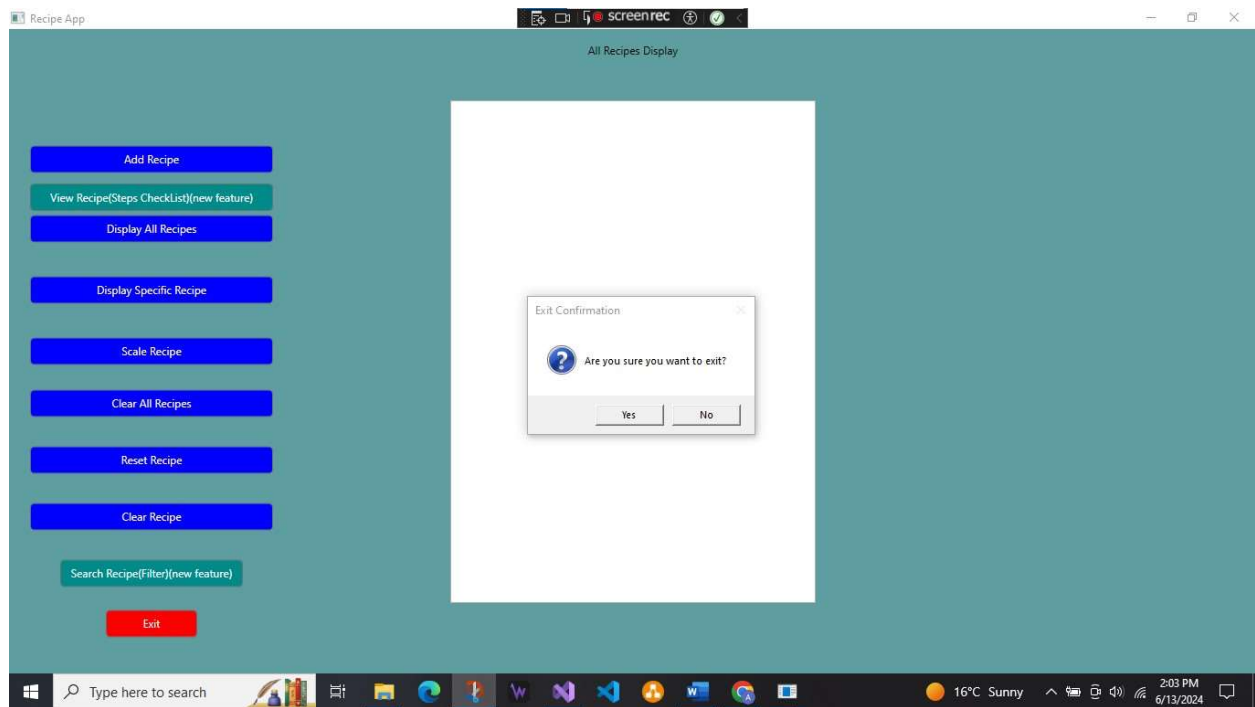

Figure 21 Exit Feature

Troubleshooting

Troubleshooting Summary

Here are essential troubleshooting steps to resolve common issues with the application:

1. **Application Doesn't Start:**
   - Ensure NuGet packages are restored.
   - Clean and rebuild the solution.
   - Check the Output window for error messages.
2. **Buttons or Functionality Not Responding:**
   - Inspect event handlers in code-behind.
   - Look for console or debug output for errors.
   - Restart the application or Visual Studio.
3. **UI Elements Not Displaying Correctly:**
   - Verify XAML code for layout and bindings.
   - Check styling and themes.
   - Ensure data bindings are synchronized.
4. **Performance Issues:**
   - Optimize code for performance.
   - Monitor resource usage in Task Manager.
   - Reduce unnecessary UI updates.
5. **Unable to Find Recipes through Filtered Search:**
   - Double-check search criteria format and handling.
   - Debug search function step-by-step.
   - Test with different search inputs.
6. **General Errors or Unexpected Behaviour:**
   - Review logs and output for error messages.
   - Search online resources for solutions.
   - Contact developer or support team for assistance if issues persist.

Following these steps should help diagnose and resolve most issues encountered while using the application, ensuring a smoother user experience.

Conclusion

Thank you for using this user manual to navigate and operate my final application for Programming 2A. This comprehensive guide has been designed to help you understand and make the most of the features and functionalities incorporated in my WPF Application. Here's a brief recap of what has been covered:

1. **Introduction and Overview:** An introduction to the application and its primary features, including the filtered search functionality added in this final part.

2. **Step-by-Step Instructions:** Detailed instructions on how to run and compile the application using Visual Studio, including cloning the repository, restoring NuGet packages, building the solution, and running the application.

3. **Navigation and Functionality:** A thorough walkthrough of the application's navigation, including the Main Window and its various buttons, each leading to specific functionalities such as adding recipes, viewing recipes, scaling recipes, and performing searches.

4. **Detailed Feature Explanation:** Insights into how each feature works, supported by screenshots and examples. This includes adding recipes, viewing all or specific recipes, scaling recipes, clearing recipes, and utilizing the new filtered search feature.

By following this manual, you should now be able to effectively navigate and utilize the application to its full potential. The user-friendly interface and intuitive design aim to provide a seamless experience, allowing you to focus on managing your recipes efficiently.

If you encounter any issues or have further questions, please refer to the troubleshooting section or reach out through the provided contact channels. Thank you for taking the time to understand and use this application, and I hope it serves your needs well.

Happy cooking!