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Faculty of Computer and Informatics
Computer Engineering Department



BLG 411E
Design Specification
Group 20

Project Name: BastırChef

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1 Introduction

This document includes system architecture of our app, BastırChef. Also it includes several diagrams such as component diagram, class diagrams, sequence diagrams and data flow diagrams.

This app is a vibrant platform connecting chefs and home cooks passionate about food. Our app enables chefs to share their favorite recipes, while users can effortlessly search for dishes based on their available ingredients. Users can create custom food lists, easily share them with friends, and discover new recipes tailored to their tastes. The app also offers intelligent recommendations, suggesting fresh recipes based on users' previous likes and preferences.

2 System Architecture

2.1 System Architecture Diagram

A serverless architecture is chosen due to massive scaling requirements in the long run. Our app is a social media app and number of users will change which serverless adapts well and reduce costs by scaling according to the need. Easy scaling nature of NoSQL and serverless functions also will adapt well to the a large number of users.

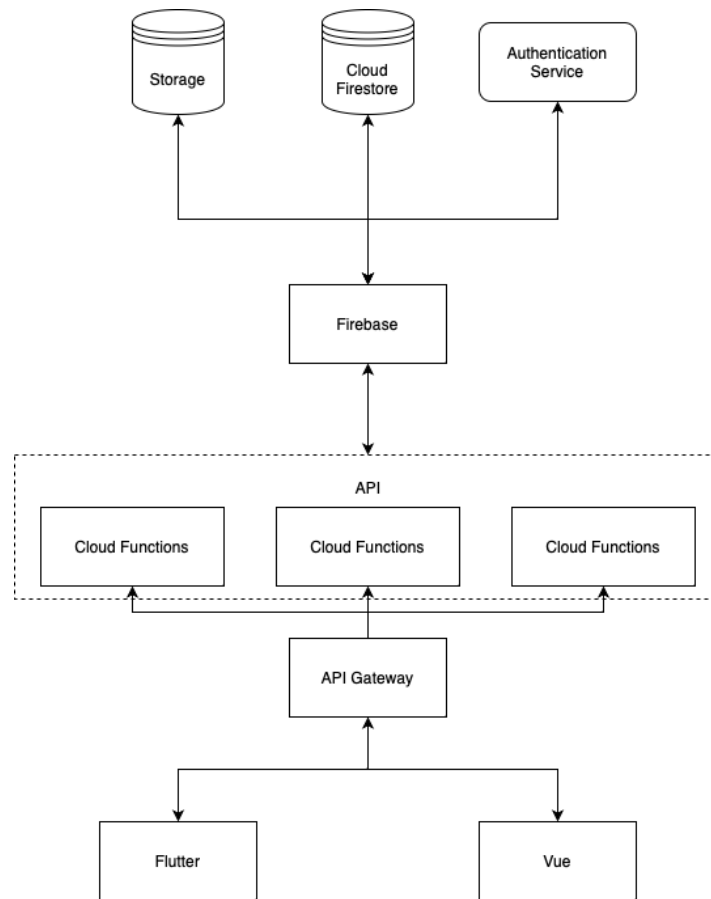


Figure 1: System Architecture Diagram

2.2 Component Diagram

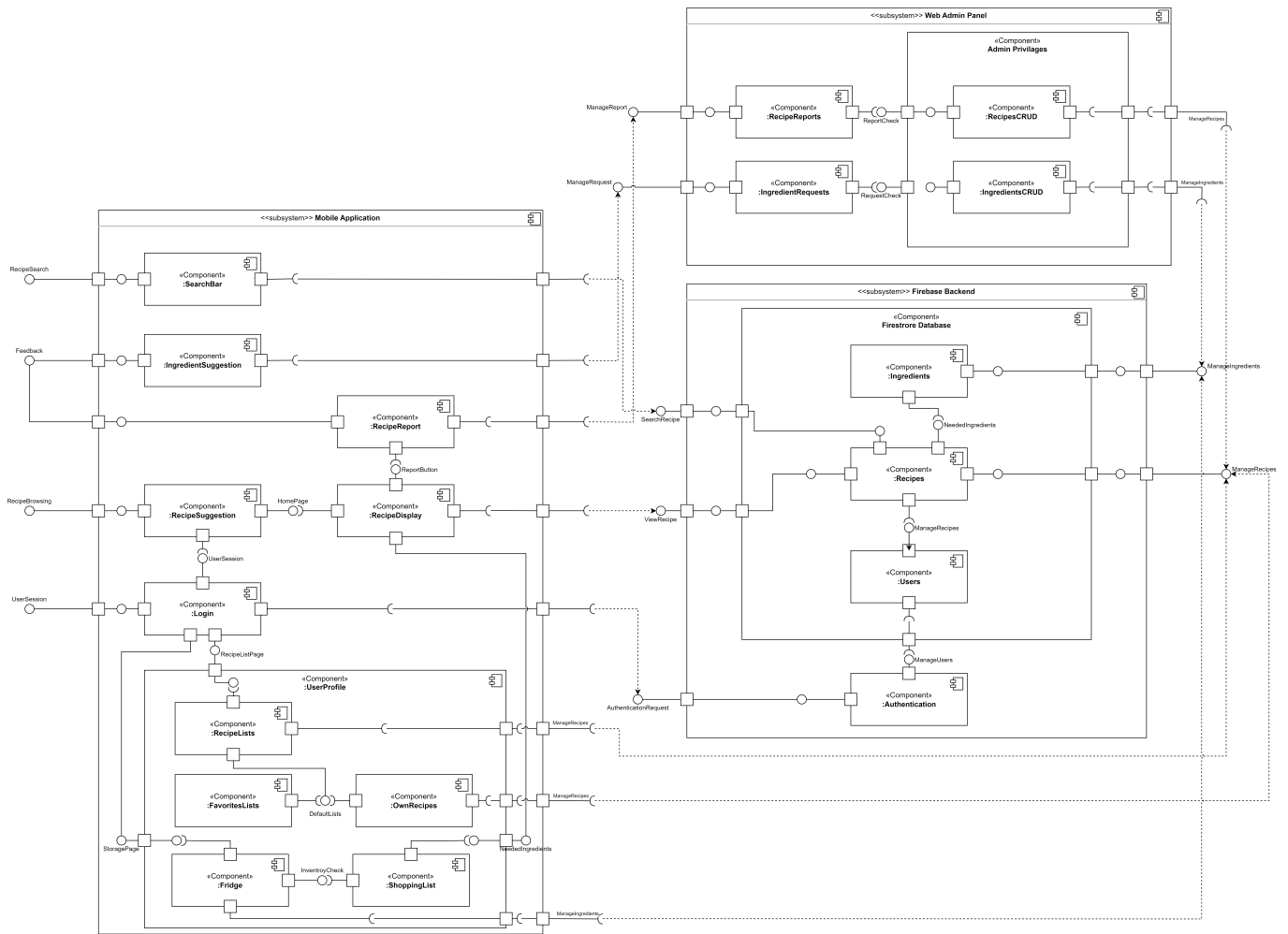


Figure 2: Component Package Diagram

For a clear image: [Image Link](#)

3 Low Level Design

3.1 Class Diagram

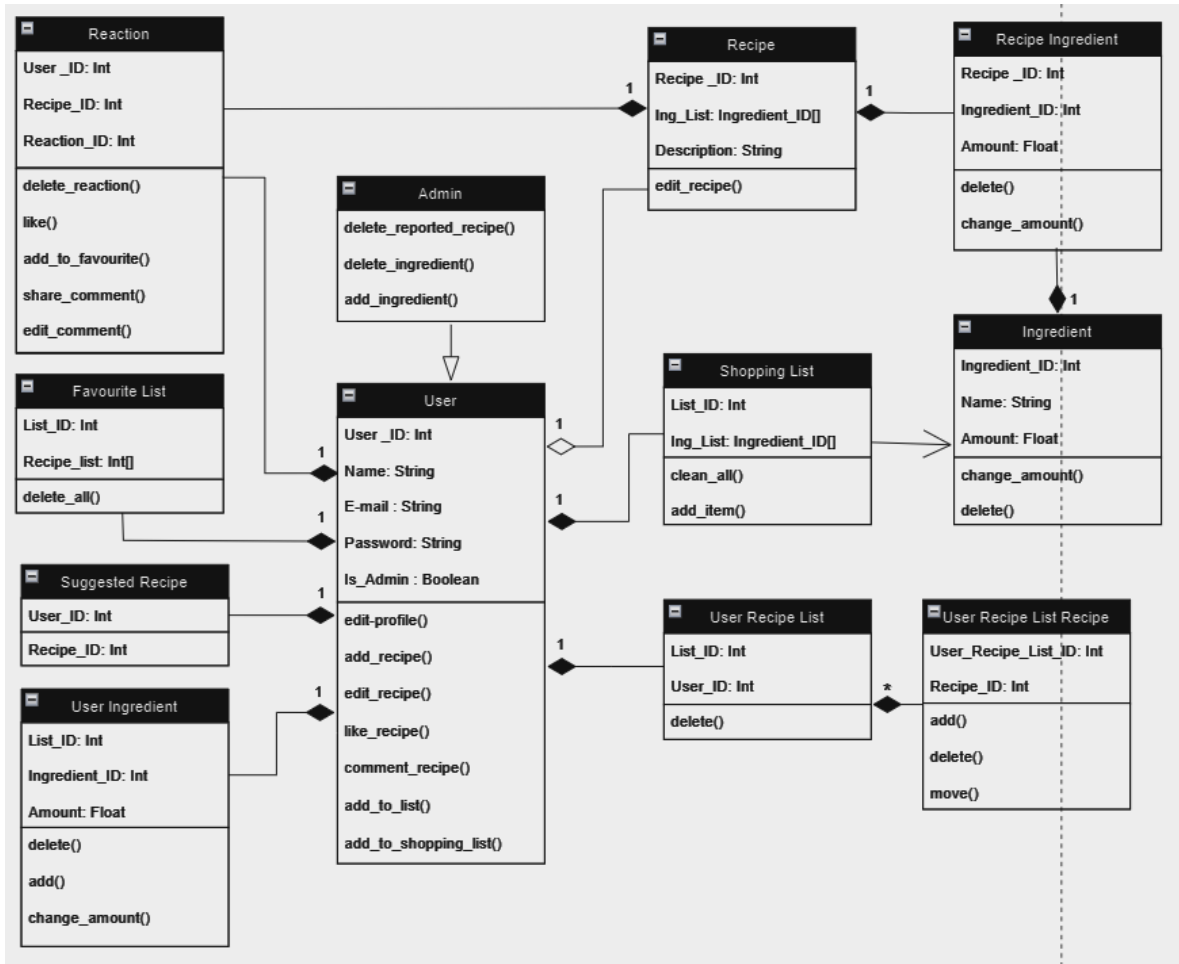


Figure 3: Class Diagram

3.2 Sequence Diagrams

For clear images: [Drive Link](#)

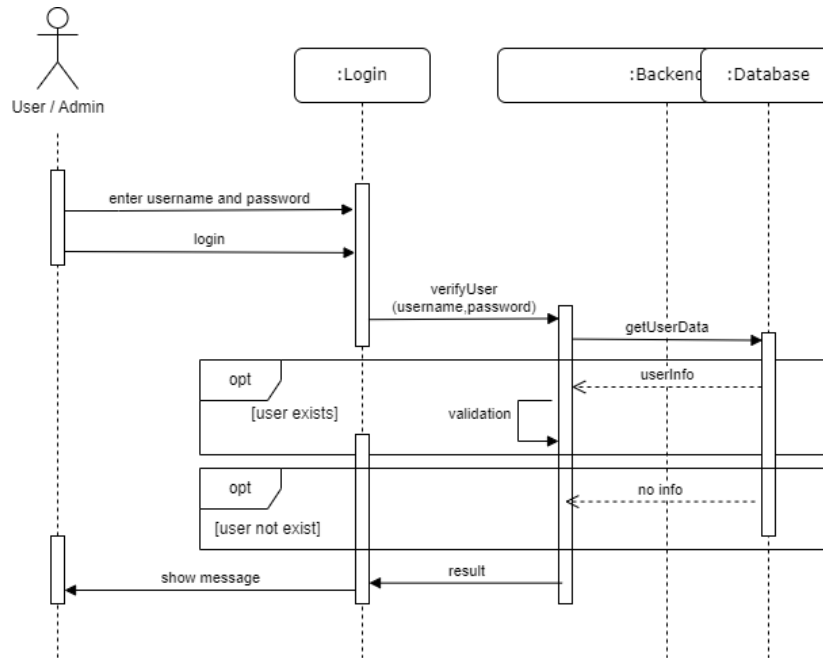


Figure 4: Sequence Diagram for Login

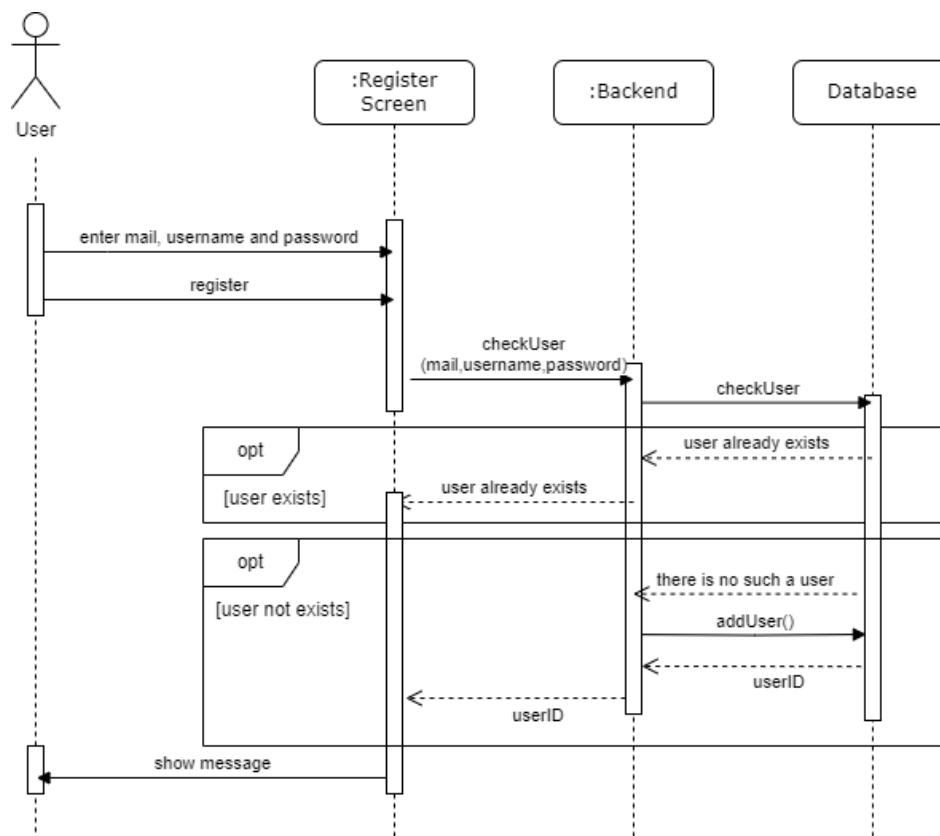


Figure 5: Sequence Diagram for Register

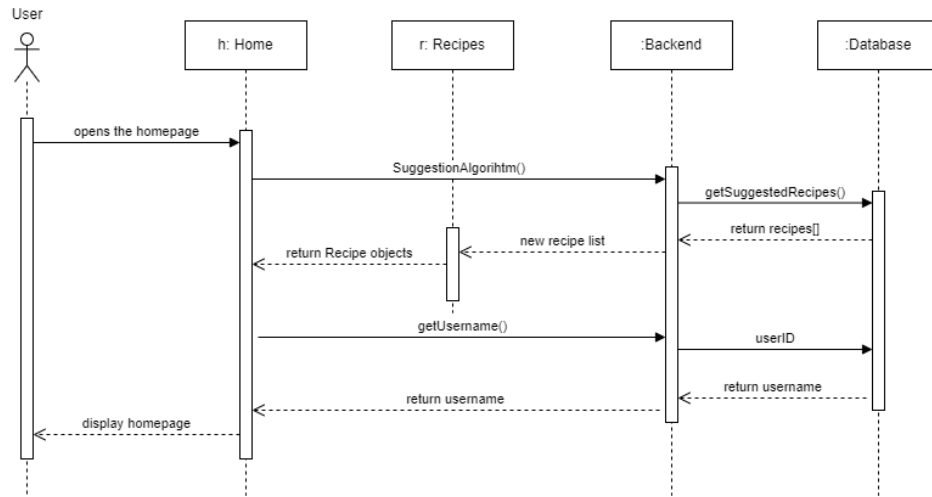


Figure 6: Sequence Diagram for Home Page and Recipe Suggestion

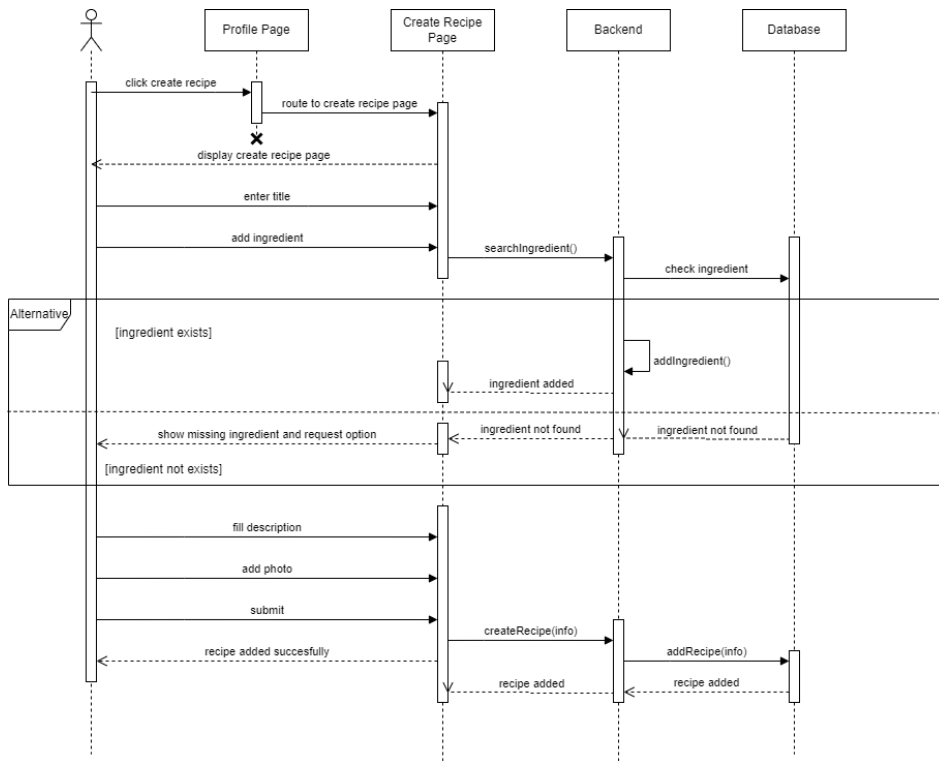


Figure 7: Sequence Diagram for Creating Recipe

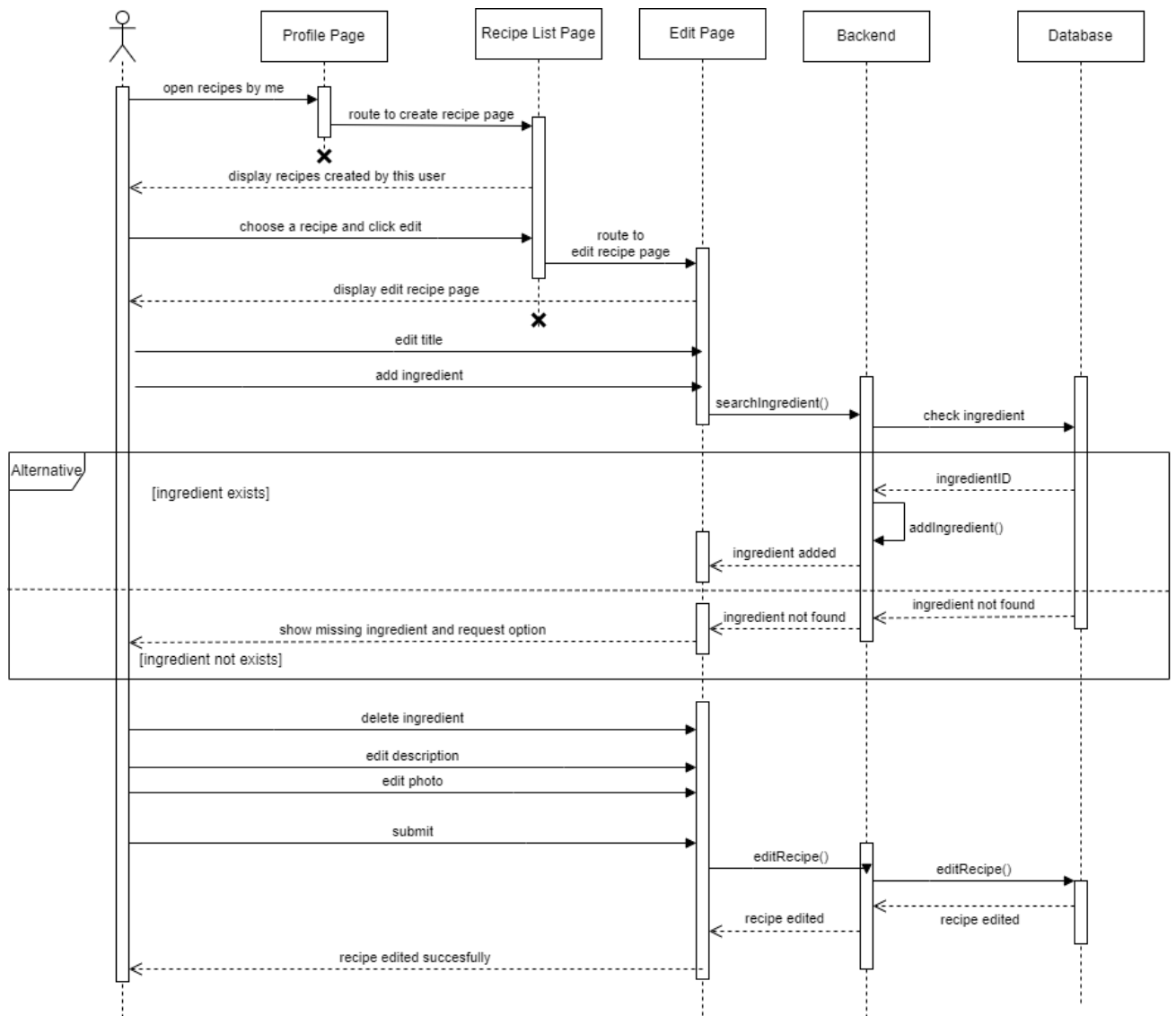


Figure 8: Sequence Diagram for Editing Recipe

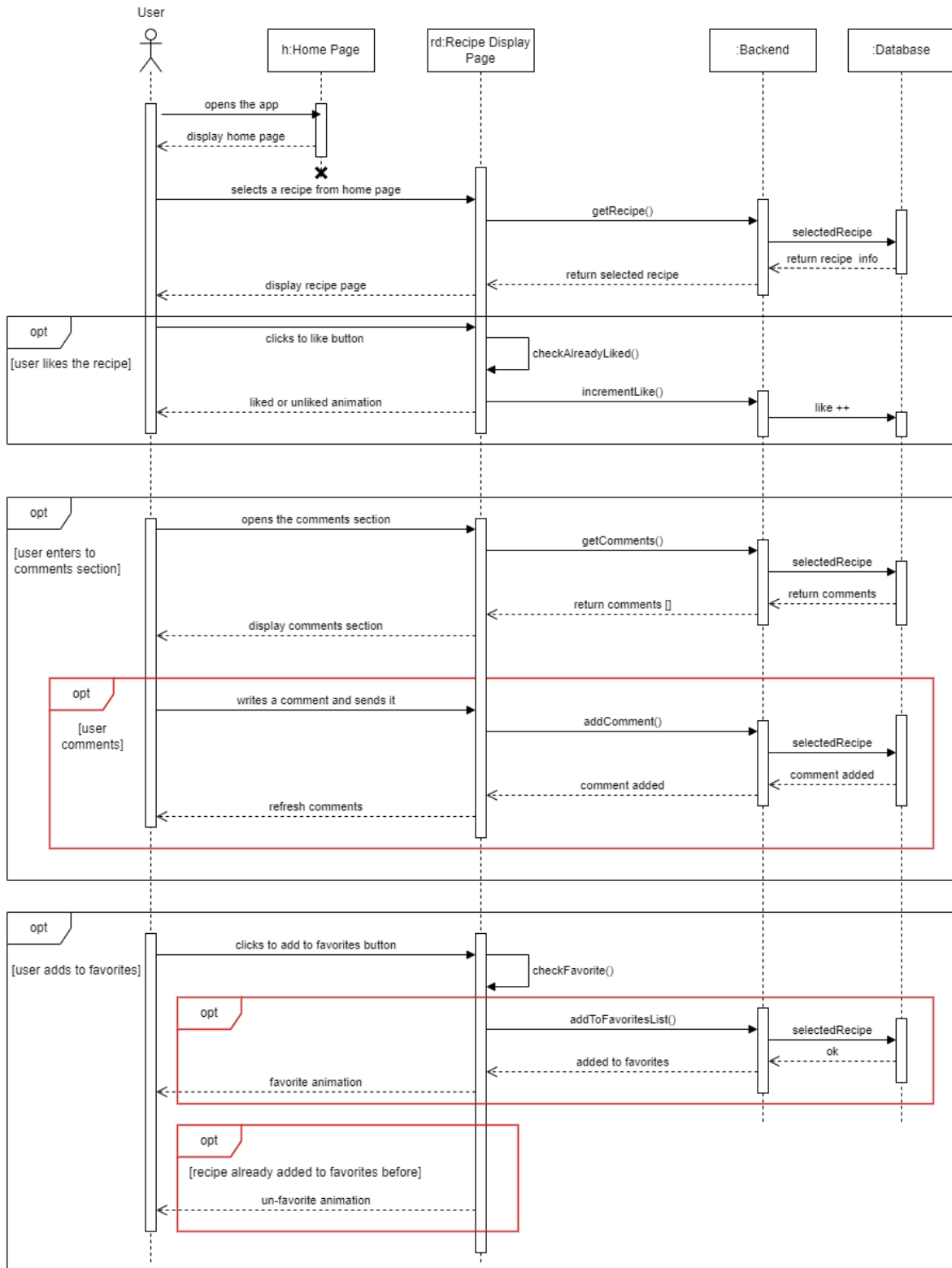


Figure 9: Sequence Diagram for Recipe Details Display

Figure 9 also includes “recipe reactions” and “adding to favorites” sequence diagrams.

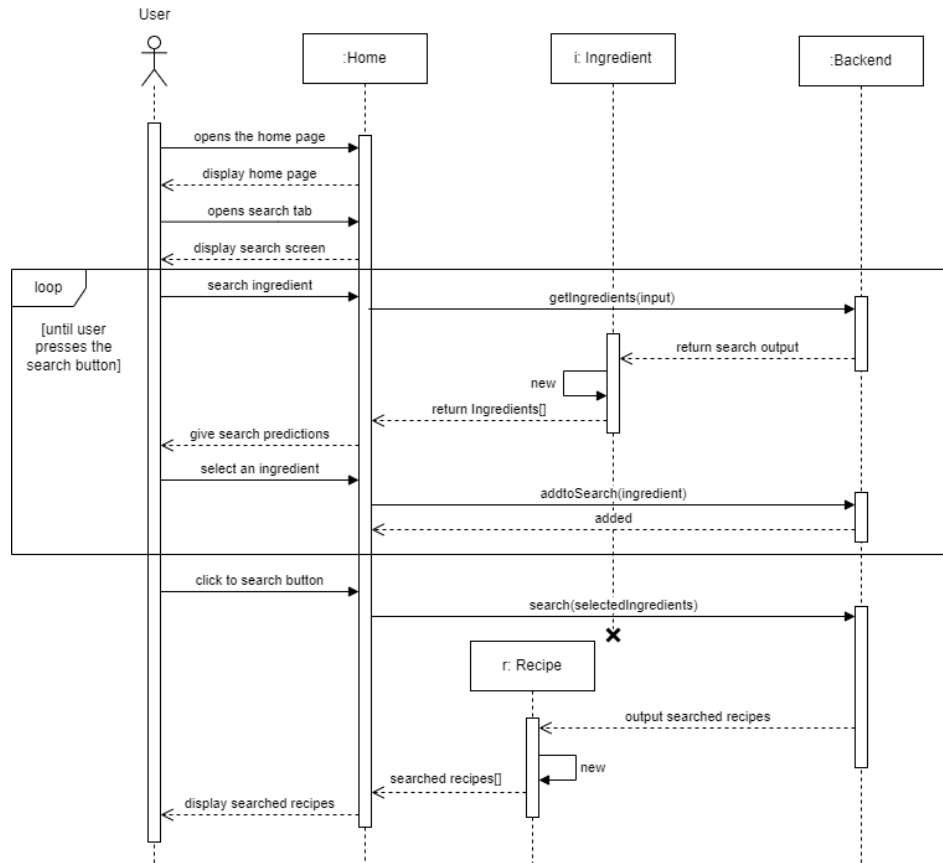


Figure 10: Sequence Diagram for Searching Recipes by Ingredients

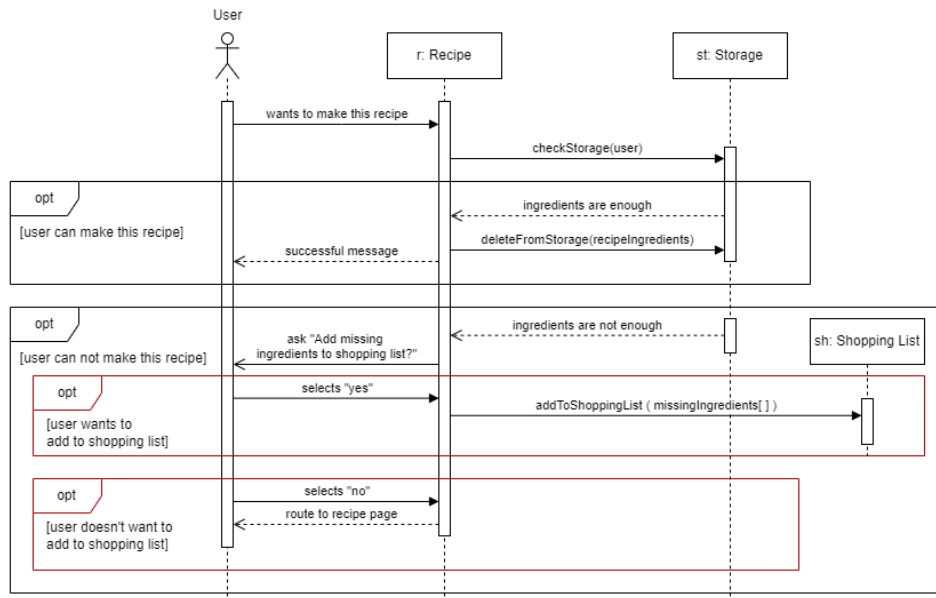


Figure 11: Sequence Diagram for Starting a Recipe

The sequence diagram in Figure 11 shows the relationship between storage and shopping list when the user wants to make a recipe.

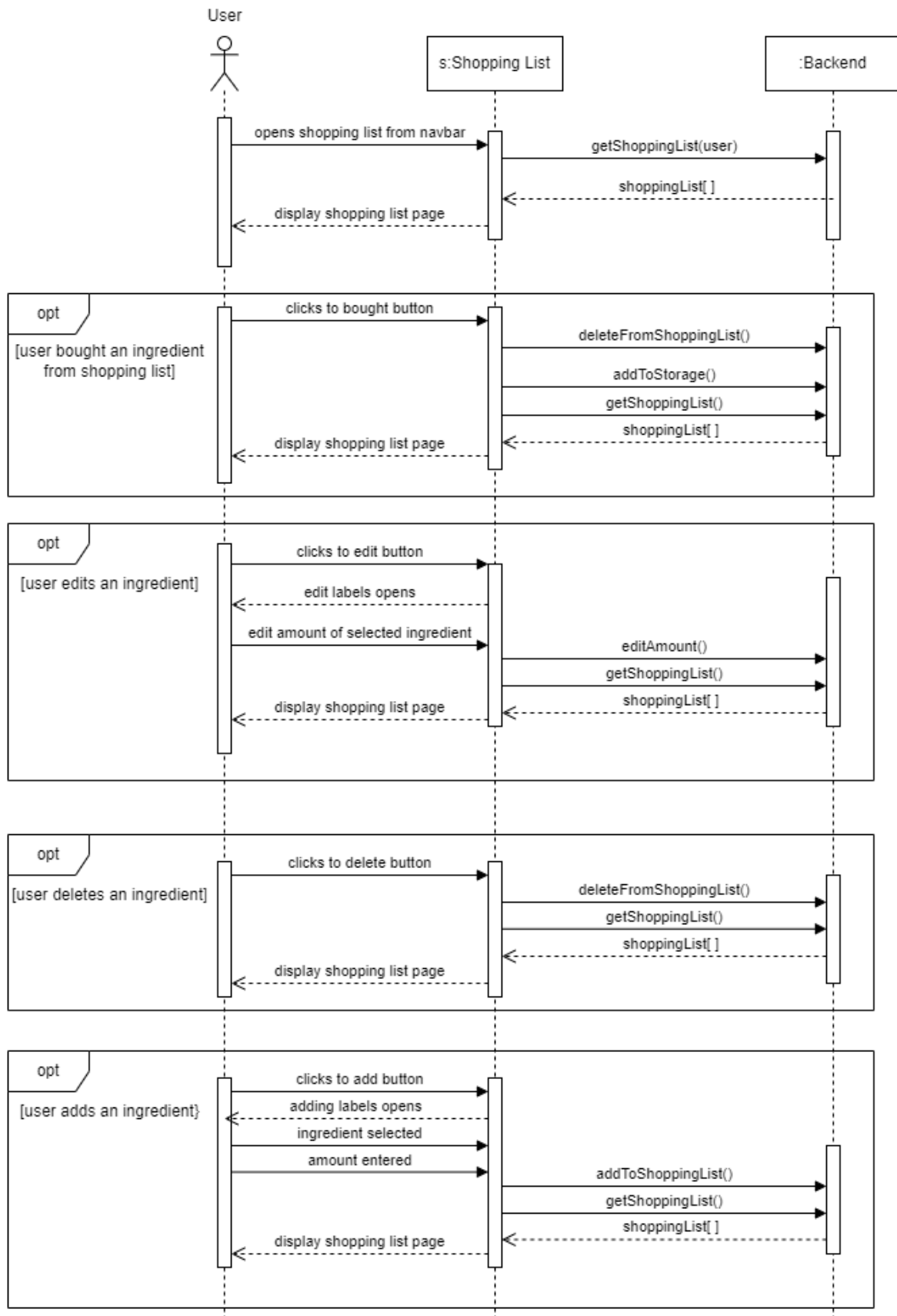


Figure 12: Sequence Diagram for Viewing and Editing the Shopping List

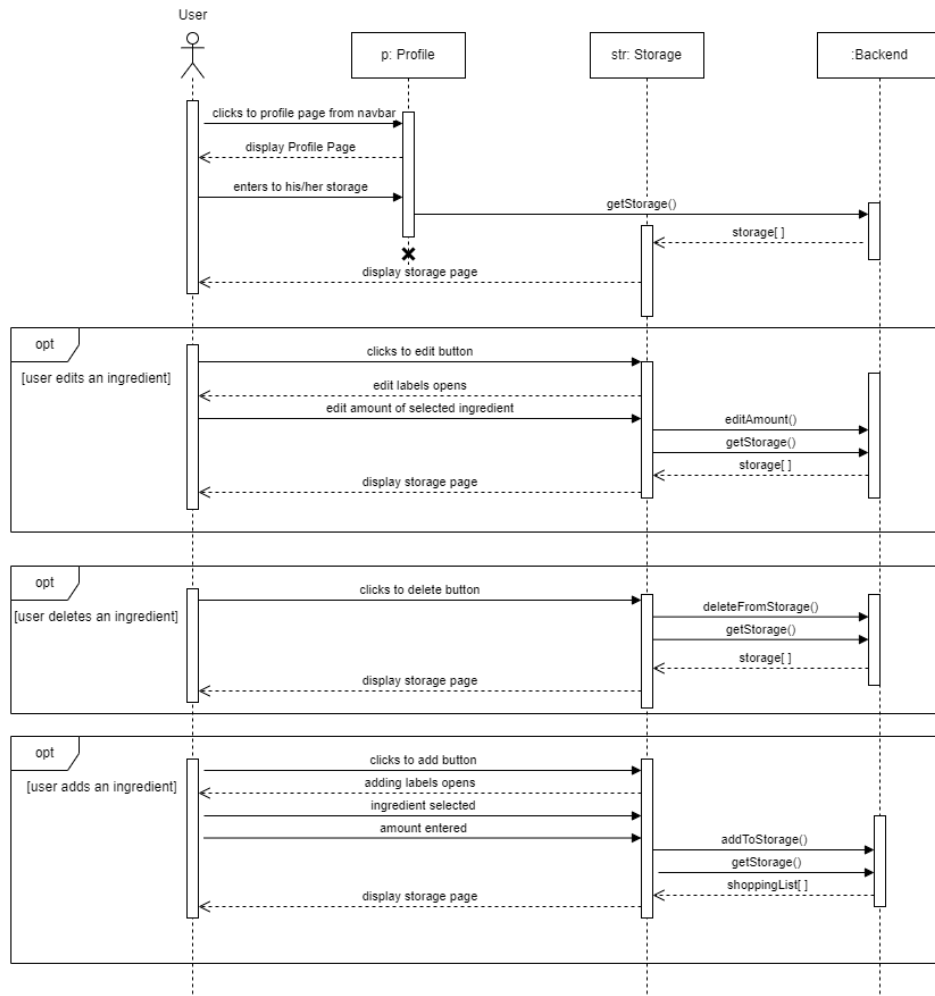


Figure 13: Sequence Diagram for Updating Storage Manually

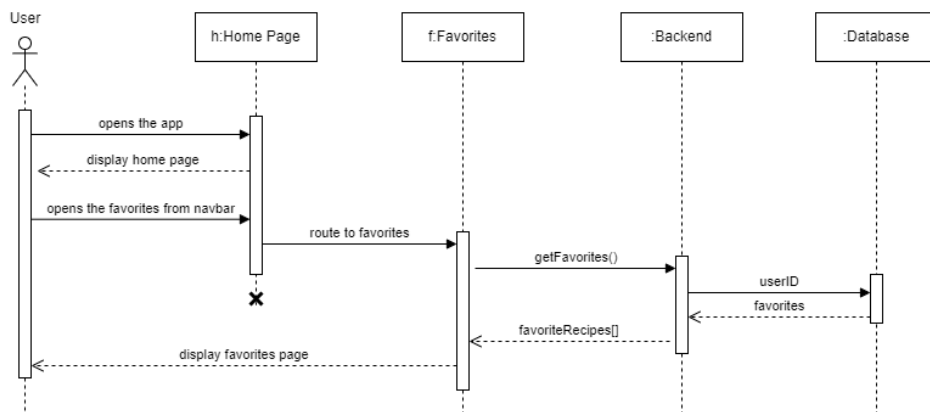


Figure 14: Sequence Diagram for Favorite Recipes Page

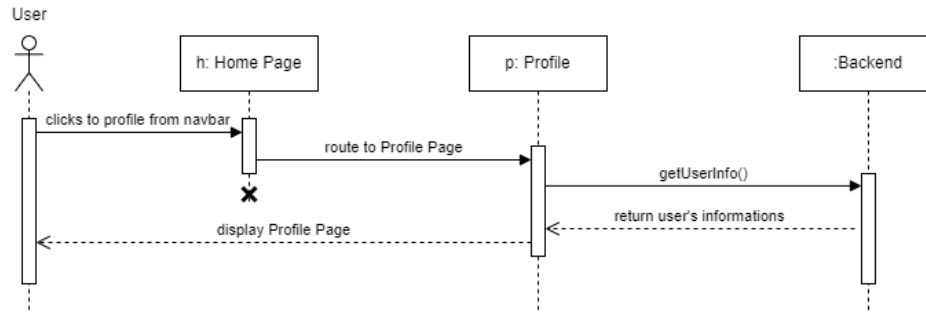


Figure 15: Sequence Diagram for Profile Page

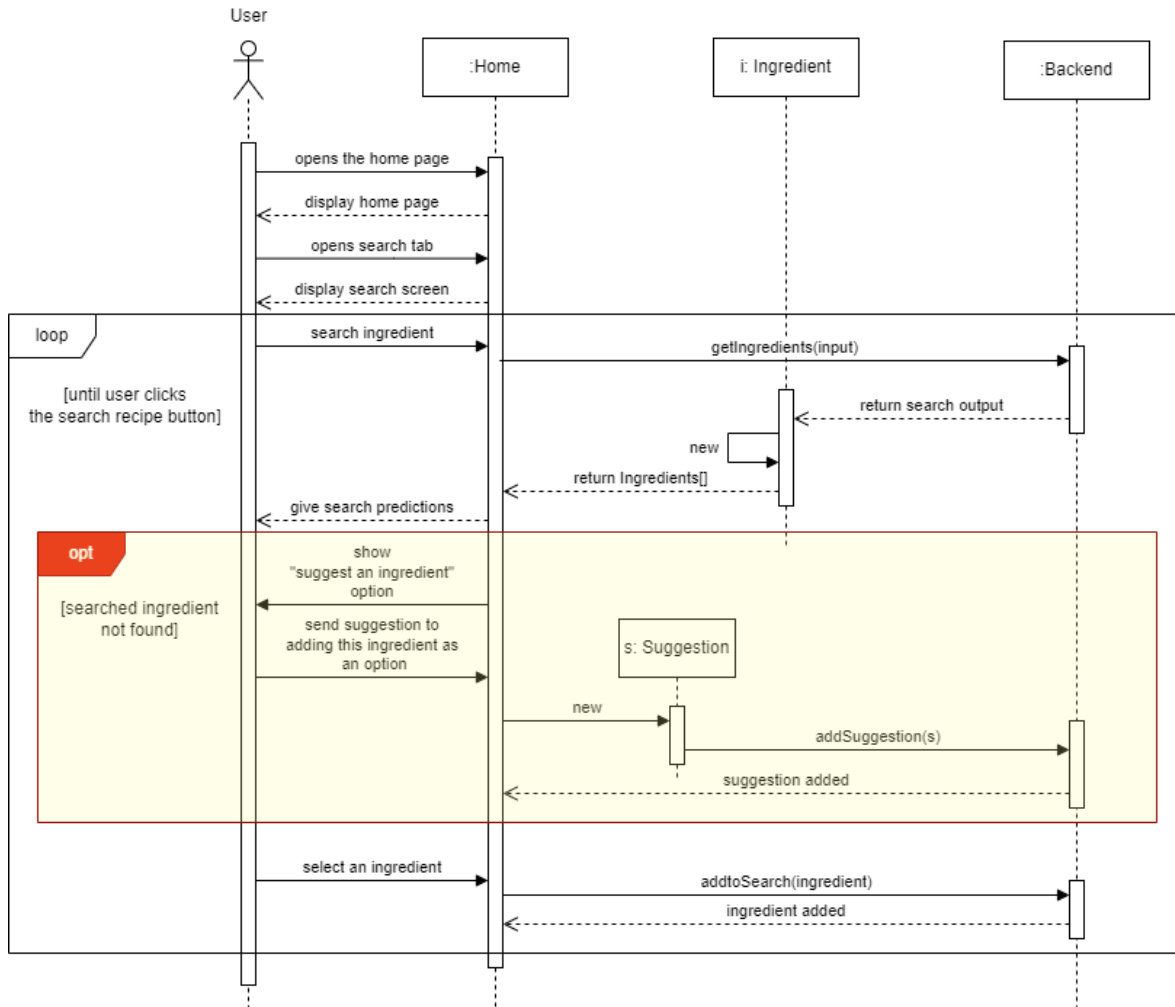


Figure 16: Sequence Diagram for Ingredient Suggestion by User

The part marked in yellow in in Figure 16 shows the difference of the ingredient suggestion from the recipe search diagram shown in Figure 10.

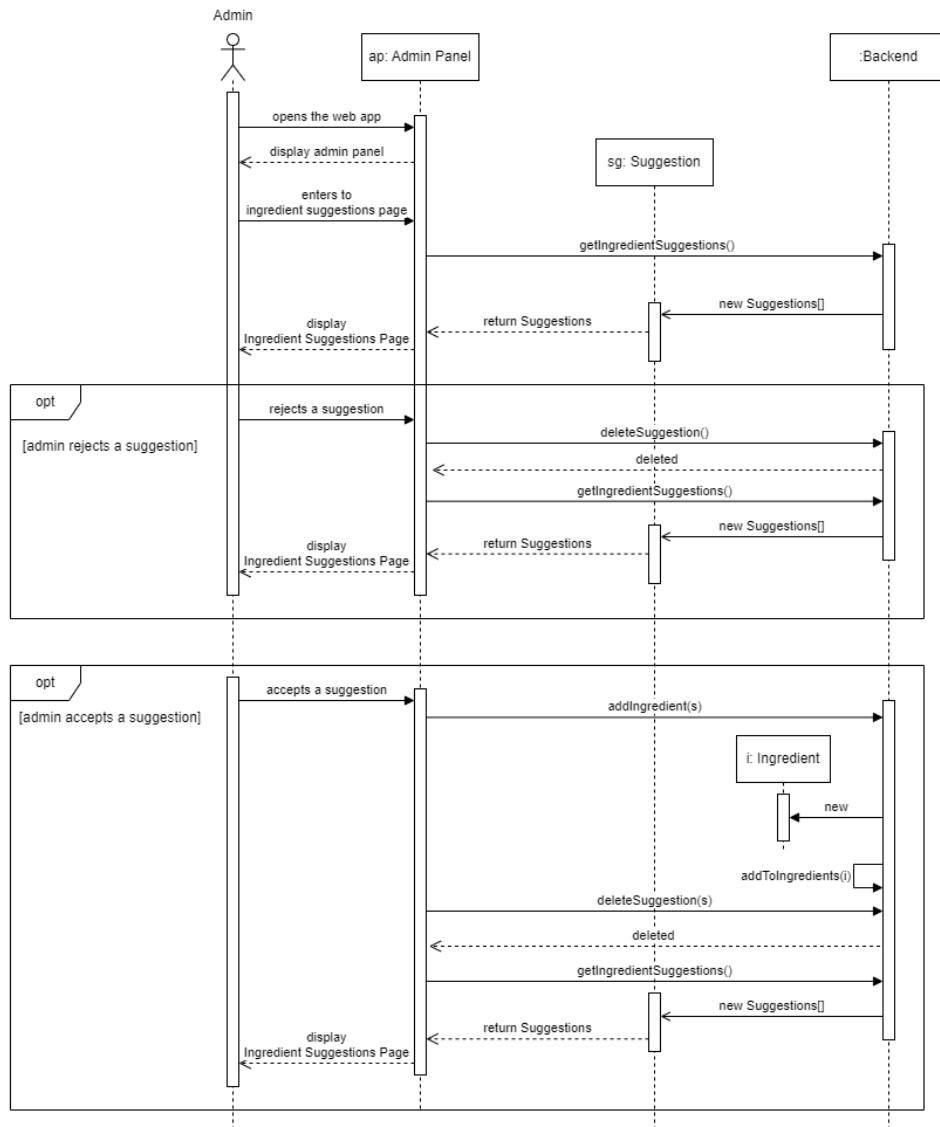


Figure 17: Sequence Diagram for Ingredient Suggestion by Admin

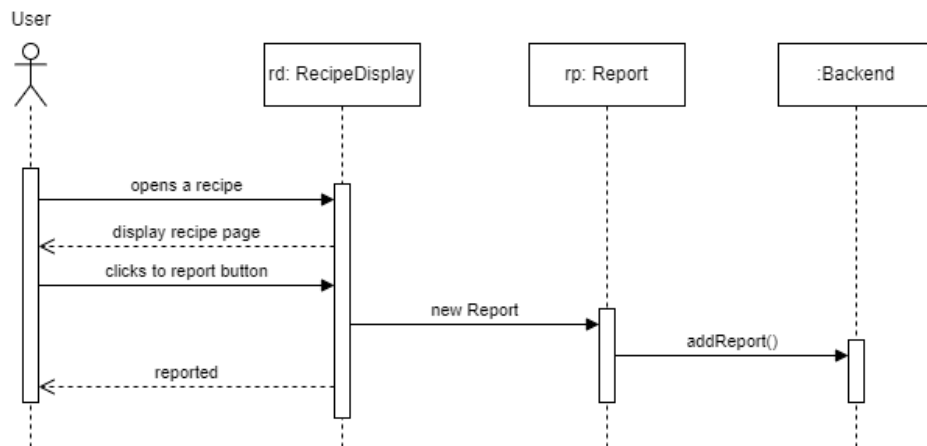


Figure 18: Sequence Diagram for User Reporting a Recipe

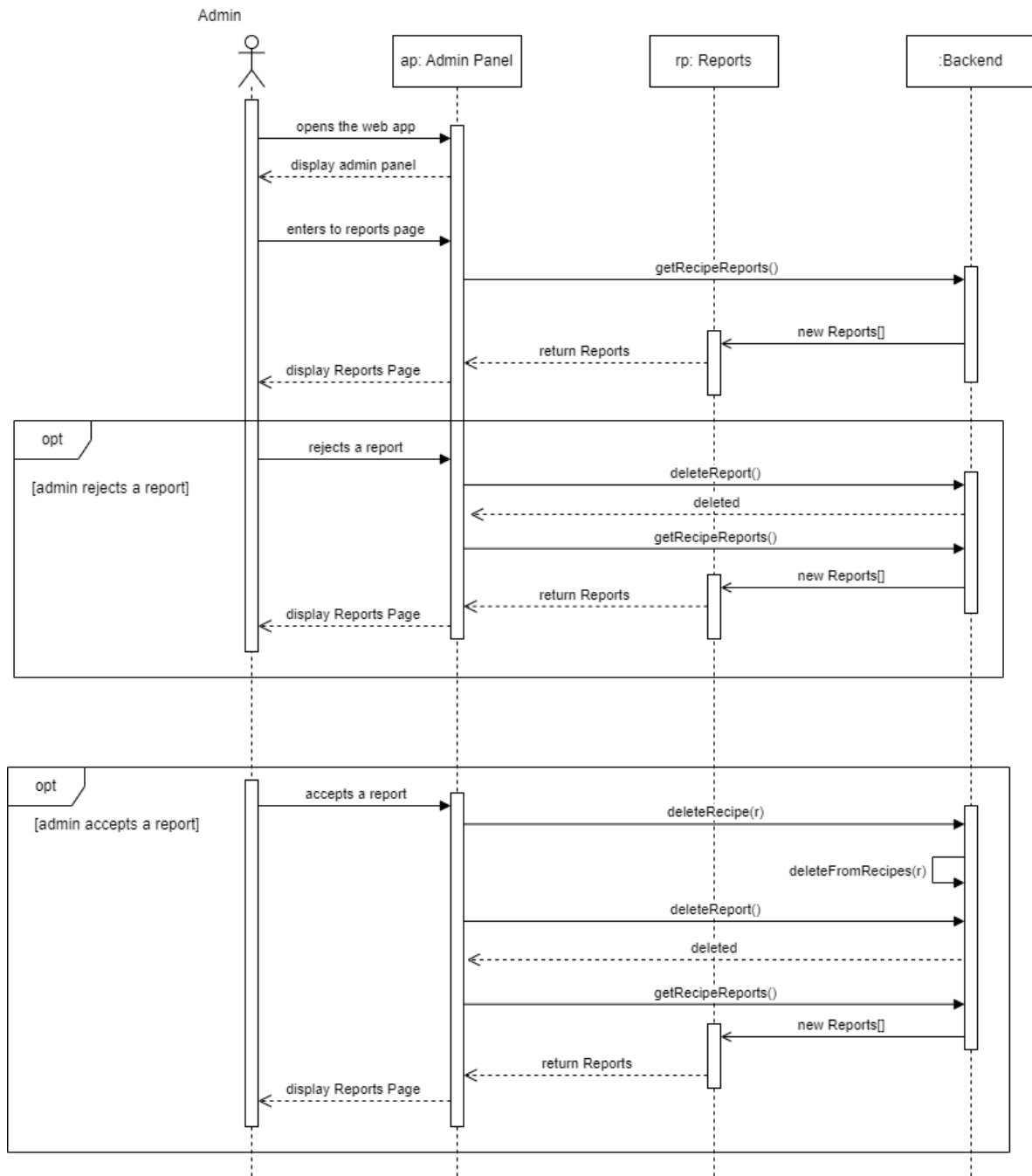


Figure 19: Sequence Diagram for Admin Reporting a Recipe

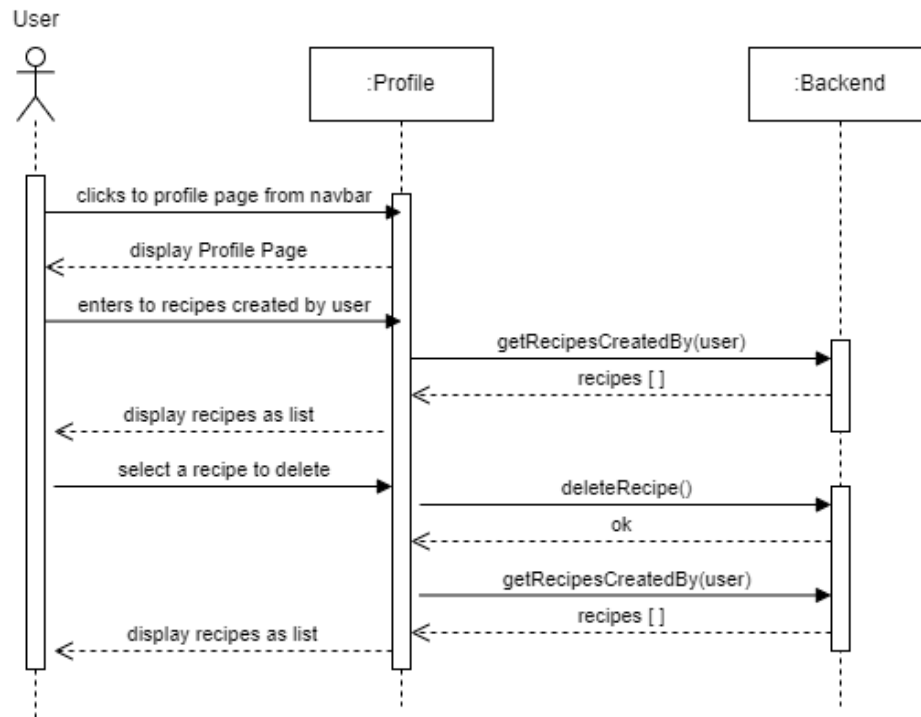


Figure 20: Sequence Diagram for Deleting a Recipe by User

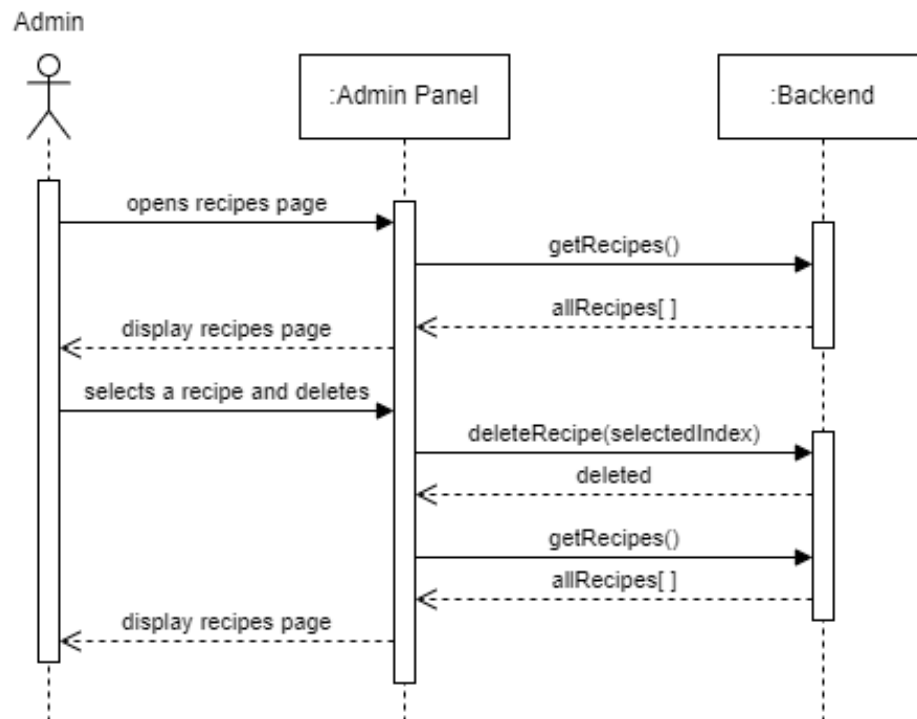


Figure 21: Sequence Diagram for Deleting a Recipe by Admin

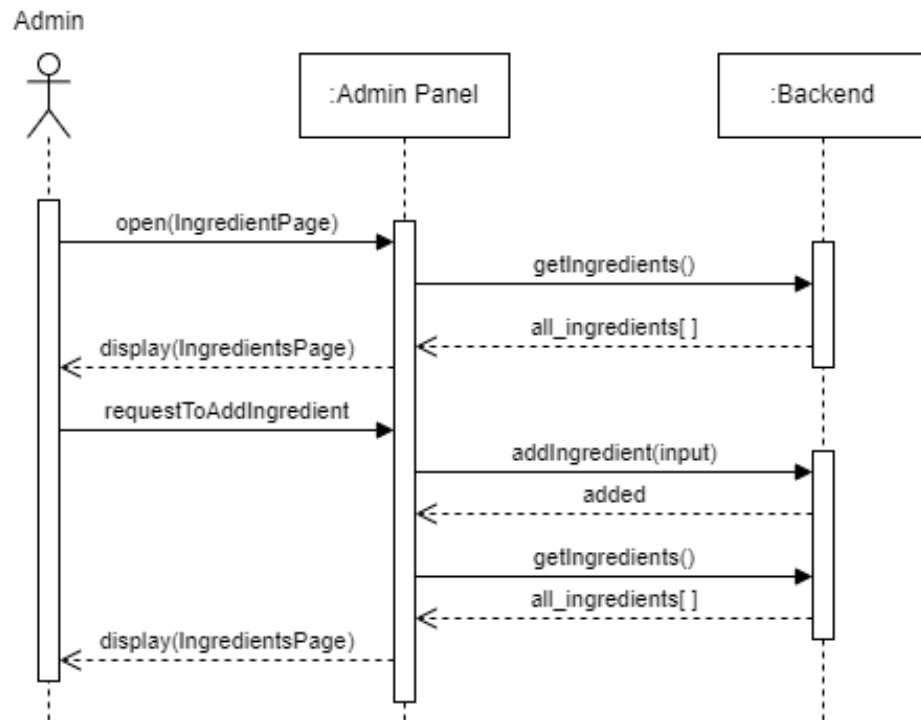


Figure 22: Sequence Diagram for Adding an Ingredient by Admin

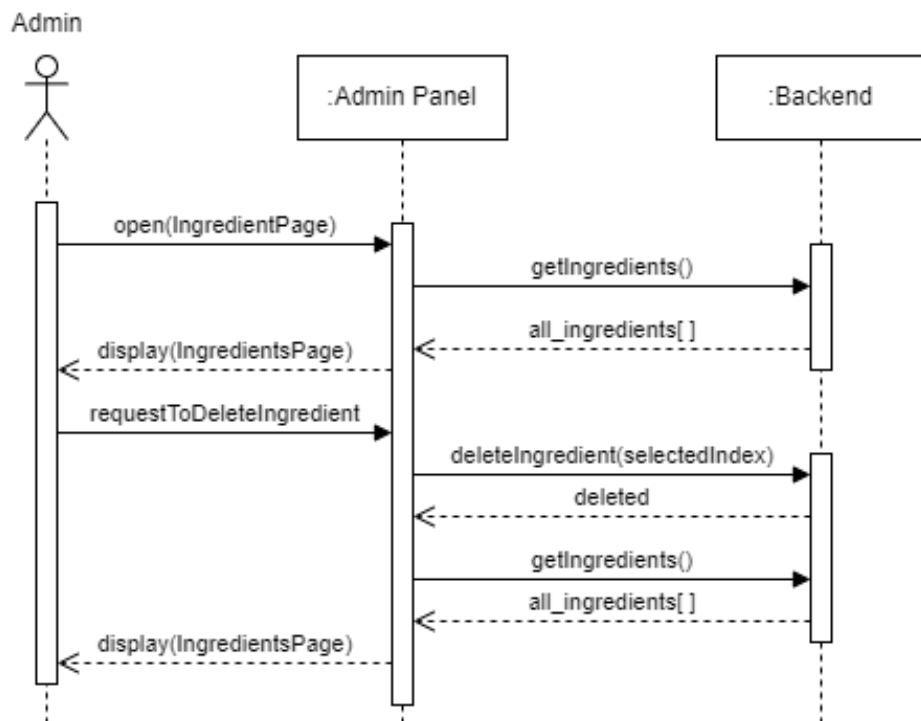


Figure 23: Sequence Diagram for Deleting an Ingredient by Admin

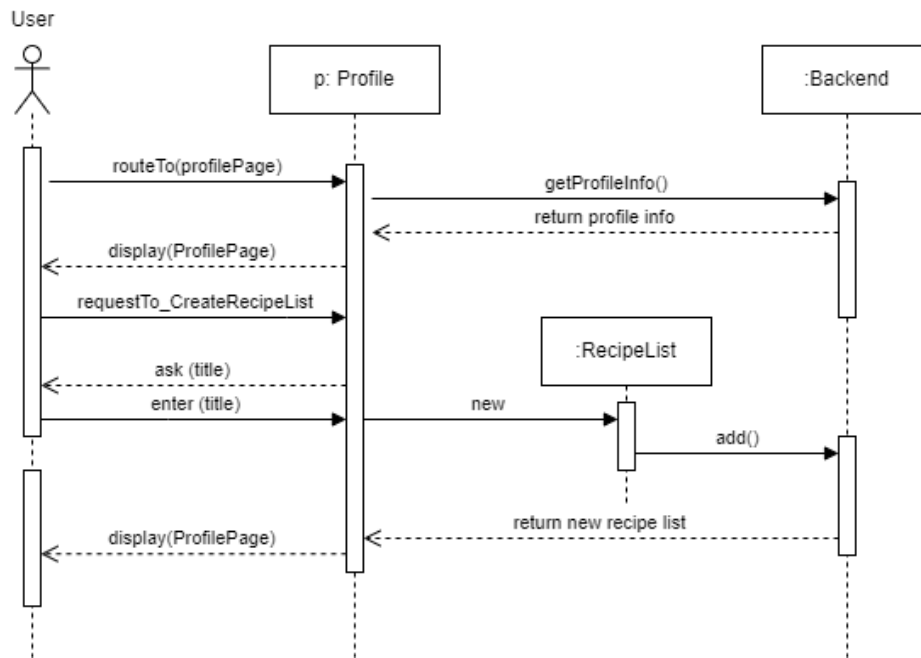


Figure 24: Sequence Diagram for Creating a Recipe List

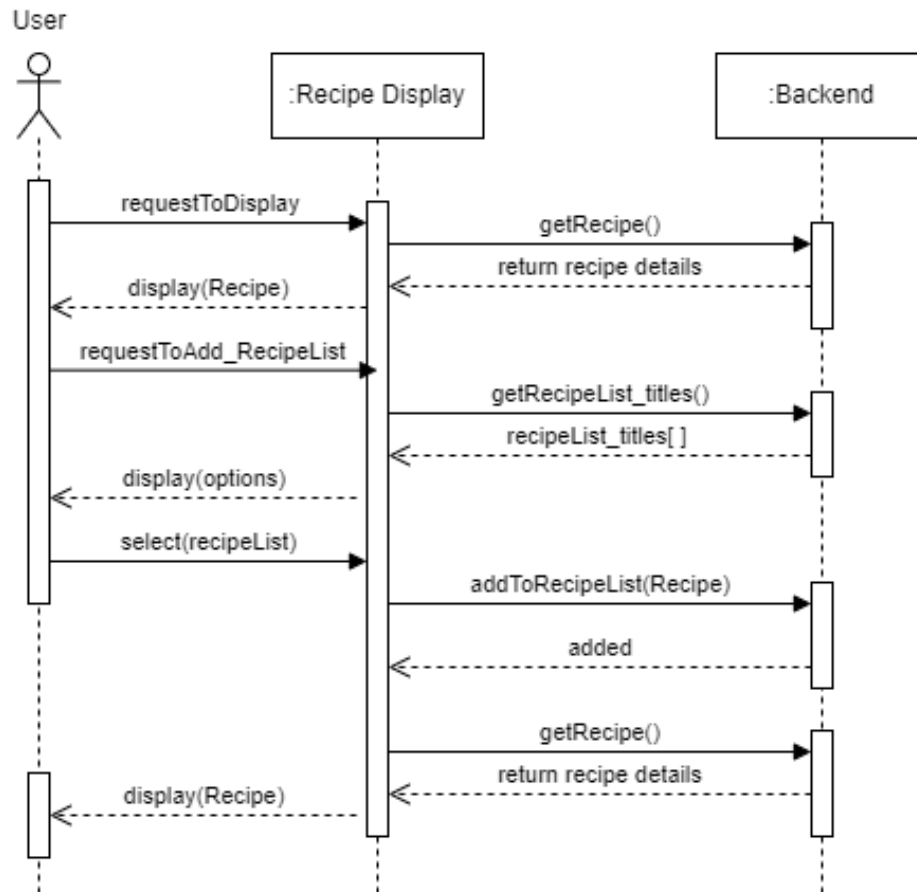


Figure 25: Sequence Diagram for Adding a Recipe to Recipe List

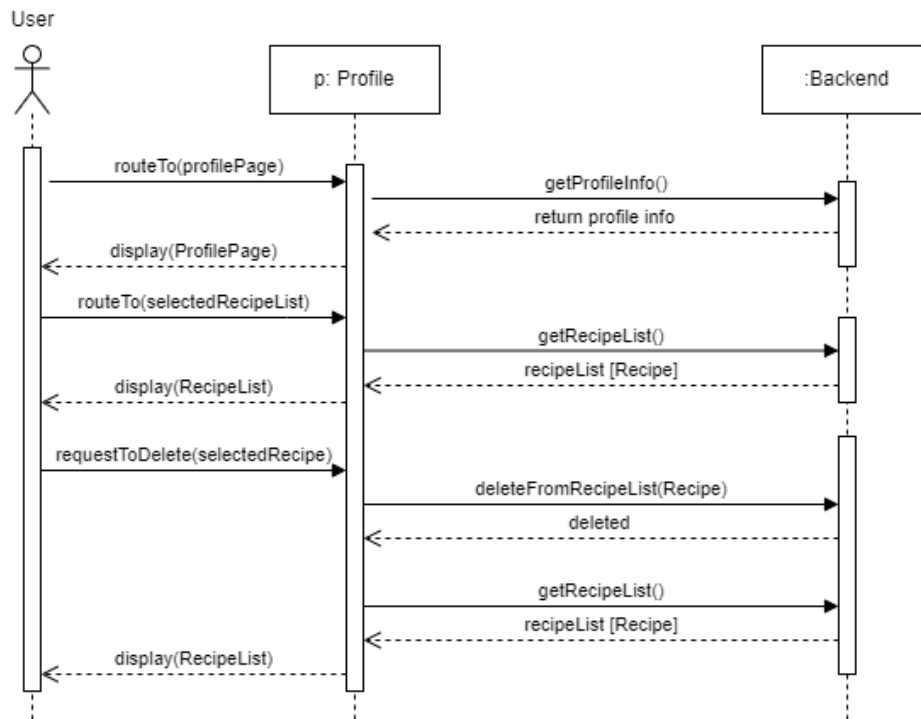


Figure 26: Sequence Diagram for Deleting a Recipe From Recipe List

3.3 Data Flow Diagram

Level 0,1 and 2 diagrams are below.

3.3.1 Level 0

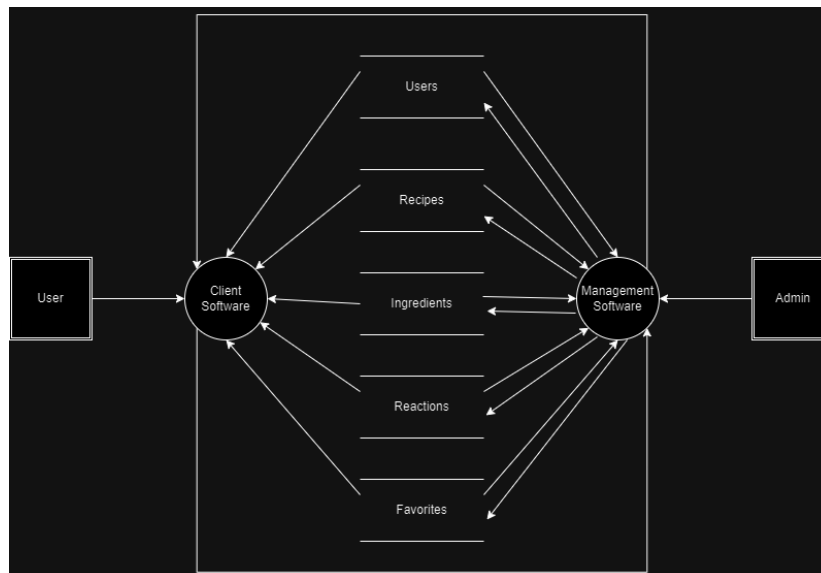


Figure 27: Level 0

3.3.2 Level 1

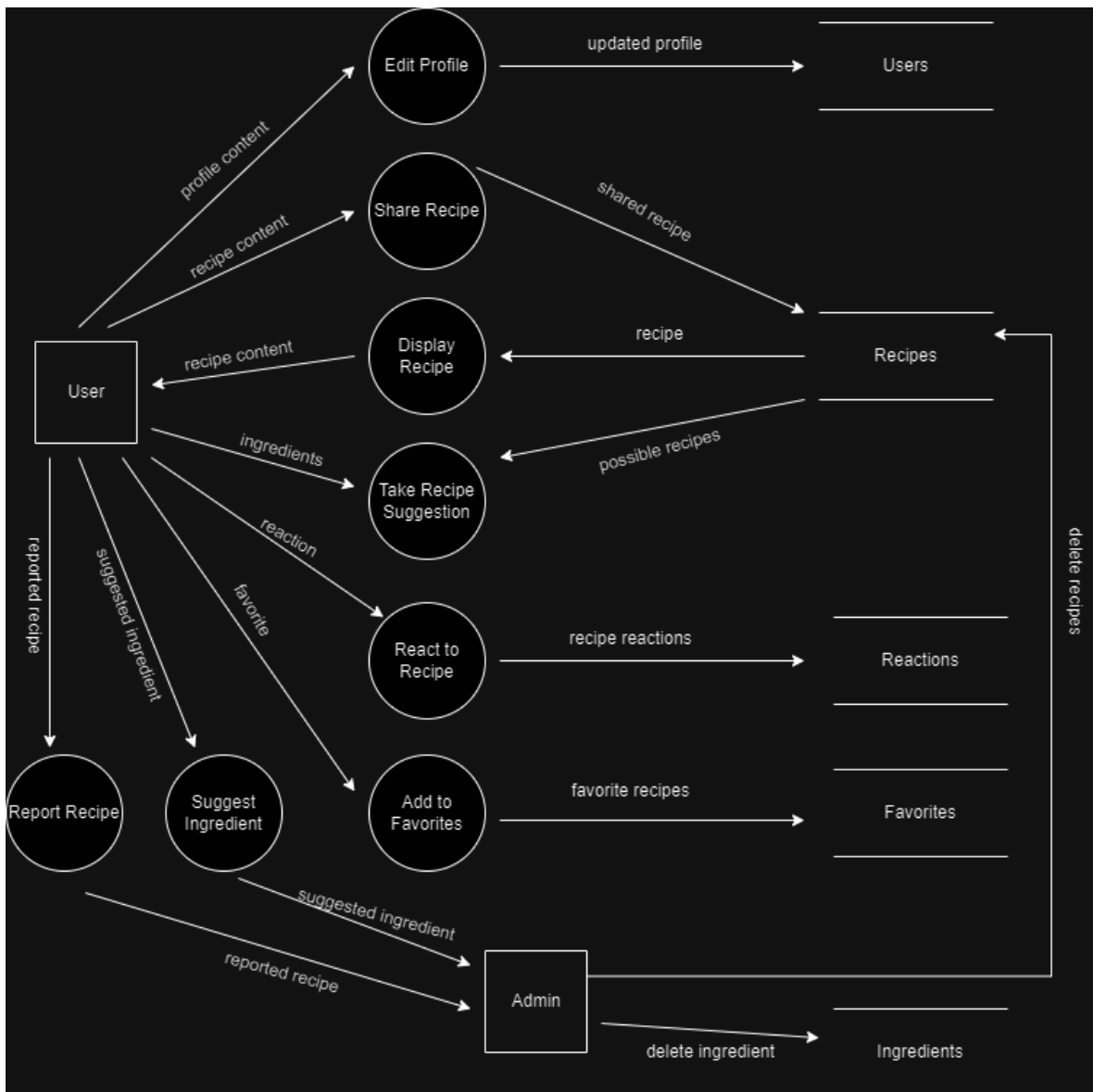


Figure 28: Level 1

3.3.3 Level 2

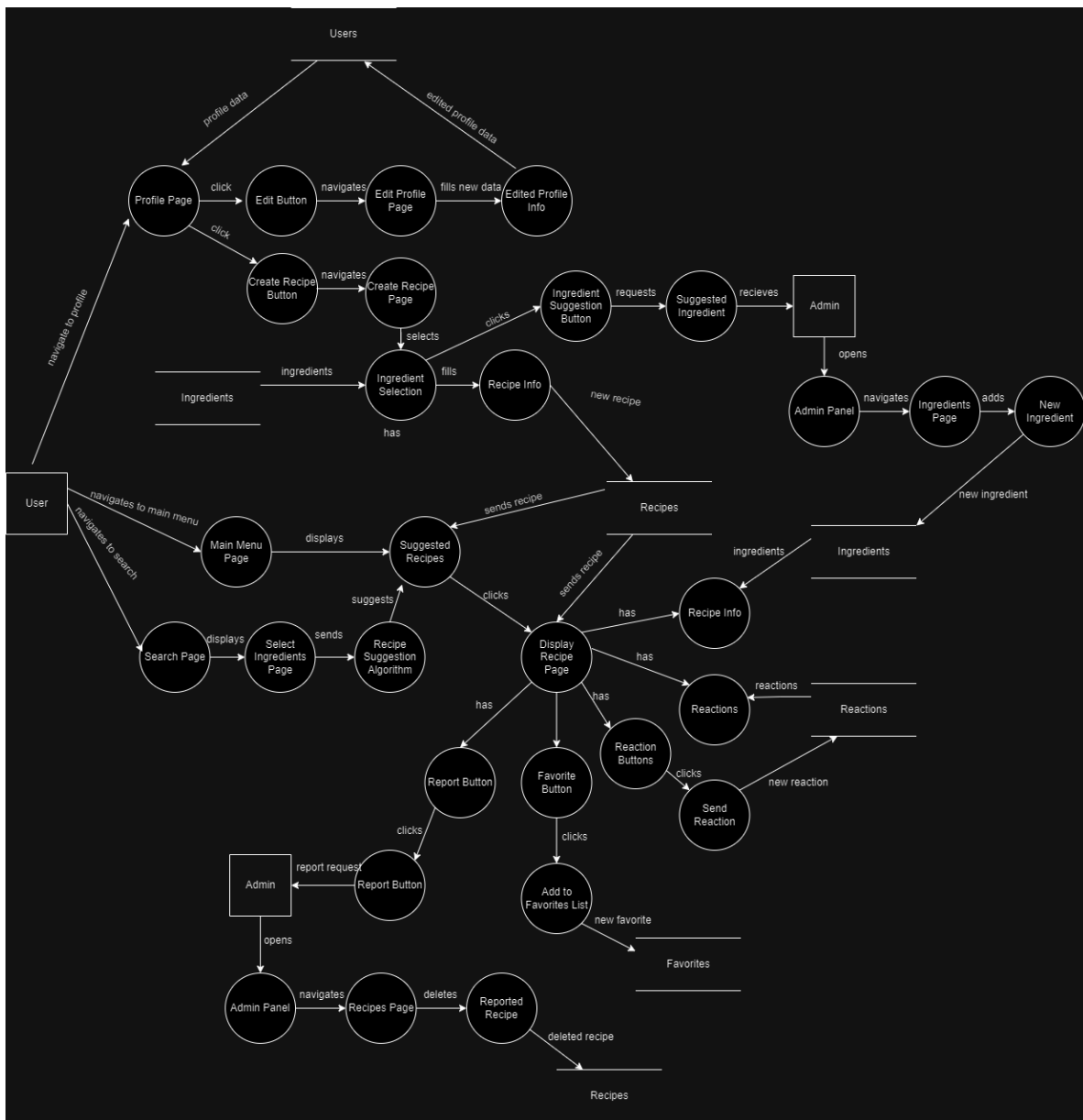


Figure 29: Level 2