# Project Part Two

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**Title**: Ingredient Tracker

**Project Summary**: A web application that allows users to keep a digital pantry of ingredients, create and share recipes and search/filter/sort through recipes based on available ingredients and user metrics.

**Data Storage:** The current design saves all recipes and users to a database and retrieves then all and converts them to objects in memory at the start of the app. It will save them back out to the database on quitting the app. This setup will likely change after further refinement.

**Project Requirements:**

- Business Requirements: There are no business requirements for this system.
- User Requirements:

| User Requirements | | | | |
|---|---|---|---|---|
| ID | Description | Topic Area | Actor | Priority |
| US-001 | As a user, I want to sign up with username and password so that I can create profile with persistent data attached | registration | User | Critical |
| US-002 | As a user, I want to log into my profile so I can access and use the data attached to it | registration | User | Critical |
| US-003 | As a user, I want to select an ingredient from a list to add to my digital pantry and give it an amount so I can track it | track | User | Critical |
| US-004 | As a user, I want to type the name of an ingredient to add to my digital pantry and give it an amount so I can track it | track | User | Critical |
| US-005 | As a user, I want to adjust the amount attached to an ingredient so I reflect a change in how much I have | track | User | Critical |
| US-006 | As a user, I want to remove an ingredient from my pantry so I can reflect the fact I no longer have it | track | User | Critical |

| | | | | |
|---|---|---|---|---|
| US-007 | As a user, I want to view a list of all recipes so I can see everything possible | list | User | Critical |
| US-008 | As a user, I want to view a list of my favorite recipes so I can find ones I know I like quickly | list | User | High |
| US-009 | As a user, I want to view a list of recipes I've made, so I can find something I remember making before quickly | list | User | High |
| US-010 | As a user, I want to select a specific recipes from a list so I can view it in detail | list | User | Critical |
| US-011 | As a user I want to view only recipes that I already have all the ingredients for so I can find something to make without buying anything | filter | User | High |
| US-012 | As a user, I want to filter to find only canonical recipes so I can find ones I trust to be decent | filter | User | Med |
| US-013 | As a user, I want to filter to find only custom recipes so I can find ones that are new and creative | filter | User | Med |
| US-014 | As a user, I want to search recipes by name so I can find a specific one | filter | User | Med |
| US-015 | As a user, I want to search for recipes by tags so I can find some that fit the general style/mood/theme | filter | User | Med |
| US-016 | As a user, I want to sort a list of all recipes by number of new ingredients needed, so I can find one that won't require me to buy a lot | sort/track | User | High |
| US-017 | As a user, I want to sort a list of all recipes by popularity so I can find good ones quickly | sort | User | Med |
| US-018 | As a user, I want to create and save my own recipes so I and other can find it later | customize | User | High |
| US-019 | As a user, I want to favorite a recipe so that it can be added to a list of favorites | mark | User | Med |
| US-020 | As a user, I want to edit one of my custom recipes so I can improve it or correct some mistake | customize | User | Med |
| US-021 | As a user, I want to unfavorite a recipe so that it can be removed from a list of | mark | User | Med |

| | | | | |
|---|---|---|---|---|
| | favorites | | | |
| US-022 | As a user, I want to mark a recipes as made so I can have a history of everything I've made | mark | User | Med |
| US-023 | As a user, I want to auto adjust my ingredients after making a recipe so I can effortlessly keep my inventory up to date | track | User | Med |
| US-024 | As a user, I want to generate a shopping list of ingredients I don't have needed for a recipe so I can easily refer to it when shopping | track | User | Med |
| US-025 | As an admin, I want to add some ingredients to the canonical list so users can select from them instead of typing them in | curation | Admin | Low |
| US-026 | As an admin, I want to block user accounts so I can malicious users from posting custom recipes | registration | Admin | Low |
| US-027 | As an admin, I want to create new canonical recipes so users will have more trusted recipes to choose from | customize | Admin | Low |
| US-028 | As an admin, I want to edit a canonical recipe so I can improve it or correct some mistake | customize | Admin | Low |

- Non-Functional Requirements:

| Non Functional Requirements | | |
|---|---|---|
| ID | Description | Priority |
| NFR-001 | **Usability**: User functionalities are easy to use and user friendly | Critical |
| NFR-002 | **Reliability**: The system can not loss any customized recipes | Critical |
| NFR-003 | **Reliability**: The system should not leak user information such as password | Critical |
| NFR-004 | **Reliability**: The system should not host viruses | Critical |

| | | |
|---|---|---|
| NFR-005 | **Performance**: The system should respond upon a user request within 10 seconds | High |
| NFR-006 | **Performance**: User tasks are not time critical | High |
| NFR-007 | **Performances**: The system can support more than one concurrent users | High |
| NFR-008 | **Implementation**: The system supports Chrome, Safari, Firefox, EDGE, etc except for really old browsers | High |

**Use Cases:**

Use Case Overview:

- UC - 001 -> Signup
- UC - 002 -> Login
- UC - 003 -> Manage pantry
    - UC - 004 -> Add items
    - UC - 005 -> Remove items
    - UC - 006 -> Adjust amounts
- UC - 007 -> Find a recipe
    - UC - 008 -> Filter recipes
        - Canonical
        - Custom
        - String match
        - Tag match
        - No new ingredients
    - UC - 009 -> Sort recipes
        - # of ingredients
        - Rating
- UC - 010 -> Manage custom recipes
    - UC - 011 -> Create recipe
    - UC - 012 -> Edit recipe
- UC - 013 -> Manage favorites
    - UC - 014 -> View favorites
    - UC - 015 -> Add recipe to favorites
    - UC - 016 -> Remove recipe from favorites
- UC - 017 -> Manage history
    - UC - 018 -> View history
    - UC - 019 -> Mark recipe as made

    - UC - 020 -> Remove recipe from history
- UC - 021 -> Get a shopping list to make recipe
    - UC - 007 -> Find a recipe(same use case as UC-007)

Admin

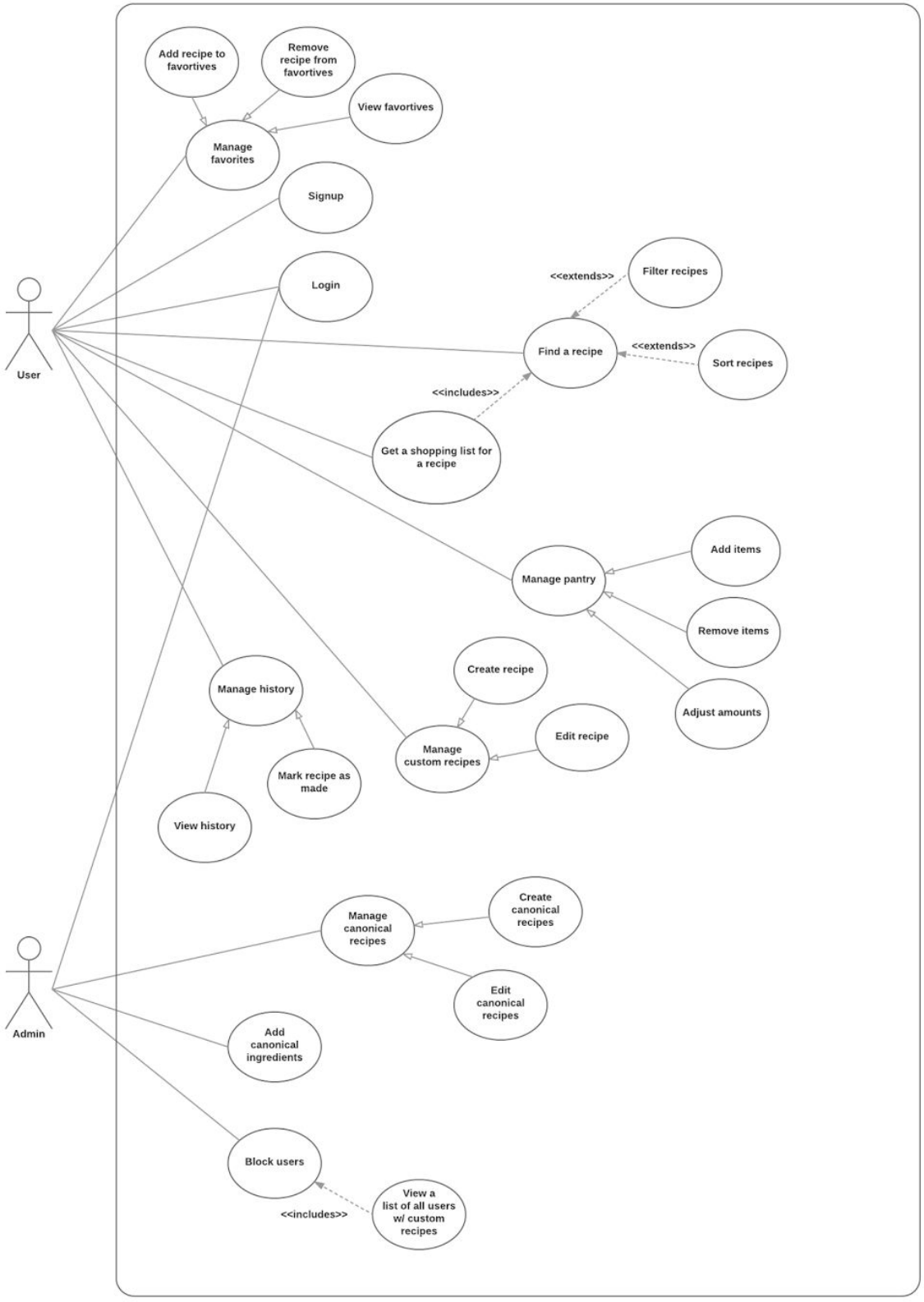
- UC - 002 -> Login(same use case as UC-002)
- UC - 022 -> Manage canonical recipes
    - UC - 023 -> Edit canonical recipe
    - UC - 024 -> Create canonical recipe
- UC - 025 -> Manage canonical ingredients
    - UC - 026 -> Add ingredient
- UC - 027 -> Manage users
    - UC - 028 -> View list of all users w/ their custom recipes
        - Block user

Use Case Diagram:

User Requirement ID#:

UC-001 -> US-001
UC-002 -> US-002
UC-004 -> US-003, US-004
UC-005 -> US-006
UC-006 -> US-005, US-023
UC-007 -> US-007, US010
UC-008 -> US-011, US-012, US-013, US-014, US-015
UC-009 -> US-016, US-017
UC-011 -> US-018
UC-012 -> US-020
UC-014 -> US-008
UC-015 -> US-019
UC-016 -> US-021
UC-018 -> US-009
UC-019 -> US-022
UC-021 -> US-024
UC-024 -> US-027
UC-025 -> US-028
UC-026 -> US-025
UC-028 -> US-026

## USE CASE OVERVIEW



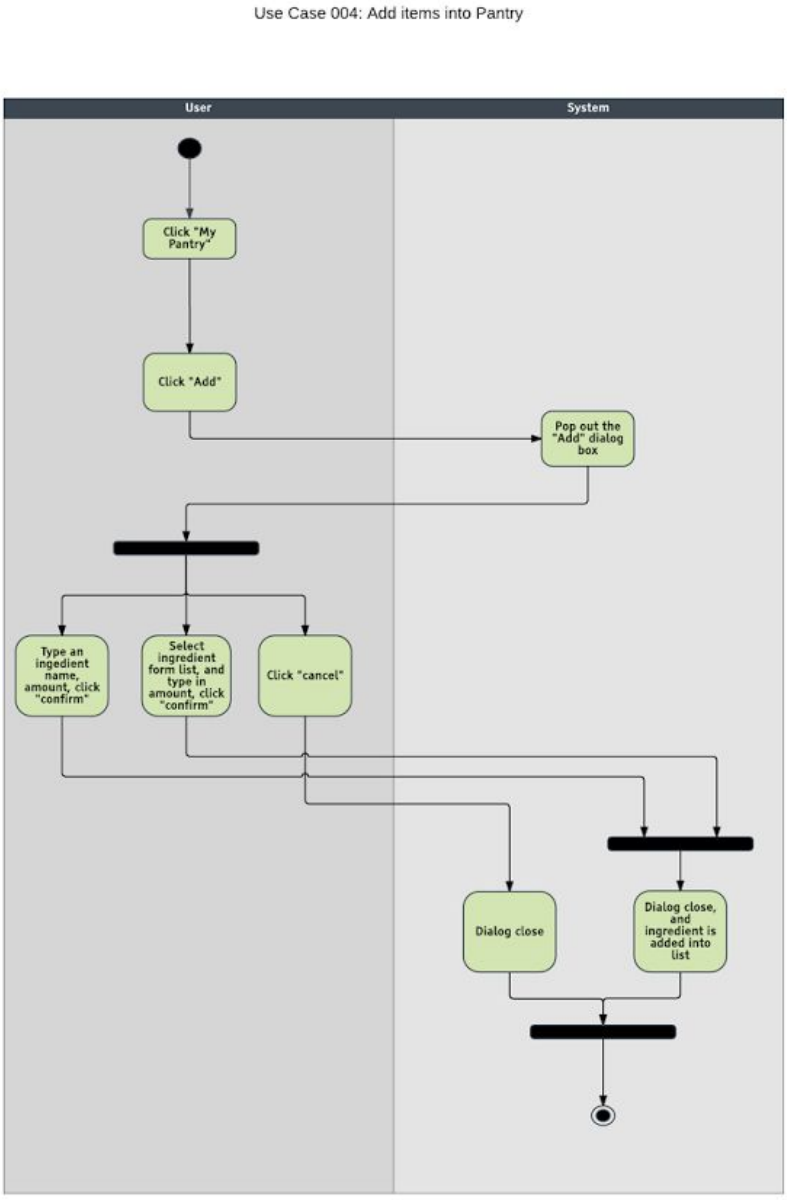
Use Case Documents:

| | | | |
|---|---|---|---|
| Use Case ID: | UC-004 | | |
| Use Case Name: | Add items into Pantry | | |
| Description: | Users view their digital pantry, add ingredients into their pantry. | | |
| Actors: | User | | |
| Pre-conditions: | User must be signed up and logged in | | |
| Post-conditions: | Ingredient is added into the pantry. | | |
| Frequency of Use: | Daily-weekly (any time a user buys ingredients, cooks) | | |
| | | Actor Action | System Response |
| | 1 | Click on "My Pantry" | Display pantry view |
| | 2 | Click on "add" | Display ingredient dialogue box |
| | 3 | Type an ingredient name, amount, click "confirm" | Dialogue box closes, ingredient is added to list with amount |
| Variations: | 3 | Select ingredient from list, type amount, click "confirm" | Dialogue box closes, ingredient is added to list with amount |
| | 3 | clicks "cancel" | Dialogue box closes |
| Exceptions: | | | |
| Developer Notes: | | | |

| | | | | | |
|---|---|---|---|---|---|
| Use Case ID: | UC-007 | | | | |
| Use Case Name: | Find a recipe (specialized to find via filter) | | | | |
| Description: | User can find recipes by filtering based on a keyword | | | | |
| | | | | | |
| Actors: | Users | | | | |
| Pre-conditions: | User has signed up and logged in the system. | | | | |
| Post-conditions: | User is viewing the recipe. User can add the recipe to Favorites and History or create a shopping list | | | | |
| Frequency of Use: | Daily-weekly (Per the needs of the users) | | | | |
| Flow of Events: | | Actor Action | System Response | | |
| | 1 | Click the "Find Recipe" button on main menu | Display search view: a page with filters of checkboxes, text fields and sort buttons | | |
| | 2 | Add search conditions using the keyword field and click Search button | Display list of recipes that contain the keyword in their title | | |
| | 3 | Click on the recipe title to view the details of the recipe | Display the entire recipe | | |
| | | | | | |
| Variations: | 2. Add search conditions using the checkbox and click Search button. | | | | |
| | 2. Add search conditions using the sort buttons and click Search button | | | | |
| Exceptions: | | | | | |
| Developer Notes: | Depending on the filters chosen, it would be valid to display no results. Event 2 might happen any number of times. | | | | |

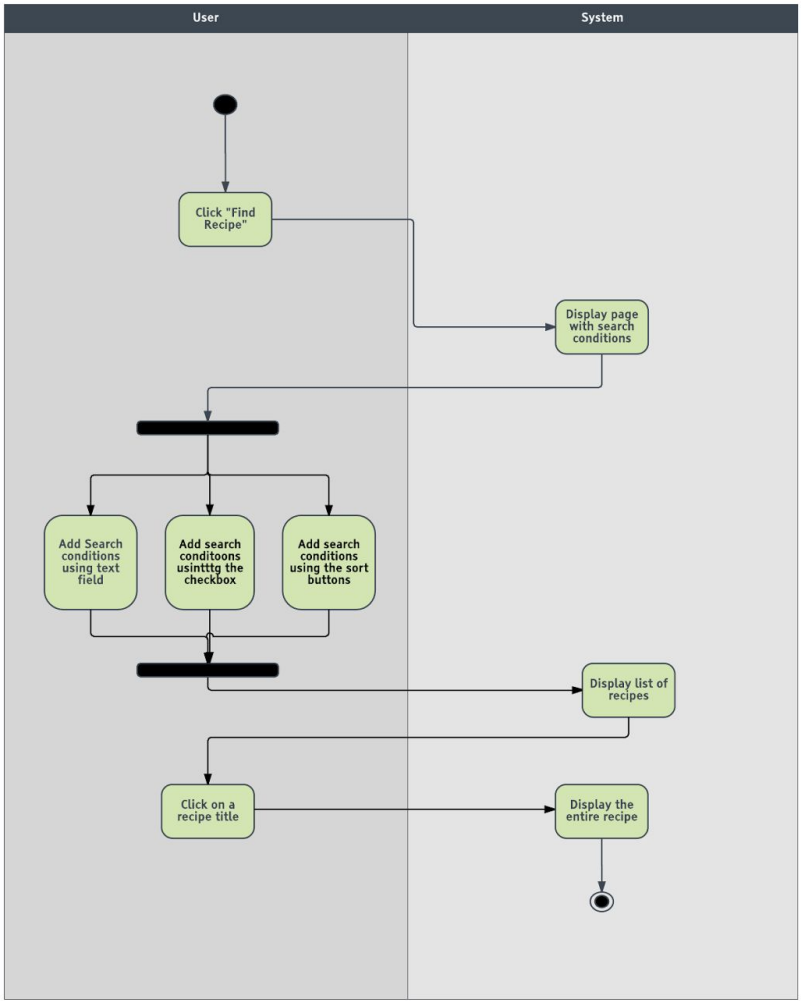
**Activity Diagram:**

Requirement ID#: US-003, US-004
Use Case ID#: UC-004
Use Case Name: Add items into pantry



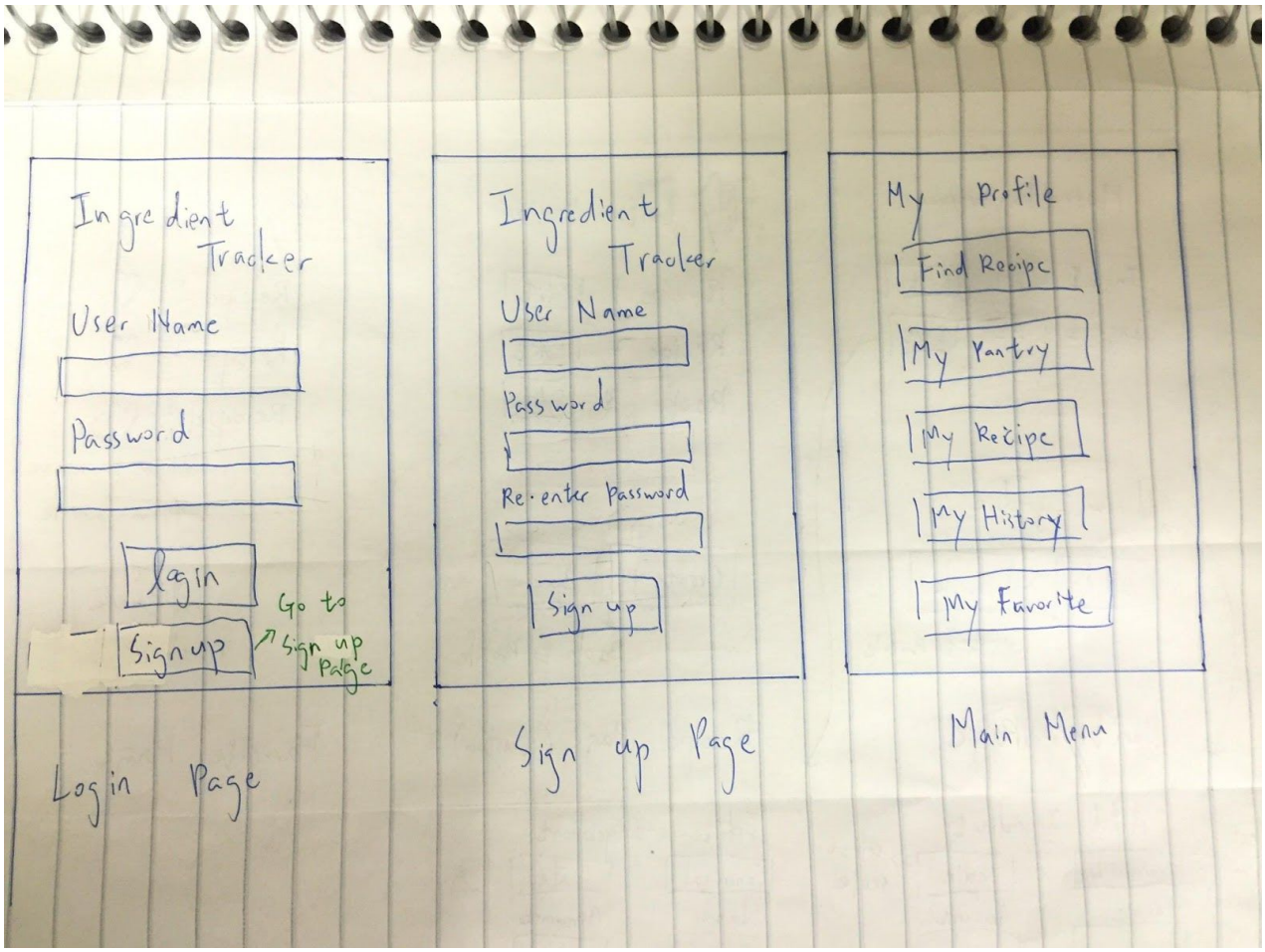
User Requirements ID#: US-010
Use Case ID#: UC-007
Use Case Name: Find a Recipe.

UC-007: Find A Recipe

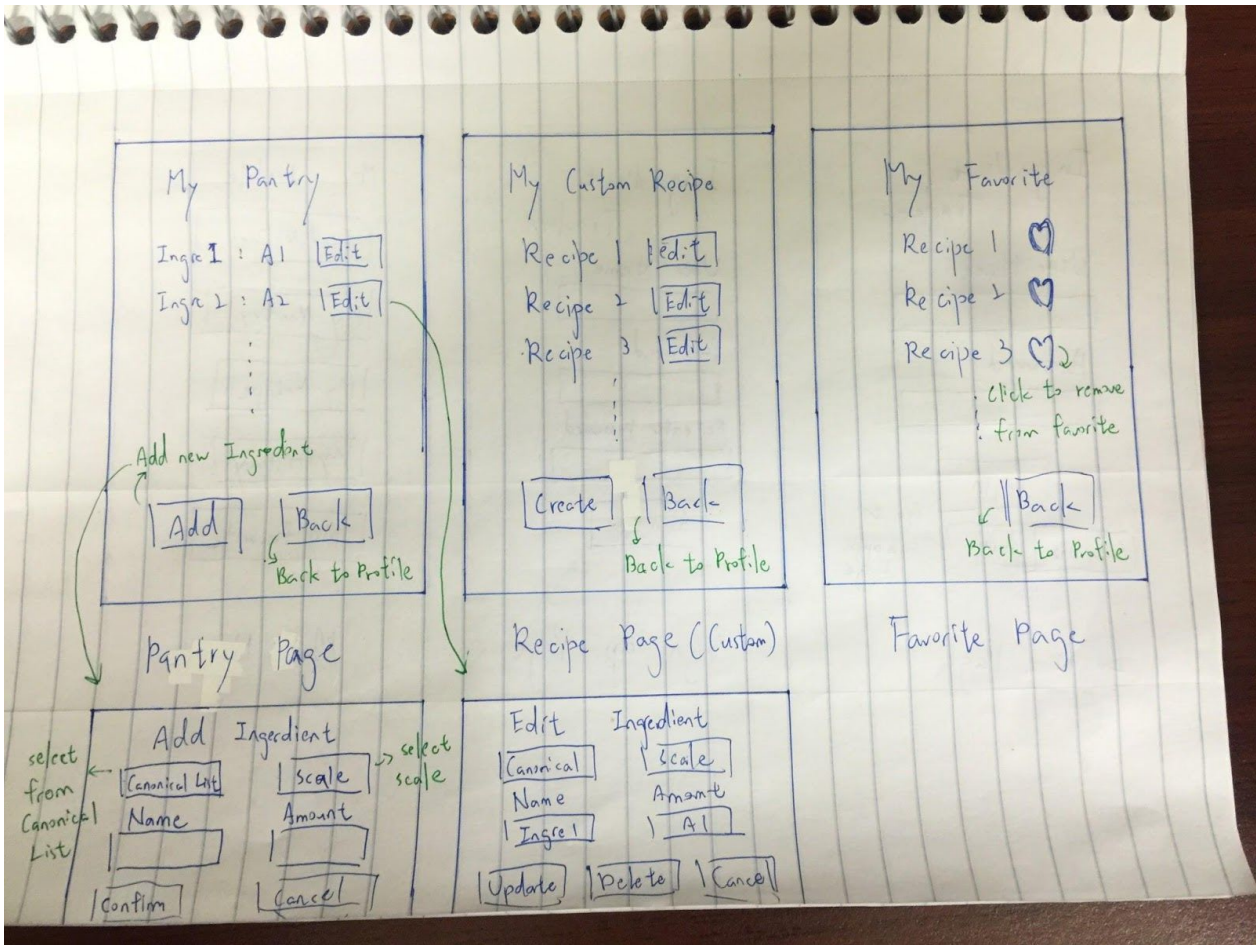


**UI Mockups:**

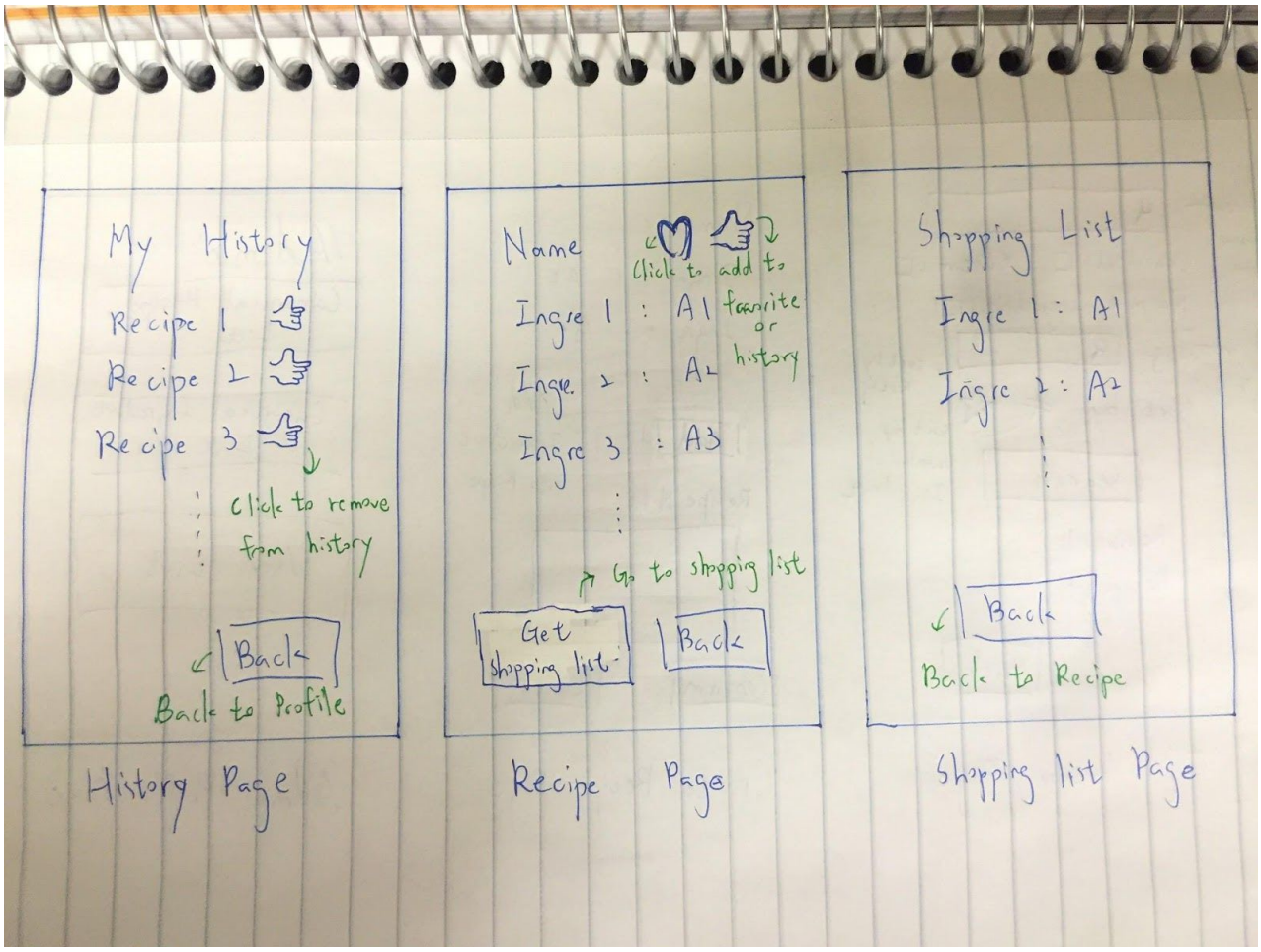
1. SignUp-Login page-Main menu after User login



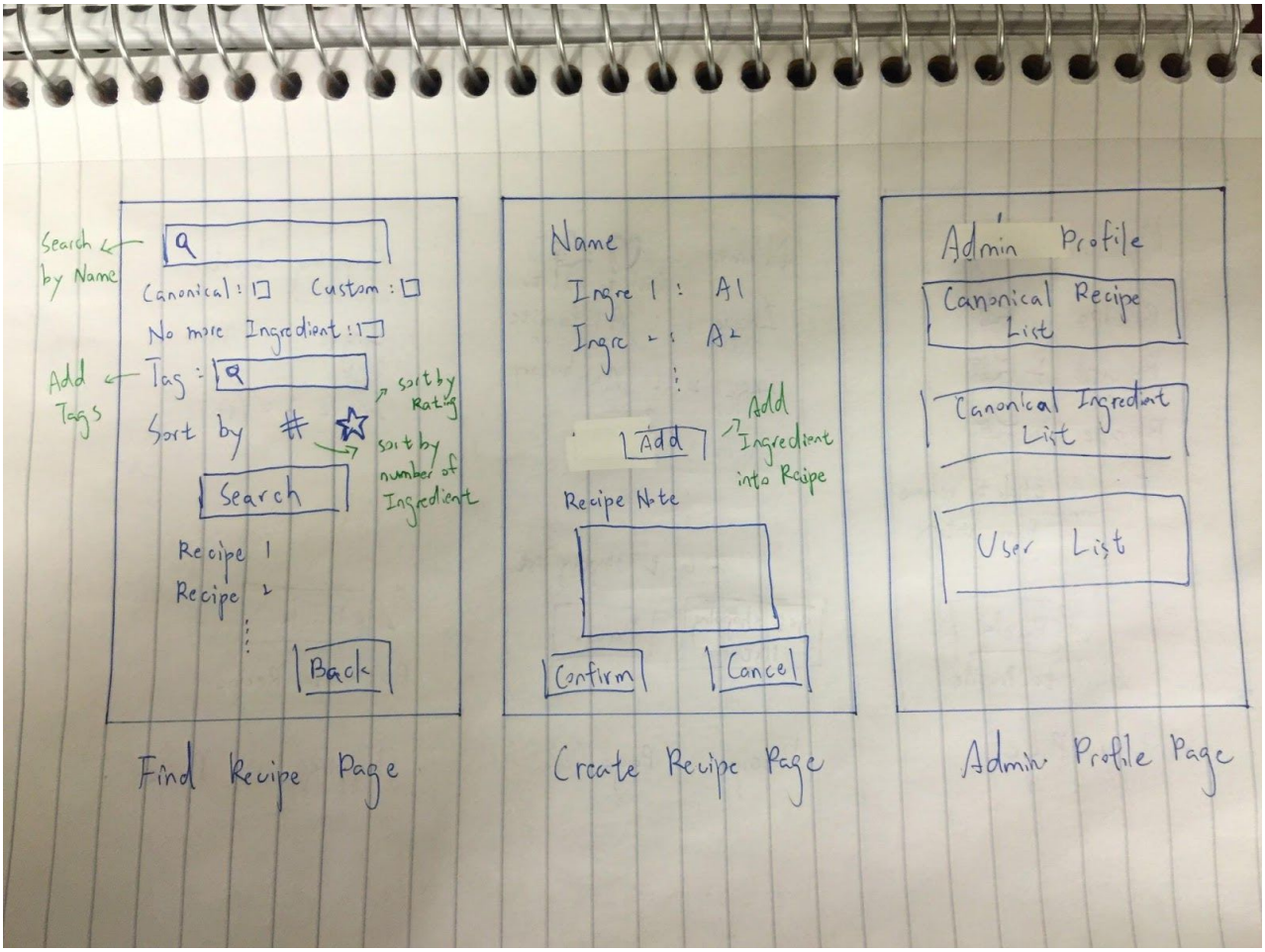
2. From Main menu, User can navigate to Find Recipe, My Pantry, My Recipe
Click Add, a pop up page of Add Ingredient. User can add ingredients.(UC-004)
Click Edit, a pop up page of Edit Ingredient



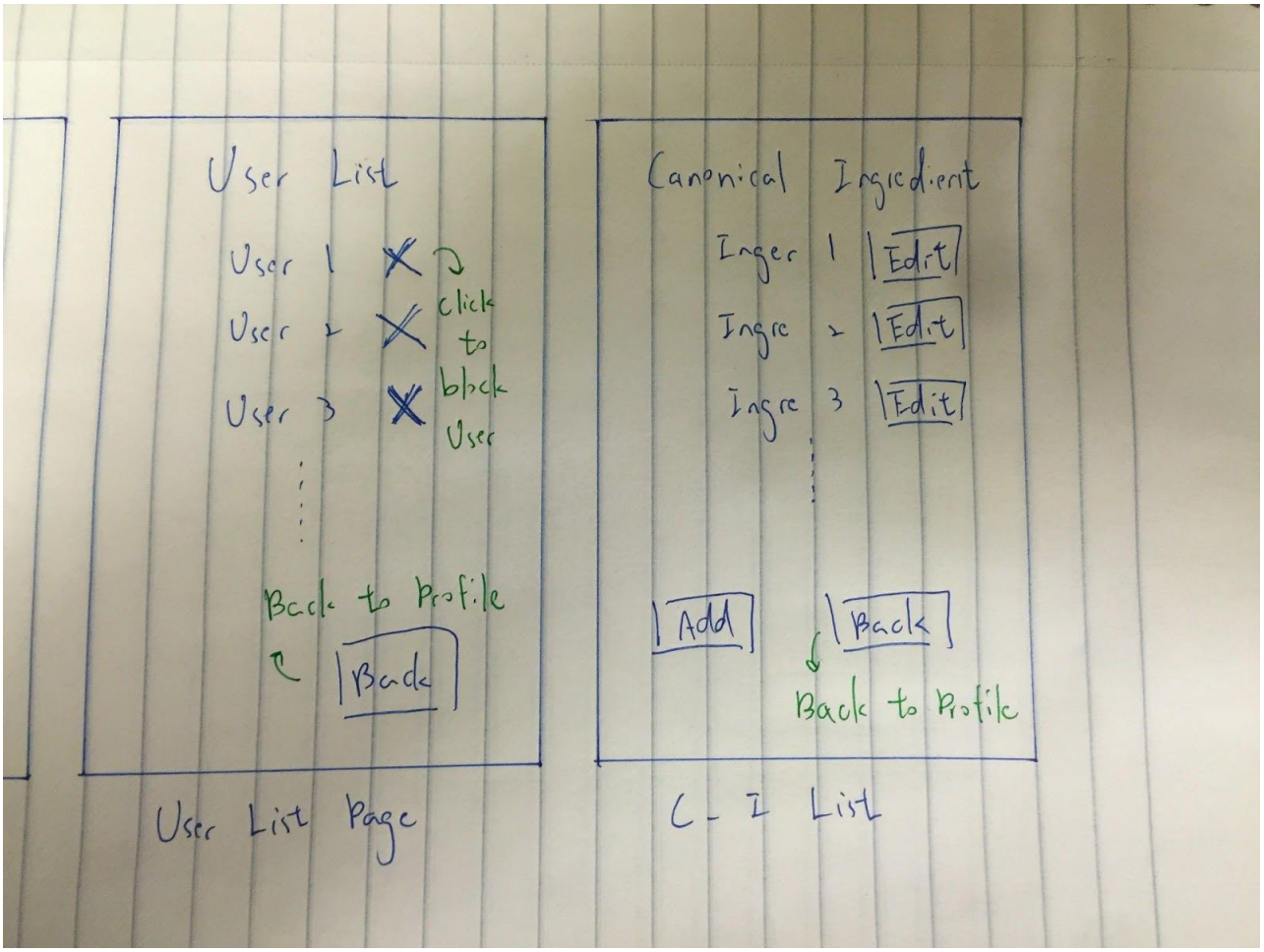
3. From Main Menu, User can navigate to My History.
From Recipe Page, user can navigate to Shopping List page



4. From Find Recipe Page, User can find recipe with different search criteria. (UC-007)

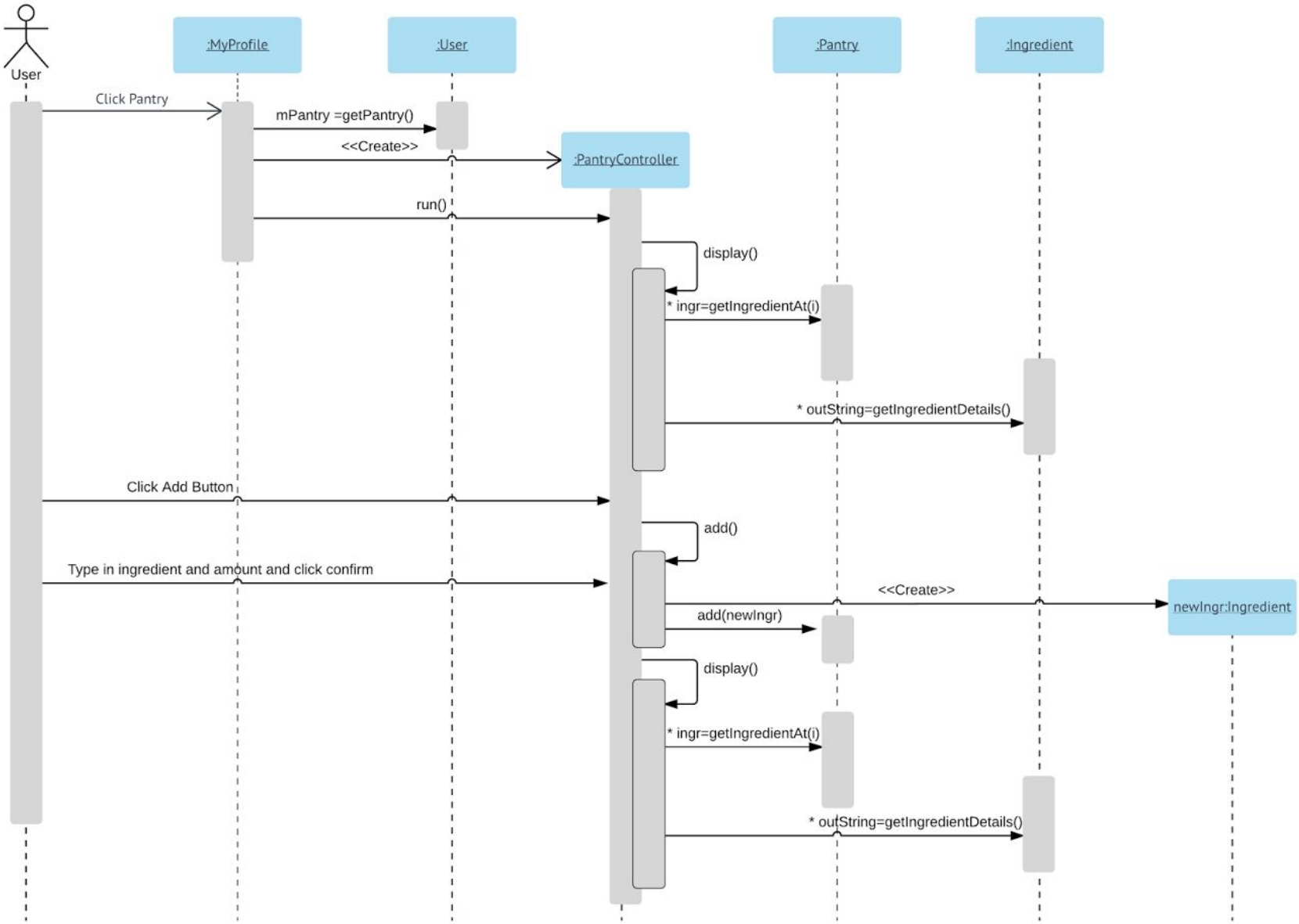


5. Admin can remove user from User List page.
   Admin can Edit canonical ingredients.

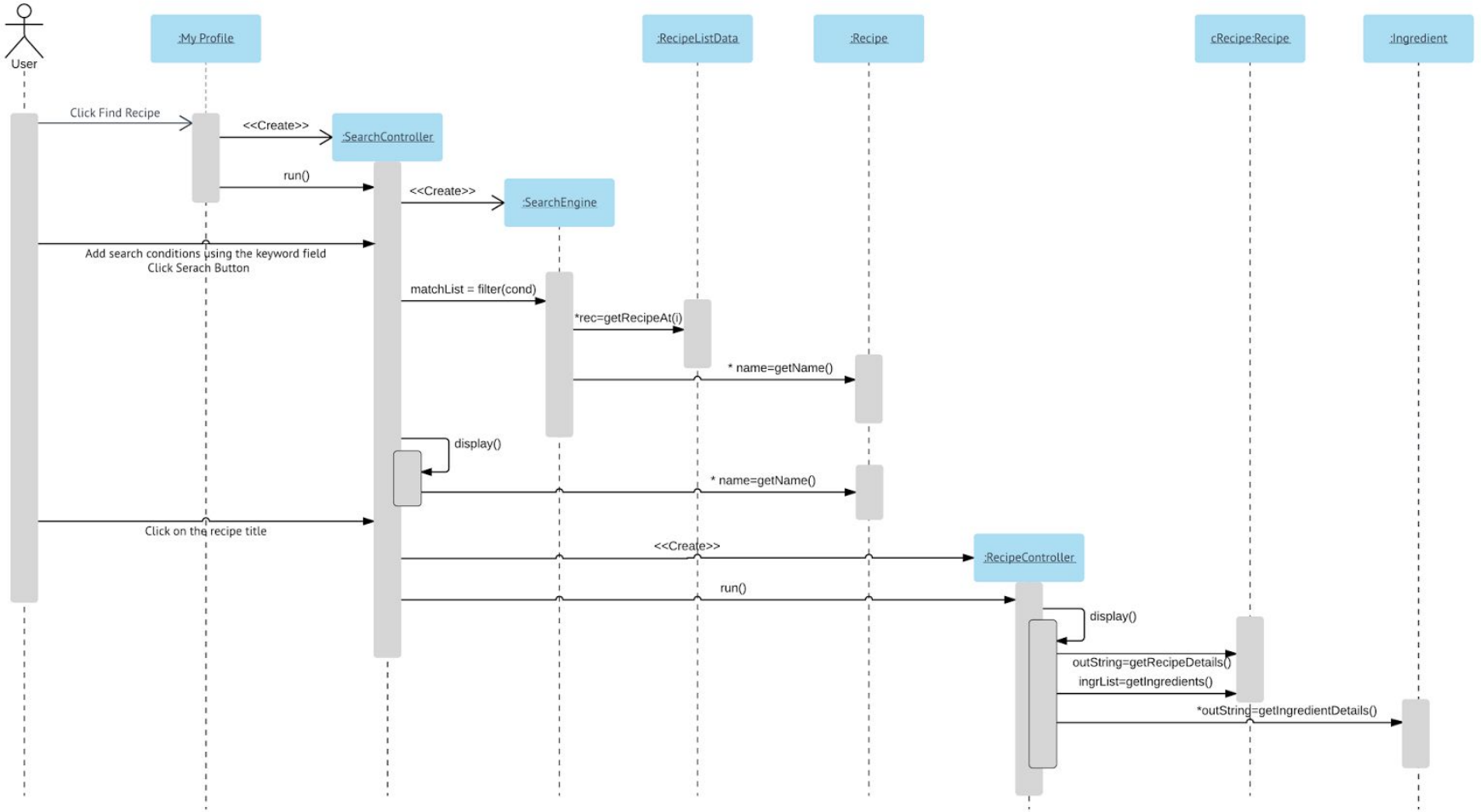
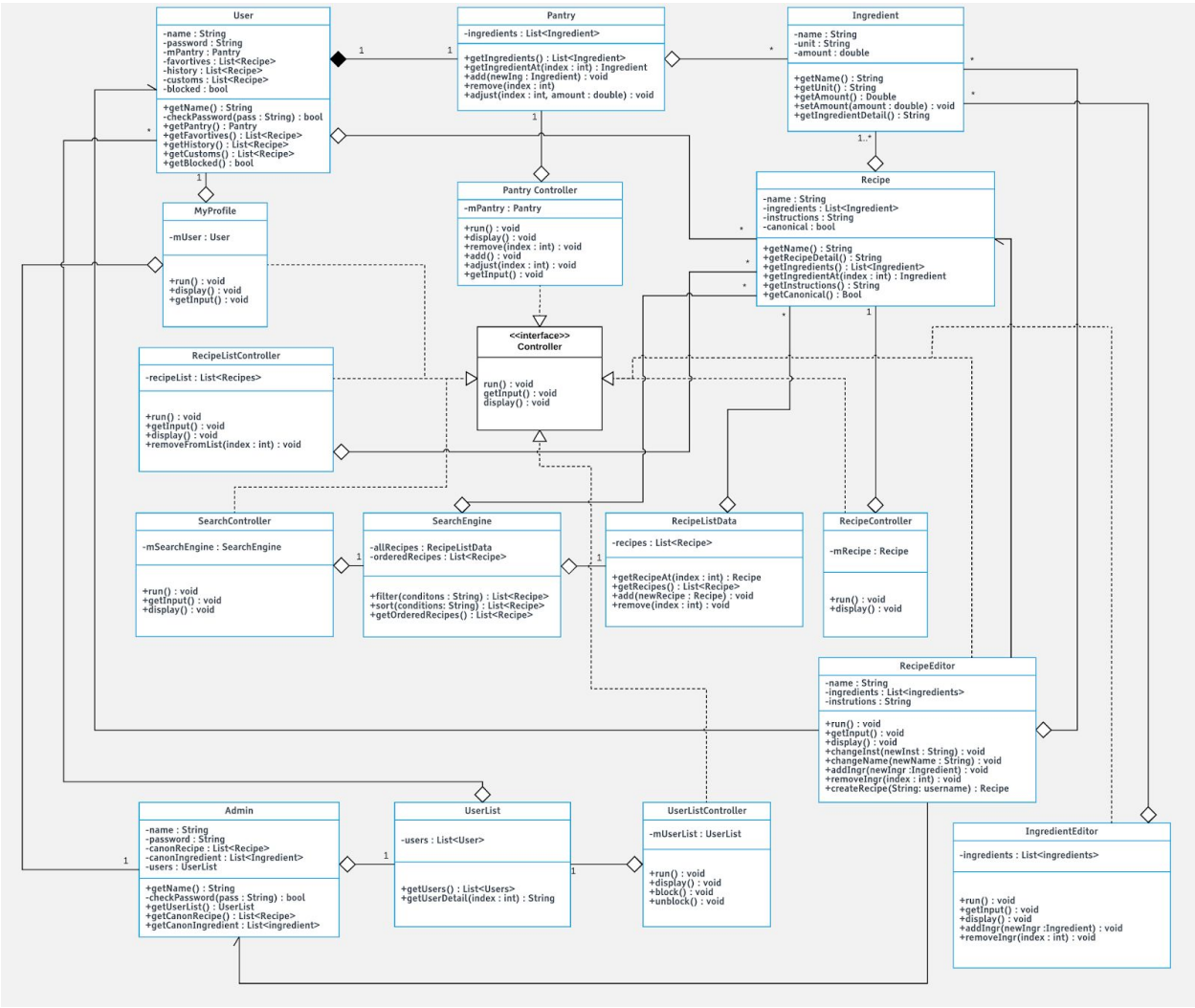


**User Interactions:**

Sequence Diagram
User Requirement ID#: US-003, US-004
Use Case ID#: UC-004
Use Case Name: Add items into pantry


User
:MyProfile
:User
:Pantry
:Ingredient
Click Pantry
mPantry =getPantry()
<<Create>>
:PantryController
run()
display()
* ingr=getIngredientAt(i)
* outString=getIngredientDetails()
Click Add Button
add()
Type in ingredient and amount and click confirm
<<Create>>
newIngr:Ingredient
add(newIngr)
display()
* ingr=getIngredientAt(i)
* outString=getIngredientDetails()

Sequence Diagram
User Requirement ID#: US-010
Use Case ID#: UC-007
Use Case Name: Find a Recipe.


User
:My Profile
:RecipeListData
:Recipe
cRecipe:Recipe
:Ingredient
Click Find Recipe
<<Create>>
:SearchController
run()
<<Create>>
:SearchEngine
Add search conditions using the keyword field
Click Serach Button
matchList = filter(cond)
*rec=getRecipeAt(i)
* name=getName()
display()
* name=getName()
Click on the recipe title
<<Create>>
:RecipeController
run()
display()
outString=getRecipeDetails()
ingrList=getIngredients()
*outString=getIngredientDetails()

# Class Diagram: