

# RecyPy

## SEQUENCE DIAGRAM DOCUMENT

### SOFTWARE ENGINEERING PROJECT DELIVERABLE 3

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## Introduction

RecyPy is a web application used for sharing recipes. Similar to a cross between a social media app and a recipe database, in this system users will be able to create an account. Using this account, they will be able to post their own recipes, as well as “follow” other users or “star” their recipes. This creates a personalized experience for each user, as well as a foundation for further implementations, such as a rating system for individual recipes and the ability to categorize them. Users will be able to view a feed of recipes from the people they follow, as well as search new recipes in the search bar.

This document provides a working set of sequence diagrams for the system, as well as scenario descriptions.

## Notation

In this document, standard UML notation is used for all sequence diagrams. Additionally, the following conventions are followed in use case descriptions.

- Lowercase letters, such as a., b., etc, denote different branches of a step; a branch may span multiple steps and can be followed by the lowercase letter.
  - For example, one continuous branch might go 4.a -> 5.a, 5.b -> 6.a, 6.b, 6.c.
- Numbers indicate a sequence; this sequence may, in some cases, be nested with branches.
  - For example, two branches of a step may look like 3.a.1 -> 3.a.2 and 3.b.1 -> 4.b.1 -> 4.b.2

## Missing Sequence Diagrams

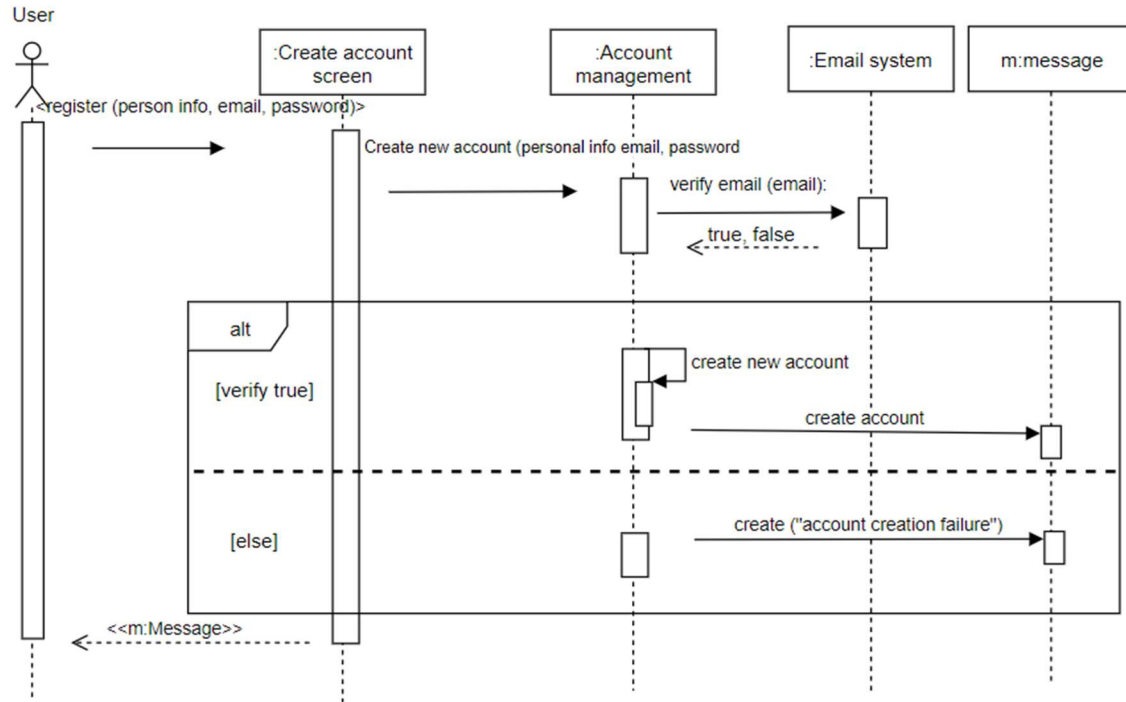
Not all non-trivial steps have been illustrated in this document. This document contains illustrations of one non-trivial step from our use case description document. Also, out of the 14 non-trivial steps described in the scenario descriptions, there are analysis sequence diagrams for each of them. However not all non-trivial steps have Design Sequence diagrams as some non-trivial steps such as ‘Follow recipe poster of a recipe’, ‘Query system for specific user’ and ‘Find Recipe’ are straight forward and do not require complicated Design Sequence Diagrams different from the Analysis Sequence Diagrams

## Non-trivial step 1: Create account

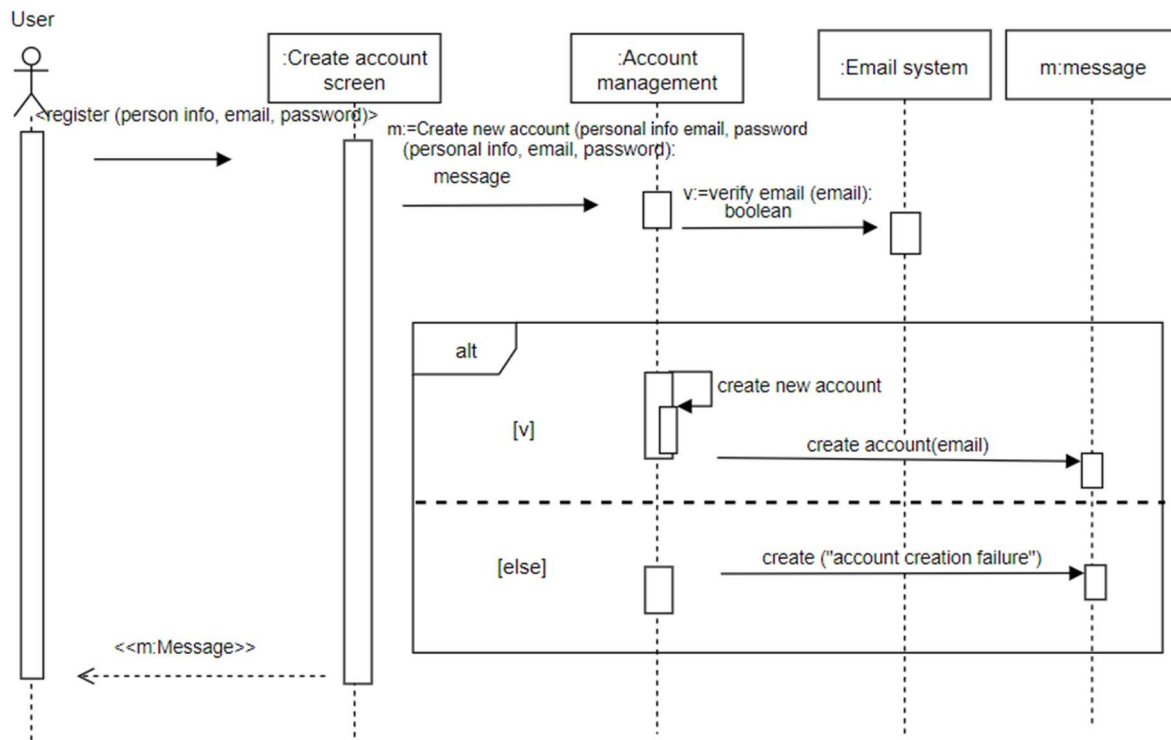
### Scenario description

| #.    | Subject               | Action of Subject    | Parameters                     | Object Acted Upon     |
|-------|-----------------------|----------------------|--------------------------------|-----------------------|
| 1     | user                  | Select register      | Personal info, Email, password | Create account screen |
| 2.a   | Create account screen | Create new account   | Personal info, Email, password | Account management    |
| 2.b   | Account management    | Verify email address | email                          | Email verification    |
| 2.c   | Email verification    | Returns              | true or false                  | Account management    |
| 2.d   | If true, then         |                      |                                |                       |
| 2.d.1 | Account management    | Account created      | Personal info, Email, password | Create account screen |
| 2.d   | else                  |                      |                                |                       |
| 2.d.1 | Email verification    | declined             |                                | Account management    |
| 2.e   | Account management    | returns              | message                        | Create account screen |
| 2.f   | Create account screen | display              | message                        | user                  |

## Analysis Sequence diagram



## Design Sequence Diagram

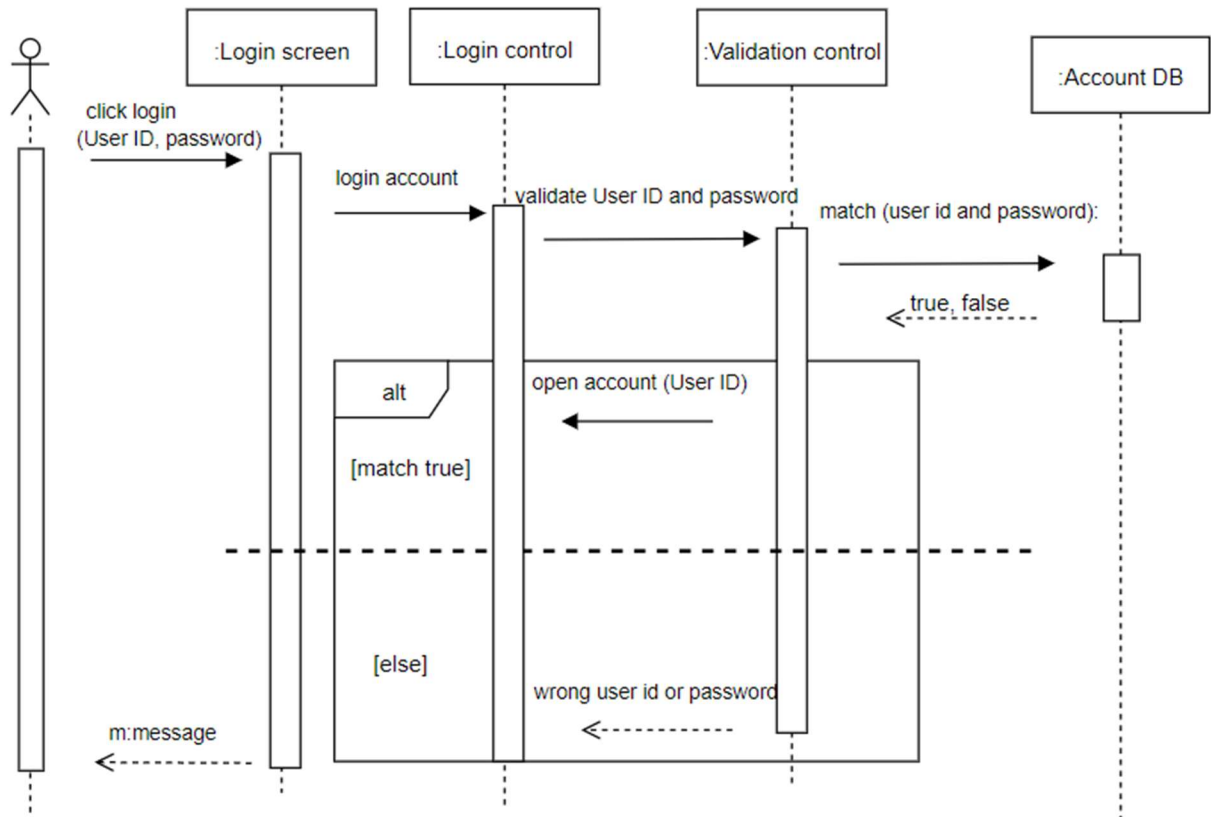


## Non-trivial step 2: Login

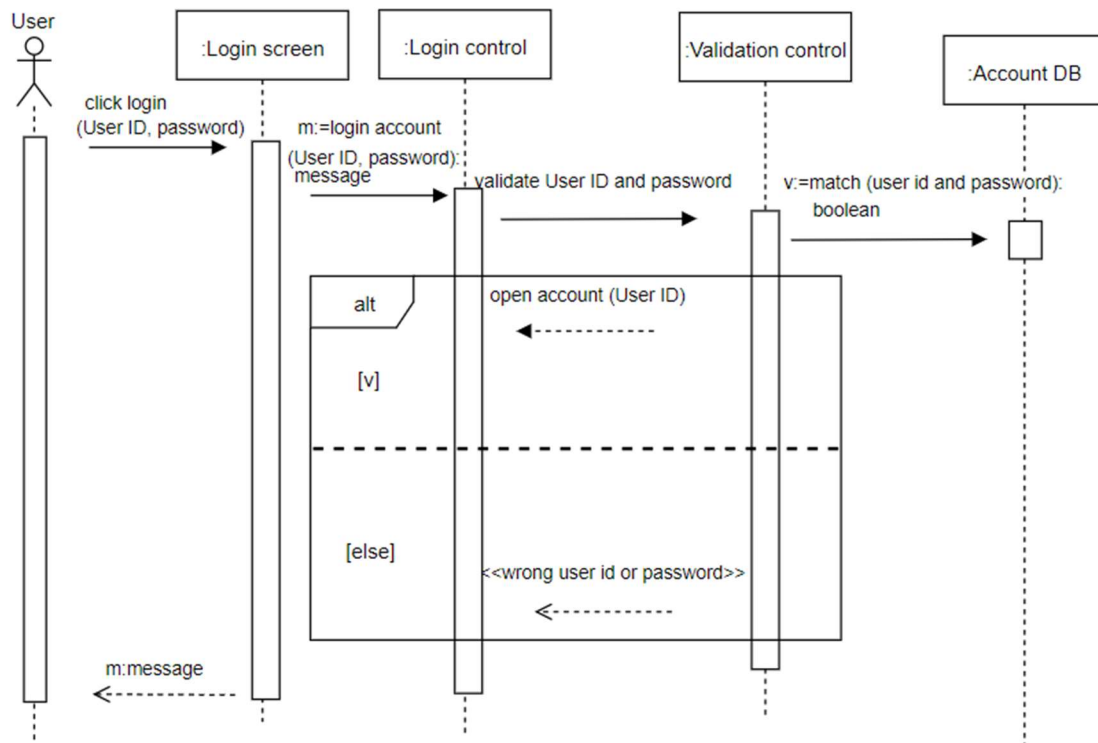
### Scenario description

| #.    | Subject            | Action of Subject              | Parameters        | Object Acted Upon  |
|-------|--------------------|--------------------------------|-------------------|--------------------|
| 1     | user               | Click login                    | User id, password | Login screen       |
| 2.a   | Login screen       | Validate user ID and password  | User id, password | Validation control |
| 2.b   | Validation control | Search user id and password    | User id, password | database           |
| 2.c   | database           | returns                        | True or false     | Validation control |
| 2.d   | If true, then      |                                |                   |                    |
| 2.d.1 | Validation control | User id and password matched   |                   | Login screen       |
| 2.d.2 | Login screen       | Send login success             | message           | user               |
| 2.d   | else               |                                |                   |                    |
| 2.d.1 | Validation control | User id and password unmatched |                   | Login screen       |
| 2.d.2 | Login screen       | Send login failure             | message           | user               |

## Analysis Sequence diagram



## Design Sequence Diagram



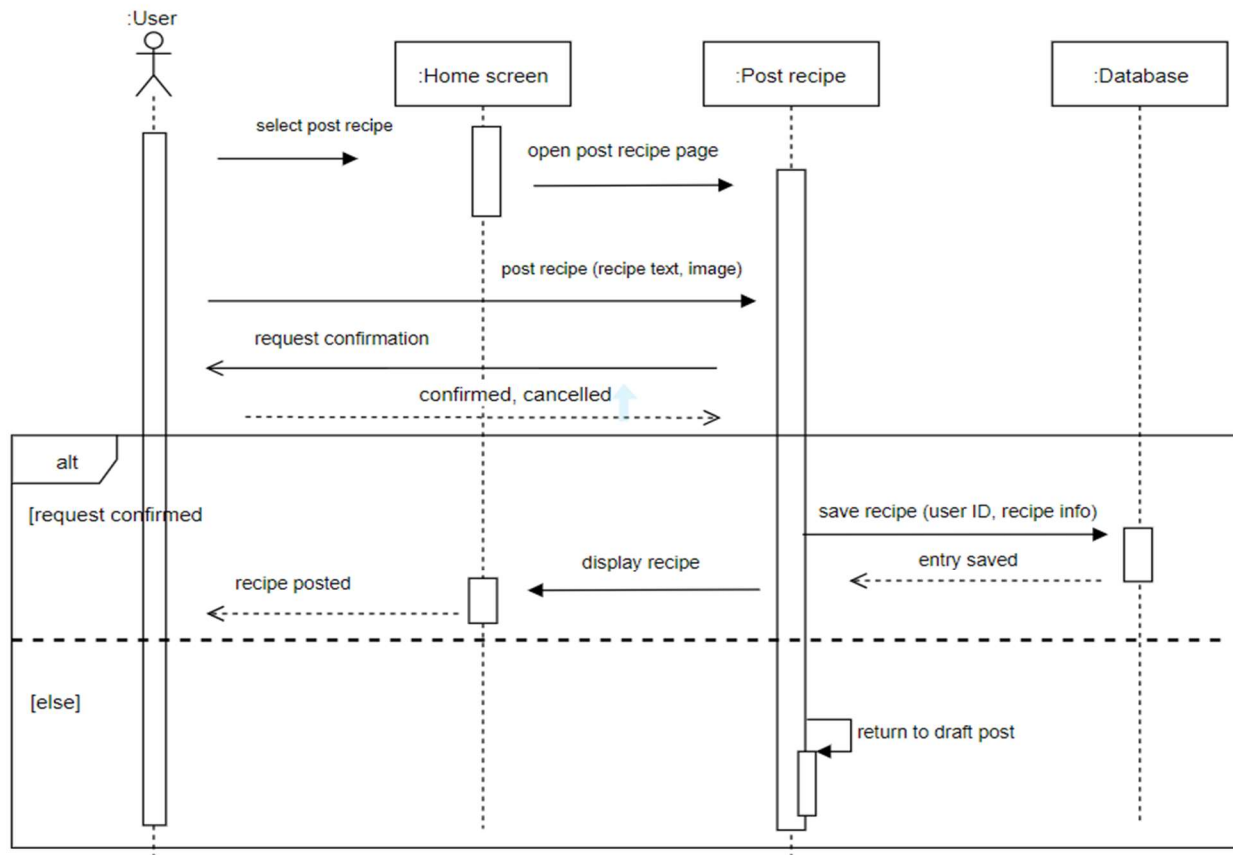
## Non-trivial step 3: Post recipe

### Scenario description

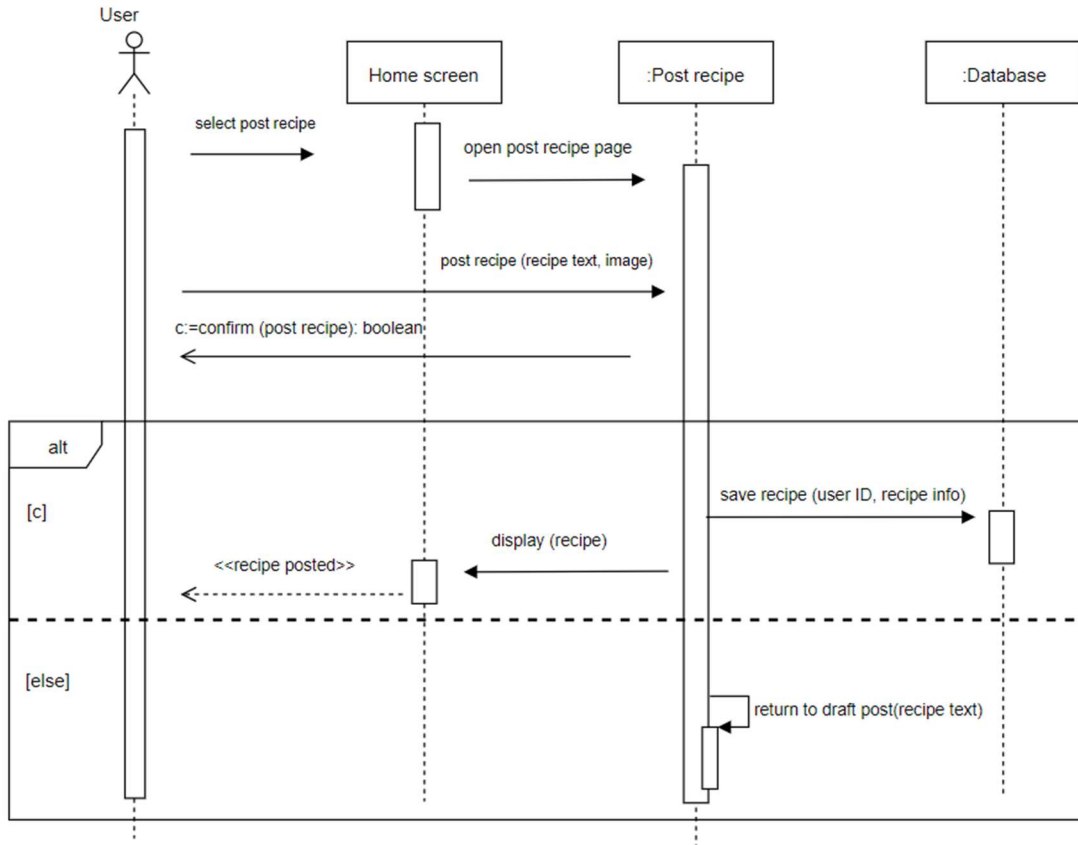
| #.    | Subject            | Action of Subject        | Parameters           | Object Acted Upon |
|-------|--------------------|--------------------------|----------------------|-------------------|
| 1     | user               | Select post recipe       |                      | Home screen       |
| 2     | Home page          | Display post recipe page |                      | Post recipe       |
| 3.a   | user               | Post                     | recipe text, image   | Post recipe page  |
| 3.b   | Post recipe        | Send confirmation prompt | post                 | user              |
| 3.c   | user               | returns                  | Confirmed, cancelled | Home page         |
| 3.d   | If confirmed, then |                          |                      |                   |
| 3.d.1 | Home page          | Save post                | post                 | database          |
| 3.d.2 | database           | Post saved               |                      | Home page         |
| 3.d.3 | Home page          | Display recipe           | post                 | Home page         |
| 3.d   | Else               |                          |                      |                   |
| 3.d.1 | user               | Select cancel            | post                 | Home page         |
| 3.d.2 | Home page          | Return to draft post     |                      | Home page         |



## Analysis Sequence diagram



## Design Sequence Diagram

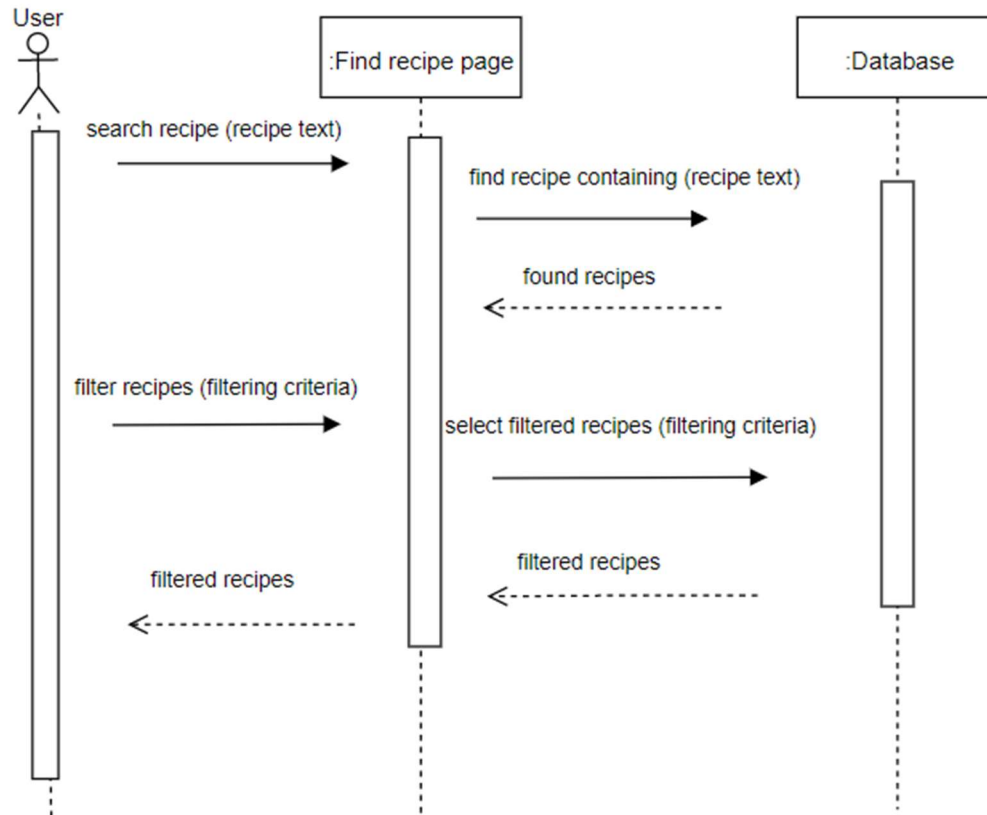


## Non-trivial step 4: Find Recipe

### Scenario description

| #.  | Subject           | Action of Subject                  | Parameters                  | Object Acted Upon |
|-----|-------------------|------------------------------------|-----------------------------|-------------------|
| 1   | user              | Search recipe                      | Recipe text                 | Find recipe page  |
| 2.a | Find recipe page  | Find recipe containing             | Recipe text                 | Database          |
| 2.b | Database          | Found recipes                      | Recipes                     | Find recipe page  |
| 3.a | user              | Select filter recipes              | filtering criteria, recipes | Find recipes page |
| 3.b | Find recipes page | Filter recipes                     | filtering criteria, recipes | Database          |
| 3.c | Database          | Filtered recipes                   | recipes                     | Find recipes page |
| 3.d | Find recipes page | Display details of filtered recipe | recipes                     | User              |

## Analysis Sequence diagram



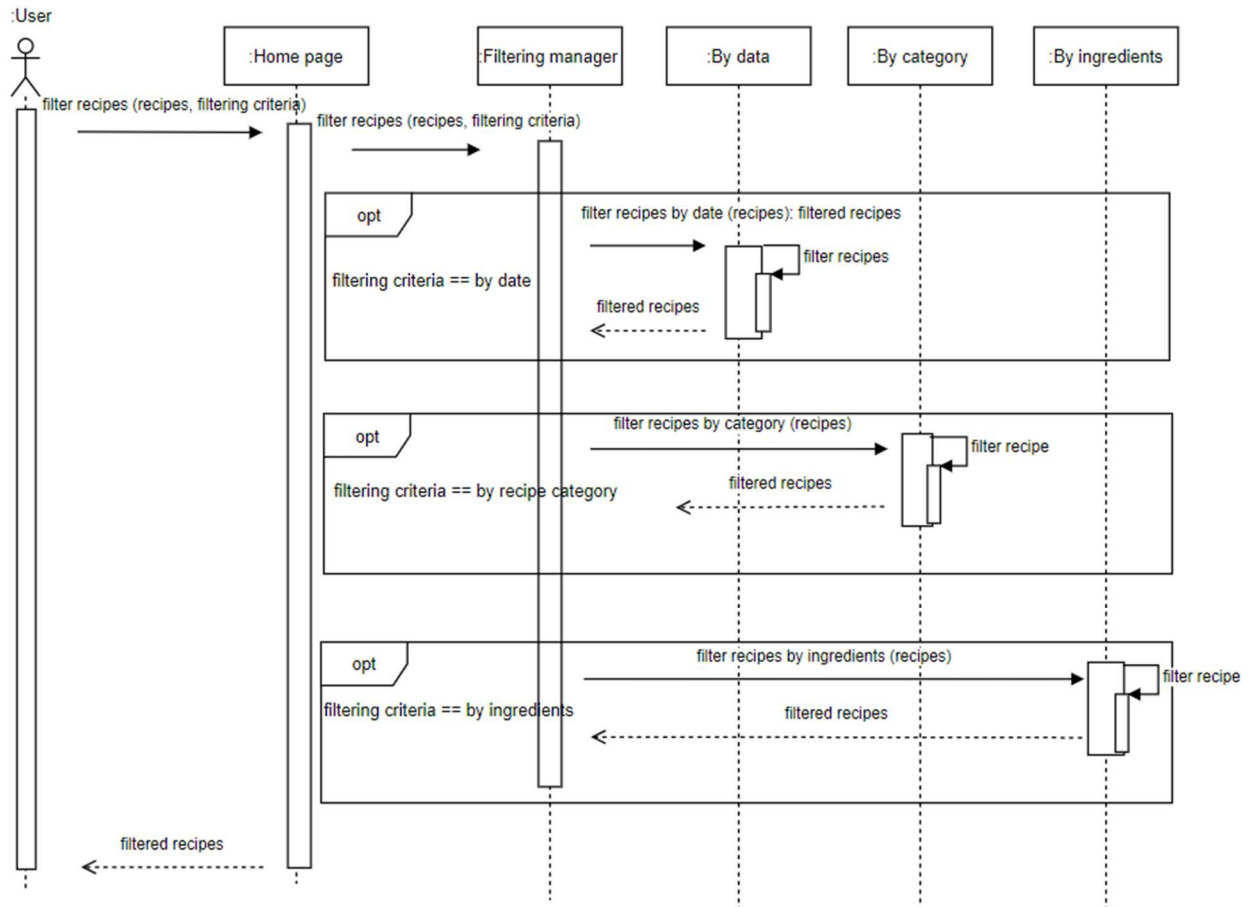
## Non-trivial step 5: Filter recipe

### Scenario description

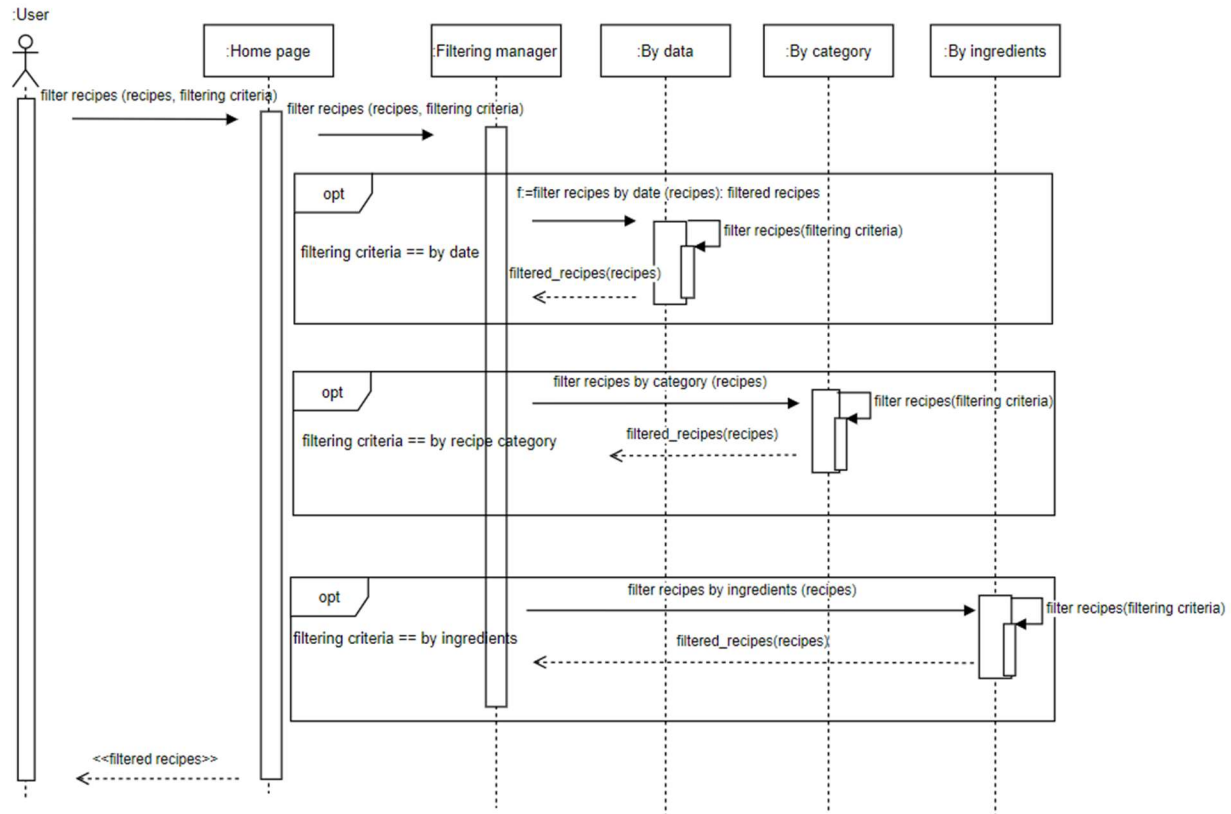
| #.    | Subject           | Action of Subject                        | Parameters           | Object Acted Upon |
|-------|-------------------|--|----------------------|-------------------|
| 1     | user              | Filter recipes                           | Filtering criteria   | Home page         |
| 2.a   | Home page         | Filter recipes                           | Filtering criteria   | Filtering manager |
| 2.a.1 | Option1           | Filtering criteria == by date            |                      |                   |
| 2.b.1 | Filtering manager | Filter by date                           | Recipes, date posted | By date           |
| 2.c.1 | By date           | Filter recipes                           |                      | By date           |
| 2.d.1 | By date           | Send recipes                             |                      | Filtering manager |
| 2.a.2 | Option2           | Filtering criteria == by recipe category |                      |                   |
| 2.b.2 | Filtering manager | Filter by recipe category                | Recipes, category    | By category       |
| 2.c.2 | By category       | Filter recipes                           |                      | By category       |

|       |                   |                                      |                      |                   |
|-------|-------------------|--------------------------------------|----------------------|-------------------|
| 2.d.2 | By category       | Send recipes                         |                      | Filtering manager |
| 2.a.3 | Option3           | Filtering criteria == by ingredients |                      |                   |
| 2.b.3 | Filtering manager | Filter by ingredients                | Recipes, ingredients | By ingredients    |
| 2.c.3 | By ingredients    | Filter recipes                       |                      | By ingredients    |
| 2.d.3 | By ingredients    | Send recipes                         |                      | Filtering manager |

## Analysis Sequence diagram



## Design Sequence Diagram



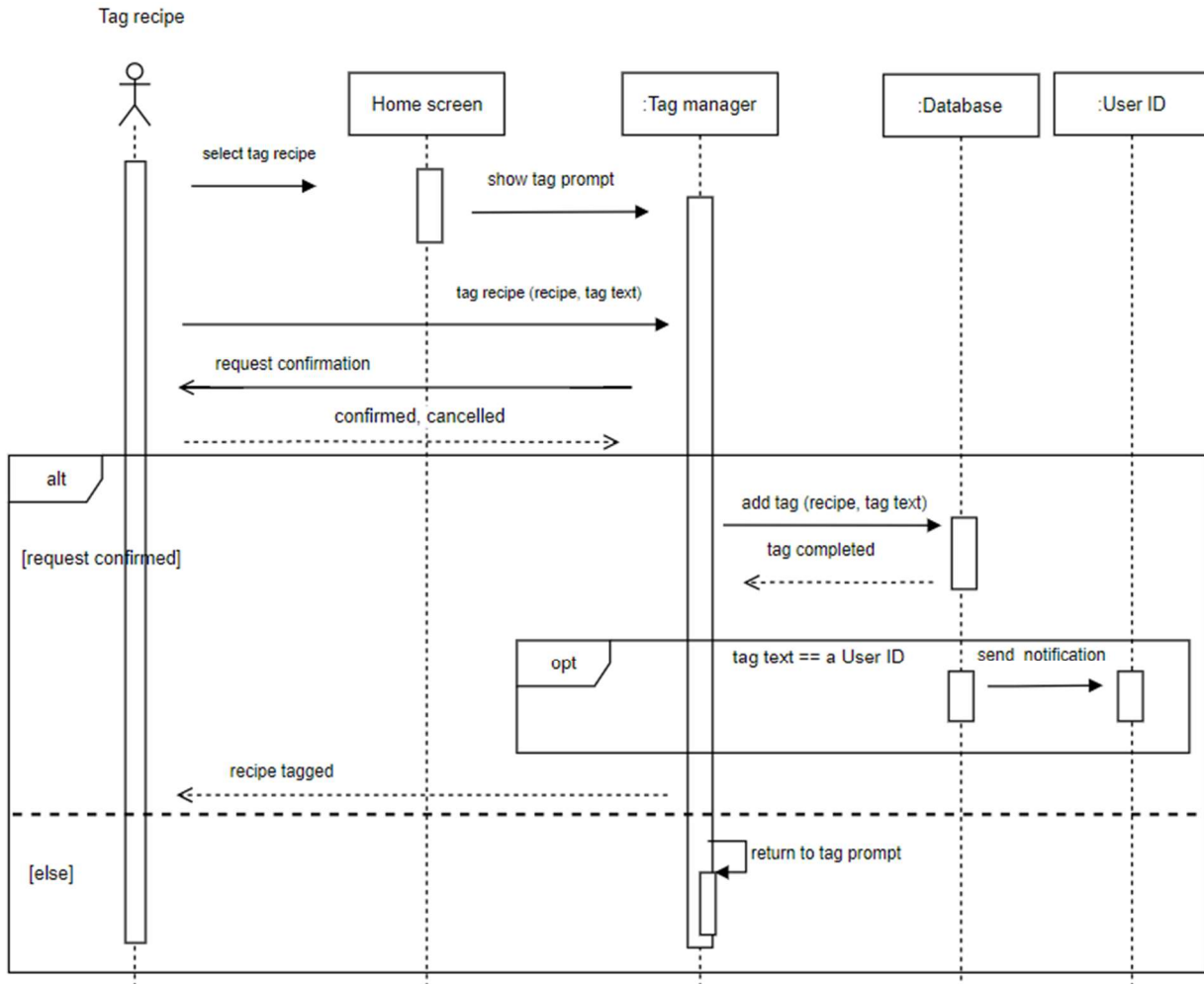
## Non-trivial step 6: Tag recipe

### Scenario description

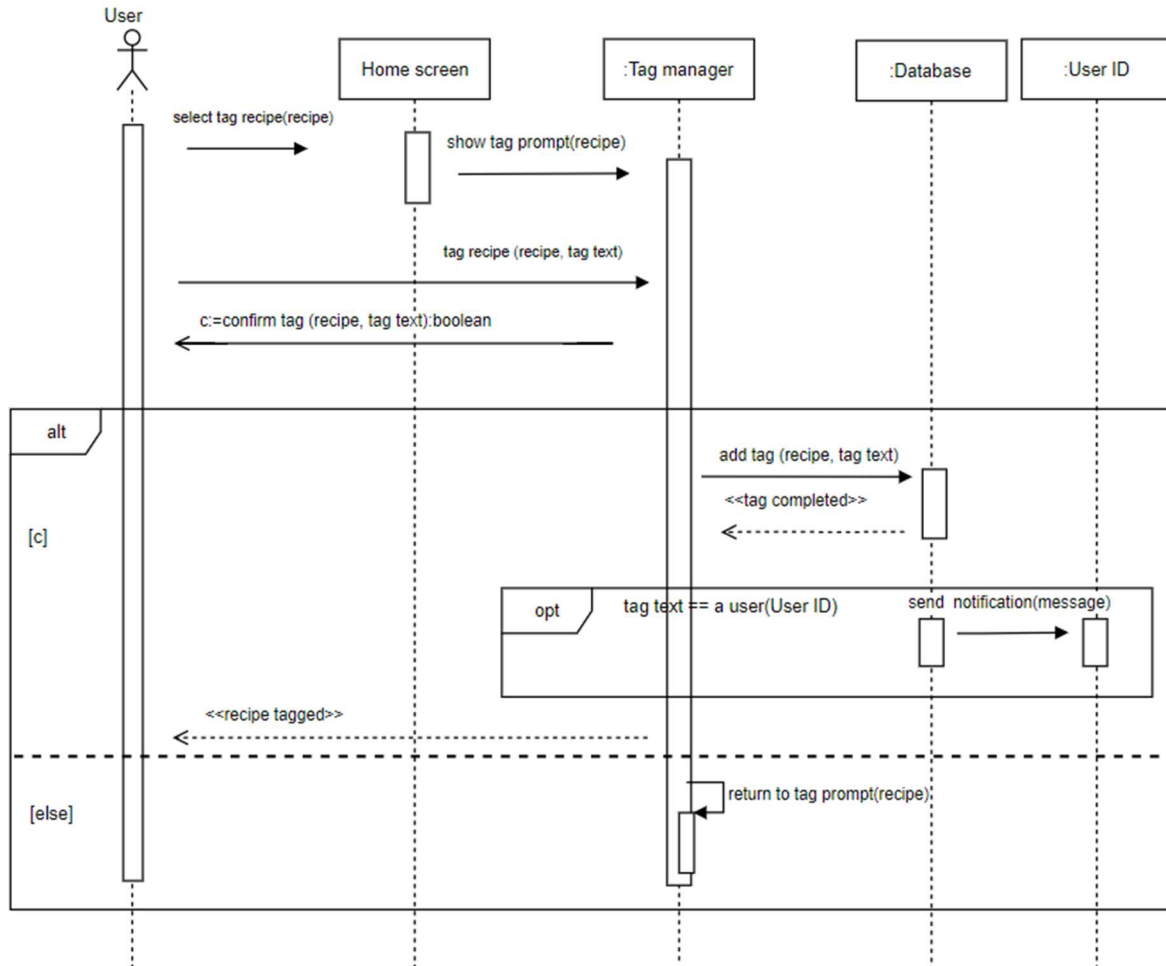
| #.      | Subject                  | Action of Subject     | Parameters           | Object Acted Upon |
|---------|--------------------------|-----------------------|----------------------|-------------------|
| 1       | user                     | Select tag recipes    | recipes              | Home page         |
| 2.a     | Home page                | Show tag prompt       |                      | Tag manager       |
| 2.b     | User                     | Tag recipe            | Recipe, tag text     | Tag manager       |
| 3.a     | Tag manager              | Confirm tag           | Recipe, tag text     | user              |
| 3.b     | user                     | returns               | Confirmed, cancelled | Tag manager       |
| 3.c     | If confirmed, then       |                       |                      |                   |
| 3.c.1   | Tag manager              | Add tag               | Recipe tag text      | database          |
| 3.c.2   | If tag text == a user ID |                       |                      |                   |
| 3.c.2.1 | database                 | Send tag notification |                      | User ID           |

|       |             |        |                  |             |
|-------|-------------|--------|------------------|-------------|
| 3.c   | else        |        |                  |             |
| 3.c.1 | User        | cancel | Recipe, tag text | Tag manager |
| 3.c.2 | Tag manager | reset  |                  | Tag manager |

## Analysis Sequence diagram



## Design Sequence Diagram



## Non-trivial step 7: Request user data

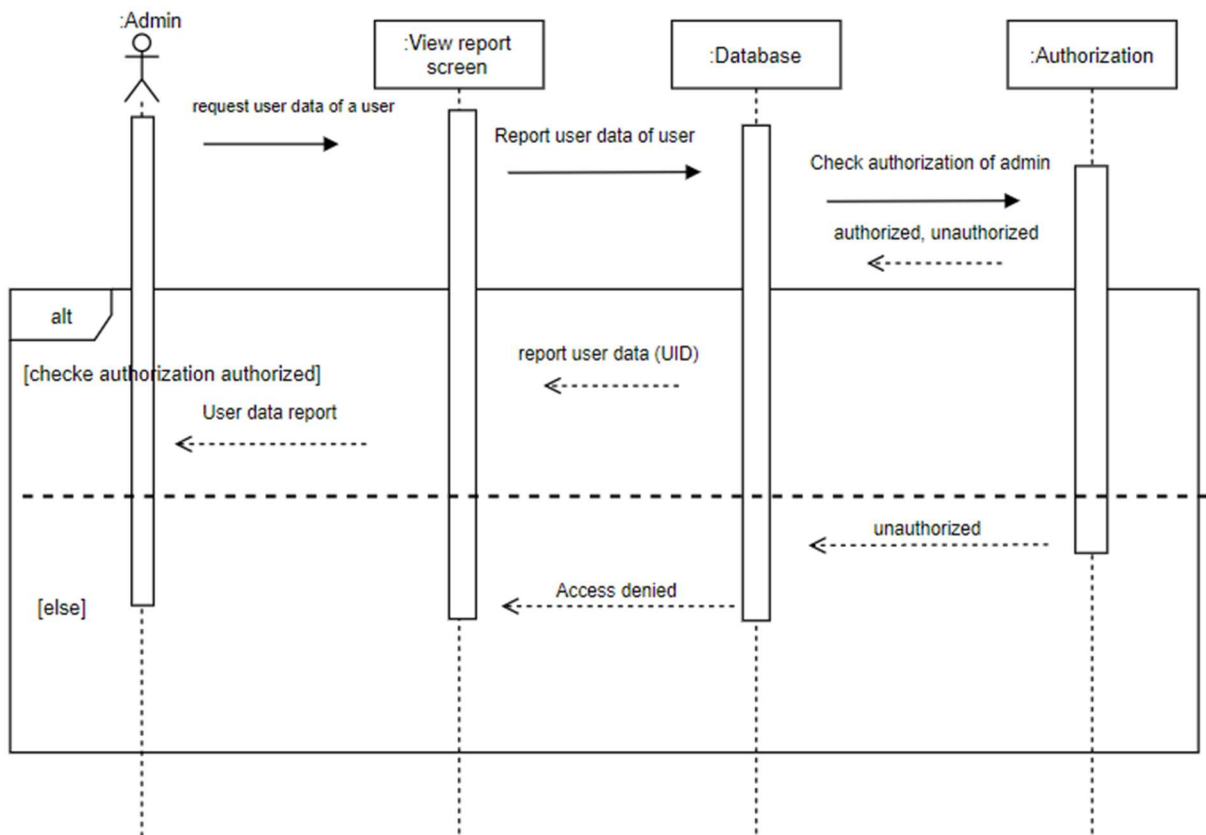
### Scenario description

| #.    | Subject             | Action of Subject   | Parameters                    | Object Acted Upon  |
|-------|---------------------|---------------------|-------------------------------|--------------------|
| 1     | Admin               | Request user data   | Admin ID (AID), User ID (UID) | View report screen |
| 2.a   | View report screen  | Report user data    | Admin ID (AID), User ID (UID) | Database           |
| 2.b   | Database            | Check authorization | Admin ID (AID)                | Authorization      |
| 3.c   | Authorization       | returns             | True or false                 | Database           |
| 3.d   | If authorized, then |                     |                               |                    |
| 3.d.1 | Database            | Send user data      | User data                     | View report screen |
| 3.d.2 | View report screen  | User data report    | User data                     | Admin              |

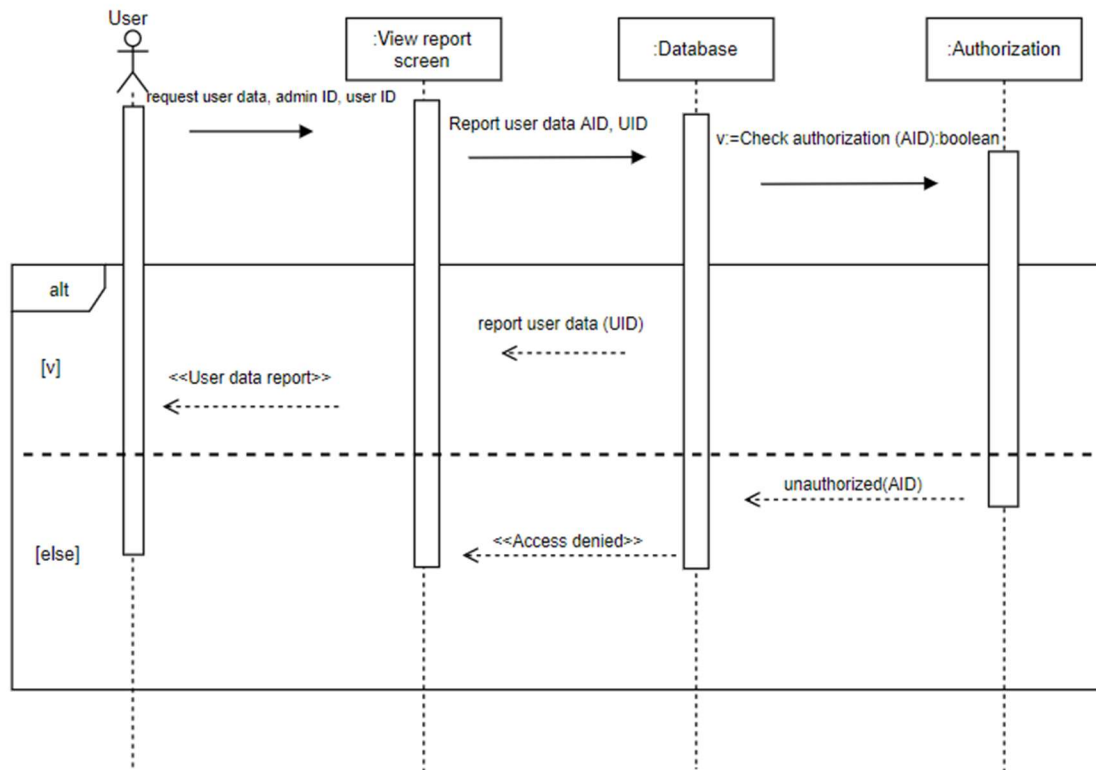


|       |               |               |                |          |
|-------|---------------|---------------|----------------|----------|
| 3.d   | else          |               |                |          |
| 3.d.1 | authorization | unauthorized  | Admin ID (AID) | Database |
| 3.d.2 | Database      | Access denied |                | Admin    |

### Analysis Sequence diagram



## Design Sequence Diagram



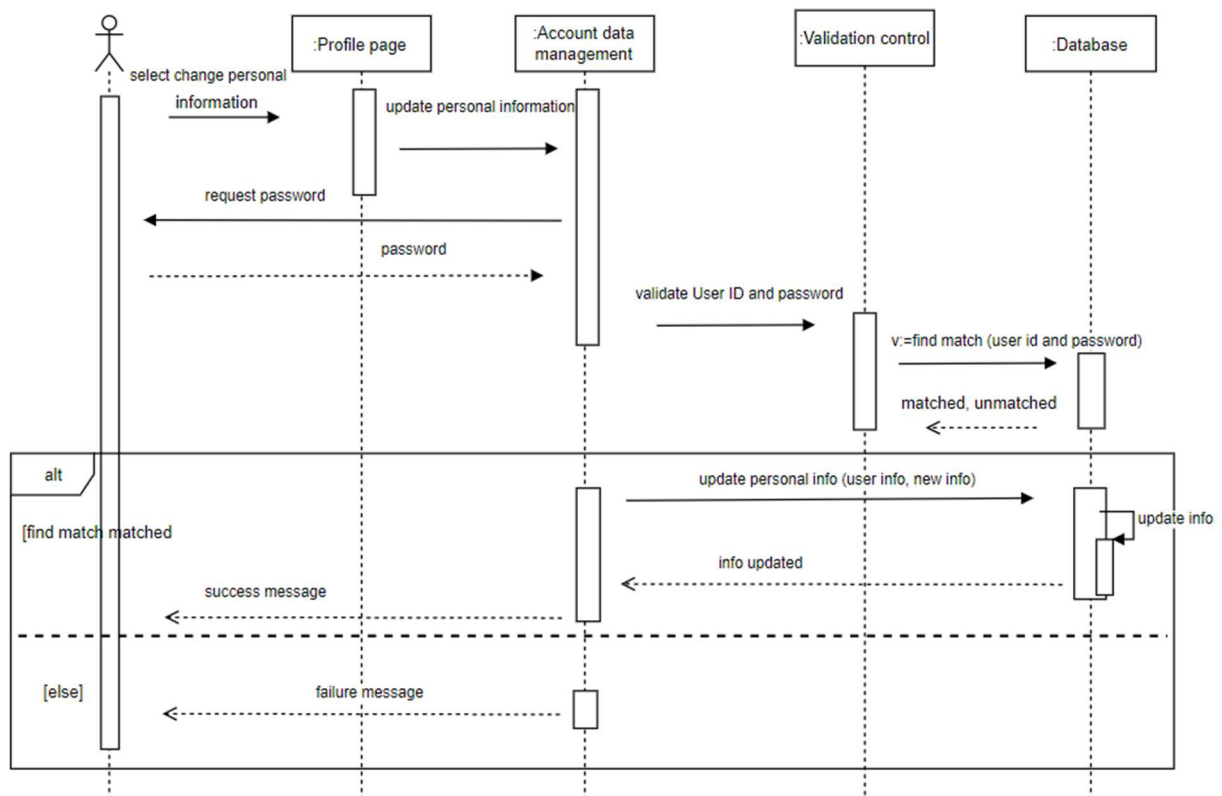
## Non-trivial step 8: Change desired personal information.

### Scenario description

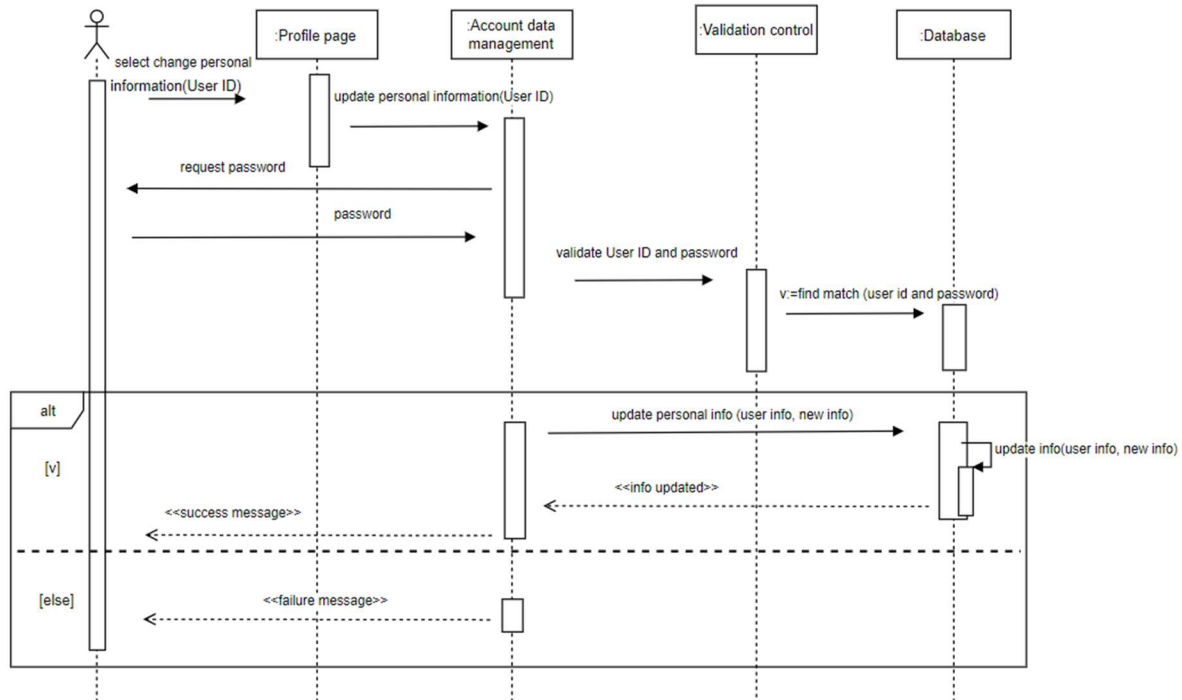
| #.  | Subject                 | Action of Subject                  | Parameters                                 | Object Acted Upon       |
|-----|-------------------------|------------------------------------|--|-------------------------|
| 1   | User                    | Select change personal information | New information                            | Profile page            |
| 2   | Profile page            | Update personal info               | User info, new info                        | Account data management |
| 3.a | Account data management | Request password                   |  | user                    |
| 3.b | User                    | Enter password                     | password                                   | Account data management |
| 4.a | Account data management | Validate password                  | User, password                             | Validation control      |
| 4.b | Validation control      | Search password                    |  | Database                |
| 4.c | database                | returns                            | Password and username matched or unmatched | Validation control      |

|       |                         |                                    |                     |                         |
|-------|-------------------------|------------------------------------|---------------------|-------------------------|
| 4.d   | If matched              |                                    |                     |                         |
| 4.d.1 | Validation control      | Password matched                   |                     | Account data management |
| 4.d.2 | Account data management | Update personal info               | User info, new info | Database                |
| 4.d.3 | Database                | Replace current info with new info |                     | database                |
| 4.d.4 | database                | Info updated                       | User info           | Account data management |
| 4.d   | else                    |                                    |                     |                         |
| 4.d.1 | Validation control      | returns                            | Failure message     | Account data management |

### Analysis Sequence diagram



## Design Sequence Diagram

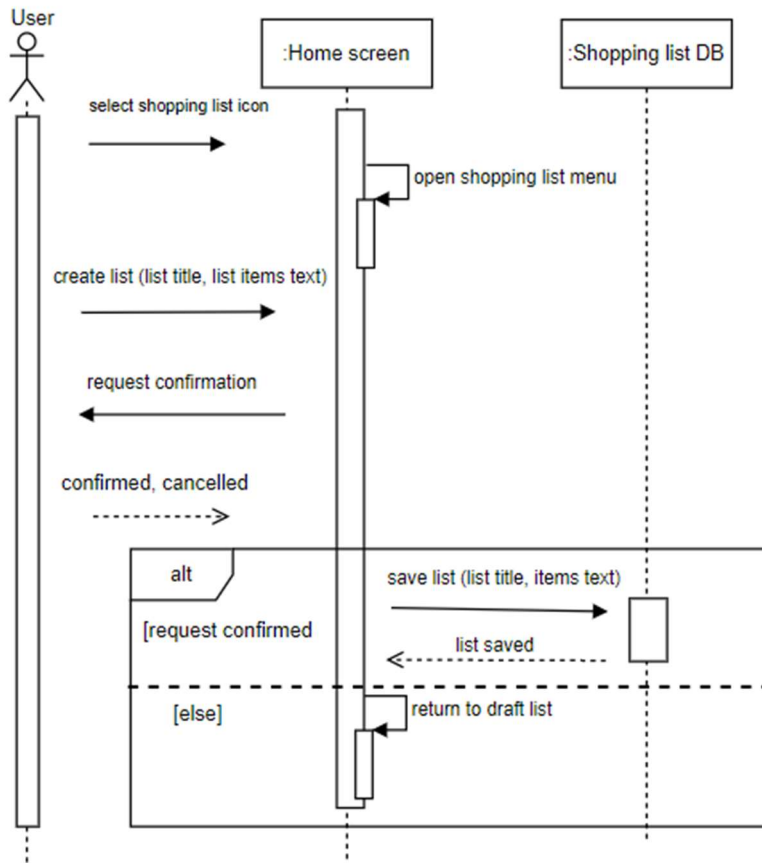


## Non-trivial step 9: Create shopping list

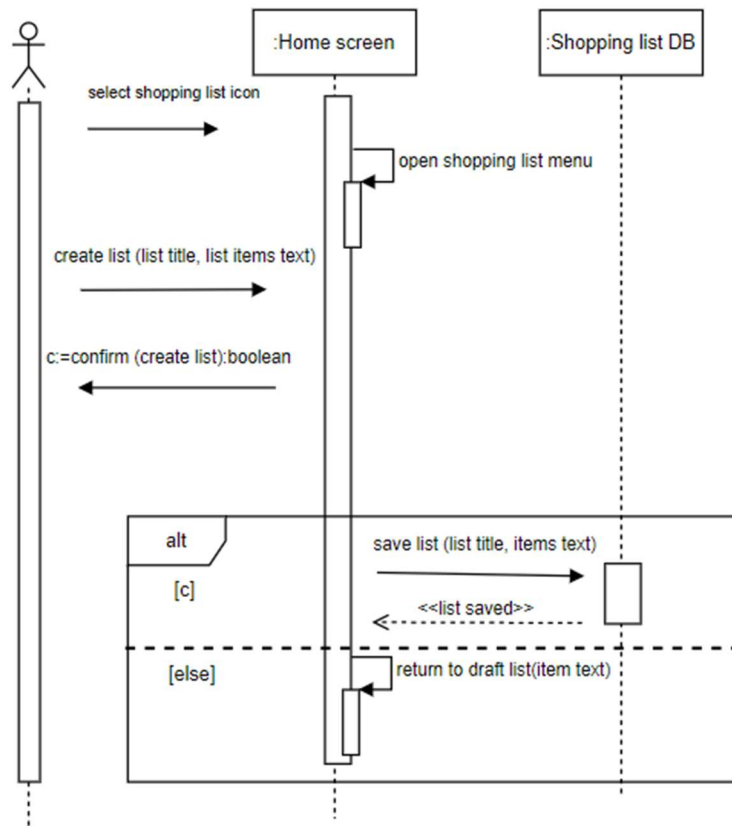
### Scenario description

| #.    | Subject          | Action of Subject         | Parameters                  | Object Acted Upon |
|-------|------------------|---------------------------|-----------------------------|-------------------|
| 1.a   | User             | Select shopping list icon |                             | Home screen       |
| 1.b   | Home screen      | Open shopping list menu   |                             | Home screen       |
| 2.a   | User             | Save list                 | List title, list items text | Home screen       |
| 2.b   | Home screen      | Confirm create list       |                             | user              |
| 2.c   | User             | Returns                   | Confirmed or cancelled      |                   |
| 3.a   | If confirmed     |                           |                             |                   |
| 3.a.1 | Home page        | Save list                 | List title, list items text | Shopping list DB  |
| 3.a.2 | Shopping list DB | List saved                |                             | Home page         |
| 3.a   | else             |                           |                             |                   |
| 3.a.1 | Home page        | Return to draft list      |                             | Home page         |

## Analysis Sequence diagram



## Design Sequence Diagram



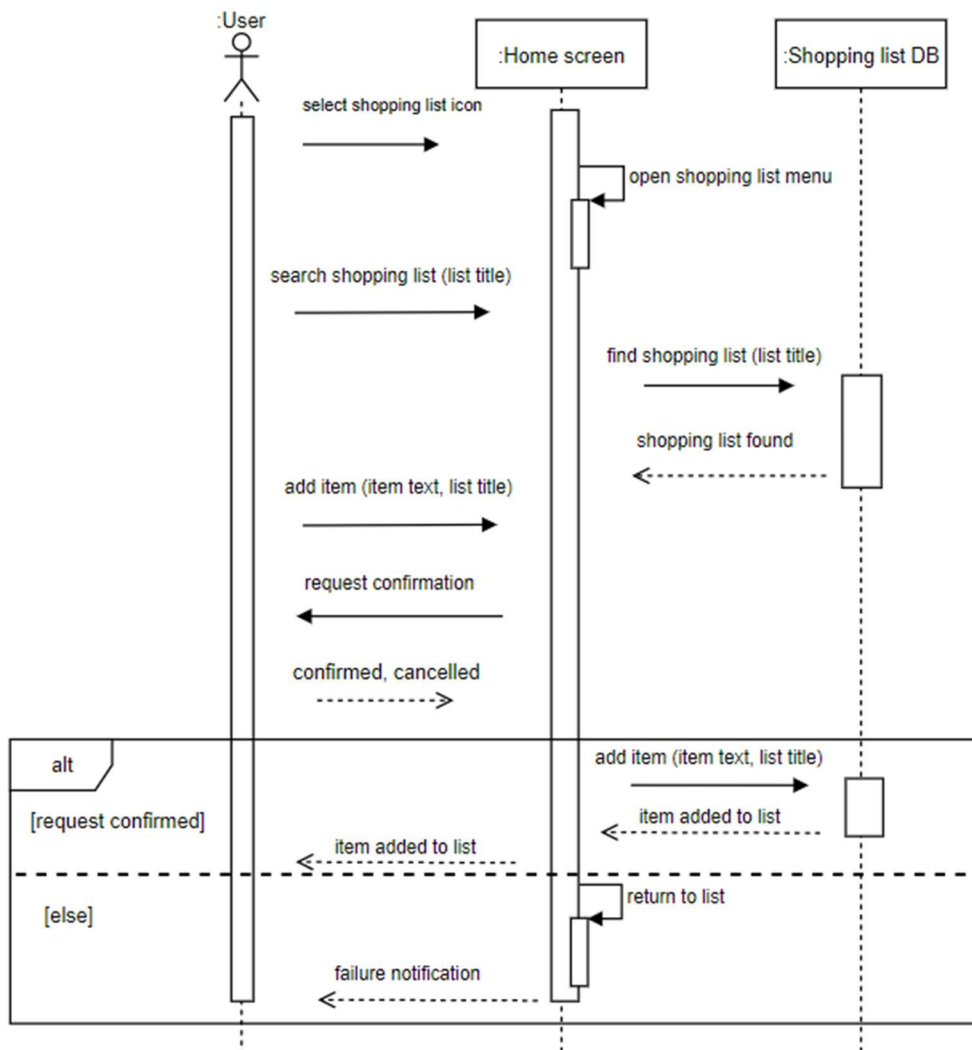
## Non-trivial step 10: Add item shopping to list.

### Scenario description

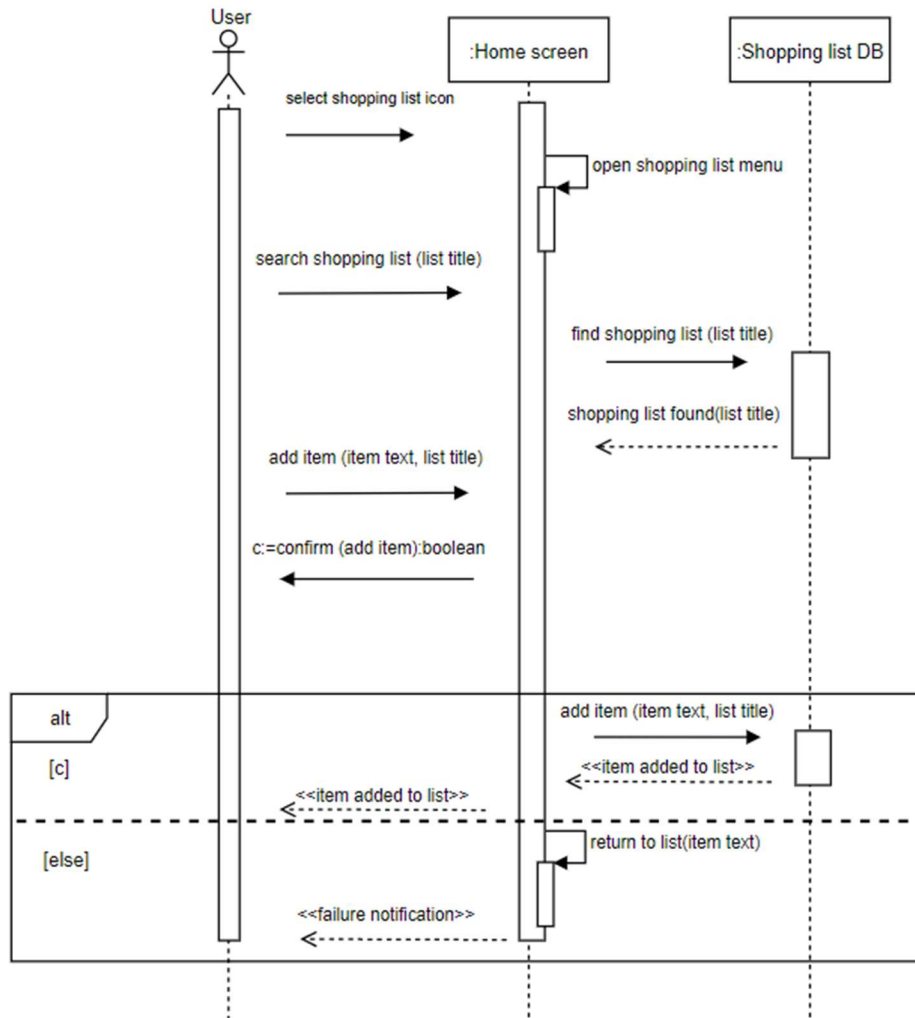
| #.  | Subject          | Action of Subject         | Parameters             | Object Acted Upon |
|-----|------------------|---------------------------|------------------------|-------------------|
| 1.a | User             | Select shopping list icon |                        | Home screen       |
| 1.b | Home screen      | Open shopping list menu   |                        | Home screen       |
| 2.a | User             | Search shopping list      | list title             | Home screen       |
| 2.b | Home screen      | Find shopping list        | list title             | Shopping list DB  |
| 2.c | Shopping list DB | Shopping list found       | List title             | Home screen       |
| 3.a | User             | Add item                  | items text, list title | Home screen       |
| 3.b | Home screen      | Confirm add item          |                        | user              |

|       |                  |                      |                        |                  |
|-------|------------------|----------------------|------------------------|------------------|
| 3.c   | User             | Returns              | Confirmed or cancelled | Home screen      |
| 3.d   | If confirmed     |                      |                        |                  |
| 3.d.1 | Home page        | Add item             | items text, list title | Shopping list DB |
| 3.d.2 | Shopping list DB | Item added to list   |                        | Home page        |
| 3.d.3 | Home page        | Item added to list   |                        | user             |
| 3.d   | else             |                      |                        |                  |
| 3.d.1 | Home page        | Return to list       |                        | Home page        |
| 3.d.2 | Home page        | Failure notification |                        | user             |

### Analysis Sequence diagram



## Design Sequence Diagram



## Non-trivial step 11: Add ingredients via recipe.

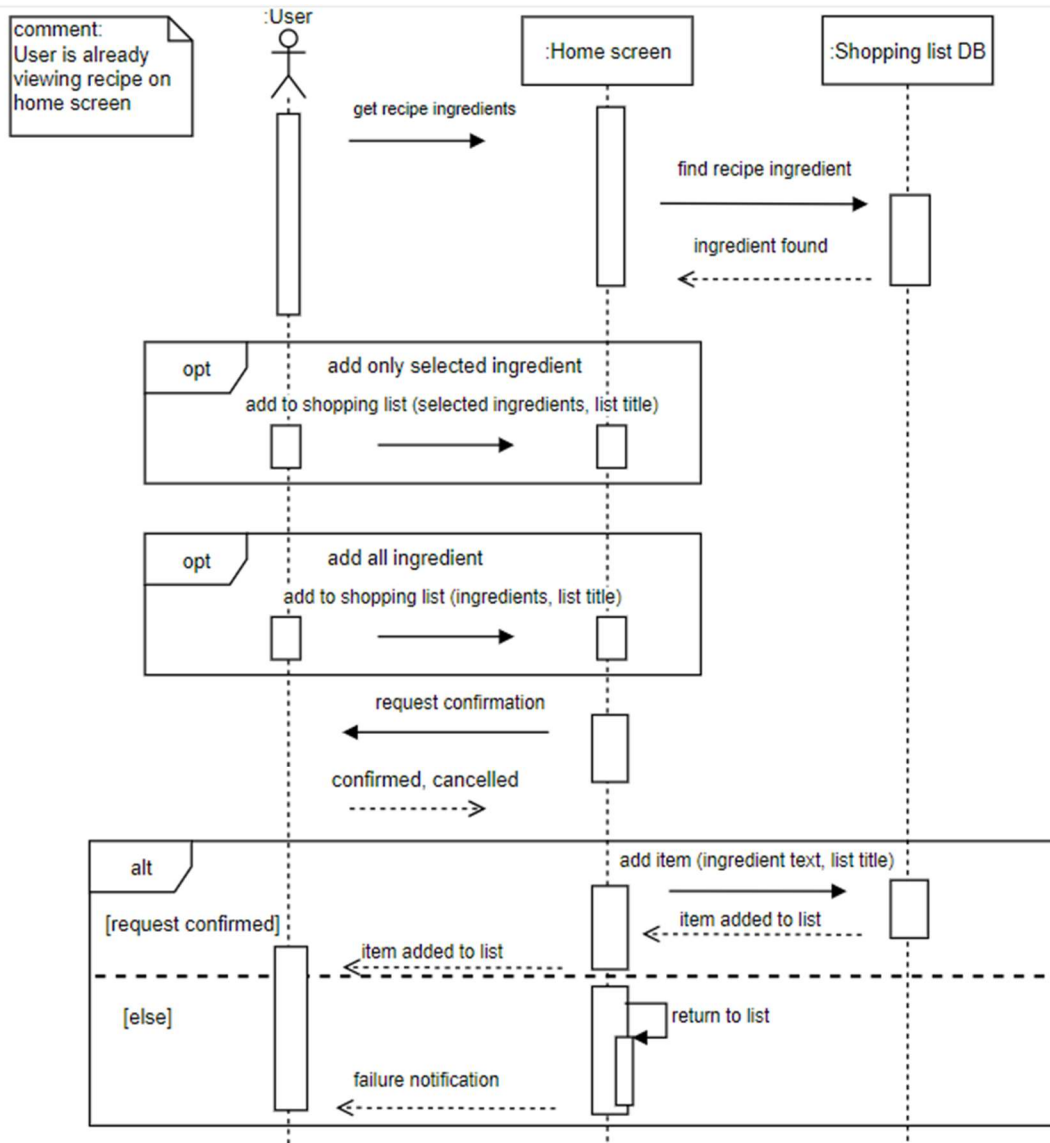
### Scenario description

| #.                                      | Subject   | Action of Subject      | Parameters            | Object Acted Upon |
|---|---|------------------------|-----------------------|-------------------|
|   | Comment:<br>User is already viewing recipe on home screen |                        |                       |                   |
| 1                                       | User  | Get recipe ingredients | Recipe ID             | Home screen       |
| 2.a                                     | Home screen   | Find recipe ingredient | Recipe ID             | Recipe DB         |
| 2.b                                     | Recipe DB   | Ingredient found       | Ingredient, recipe ID | Home screen       |
| Option 1: add only selected ingredients |   |                        |                       |                   |

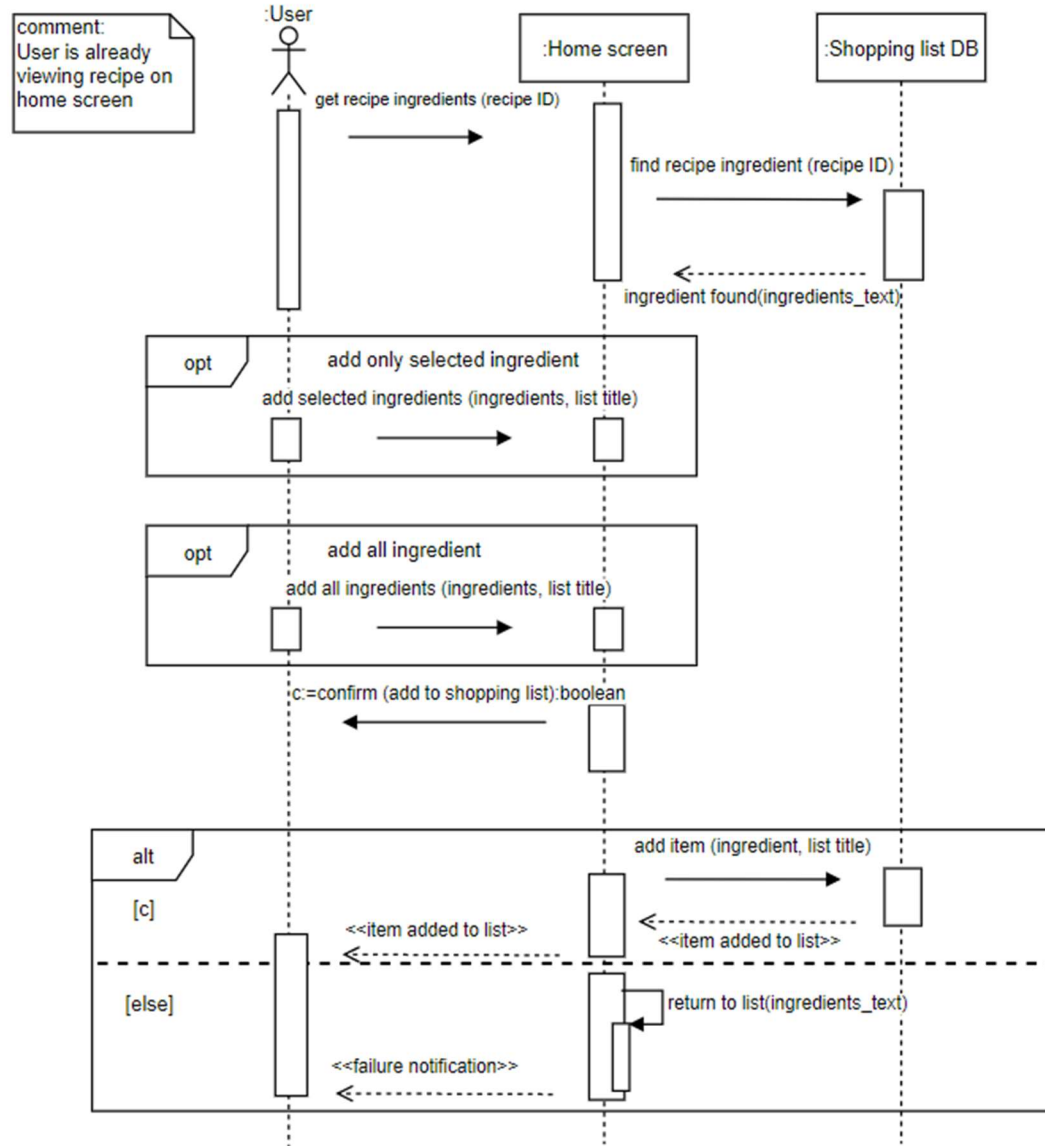


|                               |                  |                      |                                  |                  |
|-------------------------------|------------------|----------------------|----------------------------------|------------------|
| 2.c                           | User             | Add to shopping list | Selected ingredients, list title | Home screen      |
| Option 2: add all ingredients |                  |                      |                                  |                  |
| 2.c                           | User             | Add to shopping list | ingredients, list title          | Home screen      |
| 3.a                           | Home screen      | Confirm add item     | ingredients, list title          | User             |
| 3.b                           | User             | Returns              | True or false                    | Home screen      |
| 3.c                           | If confirmed     |                      |                                  |                  |
| 3.c.1                         | Home page        | Add item             | items text, list title           | Shopping list DB |
| 3.c.2                         | Shopping list DB | Item added to list   |                                  | Home page        |
| 3.c                           | else             |                      |                                  |                  |
| 3.c.1                         | Home page        | Return to list       |                                  | Home page        |

## Analysis Sequence diagram



## Design Sequence Diagram



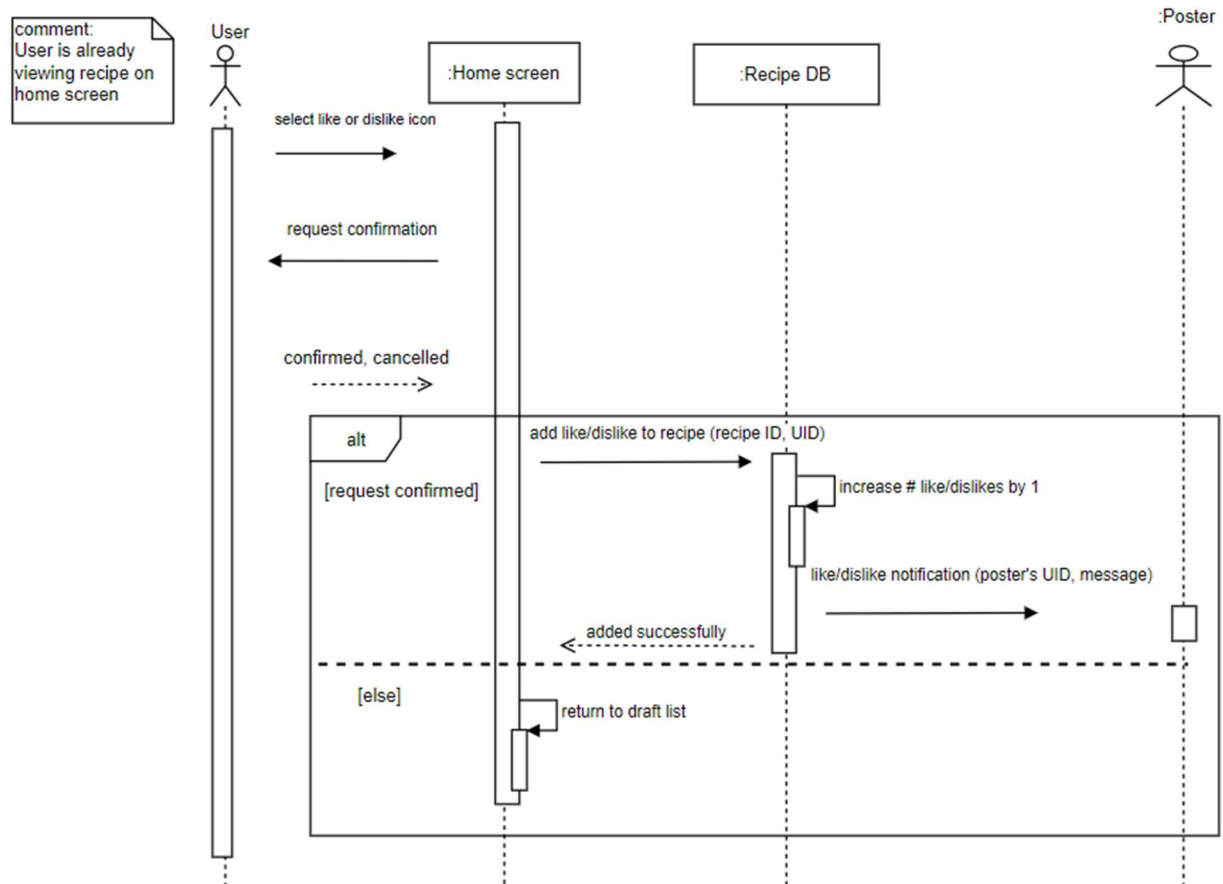
## Non-trivial step 12: Like/dislike recipe.

### Scenario description

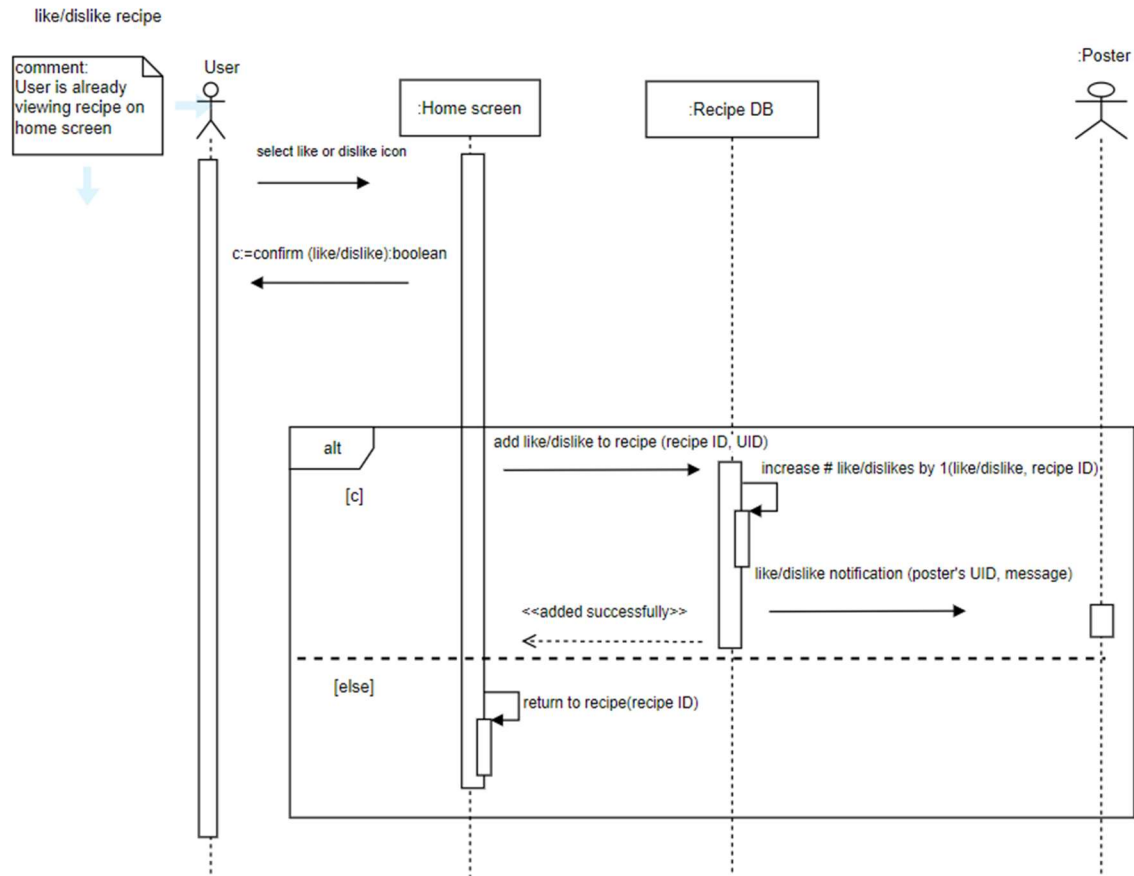
| #.    | Subject      | Action of Subject          | Parameters         | Object Acted Upon |
|-------|--------------|----------------------------|--------------------|-------------------|
| 1.a   | User         | Select like/dislike icon   | recipe             | Home screen       |
| 1.b   | Home screen  | Confirm action             |                    | user              |
| 1.c   | User         | Returns                    | True or false      | Home screen       |
| 1.d   | If confirmed |                            |                    |                   |
| 1.d.1 | Home screen  | Add like/dislike to recipe | Recipe ID, User ID | Recipe DB         |

|       |             |  |  |               |
|-------|-------------|--|--|---------------|
| 1.d.2 | Recipe DB   | Increase number of likes/dislikes by one | Recipe ID                              | Recipe DB     |
| 1.d.3 | Recipe DB   | Like/dislike notification                | Poster's user ID, notification message | Recipe poster |
| 1.d   | else        |  |  |               |
| 1.d.1 | Home screen | Return to recipe                         |  | Home screen   |

### Analysis Sequence diagram



## Design Sequence Diagram

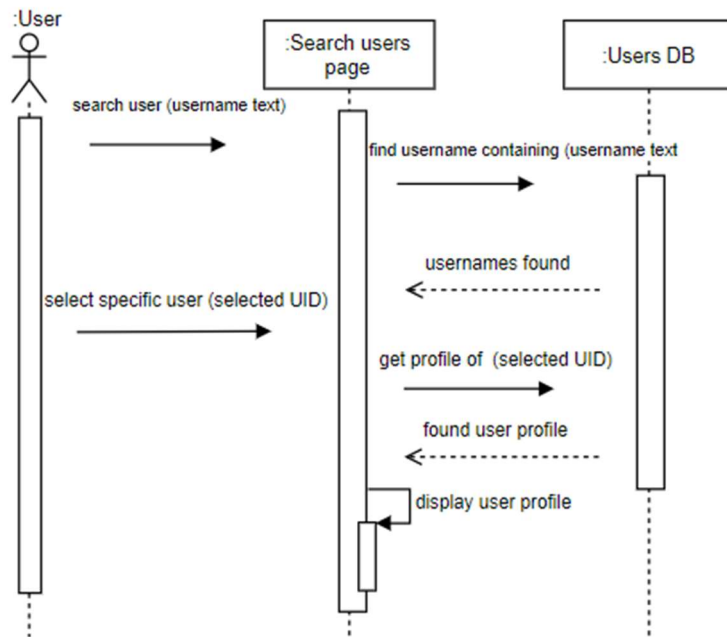


## Non-trivial step 13: Query system for specific user.

### Scenario description

| #.  | Subject           | Action of Subject                | Parameters                           | Object Acted Upon |
|-----|-------------------|----------------------------------|--------------------------------------|-------------------|
| 1   | user              | Search user                      | Username text                        | Search users page |
| 2.a | Search users page | Find usernames containing        | Username text                        | Users' DB         |
| 2.b | Users' DB         | Found users                      | usernames containing "Username text" | Search users page |
| 3   | user              | Select specific user             | Selected username                    | Search users page |
| 4.a | Search users page | get profile of selected username |                                      | Users' DB         |
| 4.b | Users' DB         | Found user profile               |                                      | Search users page |
| 4.c | Search users page | Display profile                  |                                      | user              |

## Analysis Sequence diagram



## Non-trivial step 14: Follow recipe poster of a recipe.

### Scenario description

| #.  | Subject     | Action of Subject                | Parameters                              | Object Acted Upon |
|-----|-------------|----------------------------------|---|-------------------|
| 1   | user        | Select username of recipe poster | Selected username                       | Home screen       |
| 2a  | Home screen | get profile of selected username |   | Users' DB         |
| 2.b | Users' DB   | Found user profile               |   | Search users page |
| 2.c | Home screen | Display profile                  |   | user              |
| 3   | User        | Select follow user               | UID (current user), UID (selected user) | Home screen       |
| 4.a | Home screen | Add following                    | UID (current user), UID (selected user) | Users' DB         |
| 4.b | Users' DB   | Add follower to selected user    | UID (current user), UID (selected user) | Users' DB         |

|     |   |                               |   |               |
|-----|---|-------------------------------|---|---------------|
| 4.c | Users' DB                               | Add following to current user | UID (current user), UID (selected user) | Users' DB     |
| 4.d | UID (current user), UID (selected user) | Notify selected user          |   | Selected user |

### Analysis Sequence diagram

