

Project: Recipe Planner

Project Idea

Recipe Planner is a class project web application that helps users save their recipes, organize them into weekly meal plans, and manage the connection between ingredients and meals. It is designed as a demonstration project with a clear database structure and simple user interface.

Main Components

Authentication (Account)

Users can register and login. Each account contains an ID, email, password, and display name. Accounts are linked to Recipes thanks to the Connects connect table.

Recipes

Each recipe contains an ID, title, description, preparation me, cooking me, servings, difficulty, steps, and an illustration. Recipes are linked to Ingredients thanks to the Needs connect table.

Ingredients

Each ingredient contains an ID, name, calories, and proper es. They also have all their nutritive specs such as Fat, Carbs, Fibers, Protein, Salt and Sugar. Ingredients are being sold by shops with a connector table called Sells.

Shops

Each shop contains an ID, a name, a type of shop, an address, its opening me, an about text information, a website link and a phone number.

Connector tables

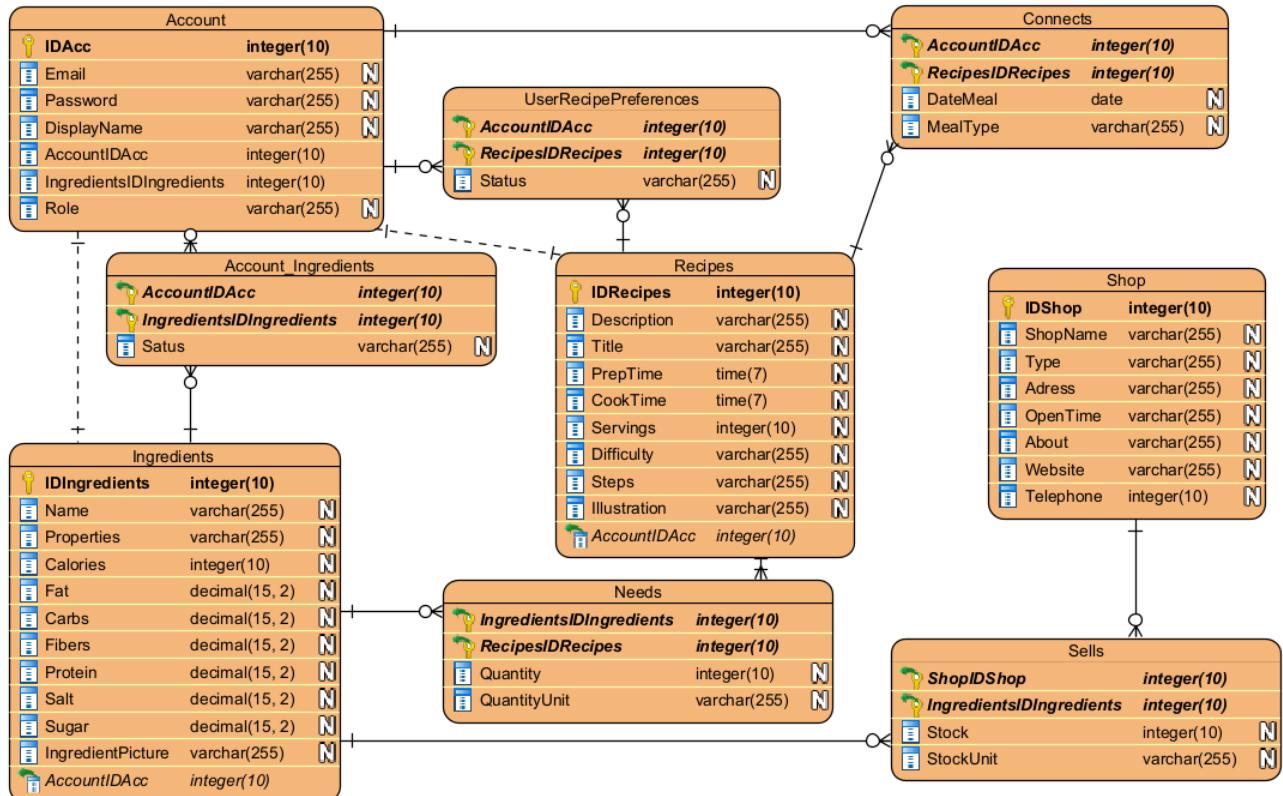
Several connector entities are used to manage relations:

- Connects: links Account to Recipes with the date for the meal and its type (breakfast, lunch...) - Needs: links Recipes to Ingredients with the quantity and its unit.
- Sells: links Shops to Ingredients with the quantity stocked and its unit.

Database overview:

- Account: authentication and profile information
- Recipes: details of each recipe
- Ingredients: food elements with calories and proper es

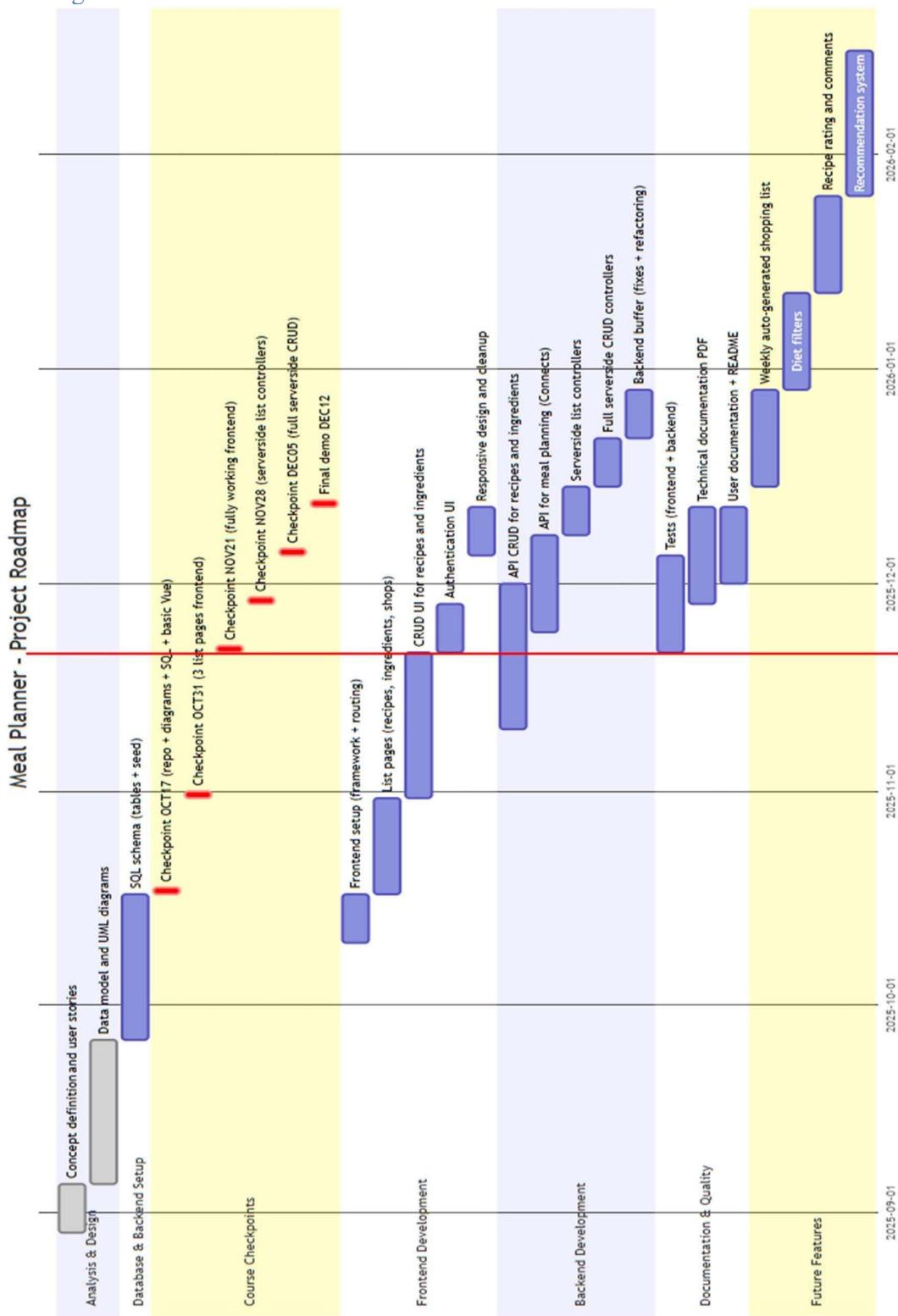
- Shop: shop informations
- Connects: relation between Account and Recipes
- Needs: relation between Recipes and Ingredients
- Sells: relation between Shops and Ingredients



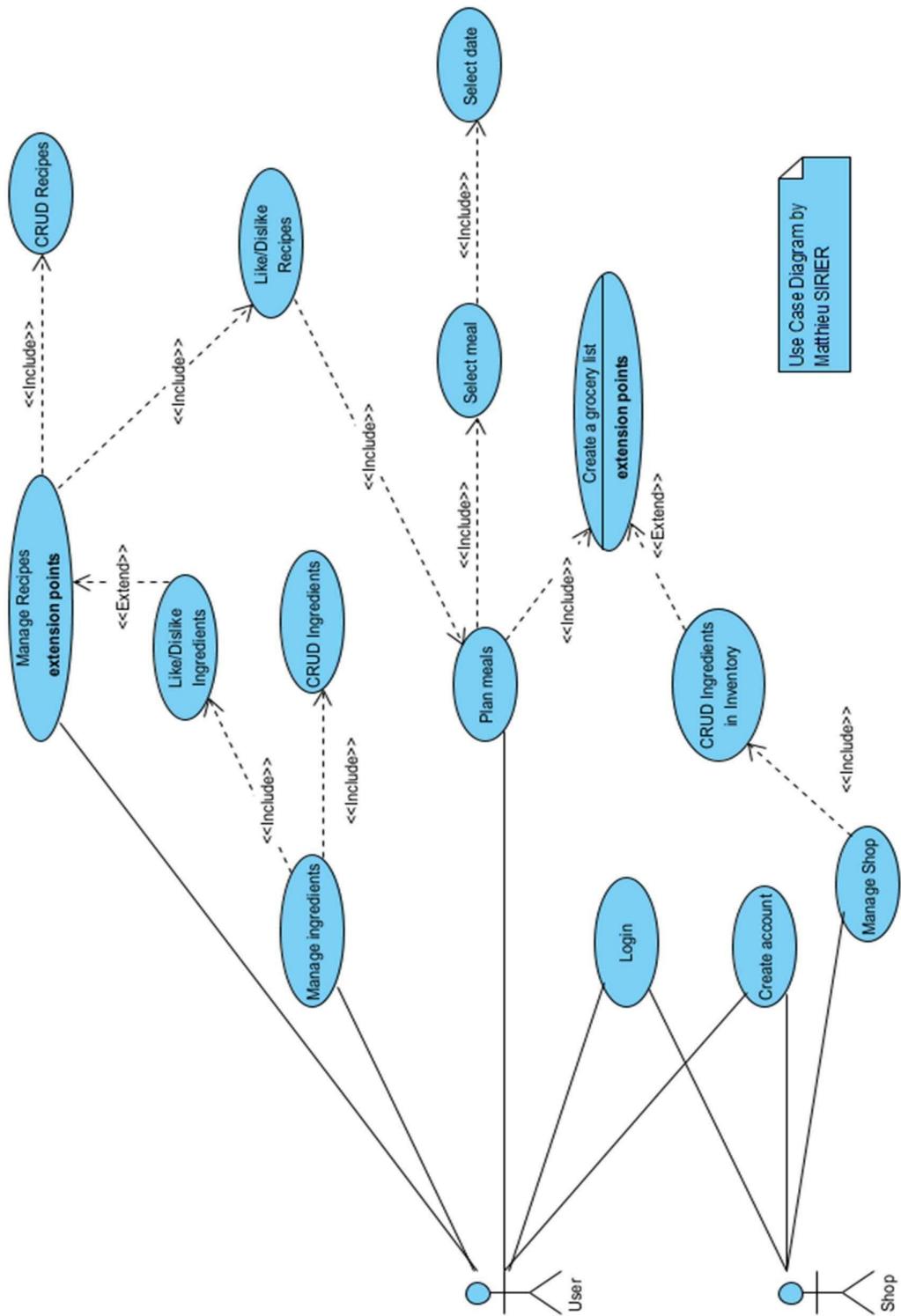
ER Diagram:



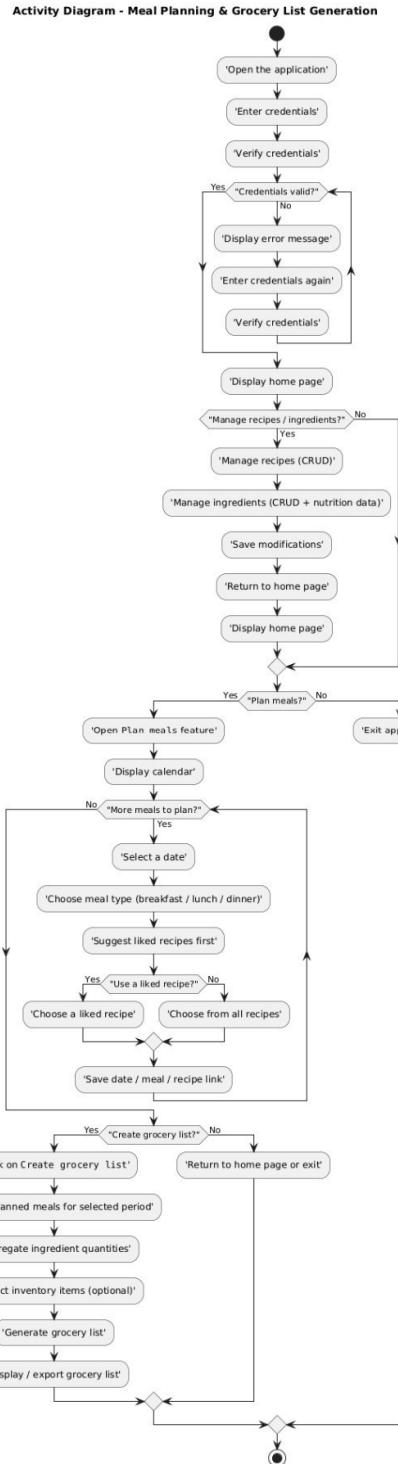
Gantt diagram:



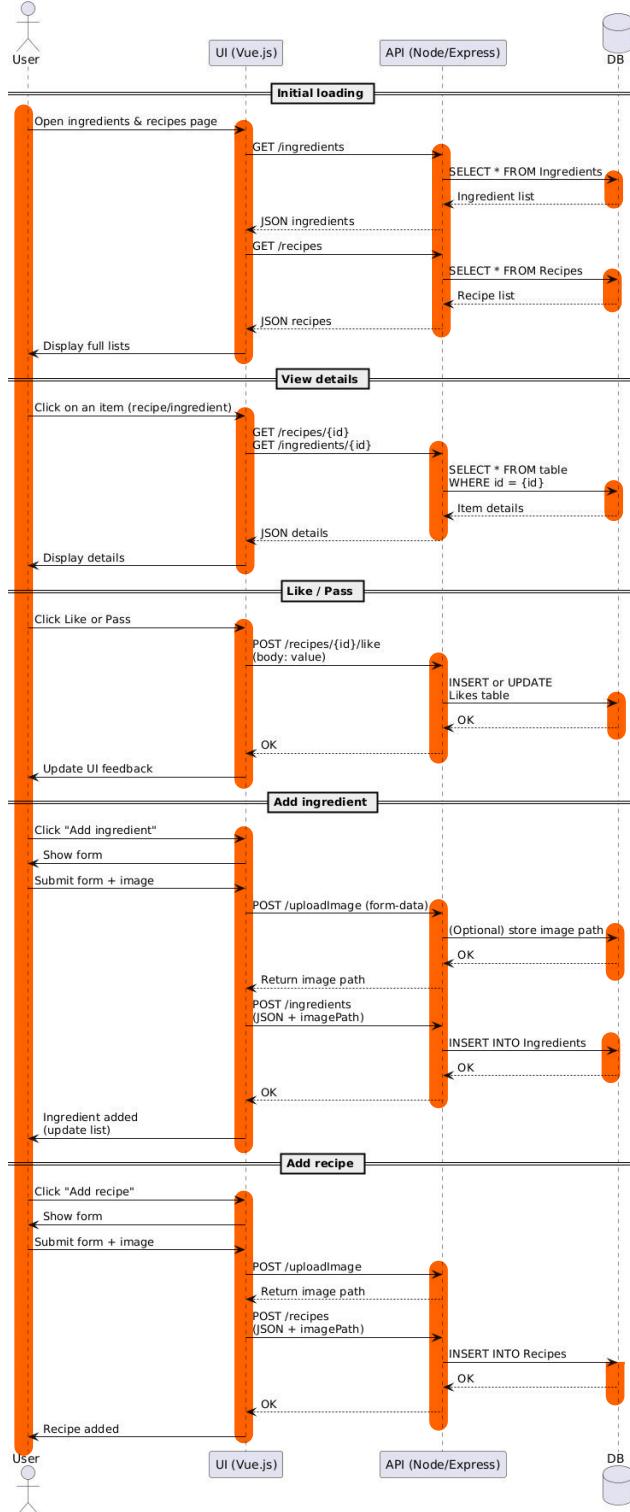
Use Case Diagram (Matthieu):



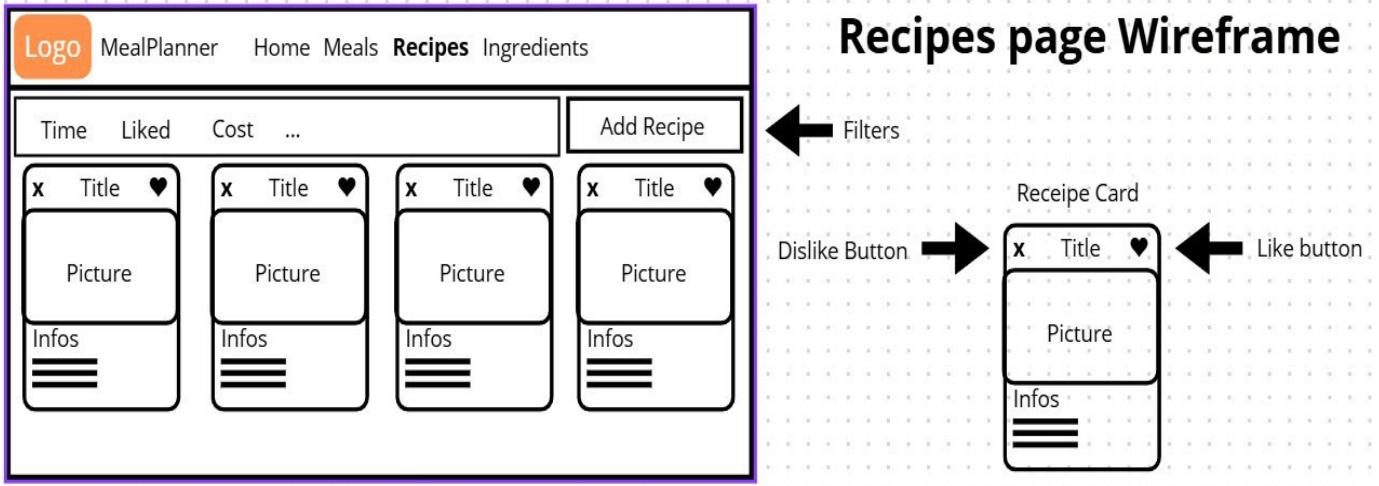
Activity diagram by Matthieu: Login, recipes management and meal planning



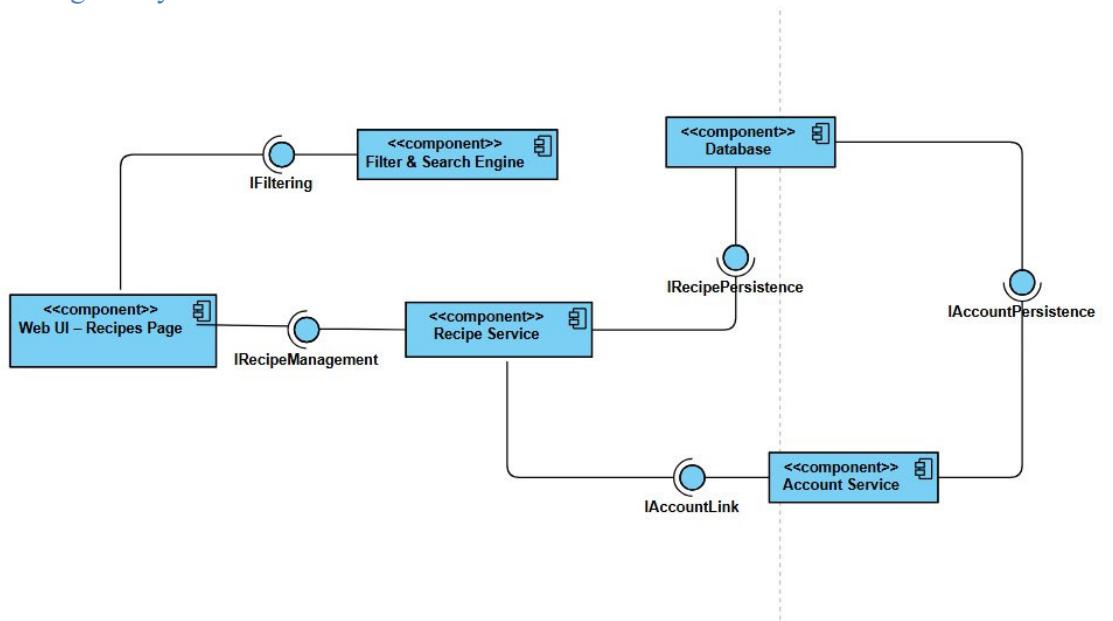
Sequence diagram by Matthieu:



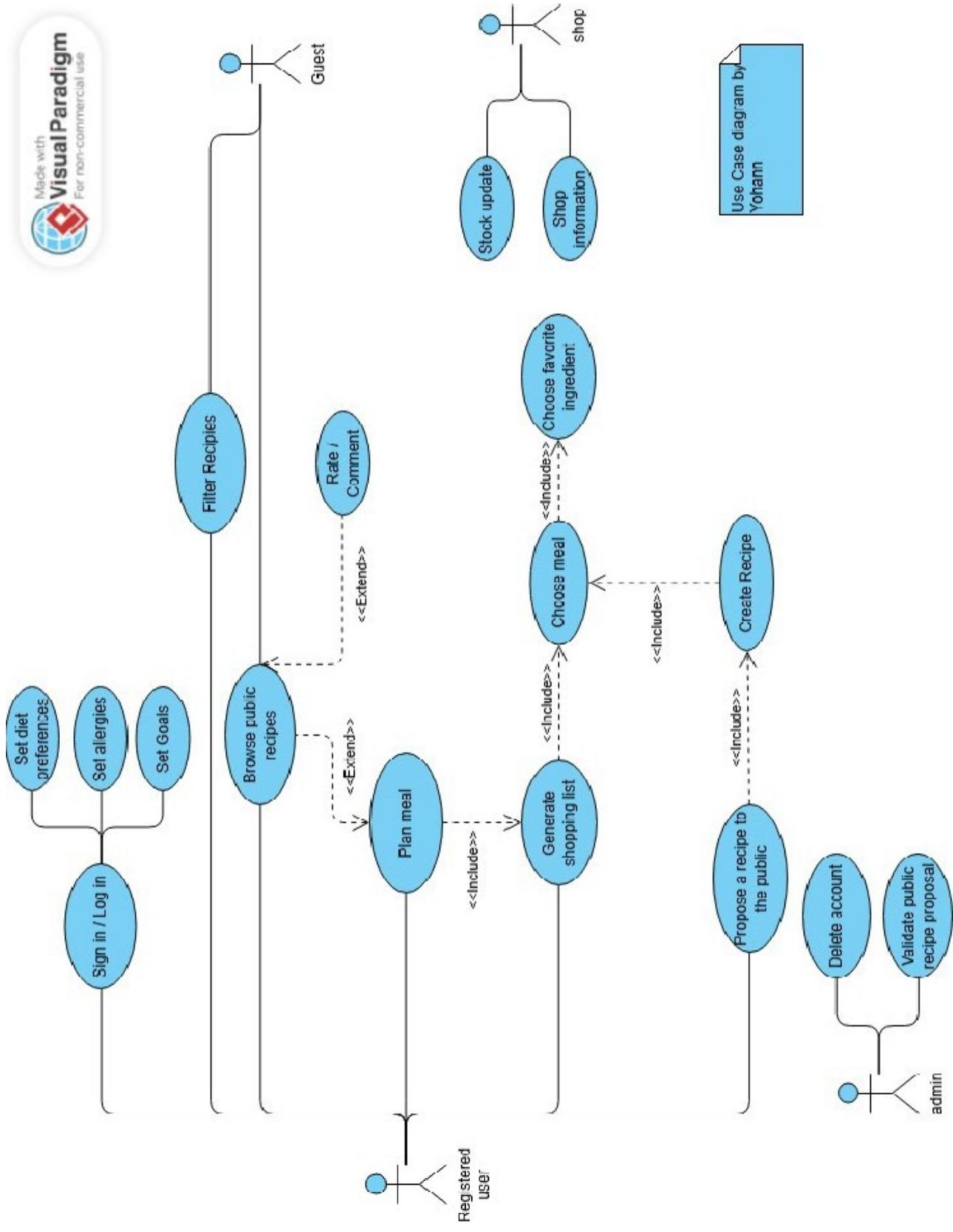
Wireframe by Matthieu:



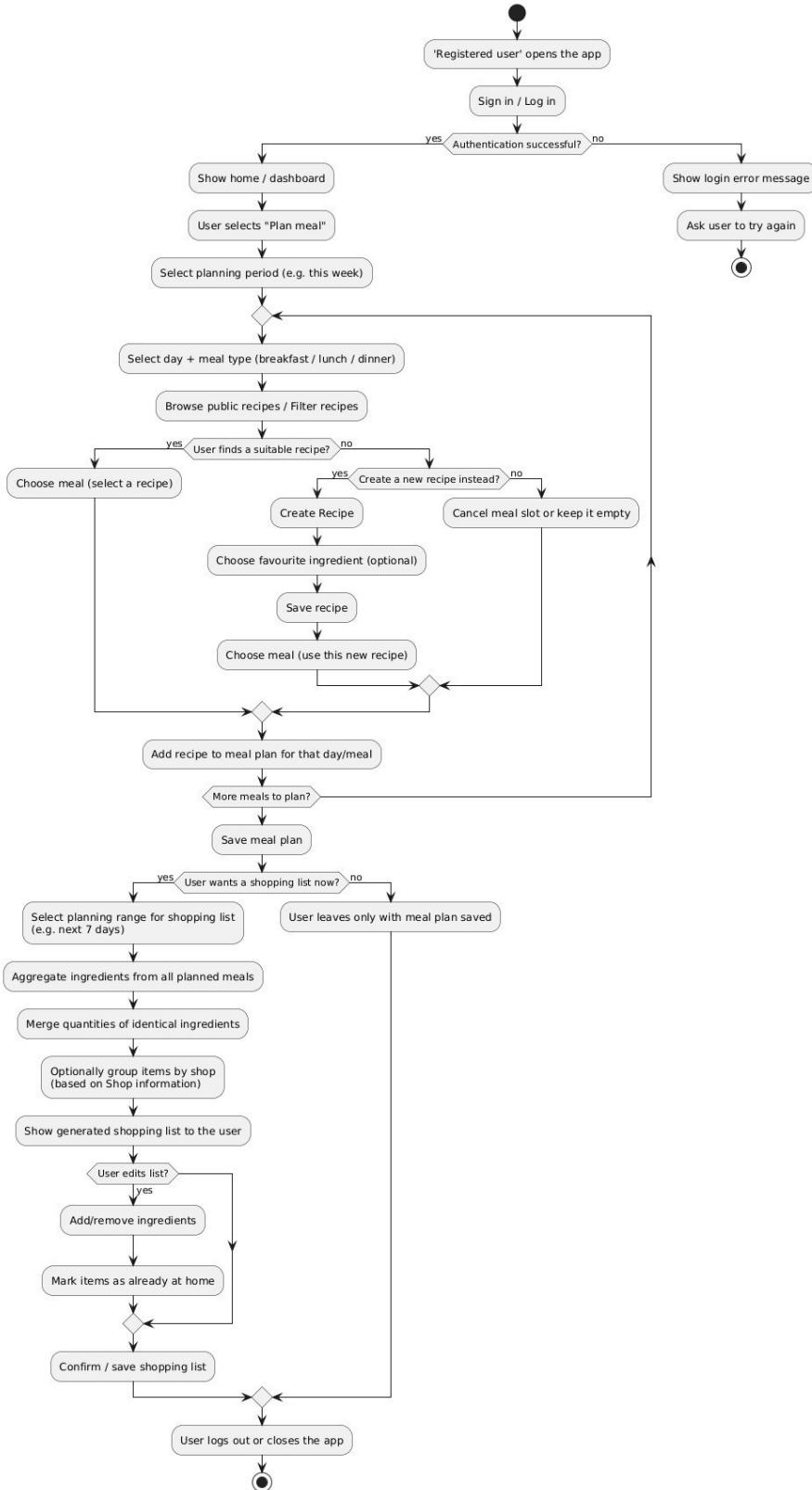
Component diagram by Matthieu:



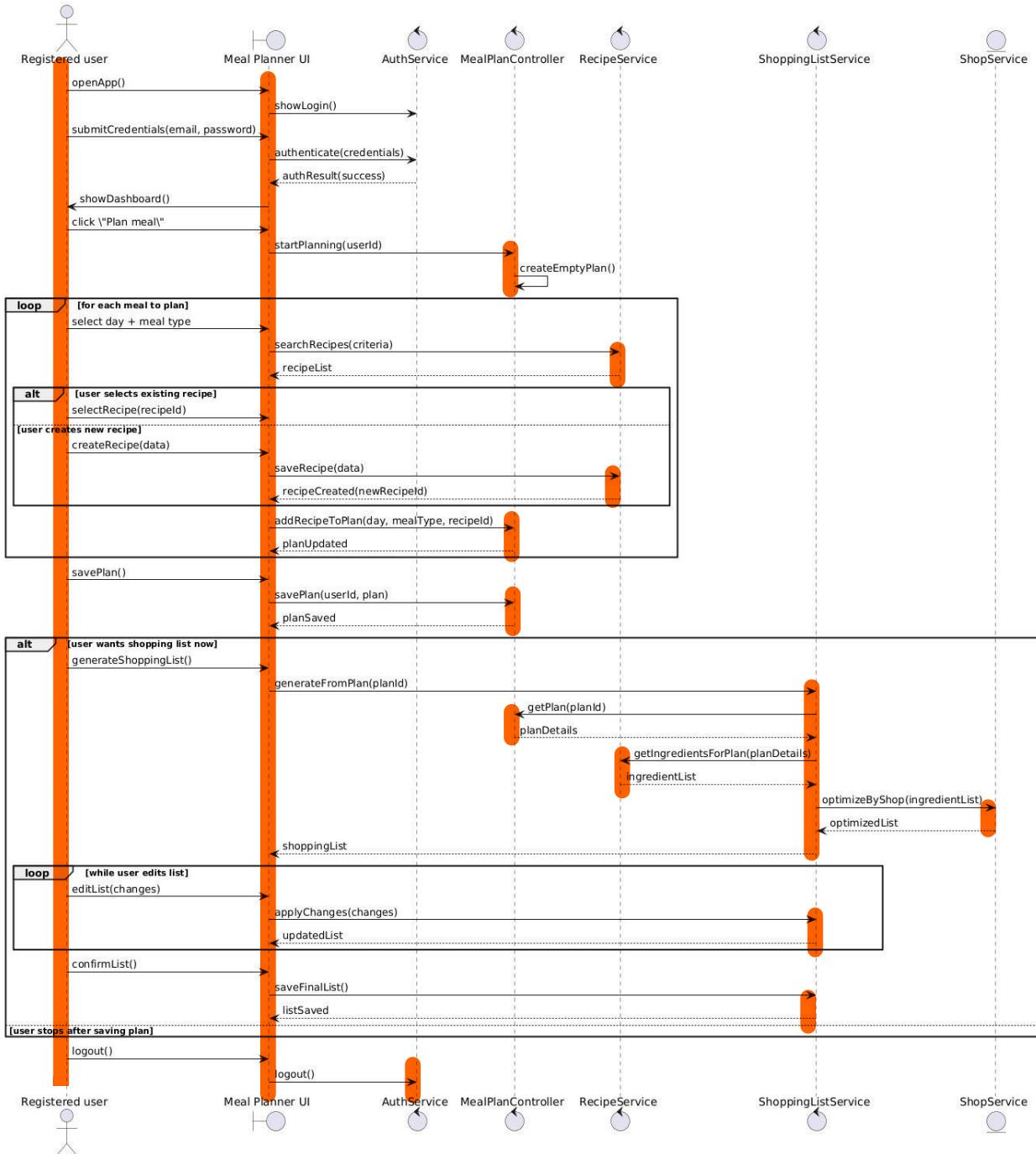
Use Case Diagram (Yohann):



Activity diagram by Yohann: Login and meal planning:



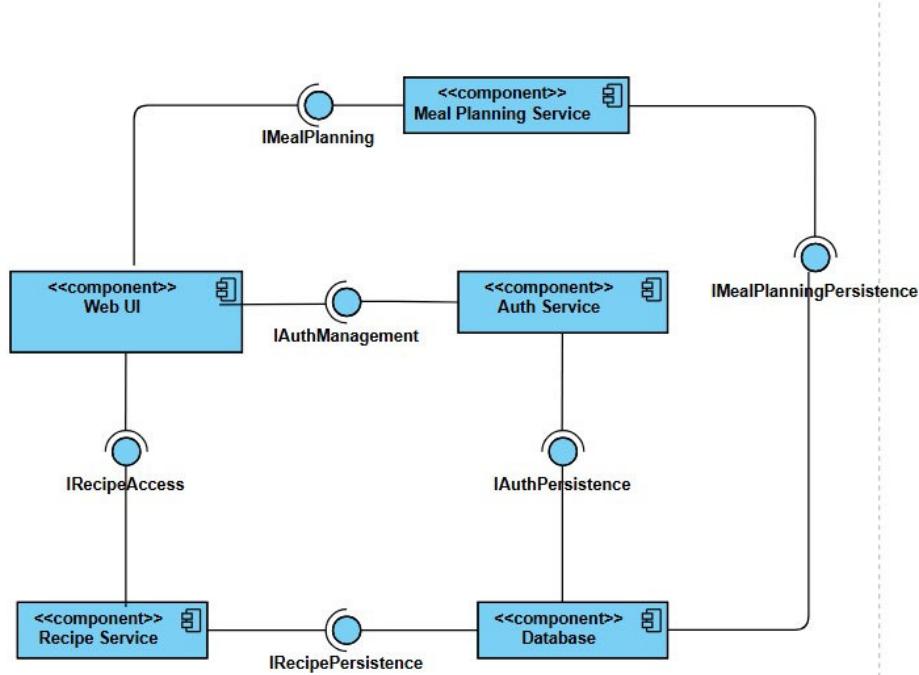
Sequence diagram by Yohann:



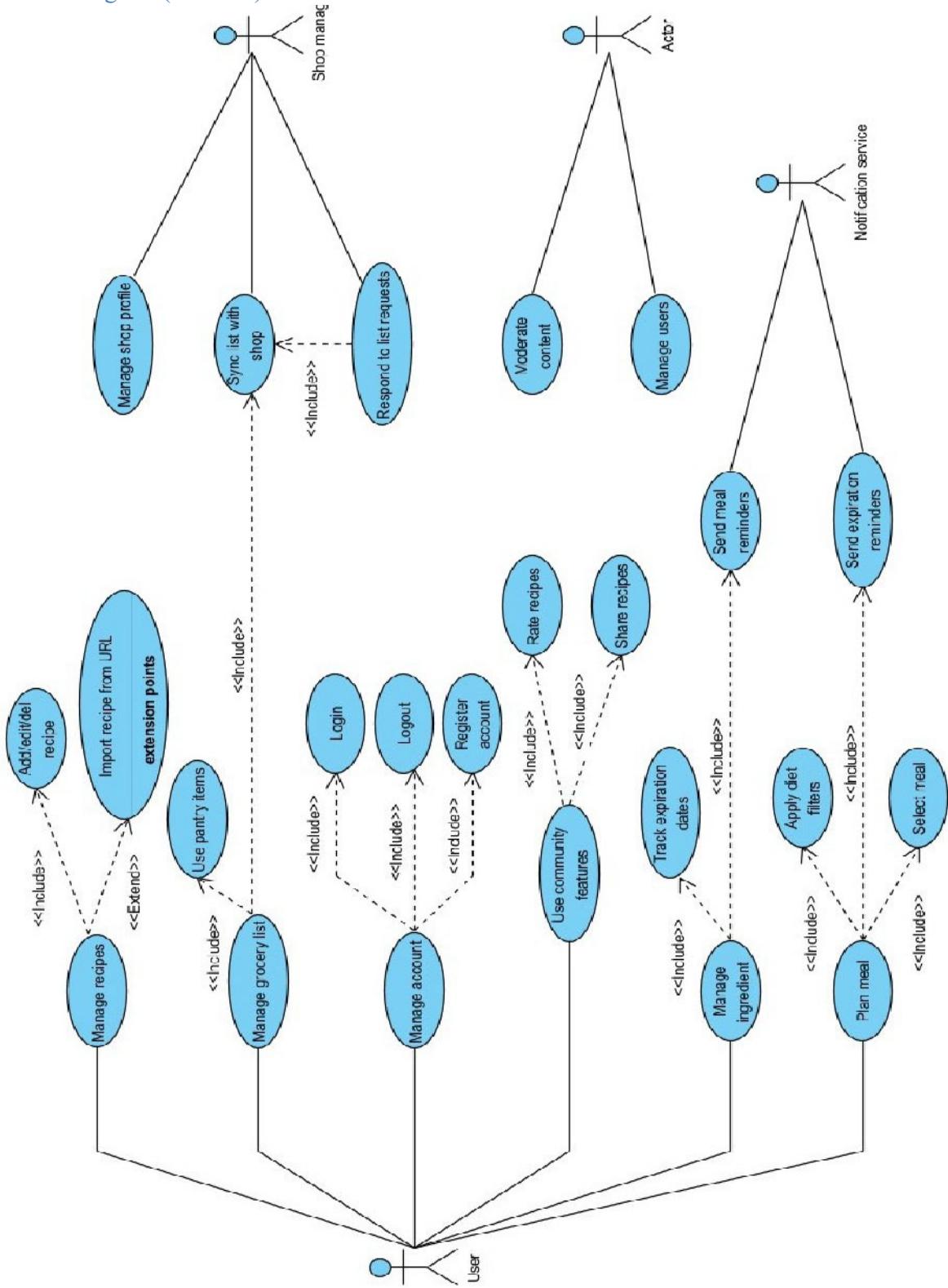
Wireframe by Yohann:

The wireframe shows the Home page of the MealPlanner application. At the top, there is a navigation bar with a logo, menu items (MealPlanner, Home, Meal, Recipes, Ingredients, Shop), and a sign-in/log-in button. Below the navigation bar, there are two sections: "Tendances" and "Meal liked", each displaying six meal thumbnails labeled "plat1". To the right, a sidebar displays the "Next planned meal" (a burger and fries) with the text "Lunch for tomorrow: plat 1" and a "Link to the recipe" button. At the bottom, there is an "About Us" section with placeholder text and a "Prepare your shopping list" button.

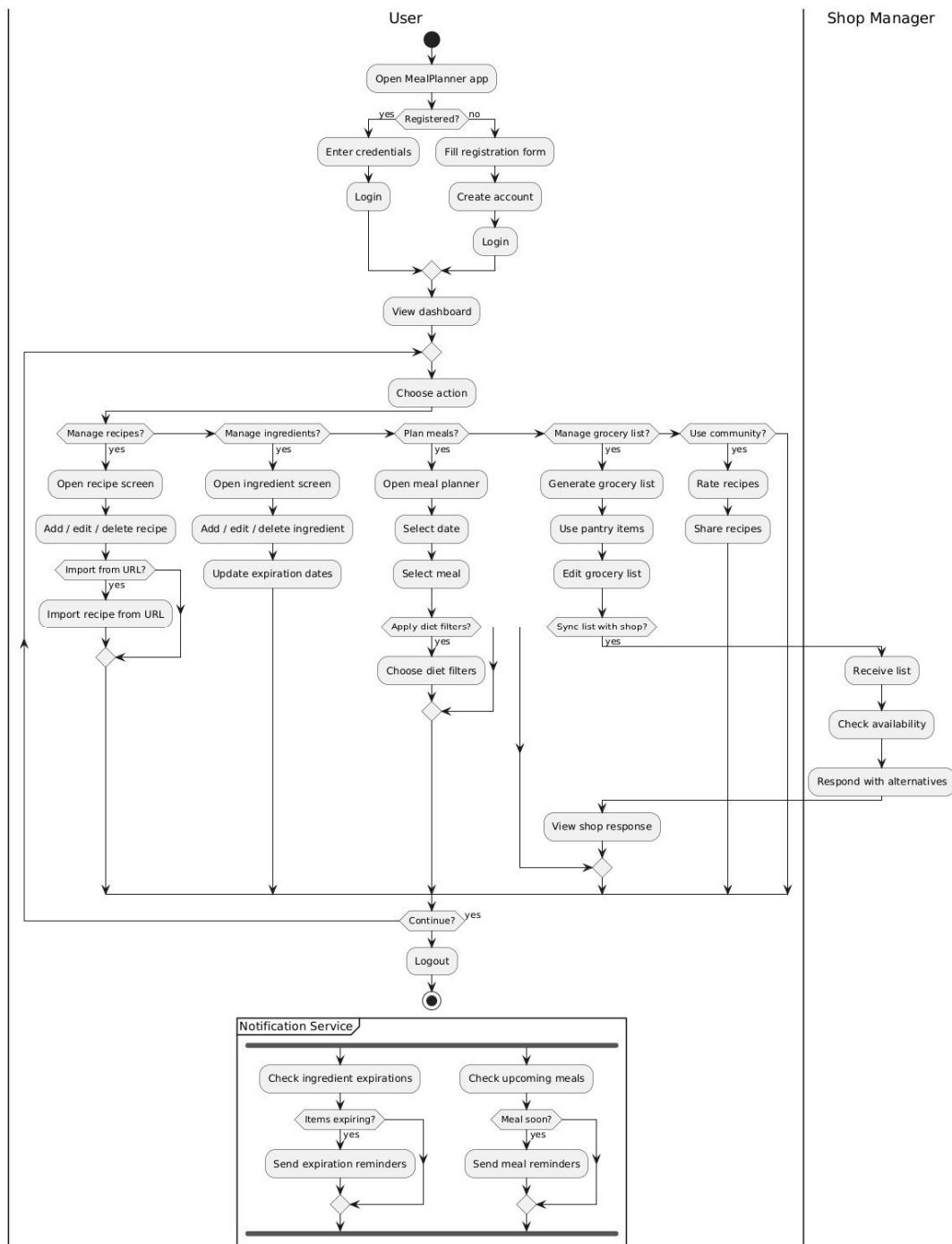
Component diagram by Yohann:



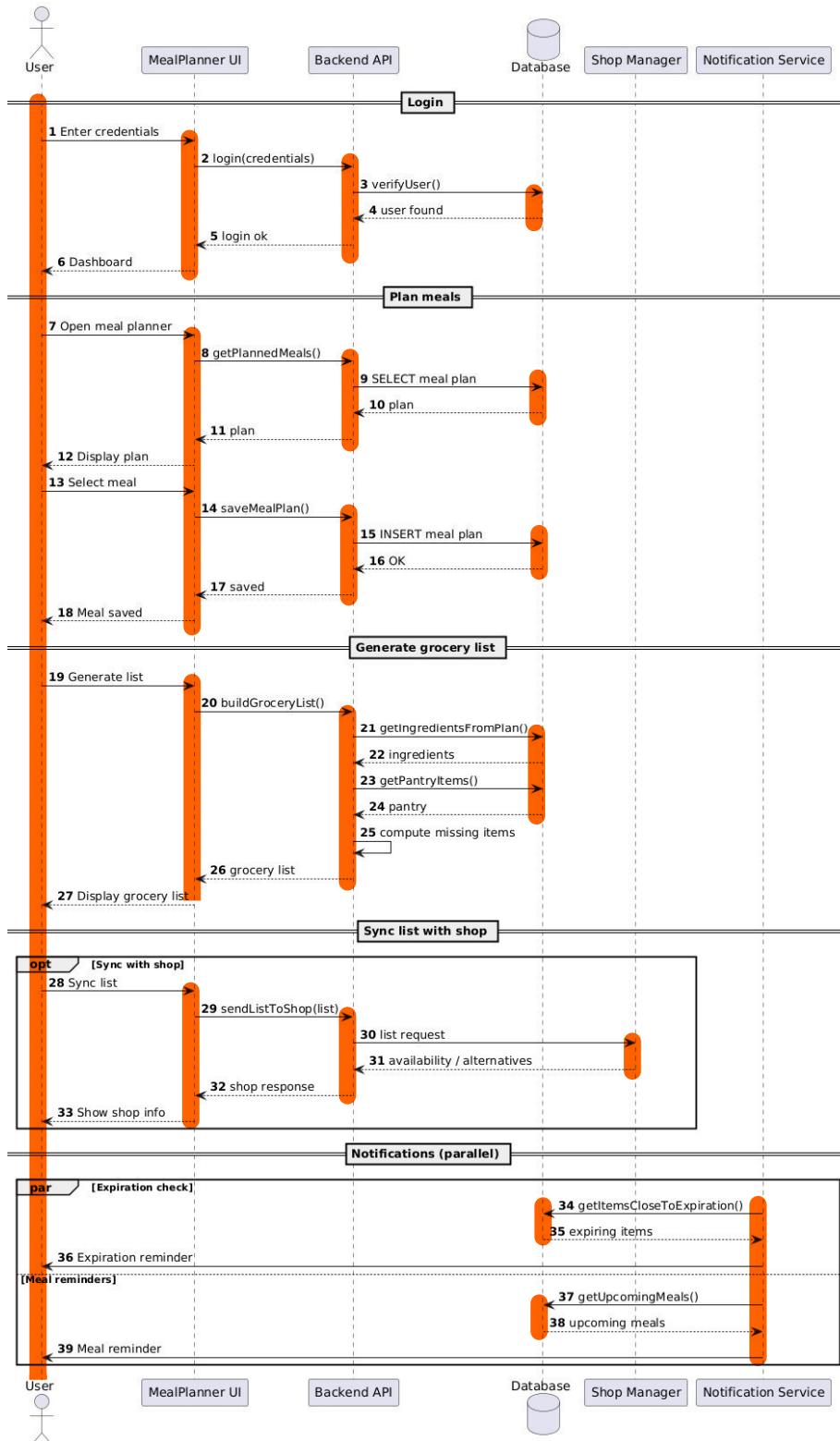
Use Case Diagram (Valentin):



Activity diagram by Valentin: Global possibilities



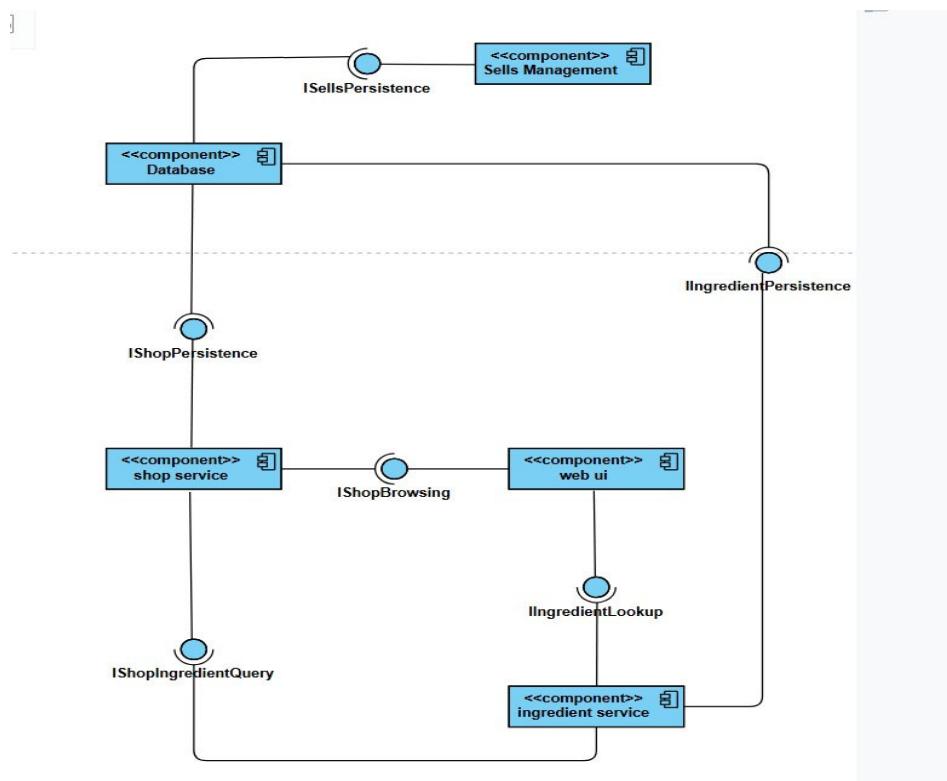
Sequence diagram by Valentin:



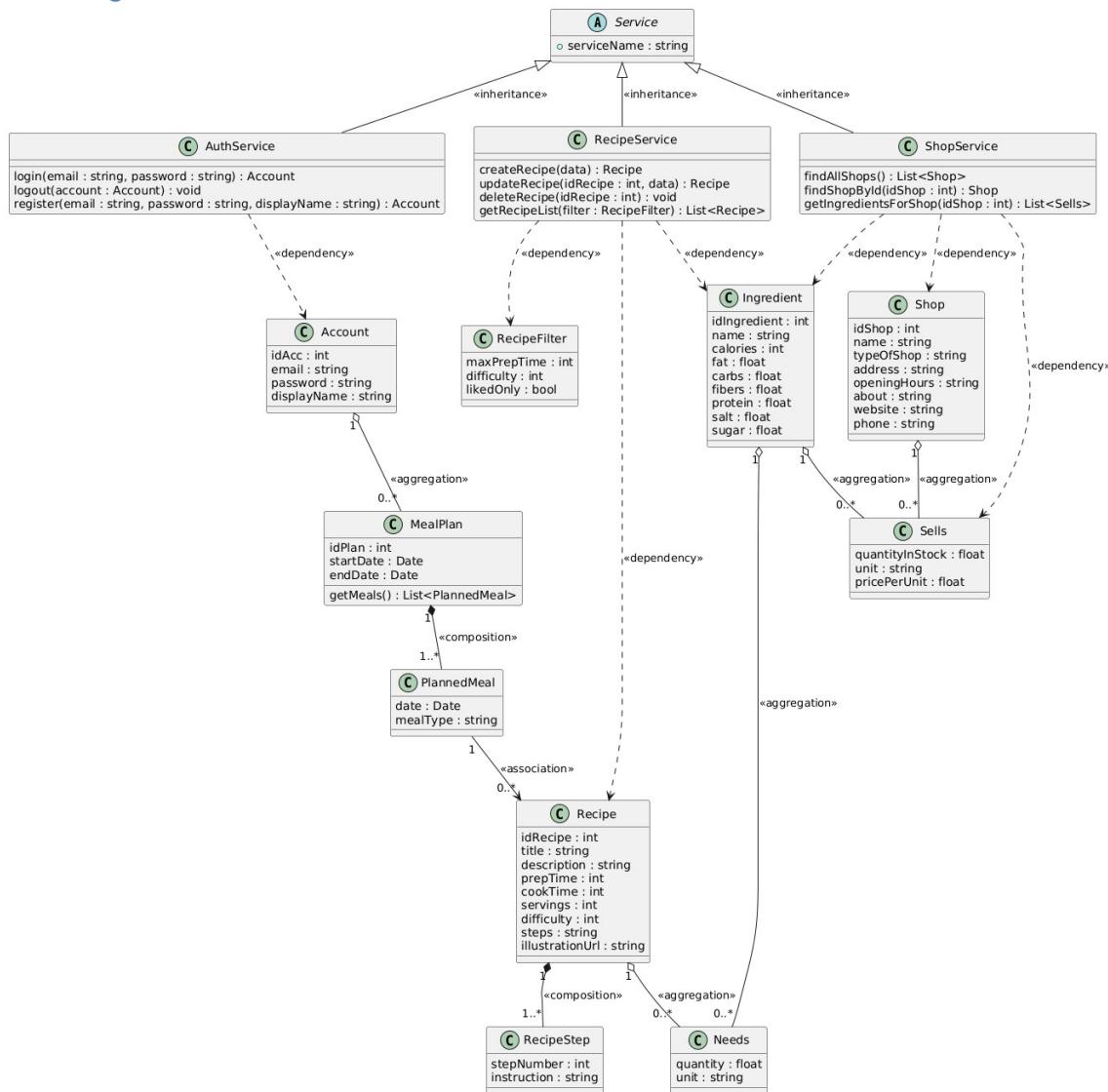
Wireframe by Valentin:

The wireframe shows a top navigation bar with a logo, MealPlanner, Home, Meal, Recipes, Ingredients, a bolded Shop link, a user icon, and Sign in / Log in. Below the navigation is a large title "Shop". A search bar with a magnifying glass icon and a dropdown menu labeled "Type" is present. To the left is a purple box containing a placeholder "Shop picture". To the right of the picture are fields for "Shop name", "Position", "Opening hours" (set to HH-MM / HH-MM), and a text area for "Description" with Latin placeholder text. Below these sections is a heading "About" followed by a short paragraph of Latin text. At the bottom are two buttons: "View shop ingredients" and "Website / Phone".

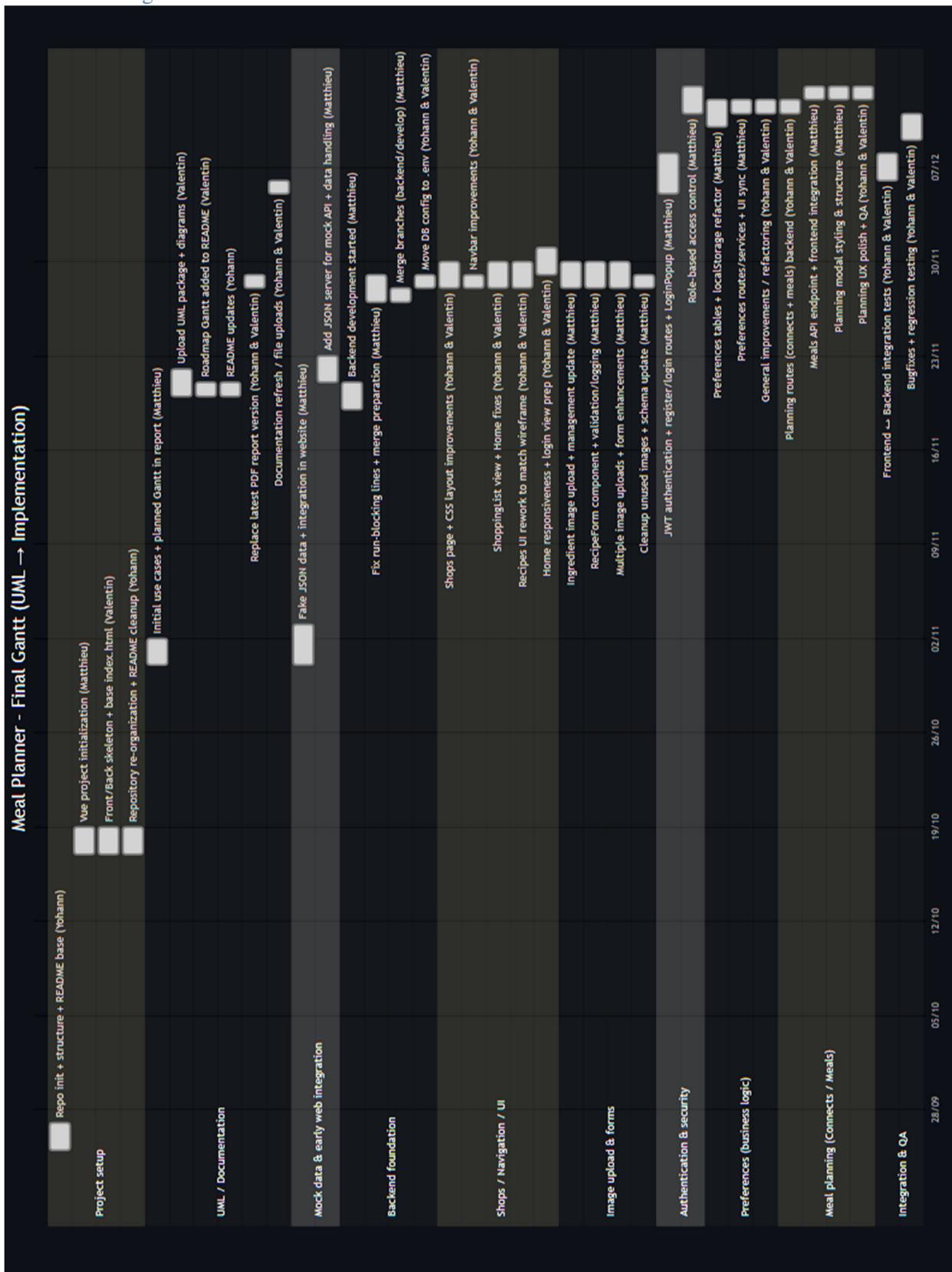
Component diagram by Valentin:



Class diagram :



Finale Gantt diagram :



Future Improvements

With additional time and resources, the Meal Planner application could be further improved by adding advanced user role management and enhanced security features. The planning system could be extended with automatic meal suggestions and a fully dynamic shopping list generated from planned meals. Improvements in user experience, such as notifications and interactive calendar features, as well as performance optimizations, would also make the application more robust and scalable.