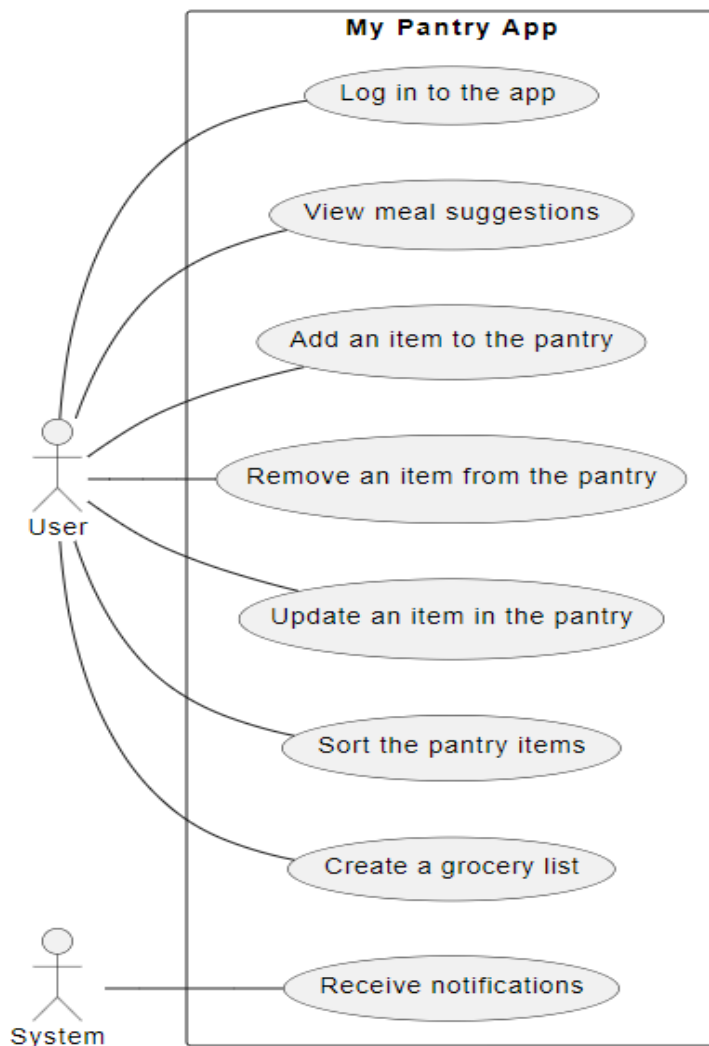


System Design Document: My Pantry App

1. Introduction

This document provides a detailed design overview of the "My Pantry App," outlining the system architecture, user interaction through use case diagrams, user stories with acceptance tests, and visual mock ups of the user interface. Additionally, the database design is represented through an Entity-Relationship (ER) diagram.

2. Final Use Case Diagram



The model above shows the Actors and Use cases listed below:

- **Actors:** User, System
 - **Use Cases:**
 - User logs in to the app
 - User views meal suggestions
 - User adds an item to the pantry
 - User removes an item from the pantry
 - User updates an item in the pantry
 - User sorts the pantry items
 - User creates a grocery list
 - User receives notifications
-

3. User Stories

3.1 User Story: View Meal Suggestions

“As a user, I want to see meal suggestions when I open the app, so that I can quickly decide what to cook based on what I have.” -App User

Acceptance Test:

- Given that I am on the main screen,
- When I launch the app,
- Then I should see a meal suggestion based on my current pantry inventory.

3.2 User Story: Add Item to Pantry

“As a user, I want to add new items to my pantry list, so I can keep track of what I have.” -App User

Acceptance Test:

- Given that I am on the pantry list screen,
 - When I select the option to add a new item and enter the item details,
 - Then the new item should appear in my pantry list.
-

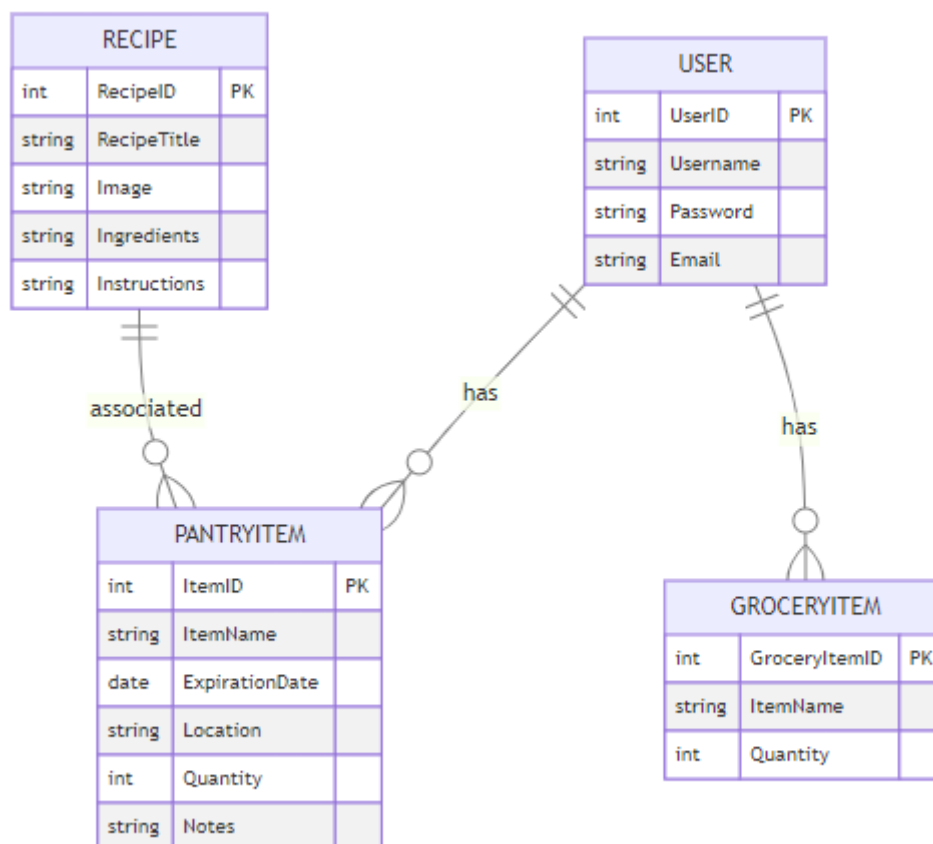
4. Mocked Up Screen Shots



This mock up represents the following screens:

- **Meal Suggestion Screen:** Shows a recipe with an image, title, ingredients, and instructions.
- **Pantry List Screen:** Displays a list of pantry items with details like name, expiration date, and quantity.
- **Add Item Screen:** A form to add a new pantry item with fields for name, expiration date, quantity, and location.

5. Database Design/ER Diagram

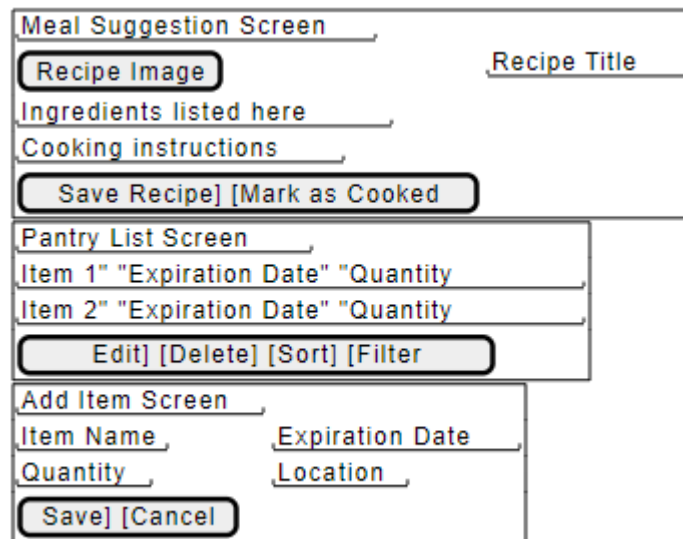


The above ER diagram details the following entities and their relationships:

- **PantryItem:** Attributes include ItemID, ItemName, ExpirationDate, Location, Quantity, Notes.
- **GroceryItem:** Attributes include GroceryItemID, ItemName, Quantity.
- **Recipe:** Attributes include RecipeID, RecipeTitle, Image, Ingredients, Instructions.
- **User:** Attributes include UserID, Username, Password (consider encryption for security), Email.

Relationships:

- A User has many PantryItems.
- A User has many GroceryItems.
- A Recipe is associated with many PantryItems (for suggesting meals based on available items).



Above shows another mock up of what the program could look like.

6. Conclusion

This System Design Document provides a blueprint for the development of the "My Pantry App." It includes user interaction models, system functionality narratives, visual representations of the UI, and the database structure. The next steps would involve the development team using this document to build and test the application.
