Dominick Ferro 10/10/2023 Software Engineering Specification Document

System Specification Document: My Pantry App

1. Executive Summary

1.1 Overview

The "My Pantry App" is a mobile application designed to assist users in efficiently managing their food inventory. By tracking expiration dates, suggesting meals based on available ingredients, and offering inventory management tools, the app aims to reduce food waste and save users money.

1.2 Benefits

- **Waste Reduction**: By tracking expiration dates and suggesting meals based on perishables, users can consume food items before they go bad.
- **Cost Savings**: Efficient inventory management means fewer unnecessary purchases, leading to monetary savings.
- **Convenience**: A centralized system to manage both pantry and grocery lists, making shopping and meal planning easier.
- **Collaboration**: Future enhancements will allow users to share lists, promoting collaborative meal planning among family or roommates.

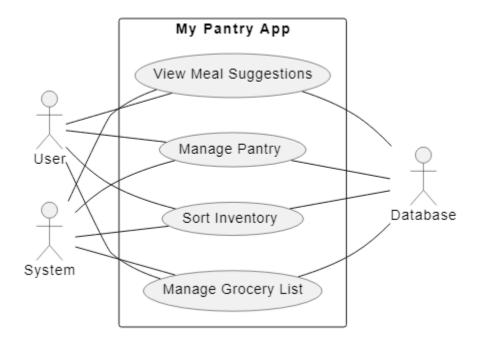
1.3 Target Clients

- Households: Families looking to manage their groceries and reduce food wastage.
- **Individuals**: Especially those living alone or with roommates, aiming for efficient grocery shopping and meal planning.
- **Small Restaurants/Cafes**: Establishments looking to manage their inventory and reduce wastage.

2. System Overall Specification

The "My Pantry App" is a mobile application with features ranging from meal suggestions to inventory management. Upon launching, users are greeted with a meal suggestion based on their current inventory. The app's core lies in its ability to let users manage their pantry items, track expiration dates, and sort items based on various criteria. Additionally, a separate grocery list section aids in efficient shopping.

2.1 High-Level Use Case Diagram



Above is the use-case diagram illustrating the interactions between the "User", "System", and "Database" with the various features of the "My Pantry App"

3. BPMN Business Model/Activity Diagram

3.1 Business Process Hierarchy

- Inventory Management
- Add Item
- Remove Item
- Update Item

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- Sort Items

- Meal Planning

- View Suggested Meals
- Search Recipes

- Shopping

- Add to Grocery List
- Remove from Grocery List
- Update Grocery List

- Notifications

- Expiry Alerts
- Grocery Reminders

3.2 Organizational Hierarchy

- End Users
- Regular Users
- Premium Users (potential future enhancement)

- Administrative Users

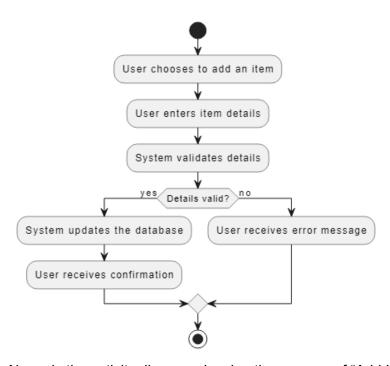
- App Admins
- Content Creators (recipes)

- System

- Database Management
- Notification System

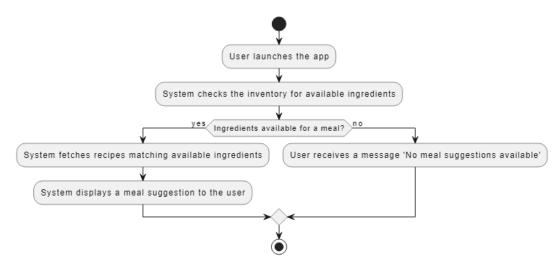
3.3 Business Process Maps for Two Elementary Business Processes

3.3.1 Add Item to Inventory:



Above is the activity diagram showing the process of "Add Item to Inventory".

3.3.2 View Suggested Meals



Above shows the activity diagram showing the process of "View Suggested Meals".