# Project/Business Requirements for MANOS Food Decider

## 1. Business Requirements

### 1.1 Purpose

The **MANOS Food Decider** is a mobile application designed to assist users in making informed food choices based on their dietary restrictions and preferences. The system helps users by suggesting recipes, generating shopping lists, and recommending restaurants that align with their dietary needs.

### 1.2 Business Objectives

- Provide a **personalized meal recommendation system** to simplify food choices.
- Reduce **meal planning stress** for users with dietary restrictions.
- Offer **efficient grocery planning** by generating shopping lists.
- Help users discover new **recipes and restaurants** suited to their dietary needs.
- Improve **health-conscious decision-making** through meal tracking and personalized suggestions.

### 1.3 Stakeholders

- **Primary Users** – Individuals with specific dietary needs or food preferences.
- **Developers & System Administrators** – Responsible for building and maintaining the system.
- **Restaurants & Food Providers** – May partner with the app to expand their customer base.
- **Investors & Business Owners** – Interested in monetization and system scalability.

# 2. Project Scope

## 2.1 In-Scope Features

The **first release** of MANOS Food Decider includes the following key functionalities:

✓ **User Profile Management** – Users can create and update profiles, adding dietary restrictions.

✓ **Meal History Tracking** – Stores past meal choices to refine future recommendations.

✓ **Ingredient-Based Recipe Suggestions** – Users can input available ingredients to find suitable recipes.

✓ **Shopping List Generation** – Creates grocery lists based on selected recipes.

✓ **Restaurant & Recipe Recommendations** – Provides users with meal options tailored to their diet.

## 2.2 Out-of-Scope Features

✗ No **integration with fitness trackers** or wearable devices.

✗ No **direct grocery or meal delivery** options.

✗ No **advanced nutritional analysis** or calorie counting in the first release.

# 3. Functional Requirements

## 3.1 Core Functionalities

1) **User Profile Management**
    a) Users can set up a profile with dietary preferences and restrictions.
    b) The system will store past meal choices to improve recommendations.
2) **Meal Questionnaire**
    a) Users answer a short quiz about meal preferences.
    b) The system generates specific meal recommendations based on responses.
3) **Ingredient-Based Recipe Finder**
    a) Users input available ingredients to find matching recipes.
    b) The system cross-references stored recipes with user dietary restrictions.
4) **Shopping List Generator**
    a) Generates a grocery list based on selected meals.
    b) Allows users to edit or customize their lists.

5) **Recipe & Restaurant Recommendations**
    a) Suggests meals based on dietary needs, past choices, and ingredient availability.
    b) Helps users discover suitable restaurants.

# 4. Non-Functional Requirements

## 4.1 Performance & Reliability

- Must handle **10,000 concurrent users** without performance degradation.
- **Database query response time** should not exceed **500ms** under normal load.
- The system should provide recommendations within **3 seconds** of user input.

## 4.2 Security & Compliance

- All user data should be **encrypted (TLS/SSL)** during transmission and storage.
- **Two-factor authentication (2FA)** for enhanced account security.
- Compliance with **GDPR and CCPA** for data protection and privacy.

## 4.3 Availability & Maintainability

- **99.5% uptime**, ensuring minimal disruptions.
- Planned downtime should not exceed **1 hour per month**.
- The system must **support future scalability** with modular architecture.

# 5. Technical & Database Requirements

## 5.1 Data Storage

The system will store the following:

- **User Profiles** – Dietary restrictions, preferences, and meal history.
- **Recipe Database** – Recipes with categorized ingredients and instructions.
- **Restaurant Listings** – Database of local restaurants with menu details.
- **Shopping Lists** – Personalized grocery recommendations based on recipes.

### 5.2 System Constraints

- The application **requires an internet connection** to fetch real-time data.
- The **database must scale** to support increasing users without latency issues.

## 6. Ethical & Social Considerations

- **Promotes healthy eating habits** and discourages unhealthy food choices.
- **No third-party data sales** – User dietary preferences are private.
- **Accessibility features** – The app will follow **WCAG 2.1 standards** for usability.