**SRS Document**

**Presented By: Anonymous**

Member1: Saim Manzoor (2521306)

Member2: Muhammad Usman (2521340)

Member3: Arghaan Jahnjair (2521301)

Member4: Kashif Nazir (2521302)

**Semester**

**Submitted to: Mr. Taimoor**

1. Introduction:

1.1 Purpose

The purpose of this document is to define the requirements for the development of a GPS-based mobile application that assists users in finding nearby restaurants based on their geographical position.

1.2 Scope

The application will allow users to:

- Locate nearby restaurants based on their current GPS position.

- Search for specific restaurants by name, cuisine, price range, etc.

- Filter restaurants within a specified distance range.

- View restaurant details including menus, reviews, and directions.

1.3 References

List any relevant documents or sources used in defining the application's requirements.

2. Stakeholders:

2.1 Identification

Users: General users seeking nearby restaurants.

Administrators: Overseeing the application's functionality.

Developers: Those responsible for creating and maintaining the app.

2.2 Concerns and Interests

Users: Easy-to-use interface, accurate restaurant suggestions, and navigation.

Administrators: Data security, system reliability, and user engagement.

Developers: Scalability, maintainability, and compatibility with various devices.

3. Functional Requirements:

3.1 Overview

The system shall provide the following functionalities:

Identify user's location via GPS.

Display nearby restaurants on a map interface.

Allow search by restaurant name, cuisine, price range, and distance.

Show restaurant details including menus, ratings, reviews, and contact information.

3.2 Functional Requirements (examples)

FR1: The app shall access the user's GPS data to determine their location.

FR2: Users can input specific restaurant names for search purposes.

FR3: Users can filter restaurants based on price range (e.g., budget, moderate, high-end).

FR4: The app shall display directions from the user's location to the selected restaurant.

4. Non-Functional Requirements:

4.1 Quality Attributes

Performance: The app must provide quick and accurate search results.

Usability: Intuitive user interface for seamless navigation.

Reliability: Minimal downtime and accurate restaurant data.

4.2 Constraints

- The application should comply with local data protection laws.

- Compatibility with major mobile platforms (iOS, Android).

5. Business Use Cases:

5.1 Description

- \*\*UC1: User Registration:\*\* Users can create accounts to access personalized features.

- \*\*UC2: Search for Nearby Restaurants:\*\* Users can search for nearby restaurants based on location.

5.2 Scenarios

Scenario 1: A user opens the app, and it automatically detects their location, displaying nearby restaurants.

-Scenario 2: A user searches for a specific restaurant by name and receives relevant results.

6. Product Use Cases:

6.1 Description

PUC1: Filtering Restaurants: Users can filter restaurants based on price, cuisine, and distance.

PUC2: View Restaurant Details: Users can view detailed information about a selected restaurant.

6.2 Scenarios

Scenario 3: A user filters restaurants by selecting a price range and sees available options.

Scenario 4: A user selects a restaurant and views its menu, ratings, and contact details.

7. System Boundary:

7.1 Use Case Diagram

Include a graphical representation depicting the boundaries of the system and its interactions with external entities (users, GPS services, restaurant databases).

8. Appendices:

8.1 Glossary

Define and explain technical terms or domain-specific jargon used in the document.

8.2 Additional Information

Include any supplementary diagrams, tables, or documents supporting the requirements outlined in the specification.