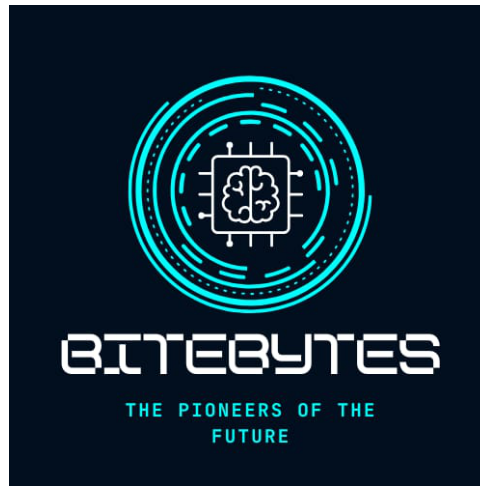


# Software Requirements Specification (SRS)

## **El Mundo Bites**

BiteBytes Group

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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Purpose . . . . .	1
1.2	Scope . . . . .	1
1.3	Intended Audience . . . . .	1
1.4	References . . . . .	1
<b>2</b>	<b>Overall Description</b>	<b>2</b>
2.1	Product Perspective . . . . .	2
2.2	User Classes and Characteristics . . . . .	2
2.3	Operating Environment . . . . .	2
2.4	Assumptions and Dependencies . . . . .	2
<b>3</b>	<b>System Features (Functional Requirements)</b>	<b>3</b>
3.1	Recipe Search . . . . .	3
3.2	Favorites Management . . . . .	3
3.3	User Rating and Review System . . . . .	3
3.4	Recipe Recommendation System . . . . .	4
3.5	Error Handling and Edge Cases . . . . .	4
<b>4</b>	<b>External Interface Requirements</b>	<b>5</b>
4.1	User Interfaces . . . . .	5
4.2	Hardware Interfaces . . . . .	5
4.3	Software Interfaces . . . . .	5
4.4	Communication Interfaces . . . . .	5
4.5	Error Messages and Notifications . . . . .	5
<b>5</b>	<b>Nonfunctional Requirements</b>	<b>6</b>
5.1	Performance . . . . .	6
5.2	Usability . . . . .	6
5.3	Security . . . . .	6
5.4	Data Security and Compliance . . . . .	6
5.5	Scalability and Future Expansion . . . . .	6
<b>6</b>	<b>Appendices</b>	<b>7</b>
6.1	Glossary . . . . .	7
6.2	Data Flow Diagrams . . . . .	7
6.3	Use Case Diagrams . . . . .	7
6.4	Sequence Diagrams . . . . .	7

## Revision History

Version	Date	Author	Description
1.0	9 November 2024	BiteBytes Group	document draft

# 1 Introduction

## 1.1 Purpose

The purpose of this Software Requirements Specification (SRS) document is to outline the requirements for the mobile application, **El Mundo Bites**. This app is designed to provide users with a unique cultural experience by discovering and interacting with recipes from various global cuisines. This document details functional and non-functional requirements to guide the development and testing of this application.

## 1.2 Scope

El Mundo Bites is a mobile application that allows users to:

- Search for recipes by ingredients, cuisine type, or country.
- Save favorite recipes for easy access.
- Rate and review recipes.
- Receive personalized recipe recommendations based on past interactions.

The app aims to engage food enthusiasts, students, chefs, and travelers who want to explore international cuisine in an accessible, user-friendly format.

## 1.3 Intended Audience

This document is intended for:

- **Developers** to implement the features and functionality described.
- **Project Managers** to monitor project progress and requirements.
- **Testers** to validate features according to the specifications.
- **End Users** to gain an understanding of the app's intended capabilities.

## 1.4 References

- IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications
- Project Proposal Document
- Requirements Determination and User Interface Design materials

## 2 Overall Description

### 2.1 Product Perspective

El Mundo Bites offers a platform for culinary exploration by connecting users with recipes from various cultures. Unlike general recipe apps, El Mundo Bites emphasizes a cultural approach, enabling users to learn about the origins of recipes and connect with a diverse community of culinary enthusiasts.

### 2.2 User Classes and Characteristics

- **Students:** Users who seek affordable, easy-to-prepare meals.
- **Professional Chefs:** Users with advanced culinary skills who provide expert reviews.
- **Food Enthusiasts:** Hobbyist cooks interested in exploring and sharing recipes.
- **Travelers:** Users curious about recipes associated with their travel destinations.

### 2.3 Operating Environment

The application is designed for Android and iOS platforms and requires internet connectivity for data retrieval from external APIs. The app should work optimally on a range of screen sizes and devices, ensuring a responsive design.

### 2.4 Assumptions and Dependencies

- The app will require a stable internet connection for retrieving recipes.
- Recipe data will be sourced from third-party APIs, which are assumed to be reliable and accessible.
- User data will be stored securely on a cloud-based platform.

## 3 System Features (Functional Requirements)

### 3.1 Recipe Search

**Description:** Allows users to search for recipes based on ingredients, cuisine, or country.

**Stimulus/Response Sequences:**

- **Stimulus:** The user enters search criteria in the search bar.
- **Response:** The system displays a list of recipes matching the specified criteria.

**Functional Requirements:**

- FR-3.1.1: Provide a search bar on the main screen where users can input keywords.
- FR-3.1.2: Allow search filters for cuisine type, country, and ingredients.
- FR-3.1.3: Display a paginated list of results, with 20 results per page.

### 3.2 Favorites Management

**Description:** Enables users to save and organize their favorite recipes for future access.

**Stimulus/Response Sequences:**

- **Stimulus:** The user selects the “Save” option on a recipe.
- **Response:** The recipe is added to the user’s favorites section.

**Functional Requirements:**

- FR-3.2.1: Provide a “Save to Favorites” icon on each recipe.
- FR-3.2.2: Display saved recipes under the “Favorites” menu.
- FR-3.2.3: Allow users to remove recipes from their favorites.

### 3.3 User Rating and Review System

**Description:** Users can leave ratings and reviews for recipes, providing feedback for other users.

**Stimulus/Response Sequences:**

- **Stimulus:** The user submits a rating and a written review.
- **Response:** The system displays the user’s rating and review on the recipe page.

**Functional Requirements:**

- FR-3.3.1: Include a 5-star rating system for each recipe.
- FR-3.3.2: Allow users to submit written reviews.
- FR-3.3.3: Display the average rating based on user submissions.

### 3.4 Recipe Recommendation System

**Description:** Recommends recipes based on user activity and preferences.

**Stimulus/Response Sequences:**

- **Stimulus:** The user opens the app's home screen.
- **Response:** The system displays a list of personalized recipe recommendations.

**Functional Requirements:**

- FR-3.4.1: Provide personalized recommendations on the home screen.
- FR-3.4.2: Update recommendations based on new user data.

### 3.5 Error Handling and Edge Cases

**Description:** Defines how the system should respond to unexpected inputs, network issues, and empty states.

**Functional Requirements:**

- **FR-3.5.1:** Display a “No Results Found” message when no recipes match the search criteria.
- **FR-3.5.2:** If the network connection is lost, display a “Connection Lost” message with a “Retry” option.
- **FR-3.5.3:** Validate all inputs to ensure they meet expected formats; provide specific error messages if inputs are invalid.

## 4 External Interface Requirements

### 4.1 User Interfaces

- **Home Screen:** Displays recipe recommendations and search functionality.
- **Recipe Detail Screen:** Shows details, ratings, reviews, and the “Save” option.
- **Favorites Screen:** Lists saved recipes for easy access.
- **Review Screen:** Allows users to submit ratings and reviews.

### 4.2 Hardware Interfaces

The application will be compatible with Android and iOS devices, supporting a range of screen sizes.

### 4.3 Software Interfaces

- **APIs:** Integrates with third-party recipe databases for recipe content.
- **Database:** Stores user preferences, saved recipes, and profile data on cloud servers.

### 4.4 Communication Interfaces

The app requires an active internet connection to access external APIs for recipe data retrieval.

### 4.5 Error Messages and Notifications

#### User Interfaces:

- Display clear error messages (“No Results Found”) in place of search results when applicable.
- For critical errors (failed data retrieval), display a pop-up notification with an option to retry.



## 5 Nonfunctional Requirements

### 5.1 Performance

- The system shall load search results within 3 seconds on a stable internet connection.
- The app shall support up to 10,000 concurrent users without performance degradation.

### 5.2 Usability

- The app shall provide an intuitive, user-friendly interface with a minimal learning curve.
- The app shall comply with accessibility standards (e.g., WCAG 2.1) for screen readers.

### 5.3 Security

- User data shall be encrypted during both storage and transmission.
- User sessions shall timeout after 24 hours of inactivity for security purposes.

### 5.4 Data Security and Compliance

**Description:** Ensures that user data is handled in accordance with data protection standards.

**Nonfunctional Requirements:**

- **NFR-5.4.1:** Ensure compliance with data protection regulations, such as GDPR, for users within applicable regions.
- **NFR-5.4.2:** Implement an option for users to request data deletion in compliance with data privacy rights.

### 5.5 Scalability and Future Expansion

**Description:** Provides a foundation for future feature expansion, such as integrating social features or additional user recommendations.

**Nonfunctional Requirements:**

- **NFR-5.5.1:** Ensure the system architecture allows for the integration of social sharing options without major refactoring.
- **NFR-5.5.2:** Allow the recommendation system to incorporate AI-based suggestions or dietary preference filters in future releases.

## 6 Appendices

### 6.1 Glossary

- **API:** Application Programming Interface.
- **User Profile:** Stores personal settings and saved recipes for each user.
- **Recipe Database:** A third-party resource for recipe information and metadata.

### 6.2 Data Flow Diagrams

- **User Authentication Flow:** Diagrams the process for logging in and session management.
- **Recipe Retrieval Flow:** Illustrates data retrieval from the recipe database to the app interface.

### 6.3 Use Case Diagrams

#### Use Case: Recipe Search

- **Actors:** User
- **Description:** The user enters keywords in the search bar and selects search criteria (ingredients, cuisine, country).
- **Preconditions:** The user is logged in, and a stable network connection is available.
- **Postconditions:** A list of matching recipes is displayed, or a “No Results Found” message if no matches are found.

### 6.4 Sequence Diagrams

#### Sequence Diagram: Saving a Recipe to Favorites

- **Description:** This diagram illustrates the interaction between the user interface and backend systems when a user saves a recipe.