Recipe Sharing Platform for Bachelors

1. Introduction

1.1 Purpose

This document outlines the Software Requirements Specification (SRS) for a Recipe Sharing Platform designed for bachelors. The platform allows users to share and discover recipes, calculate the total budget of recipes, create profiles, and interact with other users using emojis.

1.2 Scope

The platform will enable users to:

Register and manage profiles.

Share and browse recipes.

Calculate and display the total budget of each recipe.

Interact with recipes and other users using emojis.

Comment on and rate recipes.

1.3 Definitions, Acronyms, and Abbreviations

SRS: Software Requirements Specification

API: Application Programming Interface

UI: User Interface

UX: User Experience

1.4 References

IEEE Software Requirements Specification Template

RESTful API Design

2. Overall Description

2.1 Product Perspective

The Recipe Sharing Platform will be a web-based application, leveraging modern web technologies to ensure a responsive and interactive user experience. It will integrate with third-party services for authentication and data storage.

2.2 Product Features

User Registration and Profile Management

Recipe Submission and Management

Budget Calculation for Recipes

Emoji-based Interaction with Recipes

Commenting and Rating System

Recipe Search and Filtering

2.3 User Classes and Characteristics

Bachelors: Primary users looking for quick and budget-friendly recipes.

Admin: Users with administrative privileges to manage content and users.

2.4 Operating Environment

Web browsers: Chrome, Firefox, Safari, Edge

Mobile browsers for responsive access

2.5 Design and Implementation Constraints

Compliance with web standards and accessibility guidelines

Secure user authentication and data storage

2.6 Assumptions and Dependencies

Reliable internet connection

Third-party services for user authentication and data storage

3. Specific Requirements

3.1 Functional Requirements

3.1.1 User Registration and Profile Management

Users shall be able to register using their email or social media accounts.

Users shall have personal profiles with information such as username, bio, and profile picture.

Users shall be able to edit their profile information.

3.1.2 Recipe Submission and Management

Users shall be able to submit new recipes, including ingredients, instructions, and images.

Users shall be able to edit or delete their recipes.

The system shall calculate and display the total budget for each recipe based on ingredient costs.

3.1.3 Emoji-based Interaction

Users shall be able to interact with recipes using emojis (e.g., like, love, wow).

Users shall see a count of each type of emoji interaction on recipes.

3.1.4 Commenting and Rating System

Users shall be able to comment on recipes.

Users shall be able to rate recipes on a scale of 1 to 5 stars.

The average rating shall be displayed for each recipe.

3.1.5 Recipe Search and Filtering

Users shall be able to search for recipes by keywords.

Users shall be able to filter recipes by categories, budget, and rating.

3.2 Non-Functional Requirements

3.2.1 Performance Requirements

The platform should load within 3 seconds under normal conditions.

The system should handle up to 1000 concurrent users.

3.2.2 Security Requirements

User data should be encrypted in transit and at rest.

The platform should implement secure authentication mechanisms.

3.2.3 Usability Requirements

The platform should be intuitive and easy to navigate.

The design should be responsive and accessible on both desktop and mobile devices.

4. Technologies Used

Frontend

React.js: For building the user interface.

Tailwind CSS: For styling and responsive design.

Backend

Node.js with Express.js: For server-side logic and API endpoints.

MongoDB: For database management.

Additional Tools

Firebase Authentication: For user authentication.

AWS S3: For storing user-uploaded images.