# INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

# DEPARTMENT OF SOFTWARE ENGINEERING

## VISION AND SCOPE DOCUMENT

**SECTION:** A

**SUMBITTED BY:** Hajira Gul        (4454-FOC/BSSE/F22-A)
Sajjal Khalil        (4488-FOC/BSSE/F22-A)
Noor-ul-Harmain    (4204-FBAS/BSSE/F21-B)
Areesha Abbasi    (4508-FOC/BSSE/F22-A)
Munazza Kanwal    (4475-FOC/BSSE/F22-A)

**SUMBITTED TO:** Ms. Saba Taimouri

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# 1. Business Requirements

## 1.1 Background

People rely on a mix of physical cookbooks, handwritten notes, and scattered digital files to store recipes, leading to difficulty in meal planning and preparation. It is difficult for people to keep track of their recipes. One of the issues faced is the rising concern about the health implications associated with processed and fast food. Furthermore, for individuals who lack cooking skills, it is burdensome to rely on convenience foods or takeout meals. With more recipes available online and different dietary needs emerging, people are facing issues in keeping up with them. The variety of dietary preferences and the increasing worry about the wastage of food and sustainable cooking is also an issue faced by the public. Chefs often struggle to make their recipes more approachable and understandable for the general public.

## 1.2 Business Opportunity

The proposed Recipe Management System (RMS) provides a comprehensive solution to address the diverse needs of home cooks,food bloggers and food enthusiasts. The system features a robust database of recipes across cuisines, dietary requirements, and meal types. Users can leverage the powerful search and personalized recommendation capabilities to find and customize recipes that suit their preferences. Additionally, the system offers detailed nutritional information, meal planning tools, and automatic grocery list generation, enhancing the overall culinary experience. The system also allows users to provide feedback on recipes, enabling chefs and food experts to continuously improve the content. By incorporating these features, the RMS becomes a one-stop-shop for users to explore, plan, and prepare their meals, catering to the needs of both home cooks and professionals.

## 1.3 Business Objectives

**BO-1:** Increase user engagement and retention by 30% within the first 12 months.

**BO-2:** Expand the recipe database and content offerings by 40% within the next 18 months.

**BO-3:** Achieve a return on investment of 15% within two years of launching the RMS

## 1.4 Success Metrics

**SM-1:** 40% of users who accessed the RMS at least 3 times per week during the initial quarter use the RMS to access recipes and cooking resources at least once a week.

**SM-2:** The average user satisfaction rating for the RMS increases by 0.5 on a scale of 1 to 6 within 4 months of the system's launch, compared to the initial quarter's rating.

**SM-3:** 20% increase in feedback from public and input from chefs within the first 5 months of the RMS launch, leading to improvements in recipe quality and overall user experience.

## 1.5 **Vision Statement**

For home cooks, food enthusiasts,food bloggers and culinary professionals Recipe Management System is designed to effortlessly explore, customize, and plan their meals. Unlike fragmented cooking resources, the Recipe Management System (RMS) is a user-friendly web-based platform designed to revolutionize home cooking and provide a robust database of diverse recipes, powerful search capabilities, and personalized recommendations tailored to each user's preferences.The RMS is a comprehensive culinary platform thatintegrates nutritional insights, meal planning, user collaboration, and expert feedback to deliver a unique and tailored cooking experience. This unique approach positions the RMS as the go-to destination for a wide range of users, setting it apart from traditional recipe platforms.

## 1.6 **Business Risks**

**RI-1:** The system might face challenges in maintaining and updating the vast database of recipes, leading to potential gaps in content or outdated information. (Probability=0.4, Impact=8)

**RI-2:** As the user base and recipe database grow, the system might struggle to maintain performance and responsiveness, leading to frustration and potential loss of users. (Probability=0.4, Impact=7)

**RI-3:** The personalization and recommendation algorithms might not accurately reflect user preferences, resulting in sub-optimal recipe suggestions and a less engaging user experience. (Probability=0.3, Impact=6)

## 1.7 **Business Assumptions Ans Dependencies**

**AS-1:** The target market for the recipe management system will consist primarily of home cooks, food enthusiasts, and health-conscious individuals who are seeking a comprehensive solution to manage their culinary experiences.

**AS-2:** Users will be willing to provide personal information, such as their search history of recipes and dietary preferences, to receive personalized recommendations and a more tailored user experience.

**DE-1:** If there are shifts in consumer trends, dietary preferences, or cooking behaviors in the target markets, the system may need to undergo regular updates and adaptations to remain relevant and useful to users.

## 2. **Scope And Limitations**

### 2.1 Major Features

**FE-1:** Store recipes based on cuisine, meal type, dietary preferences and general recipe details.

**FE-2:** Search for recipes based on general criteria, specific ingredients, and dietary preferences, apply various filters, and sort options to refine and organize the search results.

**FE-3:** Create a nutritional analysis for meals, track dietary goals, and seamlessly integrate a calendar to facilitate meal scheduling.

**FE-4:** Edit and customize recipes, share recipes, personalize them, and archive favorite recipes for future reference and access.

**FE-5:** Provide reviews and ratings for content improvement, share insight, and build a community around healthy eating and meal planning.
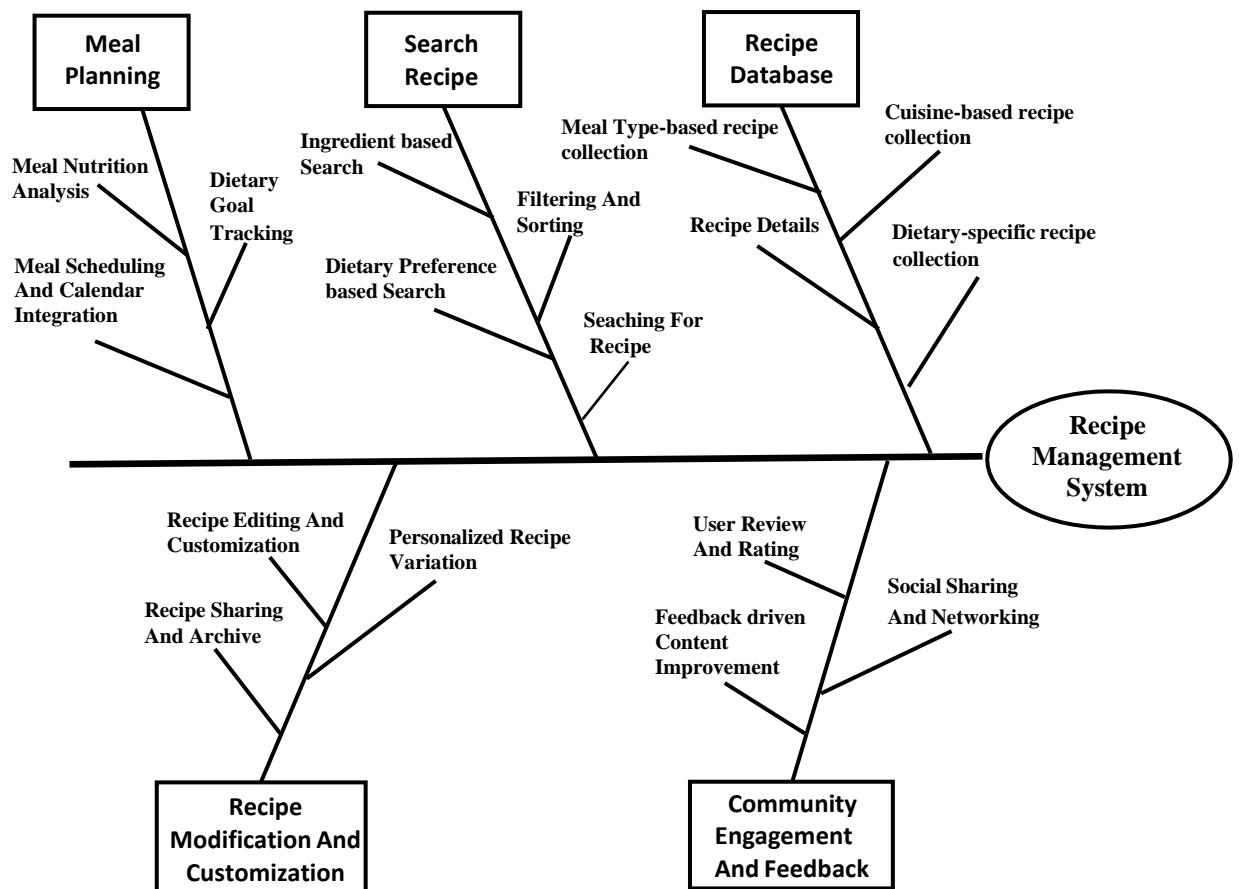


**FIGURE A-1** Partial Feature Tree For Recipe Management System

## 2.2 **Scope Of Initial And Subsequent Releases**

| Feature | Release 1 | Release 2 | Release 3 |
|---|---|---|---|
| FE-1, Recipe Database | - Set up database to store recipe details including name, ingredients and instructions.<br>- Create, read, update and delete recipes from database. | - Categorize recipes by cuisine.<br>- Categorize recipes by meal type. | - Categorize recipes based on dietary preferences.<br>- Recipe detail page with detailed view of each recipe. |
| FE-2, Search Recipe | - Implement basic search bar functionality.<br>- Filter search results based on dietary preferences. | - Ingredient based search bar.<br>- Advanced filtering options such as sorting by cooking time, difficulty level, or rating. | - Provide more granularity in dietary preference filtering.<br>-Auto complete and suggestions based on user history. |
| FE-3, Meal Planning | - Incorporate a calendar view functionality..<br>- Create meal plans by selecting recipes from the database. | - Set dietary goals.<br>- Tracking system to monitor progress towards dietary goals. | - Integrate meal planning system with users' calendars to synchronize meal schedules.<br>- Enable notifications for upcoming meals. |
| FE-4, Recipe modification and customization | - Upload and edit recipes.<br>- Save edited recipes without effecting original recipes. | - Edit existing recipes, including modifying ingredients and quantities.<br>- Upload images, recipe scaling. | - Recipe customization to create personalized variations of recipes.<br>- Share customized recipes and achieving favorite recipes. |
| FE-5, Community engagement and feedback | - Review and rate recipes.<br>- Display average review and rating for each recipe. | - Collect and analyze feedback.<br>- Provide social networking features within system for community engagement. | - Social sharing integration with popular social media platforms. |

## 2.3 **Limitations and Exclusions**

**LI-1:** Direct incorporation with e-commerce platforms for one-click ingredient purchase is not within the current scope. Users will manually create shopping lists based on recipe ingredients.

**LI-2:** Multi-language support for the user interface and recipe content translation isnot planned for the initial release. The system will primarily operate in English.
**LI-3:** The system will not offer any video tutorials or demonstrations for recipe preparations. Users will be limited to solely using written instructions and static images when following the provided recipes.

## 3. Business Context

### 3.1 Stakeholder Profiles

| Stakeholders | Major Value | Attitude | Major Interest | Constraint |
|---|---|---|---|---|
| Home Cooks | Organized recipes and planning according to time and finding new recipes; better accessibility to recipes | Positive and fully excited to use the system as it also help them to communicate with other cooks | Fast search, easy to understand the ingredients and results and also easy to use | He must uses internet devices and also enter his preference to fulfill one of his needs |
| Chefs | Share recipes,get feedback and get access to wide range of new recipes; broad exposure | Willingness to explore, learn, and integrate technology into their culinary practices. | Expand their culinary horizons and discover new recipe ideas | He must uses internet devices and also create his profile on the site to add recipes and for community engagements |
| Food Bloggers | Actively engage with and contribute to various communities to expand your network. | Optimistically use RMS as a tool to unchain their creativity | Expand their culinary influence through network building and audience growth. | He must use internet devices and also obtained approval from the team of RMS. |

### 3.2 Project Priorities

| Dimensions | Constraint | Driver | Degree Of Freedom |
|---|---|---|---|
| Features | All feature must be fullyoperational in each release | | |
| Quality | It must qualify all the tests and also provide valid and fast search. | | |

| Schedule | The first release must becompleted within a 6-month time frame. | | The second release may be allotted upto 2 additional weeks beyond the original timeline. |
|---|---|---|---|
| Cost | | | The budget can fluctuate within a range of 20% above or below the originally approved amount. |
| Staff | | 5 developer 2 tester and ifneed outside tester will behired for the quality assurance | |

### 3.3 Deployment Considerations

Following the first release user suggestions will be incorporated to enhance existing features and introduce new functionalities. To enhance user onboarding and understanding, concise 60-second demo sections will be introduced in the home section after the second release, aimed at guiding first-time users through the platform's functionalities. Furthermore, continuous improvements will be made based on user feedback. This iterative approach ensures that the platform remains responsive to user needs and evolving trends in the domain

**References:**
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