**1. Introduction**

This document outlines the software requirements for the Recipe Website, a platform that allows users to create, manage, and search for recipes. This platform provides functionality for both regular users and administrators.

**Functional Requirements**

**2. User Functionality**

**2.1 Login/Register**

* Users can create an account or log in through a dedicated login and registration page.

**2.2 Profile Management**

* Users can manage their personal information, such as updating their name and password (email changes are not allowed).

**2.3 Recipe Creation and Management**

* Users can create, publish, and manage their recipes under the "My Recipes" section.
* **Features:**
  + Add new recipes with ingredients, steps, required time, and images.
  + Edit or update existing recipes.
  + Delete recipes that they no longer want to share.

**2.4 Favorites Management**

* Users can add recipes to their favorites by selecting the "Add to Favorites" option.
* **Management Options:**
  + View all favorite recipes under the "My Favorites" section.
  + Remove recipes from the favorite list.

**2.5 Recipe Viewing**

* Users can view the full details of a recipe, including ingredients, steps, and preparation time.

**2.6 Recipe Filtering**

* Users can filter recipes based on various criteria:
  + Meal type (e.g., breakfast, lunch, dinner).
  + Dietary preferences (e.g., vegetarian, vegan, gluten-free).
  + Preparation time (e.g., quick meals, slow-cooked recipes).

**2.7 Recipe Search**

* Users can search for recipes by ingredients, recipe names, or relevant keywords.

**2.8 Reset Filters**

* Users can quickly reset all active filters with one click, avoiding the need to manually reset each filter.

**3. Admin Functionality**

**3.1 User Management**

* Admins can activate, deactivate, or delete user accounts to maintain the platform's integrity.

**3.2 Recipe Moderation**

* Admins can monitor and remove any inappropriate or unwanted recipes from the platform.

**3.3 Admin Management**

* Admins can assign or remove admin privileges for other users.

**Non-Functional Requirements**

**4. Security Requirements**

* 1. **Authentication:**
  + User data, including passwords and personal information, must be encrypted using industry-standard encryption algorithms (e.g., SHA-256, bcrypt).

**4.2 Role-Based Access Control (RBAC):**

* + Admin functionality must only be accessible to users with admin privileges.
  + Normal users should not have access to the admin panel.

**4.3 Session Management:**

* + Users will be automatically logged out after 30 minutes of inactivity to prevent unauthorized access.

**5. Maintainability Requirements**

* 1. **Code Modularity:**
  + The website's code should follow a modular architecture, allowing easy updates and new feature additions without disrupting existing functionality.

**5.2 Documentation:**

* + Full technical documentation (both code and system) must be provided and regularly updated to allow new developers to easily understand and contribute to the project.

**5.3 Error Logging:**

* + All errors must be logged with sufficient detail to help developers trace and resolve issues quickly.

**6. Conclusion**

This document provides a comprehensive overview of the functional and non-functional requirements for the Recipe Website. The outlined user and admin functionalities, combined with security and maintainability considerations, will ensure that the platform is user-friendly, secure, and scalable for future updates.