# 📘 Functional and Non-Functional Requirements Document

## Social Recipe App (Working Title)

## 🟢 1. Vision and Overview

A social platform for sharing and discovering home-cooked recipes with a vibrant community, featuring AI-powered tools to modify and enhance user-created recipes.

## 🟢 2. Target Users

* Home cooks
* Health-conscious individuals
* Beginner cooks

## 🟢 3. Unique Value Proposition

* Social-first experience with community following and engagement
* AI-powered recipe recommendations and modifications
* Rich recipe discovery and sharing capabilities

## 🟢 4. Functional Requirements

### 🔹 4.1 User Accounts & Authentication

* Users must be able to sign up and sign in with:
  + Google Single Sign-On
  + Apple Single Sign-On
* No email/password login or anonymous guest browsing.

### 🔹 4.2 User Profiles

* Each user profile includes:
  + Username
  + Profile photo/avatar
  + Bio/About Me
  + Location
  + Follower and following counts
  + Posted recipes
  + Personal cookbook (saved recipes)
* Profiles are **public by default**:
  + Users can mark individual recipes as **private** (visible only to themselves).
  + Users can set their cookbook to private.
* User roles:
  + Standard users
  + Admins/Moderators with abilities to delete content or suspend accounts
* Verified account badges are **planned for a future phase**, not included in MVP.

### 🔹 4.3 Recipe Creation

Users can create recipes with: - Title - Description - Ingredients (list with quantities) - Preparation steps - Cooking time - Difficulty level - Cuisine/type tags (e.g., Italian, Vegan) - General tags - Nutrition information (potentially generated via AI) - Cover photo (optional, can be auto-generated using AI)

### 🔹 4.4 Recipe Interaction

Users can: - Like/favorite recipes - Comment on recipes - Reply to comments (nested replies) - Like comments - Rate recipes (star rating) - Save recipes to their cookbook - Share recipes externally (social media or direct link)

### 🔹 4.5 Recipe Discovery & Search

Users can: - Search recipes by keyword - Filter recipes by tags/cuisine - Filter by difficulty and cooking time - Browse trending recipes - Receive AI-powered personalized recommendations - View a feed of recipes from followed users

### 🔹 4.6 AI Features

Users can generate AI-powered recipe modifications, including: - **Make Healthier**: Reduce calories or swap ingredients - **Quick Version**: Reduce cooking time - **Change Cuisine**: Adapt to another cuisine - **Enhance Flavor**: Suggest improvements - **Scale Recipe**: Adjust quantities for different servings

### 🔹 4.7 Social & Community Features

**Follows & Connections** - Follow other users - See who follows you - Block other users

**Feeds** - Personalized feed (followed users) - Trending feed - New Recipes feed - Feeds are selectable via tabs - Filter feeds by cuisine

**Notifications** - Recipe liked - Recipe commented on - New follower - Recipe featured - Comment reply

**Reporting & Moderation** - Report recipes and comments - Block/report users - Admin/moderator review tools

**Messaging** - Messaging is **not included** in MVP

### 🔹 4.8 Recipe Privacy

* Users can mark recipes as private (visible only to themselves).

## 🟢 5. Non-Functional Requirements

### 🔹 5.1 Performance

* Recipe feed loads within **2 seconds** on average connections.
* AI-powered recipe suggestions return within **10 seconds**.
* Recipe uploads (including images) complete within **10 seconds**.

### 🔹 5.2 Scalability

* Designed for up to **1,000 users** initially.
* Firebase to handle auto-scaling beyond this if needed.

### 🔹 5.3 Availability & Reliability

* Standard availability target: ~**99% uptime**.

### 🔹 5.4 Security

* All connections encrypted via HTTPS.
* Tokens securely stored:
  + iOS: Keychain
  + Android: EncryptedSharedPreferences
* Firestore security rules:
  + Users can edit only their own recipes and profiles.
  + Private recipes visible only to their owner.
* Two-factor authentication is **not required**.

### 🔹 5.5 Privacy & Compliance

* Minimal privacy requirements for portfolio use.
* GDPR/CCPA and other compliance to be evaluated later if published.

### 🔹 5.6 Accessibility

* Accessibility support (screen readers, color contrast, text scaling) **planned for a later phase**.

### 🔹 5.7 Compatibility

* iOS minimum supported version: **iOS 13+**
* Android minimum supported version: **Android 8+**

## 🟢 6. Monetization (Future Phases)

Potential monetization options to be considered after MVP: - In-app Ads - Purchasable credits for premium AI features and recipe library - Affiliate links for ingredients or tools - Sponsored content (featured recipes) - Donations via Patreon or in-app support

Timeline: - Monetization is **not planned at launch** and will be evaluated in later phases if the app is published and gains adoption.