# Software Requirements Specification (SRS) for Google Keep Clone

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to define the requirements for the development of a Google Keep clone, a note-taking and task management application.

**1.2 Scope**

The Google Keep clone will replicate the core functionality of Google Keep, allowing users to create, organize, and manage notes and tasks.

**1.3 Document Conventions**

* Use of "Must" denotes mandatory requirements.
* Use of "Should" denotes important but non-mandatory requirements.
* Use of "May" denotes optional or future enhancement possibilities.

**1.4 Intended Audience**

This document is intended for developers, designers, testers, and other stakeholders involved in the development and testing of the Google Keep clone.

**2. Functional Requirements**

**2.1 User Registration and Authentication**

1. Must allow users to register for an account with a unique username and password.
2. Must provide authentication mechanisms (e.g., email and password) to ensure secure user access.

**2.2 Note Management**

1. Must allow users to create, edit, and delete text-based notes.
2. Must support adding labels/tags to notes for categorization.
3. Must enable users to set reminders for notes.
4. Should support the ability to add images to notes.
5. Should allow users to organize notes into folders.
6. May provide the option to archive and restore notes.

**2.3 Task Management**

1. Must allow users to create, edit, and delete tasks.
2. Must support setting due dates and priorities for tasks.
3. Must enable users to mark tasks as completed.
4. Should support task categorization with labels/tags.
5. May provide task sharing and collaboration features.

**2.4 Search and Filter**

1. Must provide a search functionality to find notes and tasks based on keywords.
2. Must allow users to filter notes and tasks by labels, dates, and priorities.

**2.5 Synchronization**

1. Must synchronize user data across multiple devices (web and mobile applications).
2. Should support offline access with automatic synchronization upon reconnection.

**2.6 Notifications**

1. Must send notifications for reminders and due dates.
2. Should allow users to customize notification preferences.

**3. Non-Functional Requirements**

**3.1 Performance**

1. Must provide a responsive user interface with minimal latency.
2. Should handle a large number of concurrent users efficiently.

**3.2 Security**

1. Must implement encryption for user data in transit and at rest.
2. Must protect against common web application security threats (e.g., XSS, CSRF).
3. Should implement user data backup and recovery mechanisms.

**3.3 Usability**

1. Must have an intuitive and user-friendly interface.
2. Should be accessible to users with disabilities (compliance with WCAG guidelines).
3. Should support multiple languages.

**3.4 Scalability**

1. Should be designed to scale horizontally to accommodate future growth.

**3.5 Compatibility**

1. Must support major web browsers (e.g., Chrome, Firefox, Safari).
2. Must have mobile applications for iOS and Android platforms.

**4. Legal and Compliance Requirements**

1. Must comply with data privacy regulations (e.g., GDPR, CCPA).
2. Must have a terms of service and privacy policy accessible to users.

**5. Documentation**

1. Must provide user documentation (help guides, FAQs).
2. Must include developer documentation (API documentation if applicable).

**6. Appendices**

Include any additional information, diagrams, or mockups as needed.

This SRS document outlines the essential requirements for the development of a Google Keep clone. It serves as a foundation for the design, development, and testing phases of the project. Additional details, such as system architecture and design specifications, should be developed in parallel with this document.