

# **Software Requirements Specification**

for

## **Online Social Networking Portal**

**Version 1.1 approved**

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# 1. Introduction

The project “Online Social Media Portal” is a portal developed to find and connect to discuss all sorts of ideas through individuals and communities that may express a primary interest or some comparable pursuits throughout the world.

## 1.1. Purpose

The purpose of this SRS is to define the functional and non-functional requirements for the development of an Online Social Networking System. The system aims to provide a user-friendly and engaging platform for social interactions, content sharing, and community building. It should encourage user engagement, foster connections between users, and promote a safe and inclusive online environment.

This document is intended for the following:

- Developers for the purpose of maintenance and new releases of the software.
- Describe the complete behavior of the application proposed.
- The final goal is to produce a stable and high-quality SRS.

## 1.2. Scope

The system will be accessible through web browsers and native mobile applications for both Android and iOS devices. It will support multiple languages to cater to a diverse user base. The core features of the system include user registration and authentication, user profiles, friend connections, news feed, posts, comments, notifications, privacy settings, search functionality, messaging, and reporting capabilities.

## 1.3. Definitions, Acronyms, and Document Conventions

- User: A registered individual who interacts with the system.
- News Feed: The personalized stream of content displayed to users, including posts from their friends and followed accounts.
- Post: User-generated content consisting of text, images, videos, or links shared with their followers.
- Friend Connection: A mutual relationship between two users who have accepted each other's friend requests.
- Notification: Alerts or updates sent to users regarding activities related to their account or network.
- Privacy Settings: Controls that allow users to manage the visibility of their posts and profile information.
- Messaging: Private communication between two or more users.

## 1.4. References

- [www.google.co](http://www.google.co)
- [www.studocu.com](http://www.studocu.com)
- [https://www.academia.edu/27811487/Software\\_Requirements\\_Specification\\_For\\_Social\\_Networking\\_with\\_Advertisement](https://www.academia.edu/27811487/Software_Requirements_Specification_For_Social_Networking_with_Advertisement)
- <https://pdfcoffee.com/srs-social-networking-srs-pdf-free.html>

## 2. History/Background Study

### 2.1. Existing Applications

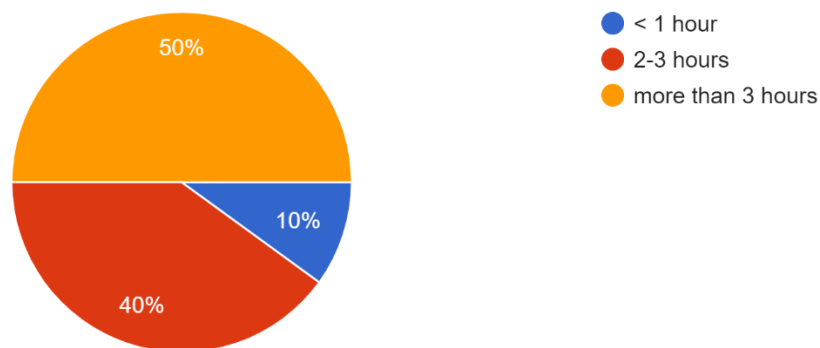
Some existing social media platforms available of the same genre are:

- Facebook
- Instagram
- Twitter
- LinkedIn
- Threads
- WhatsApp
- Reddit
- Discord
- Telegram
- Snapchat

### 2.2. Customer Surveys

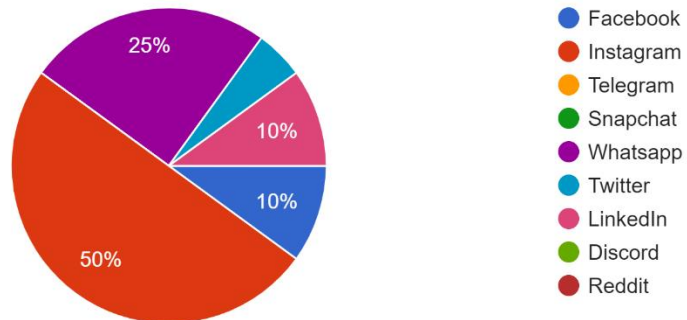
How much time do you spend on Social Media daily ?

20 responses



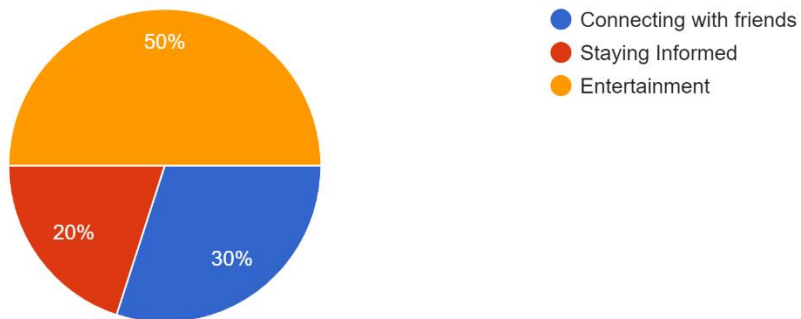
Which social media platform are you most active on ?

20 responses



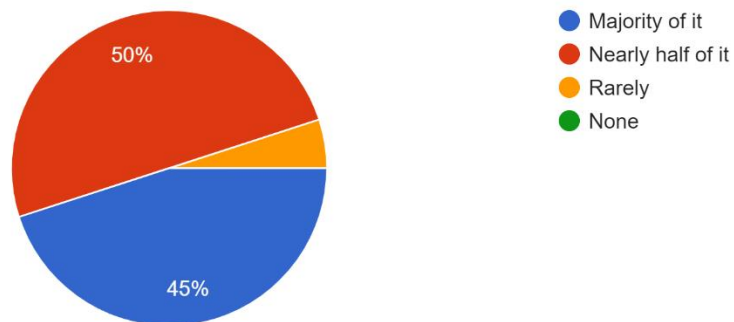
What is your primary reason to use social media ?

20 responses



How much of your daily news do you get from Social Media ?

20 responses



## 3. The Overall Description

### 3.1. Product Functions

#### 3.1.1. Hardware Requirements

The major hardware requirements of the system are described as follows:

- A device (Computer/ laptop/ android/ iOS) with at least 2 GB RAM
- Hard disk space required - 250 MB
- Minimum snapdragon 600 series/ i3 8th gen/ apple a11 bionic

#### 3.1.2. Software Requirements

- A database like DBMS (MySQL) to store the details.
- A web browser like Chrome, Mozilla, Firefox, etc.
- Operating System - At least Windows 7 64-bit, Mac 10.11, android Oreo (8) and iOS 11.

## 3.2. Functional Requirements

### 3.2.1. Registration

The new users need to register themselves on the platform. The existing users will be provided with the option to log into their accounts.

#### 3.2.1.1. Creating New Account (Sign Up):

- **Input:** The user needs to give the following inputs:
  - Login Name
  - Password
  - Confirm Password
  - First Name
  - Middle Name
  - Last Name
  - Email
  - Phone Number
  - Date of Birth
  - Address (City, State Zip, Country)
- **Output:** A new account is created and a confirmation mail is sent to the registered email.

#### 3.2.1.2. Log-In:

- **Input:** The existing user must input the following:
  - Login Name/ Email ID/ Mobile Number
  - Password
- **Output:** The home page appears.

#### 3.2.1.3. Forgot Password:

- **Input:** Registered Email ID or Mobile Number.
- **Output:** Reset password and verify the message in email or mobile.

### 3.2.2. Users

#### 3.2.2.1. Search People

- **Input:** Users may search profiles on the following parameters:
  - Profile Name
  - Address
  - Profession
- **Output:** A list of people with same, similar or related name, place or profession is appeared. If the no such profiles exists, then print 'No such profile exists.'

#### 3.2.2.2. View Profile

- **Input:** Click on the profile the user wants to view.
- **Output:** The profile screen appears with following details:
  - Name ○ Age ○ Education ○ State
  - City ○ Country ○ Occupation

#### 3.2.2.3. Update Profile

- **Input:** The users have an access to update or add the following parameters:
  - Name ○ State ○ City
  - Country ○ Mobile Number ○ Images
  - Occupation ○ Password ○ Education
  - Zodiac ○ Hobbies
- **Output:** The updated profile is saved and is visible to the user.

#### 3.2.2.4. Send Request

- **Input:** User can send friend request to their friends to connect.
- **Output:** Friend request is sent.

#### 3.2.2.5. Accept/Reject Request

- **Input:** The users can accept/reject the friend requests of the people they want.
- **Output:** If accepted, User is added to friends.

#### 3.2.2.6. Chat

- **Input:** The user needs to select the message option. It will be only visible if the proposal request is accepted.
- **Output:** Message typing screen appear and message is sent to the end user.

#### 3.2.2.7. Post/Upload Media

- **Input:** The user can post anything of their choice.
- **Output:** Post appears on the feed.



#### 3.2.2.8. Sending media

- **Input:** Go to the message section of the friend you want. Select the photo or video you want to send and click on Send.
- **Output:** The desired media is sent.

#### 3.2.2.9. Comments & Likes

- **Input:** Go to the comment section of the desired post. Tap add your comments, type the comment and click on Done.
- **Output:** Desired comment is added to the post

#### 3.2.2.10. Block People

- **Input:** Go to the profile of the person you want to block. Click on block user.
- **Output:** The user is blocked and won't be able to see your profile or connect with you anymore.

### 3.3. Non-Functional Requirements

#### 3.3.1. Performance Requirements

- The system shall have a responsive user interface with low response times for smooth user interactions.
- The platform should support a large number of concurrent users, ensuring minimal performance degradation during peak usage.

#### 3.3.2. Security Requirements

- User passwords shall be securely stored using modern encryption techniques.
- The system shall implement measures to prevent common security vulnerabilities, such as SQL injection and cross-site scripting (XSS) attacks.
- The platform shall enforce access controls to protect user data and prevent unauthorized access to sensitive features.

#### 3.3.3. Reliability Requirements

- The system shall have high availability, with minimal downtime during maintenance or system updates.
- The platform shall implement backup and recovery mechanisms to ensure data integrity in case of system failures.

#### 3.3.4. Scalability Requirements

- The system architecture shall be designed to accommodate the growth of the user base without compromising performance.

- The platform shall support horizontal scaling by adding more servers or cloud resources as needed.

#### 3.3.5. Usability Requirements

- The user interface shall be designed with user-friendliness and accessibility in mind, catering to users of all experience levels.
- The system shall provide helpful error messages and guidance to assist users in case of input errors or issues.

### 3.4. User Characteristics

The Online Social Networking System will cater to the following user classes:

#### 3.4.1. Registered Users

- These are individuals who have signed up and logged into the system.
- Registered users can access all core features of the platform, including creating and sharing content, connecting with others, and participating in groups/communities.

#### 3.4.2. Guest Users

- Guest users are individuals who visit the website without registering or logging in.
- They will have limited access to certain public content, such as publicly available profiles and posts.

### 3.5. Design & Implementation Constraints

- The system will be built using modern web development frameworks and technologies.
- Data privacy regulations and best practices will be adhered to.
- The user interface will be designed to be intuitive and accessible.
- The system's design should be modular and scalable to allow for easy expansion of features in the future.
- The user interface (UI) and user experience (UX) design should follow best practices to ensure ease of use and navigation for users.
- The system should be developed with secure coding practices to prevent common vulnerabilities, such as SQL injection and cross-site scripting (XSS) attacks.

### 3.6. Assumptions & Dependencies

The successful development and operation of the Online Social Networking System are based on the following assumptions and dependencies:

- **Internet Connectivity:** Users are assumed to have reliable internet access to use the platform.
- **Third-Party Services:** The system will depend on third-party services for user authentication and content sharing APIs.

## 4. Interface Requirements

### 4.1. User Interfaces

- The user interfaces should be designed with a responsive layout, adapting to different screen sizes.
- The design should be intuitive, visually appealing, and consistent throughout the application.
- The system will integrate with social media platforms (e.g., Facebook, Google) for seamless user authentication and sign-up.
- APIs from content-sharing platforms (e.g., Twitter) may be used to enable users to share their posts externally.

### 4.2. Hardware Interfaces

- The system shall store user data, including user profiles, friend connections, posts, and comments.
- User passwords shall be securely hashed and stored.
- The system shall store information related to groups, including group details, administrators, and members.

### 4.3. Software Interfaces

- The system shall aim to provide a fast response time for all user interactions, such as loading pages, posting content, and sending messages.
- The average response time for critical operations should be within milliseconds.

### 4.4. Communication Interfaces

- The system shall provide a user-friendly error handling mechanism that communicates clear error messages to users.
- The system shall have a backup and disaster recovery plan to safeguard user data.
- The system shall comply with relevant data protection and privacy laws, such as GDPR or CCPA.
- The system shall implement age restrictions and obtain parental consent for users under the legal age of consent.

## 5. Conclusion

In conclusion, this Software Requirements Specification (SRS) outlines the detailed requirements for the development of an Online Social Networking System. The document provides a comprehensive overview of the system's purpose, scope, features, and technical specifications.

The proposed Online Social Networking System aims to create a user-friendly and interactive platform for social interactions, content sharing, and community building. Users can register, create profiles, connect with friends, share posts, receive real-time notifications, and participate in group activities.

The SRS highlights the importance of security, scalability, performance, and accessibility in the system's design and implementation. It emphasizes the use of modern web technologies, secure authentication methods, and real-time features to provide a seamless user experience.

By following the guidelines presented in this SRS, the development team can work efficiently to build a feature-rich and secure Online Social Networking System that meets the needs and expectations of its users. Regular testing, continuous improvement, and adherence to legal and regulatory requirements will contribute to the success and long-term viability of the platform.