Software Requirements Specification

Project: Blog Sphere

Version: 1.0

Introduction

Purpose
This document defines the functional and non-functional requirements for **Blog Sphere**, a blogging platform designed for users to create, update, delete, and interact with blogs. The document serves as a guide for development, design, and testing phases of the project.

Scope
Blog Sphere is a web-based platform where users can create and manage blogs. Users can also engage with blogs by liking, commenting, following other users, and saving blogs for later reading. The platform will feature filtering options based on topics and publication dates, and users can create profiles to display personal information. Future enhancements will include personalized feeds, admin dashboard, and premium subscription features.

Definitions, Acronyms, and Abbreviations

- **Blog**: A post created by a user that can contain text, images, and multimedia content.
- **User**: Any individual who interacts with the platform, including content creators and readers.
- **Admin**: A user with special privileges to moderate content and manage other users.
- **Feed**: A timeline of content, which will be customized based on user interaction.

- **UI**: User Interface, the visual part of the platform that users interact with.

References

- **Medium.com**: For blog creation, publication, and content interaction.
- **Facebook.com**: For social interaction features such as likes, comments, and following.

Overall Description

Product Perspective
Blog Sphere will function as a social blogging platform with a strong focus on user-generated content and engagement. Users will have the ability to create blogs, interact with others, and customize their profiles. The platform takes inspiration from popular content-sharing websites like Medium and Facebook, integrating social elements with a seamless content creation experience.

Product Functions
The platform will offer the following core functionalities:

- Create, update, and delete blog posts.
- View and interact with individual blog posts.
- Like and comment on blog posts.
- Follow other users to stay updated on their posts.
- Save blog posts for future reading.
- Track user reading history for personalized engagement.
- Filter blogs based on topics and publication dates.
- Provide user profiles that display personal and professional information. Future functionality will include personalized feeds, admin controls, and premium services.

User Characteristics

- **Regular Users**: Will be able to create, like, comment, and follow blog posts, manage their own profiles, and save blogs for later reading.
- **Admin Users**: In addition to the regular user features, admins will have the ability to moderate content and manage reported users and posts.

Constraints

- The platform must be accessible on both mobile and desktop devices.
- Internet access is required for interaction with the system.
- The system should be capable of handling up to 10,000 concurrent users.

Assumptions and Dependencies

- Users will have basic knowledge of web navigation and content interaction.
- The platform will support modern browsers such as Chrome, Firefox, and Safari.
- The system will depend on third-party services for email notifications, cloud storage, and security features.

Specific Requirements

Functional Requirements

- **Blog Management**
    - Users will have the ability to create new blog posts using a rich text editor and multimedia upload options.
    - Users can edit or delete blogs they've created.
    - The system will display all published blogs with filtering options (by topic, latest, oldest).
    - Users can view individual blog posts by clicking on a specific blog.

- **Social Interaction**
    - Users can like and comment on blog posts. The number of likes will be visible on each post, and a comments section will appear under each blog post.
    - Users can follow other users, and their feed will be updated with the latest posts from users they follow (in future versions).
- **User Profiles**
    - Users will have profiles displaying personal information, including first name, last name, bio, addresses (home and current), and work details.
    - Profile pages will also display a user's blog activity (posts, likes, comments, etc.).
- **Save Blogs for Later**
    - Users can save blog posts to read at a later time. These saved posts will be accessible from a separate section of their profile.
- **Reading History**
    - The system will automatically track a user’s reading history. Whenever a user opens a blog, it will be added to their history, allowing them to revisit previously read posts.
- **Filtering**
    - Users can filter blog posts by specific topics or categories.
    - The system will allow sorting of blog posts by publication time, offering options such as "Latest" or "Oldest."

Non-Functional Requirements

- **Performance**
    - The system should be capable of handling up to 10,000 concurrent users with no noticeable delay in content loading or interaction.
    - Page load times should be under 2 seconds, even during peak traffic.
- **Security**
    - User data, including passwords and personal information, must be encrypted.

    - Secure authentication and session management should be implemented to prevent unauthorized access.
- **Usability**
    - The platform should provide an intuitive and user-friendly interface. Blog creation and interaction (likes, comments, follows) should be straightforward and easy to navigate.
    - Responsive design is required to ensure accessibility on both mobile and desktop devices.
- **Scalability**
    - The platform should be designed to accommodate growth in user activity and content without performance degradation.
- **Availability**
    - The platform should offer a 99.9% uptime to ensure that users have constant access to the platform.

External Interface Requirements

User Interfaces

- The platform will include several key pages, including the home page (displaying blog posts), the blog creation page, and user profile pages.
- Users will have access to options for managing their blogs, interacting with other users, and viewing their activity.

Software Interfaces

- The system will integrate with a backend database to store user profiles, blog posts, comments, likes, and reading history.
- Third-party services will be used for sending email notifications (e.g., registration confirmation, blog updates).

Communication Interfaces

- The system will use secure HTTPS connections for all communication to ensure data privacy and protection.

System Features

Blog Creation and Management

- Users will be able to create, edit, and delete blogs via a rich text editor.
- A "Publish" button will allow users to make their content live. Deleted blogs will no longer be publicly visible.

Social Interaction

- Users can like and comment on blogs, fostering engagement between content creators and readers.
- A follow feature will allow users to keep track of other users' blog posts.

Future Enhancements

Following User Posts in Feed

- Users will be able to view a feed of blog posts from the users they follow, providing a more personalized experience.

Content Recommendations Based on User Reactions

- The system will personalize blog post recommendations based on users' likes and interactions.

Admin Dashboard

- Admin users will have access to a dedicated dashboard for managing platform activities, including user reports, post moderation, and user management.

Reporting

- Users will have the ability to report inappropriate content or users for further review by admins.

Link Sharing

- A feature will allow users to copy profile or post links for sharing externally.

Premium Subscription

- A paid premium subscription service will be introduced, providing users with additional benefits, such as exclusive content or an ad-free experience.

Appendices

Appendix A: UI mockups for key pages, including the blog creation interface, user profiles, and home page layouts.
Appendix B: Database schema for users, blog posts, likes, comments, follows, and reading history.

This **SRS** outlines the requirements for **Blog Sphere**, detailing the blog management features, user interactions, and system expectations, with provisions for future enhancements aimed at improving user engagement and platform growth.