Software Requirements Specification

for

Blog website

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1.Introduction

1.1. Purpose

This document gives a detailed description of the Blogging Website. It also represents functional requirements, non-functional requirements, and the unique functionality of the Blogging Website. Further sections of this document will describe the system scope, user characteristics, operating environment, and system interfaces. The system provides a solution that allows the user to get blog suggestions based on the user's specific interests. The website also suggests trending topics and bloggers that the user can follow. The system provides additional functions such as day-to-day tracking of the users, commenting on a blog, and liking a blog.

1.2. Document Conventions

IEEE format standard is being followed in this document.

1.3. Intended Audience and Reading Suggestions

The intended audience for this document is the users who can read other people's blogs and can also create and publish their blogs.

1.4. Product Scope

The purpose of the website is to allow users to share their knowledge, information with other people. So, the member users have the right to post anything within the community guidelines. Users can follow other users, share and like other users' posts. The trending hashtags will be displayed on the trending page. They can keep track of their posts at any time. Non-member users are not allowed to enter the website.

1.5. References

1. https://www.w3schools.com

2.Overall Description

2.1. Product Perspective

This project represents an online blogging system. The main aim of any blogging system is to share information and knowledge about the topics that are of interest to anyone. So, the audience can easily get their hands on the content that they need. This system allows the

users to search, view, read and like the blogs of their interest, follow their favorite blogger and see their day-to-day usage concerning the website. Here, the bloggers are the ones who create their blogs in this system. So, the system provides them the ability to create and delete blogs, view their follow count and blog history.

2.2. Product Functions

Here the blogger is the term that refers to the users who have posted a particular blog.

User functions:

- Signup
    - The user can create a new account by giving the credentials such as email, password (for the website), gender, date of birth, name, location, profession, and interested categories.
- Login
    - The user can log into the system by giving the valid email and password provided during the signup process.
- Logout
    - The user can log out of the system whenever desired.
- Delete account
    - The user can delete his account from the system if he already has an account. For security reasons, a user has to log in to delete his/her account.
- View a Blog post
    - Users can view a blog post posted by other bloggers (users).
- Search a Blog post or a user
    - Users can search for blog posts by giving a keyword. The keyword will be matched with the title and keywords provided by the blogger on blog creation. The keyword provided will also be matched with usernames and the list of users matching the keyword is displayed.
- Edit Interested categories
    - Users on signUp should give some categories of interest(at least 3). A user can also change the categories of interest after the signup process.

- Day to Day usage tracking
    - Users can get their day-to-day usage of the website, like how much time they spend on the website daily.
- Blog suggestion
    - Depending on the user's categories of interest, users will be suggested some blog posts to read.
- Blogger follow suggestion
    - Depending on the user's categories of interest, he will be suggested to follow some bloggers and to read their posts.
- View other blogger details

- Users can see the details of other bloggers (users) viz. follower count, day-to-day usage, and the blogs written by the respective user.
- Comment on a blog
  - Blog posts will have a comment section, on which users can comment.
- Get blog view history
  - Users can view all the blogs that he/she has previously read.
- Follow/ Unfollow a Blogger
  - The user can follow the bloggers whose contents seem interesting so that the user can view as many blogs from that particular blogger. Alternatively, if the user chooses to unfollow a blogger, then the blogger's following count decreases, and that blogger's posts will not be suggested anymore to the user.
- User analytics (followers, following)

Blogger related functions:

- Post a text Blog
  - Any user can post a blog, which mainly composes text and an optional thumbnail image.
- Blog analytics
  - Each blog will have associated analytics such as view count of the blog, gender percentage, seen professions.
- Edit a Blog
  - After posting a blog, if needed the user can edit the contents of the blog according to the feedback given in the comments. He can also edit the visibility of the blog(public/private).
- Delete a Blog
  - For any reason, if the user wants to remove the blog from the system, they can delete it.

2.3. User Classes and Characteristics

The main parts of the system are User(1) and Blog(2). The user can be subdivided into two categories. A user can either be a reader or a blogger. But, a blogger can read others' blogs and a reader can also create a blog. The details about the following classes are given below:

- User
  - Has properties like Name, Address, Email, Profession, Interests, Follow count
  - These properties are required by the system to suggest personalized blog contents
  - They are also used to tell about the user to other audiences who read his blogs
- Blog

○ Has properties like Title, Field of topic Comments, Likes, Views, Writer, Date of creation and gender percentage, related keywords.
○ These properties give the readers a vague description of the blog.
○ The feedback from comments can also motivate the blogger to edit and make the blog even more interesting.

A user can view/create as many blogs as he wants and a particular blog can also have multiple views i.e. it can be seen by more than one user. Thus, a many-to-many relationship exists between the users and blogs.

2.4. Operating Environment

The software will run on a production environment for the deployment of web applications. Any user can access it through web browsers.

2.5. Assumptions and Dependencies

● User-provided email exists
● Users won't create blogs that take more than 1 GB of memory

3.External Interface Requirements

3.1. User Interfaces

This system has two buttons when it was initialized log in and sign up
Log in: If the user already exists in the system, they will directly log in with the help of a username and password.
Sign up: If a user is new to the system, they must click the signup button which creates a new user account.
After logging in, the user has a like button to add a like to a blog, a comments button for a blog to add comments to a blog.

3.2. Software Interfaces

Database: Postgres database is used to store the user details. It is an open-source relational database system.
HTML & CSS: To create the front end HTML and CSS is used. HTML is the standard markup language for the document designed to be displayed in the web browser, CSS is used to style the created HTML page.
Node js: This is mainly used to design the backend.

3.3. Communications Interfaces

The system must utilize the standard HyperText Transfer Protocol (HTTP) to ensure maximum inter-browser compatibility. The client accesses the system through a web browser.

4.System Features

System features of the blog website:

4.1. Log In

4.1.1   Description

This feature allows the registered user to log into his/her account.

4.1.2   Flow of Events

Basic flow

- User opens the website
- User enters the email and password.
- User is logged into his/her account.

Alternate Flow

- If the password and email don't match then, the values are to be re-entered.

4.1.3   Pre-conditions

The user must have a registered login email and password.

4.1.4   Post-conditions

The user is logged into his/her account.

4.2. SignUp

4.2.1   Description

This feature allows the new user to create an account.

4.2.2   Flow of Events

Basic flow

- User opens the website
- User selects the signup option.
- User has to fill in the information asked with email-id and password.
- The account is created

Alternate Flow

- If the email matches with the database then the user is asked to enter an unregistered email.

4.2.3   Pre-conditions

The user's details should not be registered before.

4.2.4   Post-conditions

The user has created a new registered email and password.

4.3. Delete Account

4.3.1   Description

This feature allows the user to delete an account.

4.3.2   Flow of Events

Basic flow

- User should log into his/her account.
- User selects the delete account option.
- Users should choose the confirm delete account option.
- The account is deleted

Alternate Flow

- If the user doesn't choose the confirm delete option the account is not deleted.

4.3.3   Pre-conditions

The user must have a registered login email and password.

4.3.4   Post-conditions

The user has deleted his/her account.

4.4. Log Out

4.4.1   Description

This feature allows the user to log out from his/her account.

4.4.2   Flow of Events

Basic flow

- User should log into his/her account.
- Select the log-out option.

4.4.3   Pre-conditions

The user must be logged in to his/her account.

4.4.4   Post-conditions

The user has logged out from his/her account.

4.5. Post a text Blog

4.5.1   Description

This feature allows the user to create a new blog post. The user can use only text and optional thumbnail images as the blog content.

4.5.2   Flow of Events

Basic flow

- User selects the create blog post feature
- The contents of the post are written by the user
- User selects the visibility of the blog post(public/private)
- The post is published

Alternate flow

- User does not publish the post, then the post is discarded

4.5.3   Pre-conditions

The user has logged into the system using a valid account and the post predominantly contains text and optional images.

4.5.4   Post-conditions

The post is

- successfully created and is published
- is discarded if the user does not publish the post

4.6. Delete a blog post

4.6.1   Description

This feature allows the user to delete an already existing blog post. Only the creator of the blog post has the facility to delete the same. After the blog is deleted it is no longer available for the users to view or read the blog.

4.6.2   Flow of Events

Basic flow

- User selects the delete blog feature
- User selects the blog post that is to be deleted
- The post is deleted after confirmation from the user

Alternate flow

- If the user does not confirm the deletion, then the post is not deleted

4.6.3   Pre-conditions

The blog post already exists and only the owner of the blog post can delete the post.

4.6.4   Post-conditions

The blog is

- successfully deleted if the user confirms the deletion
- not deleted if the user does not confirm the deletion

4.7. Edit blog post

4.7.1   Description

This feature allows the user who has created the post to modify the post and make it even more interesting to read. The blogger can edit the post on his own accord as well as after reading the feedback on the comments. This editing feature not only allows the writer to edit the blog but also allows the writer to change the visibility of the blog(private/public).

4.7.2   Flow of Events

Basic flow

- User selects the edit blog post feature
- User makes changes to the blog contents or changes the visibility of the blog post(public/private)
- The changes are saved and the blog is published

Alternate flow

- if the user does not save the changes, then the changes made are discarded

4.7.3   Pre-conditions

The blog already exists and only the owner of the blog post can edit the post.

The user can not delete all the contents and publish a blog(the blog cannot be empty)

4.7.4   Post-conditions

The blog is successfully edited or the changes made to the blog is discarded

4.8. Day to day tracking

4.8.1   Description

This feature tracks the day-to-day usage of any user. It gives a clear idea of the usage of this website daily. The output will be in the form of a bar graph for a week. Its calculation is based on login and logout in the system in a day.

4.8.2 Flow of Events

Basic flow

- User selects the profile and scrolls down to see the day to day tracking

Alternate flow

- If the account is new, then the day to day tracking will be empty

4.8.3 Pre-conditions

The user should have logged into the account.

4.9. Edit Interested categories

4.9.1 Description

This feature allows the user to edit his topics of interest which he registered to the system during the signup process. So, through this feature, he can edit his interests as many times as he wants. According to which, the suggestions will be shown to him. In any case, the user must have 3 topics of interest.

4.9.2 Flow of Events

Basic flow

- The user edits all 3 of his interests and the new interests are saved.

Alternate flow

- The user does not edit all 3 interests. So, here newly edited interests are saved and non-edited interests are unchanged.

4.9.3 Pre-conditions

The user must be logged in to the system.

4.9.4 Post-conditions

The interests are changed and new suggestions are available to the user.

4.10. User analytics

4.10.1 Description

This feature is also available in the analytics page of users. This gives other analytics like the follower and following count along with day to day tracking.

4.10.2 Flow of Events

Basic flow

- User clicks on the profile and selects analytics.

4.10.3 Post-conditions

Users will be taken to the analytics page.

4.11. Get blog view history

4.11.1 Description

This feature will give the user the history of the blogs he visited.

4.11.2 Flow of Events

Basic flow

- User clicks view history button
- All the previously read blogs are listed

Alternate flow

- If there are no blogs read then a "no blogs found" message is shown

4.11.3 Pre-conditions

User has logged-in

4.11.4 Post-conditions

User blog view history is displayed

4.12. Blogger follow suggestion

4.12.1 Description

This feature gives suggestions for bloggers depending on interested categories to the user.

4.12.2 Flow of Events

Basic flow

- Users land on the home page.

Alternate flow

- If no user is found, the suggestion will be empty.

4.12.3 Pre-conditions

Users should be logged in.

4.12.4 Post-conditions

On click taken to the Blogger detail page.

4.13. View other blogger details

4.13.1 Description

This feature allows a user to look at the details of other bloggers.

The viewable details are:

- name
- email
- written blogs
- day to day tracking

4.13.2 Flow of Events

Basic flow

- User searches for a specific user and clicks on the representing object

4.13.3 Pre-conditions

Users should be logged in.

4.13.4 Post-conditions

A new page will be shown with the details of the user

4.14. Follow/Unfollow Blogger

4.14.1 Description

This feature allows the user to follow the blogger whose content is interesting to him and his following count increases. Alternatively, this feature provides the user the ability to unfollow someone that he has followed before.

4.14.2 Flow of Events

Basic flow

- The user selects the follow option and views the blogger details and the following count increases.

Alternate flow

- The user selects the unfollow option and his following count decreases, then he is redirected to the home page.

4.14.3 Pre-conditions

- The user must be logged in to the system.
- If he wants to follow the blogger, then he must not have followed him before.

- If the user wants to unfollow the blogger, then he must have followed the blogger before.

4.14.4 Post-conditions

- The user is following the blogger and the blogger's posts will be automatically suggested to him.
- If chosen unfollow option, then his followers count decreases, and the unfollowed blogger's posts will not be suggested anymore.

4.15. Blog analytics

4.15.1 Description

Each blog will have associated analytics like the view count of the blog post and the details about the users who have read the blog post, gender percentage and profession of the viewed users.

4.15.2 Flow of Events

Basic flow

- Blogger clicks on a blog and selects the analytics option.

Alternate flow

- In case the blog is new (created seconds ago), the analytics will be empty.
- Similarly, if the viewer count is 0, then it would be empty

4.15.3 Pre-conditions

Users should be logged in.

4.16. Blog suggestion

4.16.1 Description

Each user will get suggestions on the blogs to view. The suggestions will be depending on the interested categories.

4.16.2 Flow of Events

Basic flow

- User should have navigated to the home page

Alternate flow

- If the available related suggestions are none then appropriate messages will be displayed.

4.16.3 Pre-conditions

Users should be logged in.

4.16.4 Post-conditions

On clicking the suggested blogs, users should be taken to the blog page.

4.17. Search a blog post or a user

4.17.1 Description

This module facilitates the users to search for blog posts by giving a keyword. The keyword will be matched with the title of the blog post and keywords provided by the blogger on blog creation or a username. If there is no matching blog then a "no results found" message will be displayed. If there are no matching users for the given keyword then a "no users found" message will be displayed.

4.17.2 Flow of Events

Basic flow

- The user clicks the search box and enters the keyword to be searched
- The user clicks the search button
- Appropriate blog posts and user names are shown in the search results

Alternate flow

- if no blog or users match the given search criteria then a "no results found" or "no user found" message is displayed.

4.17.3 Pre-conditions

User has logged in

4.17.4 Post-conditions

Appropriate search results or message is shown to the user

4.18. View a blog post

4.18.1 Description

This feature takes the user to a page where the user can view the blog post entirely.

4.18.2 Flow of Events

Basic flow

- On click to an object or button representing the blog, taken to the blog page

4.18.3 Pre-conditions

Users should be logged in.

4.18.4 Post-conditions

User is taken to a new screen

4.19. Comment on a blog post

4.19.1 Description

This feature allows the user to comment on a blog post. Each blog post will have a comment section, on which users can comment.

4.19.2 Flow of Events

Basic flow

- User is viewing a blog
- User navigates to comment section
- User clicks the add comment button
- The comment(text only) is entered by the user
- User clicks the send button

Alternate flow

- If the user does not send the comment, the comment is discarded

4.19.3 Pre-conditions

User has to be logged in

4.19.4 Post-conditions

The comment is displayed in the comment section of the blog

5.Other Nonfunctional Requirements

5.1. Performance Requirements

This system can accept any number of new connections at a single time. The users can use this application for an infinite time until they log out. When a blog is read by many people then it will automatically be transferred to the trending section. If a blogger adds new content, it will appear to their followers within a minute.

5.2. Safety Requirements

Bloggers are allowed to keep their accounts private. This feature is to restrict the number of followers. If any content was not legal, it will be removed by the admin directly. If any copyrighted content is found, it will also be removed. All users are provided with a username and password.

5.3. Security Requirements

Users: In this application, there are two types of users.

1. The first type of users are those users who can read the blogs, view the pictures uploaded there, can add the like to those pictures, and report the particular blog content if any of them was infringed. These users are provided with a username and password to log in. If the user is new, then the system asks the user to enter their details, after completing this process the new user is allowed to log in. These users are logged in as a read-only mode

2. The second type of user is the same as the first user and has all the functions as the first user. This user has additional features such as adding pictures, writing content related to a topic. To become a type II user, the user is asked to select the corresponding option during the signup phase. These users are logged in both read mode and write mode. These users are also provided with separate usernames and passwords.

Admin: Admins are those people who can continuously monitor the blog contents. if any law violation takes place in the content. They are also able to remove the blogs if any report arises due to copyright infringement. Admins are also provided with admin id and password directly.

5.4. Software Quality Attributes

This is portable and flexible since this application can be accessed from any part of the world

5.5. Other Requirements

The server uses PostgreSQL in the backend.

Appendix A: Glossary

Blogger - any user who has posted a blog

PLAGIARISM REPORT:

Checking Parameters [what is this?]

Matching scope(s):   Within submission, Internet

Leniency: Detailed matching with threshold 70%

Minimum sentence length: Sentences with more than or equal to 3 meaningful words were checked

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Similarity Statistics

Similarity Statistics [what is this?]

Total number of documents: 1

Number of documents which can be processed: 1

Number of documents which cannot be processed: 0

Show 10 entries   Search:

Entry	⇕ Document	⇕ Status	▼ Similarity	Action
1	Team_3__SPD_SRS_Document.docx	processed	12/228=5.20%	View details

Showing 1 to 1 of 1 entries   First Previous 1 Next Last