**Software Requirements Specification**

**for**

SE Lab 2022 Group 2

**Version 1.0 approved**

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# **Introduction**

## **Purpose**

The purpose of this project is to create a social media platform with functionalities similar to Facebook. Users will be able to create an account and add posts to a timeline, as well as to like and comment on other timelines. Users will also be able to add and follow friends.

## **Document Conventions**

The document follows the “Intro-to-SE SRS Template” provided by the lab instructor (TA) at the start of the project. All fonts, highlights, and typographical conventions are directly followed.

## **Intended Audience and Reading**

The document is intended for other students, the lab TA, course professor, and document writers. The SRS is organized into broad numbered topics with smaller subsections. The document is intended to be read straight-through, with later reference to specific sections.

## **Product Scope**

The software is a social media platform intended to help users in maintaining contact with friends and family by creating and following timelines, as well as interacting with timelines through likes and comments.

## **References**

This document references the “Project Topic.pdf” provided by the TA to define the functional requirements of the system.

# **Overall Description**

## **Product Perspective**

The project is a new, self-contained product, akin to other social media platforms like Facebook.

## **Product Functions**

The major functions of this project are to:

* Create a website where users can login to their account and connect with friends.
* Users will be able to send and accept friend requests.
* Users should be able to like, comment, and share the status/timeline post of their friends.
* Users will be able to interact with and send friend requests to friends of friends.
* Users should be able to create, edit and post on their timelines.

## **User Classes and Characteristics**

The user classes for this product are users and developers. Users should have access to all basic features, including creating an account, posting to their timeline, commenting, etc. Users only need basic computer literacy to browse and post. The Developer class will have special features for testing and/or moderation features that the Users would not be able to access. The most important user class to satisfy is the Users.

## **Operating Environment**

This will be a website intended for use on desktop computers. It should be compatible with most major browsers.

## **Design and Implementation Constraints**

This project is student-led and designed and therefore needs to be completed within the semester. The technology used must be free-to-use and available for deployment.

# **System Feature**s

## Create Account

3.1.1 Description and Priority

Priority: High

Benefit: High

Cost: Low

Risk: Medium

Users will have accounts that they can login to, allowing them to follow and be

followed by other users. This will also allow them access to their timelines.

3.1.2 Stimulus/Response Sequences

The user will open the site for the first time and select the text option to create a new

account. They will then proceed to insert the necessary information for an account

and click the button to confirm the account creation.

3.1.3 Functional Requirements

REQ-1: Database of Users and Account information

REQ-2: Page for New Users to input information

## Login

3.2.1 Description and Priority

Priority: High

Benefit: High

Cost: Low

Risk: Medium

The user should be able to return to the site and login using their unique username/password combination and see their timeline.

3.2.2 Stimulus/Response Sequences

Returning Users will load the website and input their login information. They will then

be directed to their timeline feeds.

3.2.3 Functional Requirements

REQ-1: Database of Users and Account information

REQ-2: Existing account in the Database (and Friends)

REQ-3: Login Button and Page

## Signout

3.3.1 Description and Priority

Priority: High

Benefit: High

Cost: Low

Risk: Medium

Users will be able to sign out of their account if they no longer wish to have their account open on their device.

3.3.2 Stimulus/Response Sequences

The user will press a button with the text that says “log out” and will be logged out of

their account. Returning them to the login page.

3.3.3 Functional Requirements

REQ-1: Database of Users and Account information

REQ-2: Button for logging out

## Posting to Timeline

3.4.1 Description and Priority

Priority: Medium

Benefit: High

Cost: Low

Risk: Low

The user will be able to post a status on their timeline by inputting text information.

3.4.2 Stimulus/Response Sequences

The user will be able to post messages on their timelines by clicking the post button, typing a post, and confirming the post. The system will then submit it to the servers and display it to every other user’s friend’s timeline.

3.4.3 Functional Requirements

REQ-1: Database for User Posts

REQ-2: Page for creating a post

REQ-3: Button for submitting a post

## Post Editing

3.5.1 Description and Priority

Priority: Medium

Benefit: High

Cost: Low

Risk: Low

The user will be able to edit a previously composed and posted post and re-upload it

with new information.

3.5.2 Stimulus/Response Sequences

The user will click the option to edit the previous post which will open up a new page with the information of the previous post ready to be edited. They will input the new information and finally hit submit to confirm edits. The server will update based on the new information and correct information will be displayed to each friend.

3.5.3 Functional Requirements

REQ-1: Database with tables for the user’s posts.

REQ-2: Edit Button

REQ-3: Page for Editing Posts

## Post Deleting

3.6.1 Description and Priority

Priority: Medium

Benefit: High

Cost: Low

Risk: Low

The user will be able to delete the post that they’ve posted.

3.6.2 Stimulus/Response Sequences

The user will click the option to delete a post, opening a dialog to confirm that the user wants to delete the post. Upon confirmation, the post will be deleted from the database.

3.6.3 Functional Requirements

REQ-1: A delete button on the user’s post for the creator of the post to click

REQ-2: Updating the user’s friends timeline

## Sending Friend Requests

3.7.1 Description and Priority

Priority: High

Benefit: High

Cost: Low

Risk: Low

This feature should allow the user to send friend requests to new people. The user should be able to search for other users and if they exist their profile will appear in the search results. Users will then have the option to send a request.

3.7.2 Stimulus/Response Sequences

The user will search for a username in the search bar and click on the button that

indicates to send a friend request to a particular user. The server receives the request, sends it to the intended user. The request then goes into the other user’s friend requests.

3.7.3 Functional Requirements

REQ-1: User account that can log in

REQ-2: A search bar to search for user profiles

REQ-3: A friend request button for a user profile to send a friend request

## **Accepting Friend Requests**

3.8.1 Description and Priority

Priority: High

Benefit: High

Cost: Low

Risk: Low

This feature should allow the user to accept a friend request from their friend request inbox.

3.8.2 Stimulus/Response Sequences

The user will be able to click on their friend request button and see requests. They can then confirm the request or deny it. If they deny it then the server erases the request and does nothing to the user that sent the request. If they confirm it then the server accepts it and then updates the database of friends for the user who sent the request and the user who received it. Then both users will be able to see each other’s posts on their timelines.

3.8.3 Functional Requirements

REQ-1: Friend requests page

REQ-2: A button to confirm or deny a request

## Removing Friends From Friends List

3.9.1 Description and Priority

Priority: Medium

Benefit: Medium

Cost: Low

Risk: Low

This feature should allow the user to remove a friend from their friend’s list

3.9.2 Stimulus/Response Sequences

The user will be able to go to their friend's list page and remove a friend. This sends

a request to the server to update the database and remove each other from their

friend database.

3.9.3 Functional Requirements

REQ-1: A friends list page

REQ-2: A button to remove a friend

## **Sharing** Friend’s **Posts**

3.10.1 Description and Priority

Priority: Medium

Benefit: High

Cost: Low

Risk: Low

The user will be able to share a friend’s post.

3.10.2 Stimulus/Response Sequences

The user will select the share button attached to the post they desire to share, they will be prompted with a confirmation button to which they will accept. The post will then be shared.

3.10.3 Functional Requirements

REQ-1: Button for sharing a post

REQ-2: Page to put the shared posts

## Comment on Friend’s Post

3.11.1 Description and Priority

Priority: Medium

Benefit: Medium

Cost: Low

Risk: Low

This feature should allow the user to write text about a post underneath the post. Essentially a “comment”.

3.11.2 Stimulus/Response Sequences

The user will select the text box underneath the post and type in their thoughts. They will then press the post button. The comments will then be posted for everyone to see.

3.11.3 Functional Requirements

REQ-1: A text box for typing in comments

REQ-2: A button to confirm a comment

## Like/Unlike a Friend’s Post

3.12.1 Description and Priority

Priority: Medium

Benefit: Medium

Cost: Low

Risk: Low

This feature should allow the user to like a post or unlike an already liked post.

3.12.2 Stimulus/Response Sequences

The user will be view a post on their timeline and click a like button. If the post is already liked then the user can click the like button again to unlike it. Both actions will send a request to the server to update the post’s like count.

3.12.3 Functional Requirements

REQ-1: A togglable like a button on the post

REQ-2: Updates the post’s database on the like count

# **Other Nonfunctional Requirements**

## **Performance Requirements**

The website should load in a reasonable time and display appropriate information within seconds of user interaction.

## **Safety Requirements**

The content posted by users should abide by the US Constitution and MSU guidelines for posting on social media.

## **Security Requirements**

The users should have secure usernames and passwords. Securing the server so no one has access to the database other than developers.

## **Software Quality Attributes**

The software should be written to a standard that allows for it to be testable and easily readable. The resulting product should be a clean interface for the users to use and enjoy.

# **Other Requirements**

Other Requirements are TBD by TA

**Appendix A: Glossary**

TA - Teacher’s assistant

**Appendix B: Analysis Models**

Have none currently

**Appendix C: To Be Determined List**