Software Requirements Specification

for

SMS WebChat

Version 1.0

Prepared by Sydney Mayfield

CSUB

2/23/2021

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this application is to provide a public chat forum with multi-user support. This program will be built as a web application that connects to the CSUB Delphi Postgres database. It will incorporate elements of PHP, HTML, CSS, and PSQL. Any user with an up to date web browser and internet service should be able to connect and chat within the client.

1.2 Document Conventions

<Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority.>

1.3 Intended Audience and Reading Suggestions

The intended audience of this document is any software developer looking for more information on how this application was built. It is recommended to read the overview of each section and proceed to the section with pertinent information based on that description.

1.4 Product Scope

The goal of this software is to create a safe and user-friendly message board for public use.

1.5 References

This software uses components of Bootstrap 4 for web stylization.
Link - https://getbootstrap.com/
Version – v4.6.0

2. Overall Description

2.1 Product Perspective

..

2.2 Product Functions

User –

- Login
- Edit account information
- Send chat messages

Room –
- User list
- Store messages
- Display messages

Profile –
- Display email, username, color
- Change password

2.3 User Classes and Characteristics

..

2.4 Operating Environment

This application requires a constant connection to the Delphi Postgres server. Without that connection, the user cannot communicate any chat messages or make changes to their account information.

2.5 Design and Implementation Constraints

..

2.6 User Documentation

<List the user documentation components (such as user manuals, on-line help, and tutorials) that will be delivered along with the software. Identify any known user documentation delivery formats or standards.>

2.7 Assumptions and Dependencies

3. External Interface Requirements

3.1 User Interfaces

3.2 Hardware Interfaces

..

3.3 Software Interfaces

This software communicates with a database and CSS library. The CSS library, Bootstrap, is used for stylization. While the database connection is used to fetch stored user data and site content such as messages. The following are cases of software interfacing.

Case "Always" -
Website → Bootstrap API → Website
Case "Login"-
Website (Login info) → Database (Validation) → Website (Success/Failed login)

3.4 Communications Interfaces

<Describe the requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. Identify any communication standards that will be used, such as FTP or HTTP. Specify any communication security or encryption issues, data transfer rates, and synchronization mechanisms.>

4. System Features

Functional Requirements
- Software validates user input for Login
- Allows user to enter chat messages
- Allows user to read chat messages
- Adds current user to active user list
- Software should be integrated to Delphi server to store user info / messages
- Software requires connection to Bootstrap 4 API
- Software will scrub any user input for XSS security threats

The application can be broken down into four sections: Login, Home, Profile, and Room. Each section is essentially a webpage within the project parameters.

4.1 Home page

The Home section is the main landing page that previews a list of rooms. It also includes a static navbar that allows the user to find other sections of the application.

4.2 Login

The Login section contains the user input and input validation for a connection to the database. This page has a static navbar and two text fields for Username and Password. This page also contains a second, separate portion of two text fields for registering a new account.

4.3 Profile / Account Information

The Profile section displays user information such as Username, Email, and Color. Color allows the user to customize what color their username appears as in the chatroom. Along with the displayed information, textboxes appear for the user to be able to change any information tied to their account.

4.4 Room

The Room section contains a chat window and user list. The user list displays all users currently connected to the specified chat room. The chat window displays all messages sent within that room's history.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

Non-functional Requirements
- Website should be able to handle 100 users without hindering performance
- Private account information should be kept confidential
- Login validation should complete in less than 1 second under normal circumstances