
Software Requirements Specification

for

VIBEZ(A social toolkit)

Version 1.0

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1. Introduction

1.1 Purpose

The purpose of this Software Requirement Specification is to give an overview of the functional and non-functional requirements of a social networking website.

1.2 Intended Audience and Reading Suggestions

This document is intended for a varied set of audiences. This document serves as a contract agreement with the stakeholders. This document is intended for the stakeholders' authorities, the design team, the developers, project managers, team leads, supervisors, security analysts, testing team to better understand the system requirements.

1.3 Product Scope

The social networking website is an online community designed to make social life of students more active and stimulating. The social network can help one maintain existing relationships with people and share pictures and messages, and establish new ones by reaching out to people one has never met before.

2. Overall Description

2.1 Product Perspective

The social networking website allows users to connect with their family and friends all over the globe. It gives a global platform for users around the world to connect with each other. Users can also share photos, videos, and blog and engage themselves in chatting. Besides it provides scope for advertisement. This is an independent product and will be the first release of the product.

2.2 Product Functions

- *The User can create his profile, add, edit information, set visibility to various profile sections, so his own profile and upload profile picture to his profile.*
- *The User can register to the social networking site and login whenever he wishes to do so*
- *With the application users can connect with their friends and family through a common platform.*
- *A user can search for his friends and will be shown appropriate results if matching profiles are found.*
- *Any user can post on the site which will be visible to his connections.*
- *All the connections of the user can like or comment on the post*
- *The user can also see the posts from his connections*

- *The user can make new friends by sending requests and also unfriend the already friends.*
- *The user can change the password whenever he wants*
- *The user can deactivate his account and the information is permanently deleted*

2.3 User Classes and Characteristics

Standard users may belong to any demographic group including any gender, nationality that can use computer's browser. The site requires its users to be above 16 years of age. It does not require its users to have any specific computer knowledge. User interface is in English language so users should have a basic English reading knowledge.

2.4 Operating Environment

The website can be operated in any Operating Environment - Mac, Windows, Linux etc.

2.5 Design and Implementation Constraints

- 1. The website will support the following browsers: Microsoft Edge, Chrome 27.0+, and Firefox 30+.*
- 2. The website supports English language only.*
- 3. The website requires certificates issued by CA to use HTTPS.*
- 4. The first version of the website is intended to be viewed best on a desktop browser.*

2.6 User Documentation

The social networking website will not provide any documentation. Online tutorial will be served when users register to the site.

2.7 Assumptions and Dependencies

- 1. There will be availability of Internet via 3G, 4G, 5G or Wi-Fi.*
- 2. The user of the site should be well acquainted with English language.*
- 3. The user should have a valid email address in order to register into the website.*
- 4. Central server of the system must be able to handle all the incoming requests simultaneously.*
- 5. The user has basic knowledge of computers and Internet.*

3. System Features

This is social networking site available to the users online as webapp. It connects and presents people based on information gathered about them, as stored in their user profiles. It has various functionalities and features. The main aim of this application is to improve connectivity.

3.1 System Feature

System Feature 1

Name - User Registration

Description - User will create an account if there is no existing account associated with user, email-id. User should enter account details such as name, email-id, contact number, birth date, apt. and password. All these are required fields and account creation cannot proceed unless these are filled. User is registered after this information is validated and user agrees with the terms and conditions. User must be 18 years old or more. Contact number should be a 10 digit numeric field. First and last name should not exceed 20 characters each. Password should be at least 8 characters long, at most 15 characters including at least one capital and small letter, a special character and a number.

System Feature 2

Name – Login

Description - User must be registered in order to Login. Input will be the email id and password for login. The hash of password should match to the hash of password stored in the database. If three attempts of password are wrong then a Captcha should appear. If more than 8 attempts go wrong, then the account will be locked and an e-mail will be sent to the user notifying about the wrong password attempts. To unlock the account, user must click on the unlock link sent to him in the email. If user clicks on forgot password then reset password link should be emailed to the user. Input to each field must be validated.

System Feature 3

Name – Add/Edit Personal information

Description - A part of building user profile. User should be able to add the personal details like language, gender, about user and his interests. These fields can remain empty. User must be logged in and his account should be marked as verified to be able to add personal information. Input to each field must be validated.

System Feature 4

Name - Add account information

Description - A part of building user profile. User should be able to add the account details like name, birth date, email-id, phone number and address. Name, birth date and email-id cannot be empty while the other two can remain empty. User must be logged in. Input to each field must be validated.

System Feature 5

Name - Upload Profile Picture

Description - User should be able to upload the profile picture. The size of profile picture should be at least 160px 160px. User may leave this field empty. Profile image should be visible to all.*

System Feature 6

Name - Set account visibility settings

Description –User should be able to make account details private or public according to his wish. By default the account details will be visible to public.

System Feature 7

Name - List Friends

Description - Whenever the user is on any person's profile page, he should have an option to view currently open user profile's friends on a page. User can have many friends and the maximum number of friends shown at a time will be 20, and paging will be implemented to show more friends if the user has more than 20 friends.

System Feature 8

Name - Delete Account

Description - User may delete his account permanently depending on his wish. User will be removed from his friends list once deleted. User information will be cleared.

System Feature 9

Name - Add Friend

Description - A registered user should be able to send friend requests to other users. User can send friend request to already registered users. User can search his friend among the registered users and then send a friend request to him/her.

System Feature 10

Name - Accept/Ignore Friend Request

Description - If a user gets a friend request from another user, then the user receiving the request should have an option to accept or ignore the friend request. If the user selects to accept the friend request, the requester is added to the friend of the acceptor. If the user selected to ignore the request, the sender continues to see the status of the request as “request sent” and the request is removed from the queue of the request receiver.

System Feature 11

Name - Delete Friend

Description – Any registered user should be able to un-friend any of the existing friends

System Feature 12

Name - Chat

Description - User should be able to initiate chat with any user in the friend list who is online. The other user must seamlessly understand that the chat has been initiated and chat message must be forwarded to the intended user. User should be able to receive messages from any user in the friend list who is online. Thus the receiving entity can send message back to the originator, thus, completing a two-way conversation. The message cannot be greater than 250 characters in length.

System Feature 13

Name - Search User

Description - User should be able to search for his/her friends who may be registered on the site. User will put the name of the friend and click search after which the search results will display all the people registered on the site by the searched name. When the search results are displayed the maximum number of results shown at a time will be 20, and paging will be implemented to show more results.

System Feature 14

Name - Invite Friend

Description - User should be able to invite more friends to join the social network. User will be given an option to enter the email address of the person to invite. User will be able to invite one friend at a time.

System Feature 15

Name – Post

Description- A registered user can share posts with his friends. The post can only be plain English text with maximum 500 characters. User can enter the post in the designated text area and on clicking POST button, should be visible to the user and his friends.

System Feature 16

Name – Remove Post

Description - A user can remove a post that has been posted. After deletion, the post should not be visible on the users' or his friends' profiles. Deletion of a post should also remove all the comments associated with that post.

System Feature 17

Name – Like and Comment

Description - For each post visible to the user he has the ability to like and comment on it to his opinion. The comment can contain only text and cannot exceed 500 characters in length. To comment, user can see a text area under the post, where he can enter the text.

System Feature 18

Name - Delete Comment

Description - A user can delete a comment written by him or a comment on his posts. For deleting a post that he is authorized to delete, a user can see a delete link near the comment.

System Feature 19

Name - Show Profile

Description - Any logged.in user should be able to see any user profile. But profile content will only be visible if the other user is friend of the viewer or having a public account.

3.2 Functional Requirements

VIBEZ is being built on MERN stack

Back-End – Express

Front-End – React, Bootstrap

DataBase - MongoDB

4. Other Non-functional Requirements

4.1 Performance Requirements

1. Scalability

System should be able to handle a large number of users. For e.g. handling around Thousand users at the same time.

2. Speed

The application should be fast. It should not slow down with increase in the number of users. Search functionality should be fast to enable better end-user experience. The system should be quick enough to be able to respond to the user actions within a short period of time. E.g. the search user functionality of the site should perform a quick search among the users on the database.

4.2 Security Requirements

- 1. During user registration, the given email address is validated.*
- 2. The password should be at least 8 characters, containing at least a small character and one capital, a number and a special character.*
- 3. Password is stored as a hash value in database.*
- 4. We are transferring all data via HTTPS i.e., via SSL so that the data is encrypted during the transit. Thus, safeguarding the user information.*
- 5. Re-Captcha service is used during registration for human identification.*

4.3 Software Quality Attributes

1. Usability

- User interface should be simple and clear to be understood by any user.*

2. Availability

- The system should be available at all times. It should be ensured that there should be minimum or no downtime to ensure better user experience.*
- The system should be reliable. It should yield correct results if a user performs searches for a person. Also, if the user sends message, the system should ensure that the correct message is delivered to the correct destination without any loss or change in content.*

3. Testability

- The application should be testable. A separate test environment should be set up where testers and the Quality Assurance engineers can test the application for bugs and/or incomplete or missed requirements.*

4. Maintainability

- The system should be developed in such a way that it is extensible. It should be easy to incorporate new features requirements or accommodate a change in the existing requirements.*

4.4 Business Rules

<List any operating principles about the product, such as which individuals or roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they may imply certain functional requirements to enforce the rules.>

5. Other Requirements

N/A