# Appendix

## SRS Document

### Project Title: Chat Application

### Category: Web and Android Application

### Introduction

#### Purpose

Software Requirements Specification (SRS) document is developed in order to deliver the detail information about the application’s functional and non-functional requirements. This document serves as a manual that provides the description of chat application’s features and the system interface.

#### Intended Audiences and Reading Suggestions:

This document is developed for the system developers in which can be used as a reference while developing a platform similar to this application. Project Managers can use this document to see the development of the project, project scope, timelines and how the system’s function is interacting with each other. Quality Assurance (QA) team can use this document to review the performance, security and reliability requirements. Designers can use this manual to see the program’s interface and usability specifications.

#### Project Scope

The scope of this chat application is to develop a real-time messaging platform that enables users to engage in one-on-one and group conversations. The feature that this application provides is user authentication, multimedia sharing such as photos, pdf, files and so on. This application will be made user-friendly, secure, with the idea focusing on delivering seamless communication.

# Overall Description

## Product Perspective

This chat application helps to foster real-time connection in a digital fast-paced world. This instant messaging platform helps to bridge gap between the users, whether they are separated by the geography or looking for a way to connect and have efficient communication. This application serves as a tool of connectivity, providing users with an interface to communicate, stay productive and transcend the traditional way of communication with its features.

## Product Features:

This product is designed to provide users with a great set of features that enables them to stay productive manage time while having group conversations, sharing text, images, and files effortlessly. The key features of this application are listed below:

* Multimedia Sharing
* Light and Dark Mode Feature
* Authentication mechanism for secure access
* Group Chat functionality
* Notification mechanism

In essence, this messaging platform is a feature-rich, secure, and versatile tool that focuses to safeguard user data and privacy, making it user friendly and enjoyable experience.

## User Classes and Characteristics:

This application has different types of users with their roles and characteristics.

### Standard Users:

* **Characteristics:** Standard users are the majority, who can engage in one-on-on or group conversations that they are invited to. They can make use of all the features provided by this application such as text and multimedia sharing.

### Group Administrators:

* **Characteristics:** Group administrator are provided with a privilege to add or remove members, manage group settings within their group.

### Moderators:

* **Characteristics:** Moderators have specific set of rights within their group to monitor and manage conversations. They have the privilege to remove inappropriate content, remove users, create channel, and contribute to the channel.

### Guest Users:

* Characteristics: Guest users have limited access, allowing them to add a friend, have a conversation with the people who have added them as a friend or accepted their invitation link. They can join the channels, if they are invited to the channel.

## Operating Environment

**Hardware Environment:**

This application is designed to operate on a various device that accommodates users’ preference and accessibility. This includes users can access the application through web browsers on desktop and laptops. This chat application is designed to perform efficiently on devices with different screen size and resolutions.

**Software Environment:**

This application supports commonly used browsers such as Google Chrome, Safari, and Microsoft Edge.

**Network Environment:**

This application requires networked environment, such as internet connectivity for real-time messaging and content delivery. It is designed to function seamlessly on Wi-Fi networks, to provide consistent user experience.

# System Features

## User Registration:

* **Description:**

Anyone can register by creating an account.

* **Functional requirements:**

Req-1: User should be able to register themselves.

Req-2: The system shall check the email provided by the user is valid or not.

Req-3: The system shall check if the user already exists or not.

Req-4: User should be able to log themselves in after inputting the valid credentials.

## Login:

* **Description:**

The application can be accessed by registered user through their email. The application verifies the credential provided by the user by checking the credential stored in a database.

* **Functional requirements:**

Req-1 The application needs to verify the credentials provided by the user.

Req-2: The application should be accessed by providing email.

## Real-time Messaging:

* **Description:**

User of this application should be able to message their friends, family, by sending them an invite link.

* **Functional requirements:**

Req-1: The user should be able to send invitation link.

Req-2: The user should be allowed to send message to their friends.

## Message Editing and Deletion:

* **Description:**

This application allows their user to edit their message or delete their message.

* **Functional requirements:**

Req-1: The user after sending a text message should be able to edit their message by clicking the edit option.

Req-2: The user should be able to delete their text message after sending them.

## Communication Options:

* Description:

The user of this platform is not only restricted to text option; they can communication through audio calls and video calls.

* Functional requirements:

Req-1: User can text as a message to the other party and the receiver should be able to view their message.

Req-2: User are provided with the option to call the receiver.

Req-3: The system should be able to audio call the other member, if the user chooses audio call as an option.

Req-4: The system should be able to make use if web cam to make the video call.

## Member Management:

* Description: