Friendify App
Software Requirement Specification Document

1) Introduction

The SRS is a comprehensive analysis of the "Friendify App - Chat Anonymously" – we're going to dive deep into the problem statement and define it in detail. We're also going to consider what capabilities the stakeholders require, and what their needs are when it comes to defining the high-level product features. Later on in the document, we'll provide a detailed breakdown of the requirements for the Friendify app. So this document is going to give you all the information you need.

1.1) Purpose -

We need to keep updating the Software Requirement Specification (SRS) as we continue to develop the Friedify App Chat Anonymously. This document is going to provide a comprehensive overview of how the app was created and what it can do for customers. Essentially, it's a chat app that allows people to talk anonymously with strangers (think Omeggle), but with the added bonus of being able to make friends with those strangers so you can chat with them again in the future. It also has basic features like login and register, and we used email verification to prevent bots from taking over. The goal of this document is to give a clear idea of what the app can do and how it was built so that everyone involved can be on the same page about what we're creating.

1.2) Scope -

Friendify provides its users with a platform to connect with other users around the world anonymously and explore new interests. The application has a simple and user-friendly interface that allows users to start a chat session with just a click of a button. Users can sign up and start chatting with strangers, and if they hit it off, they can become friends later on. The app has two major parts: chatting with strangers, chatting with friends, and just making it clear that even if you become friends, you're still anonymous – you use a username and avatar that you picked earlier. This could

be great for students who feel a bit shy about talking to new people – it gives them a chance to break out of their shells and make some new connections.

1.3) Intended audience

ID	Stakeholder	Description
1	Course instructor & teaching assistants	Draw out system requirements, assign tasks and deadlines and confirm whether or not the application is being developed as required through running evaluations.
2	Development team	Understand the use cases that the app needs to satisfy, construct an optimum system design, implement the system as per the details laid out.
3	Testing and maintenance team	Test the application in accordance with legal use cases, handle edge-cases and any possible vulnerabilities of the app.
4	End user	Use and interact with the app

2) OVERALL DESCRIPTION

In this section, background information about what type of requirements the system should have will be provided briefly.

2.1 Product Prospective-

The Friendify App is a chat application that allows users to communicate with strangers while maintaining anonymity. The app offers a platform for individuals to chat with strangers and build new relationships without revealing their personal information. The app's main objective is to provide a secure and fun environment for users to meet new people without feeling pressured or uncomfortable.
Several features of our application such as Verified profiles and Ratings system help the users feel more secure about the identity of the people they're chatting with. It also helps foster a sense of accountability and encourages positive behavior among users.

From a business perspective, the Friendify App is a promising opportunity to reach a large and growing market of individuals who are looking for new connections. With the rise of social media and online communication, there is a growing demand for platforms that offer a safe and comfortable space for people to interact. The Friendify App seeks to fill this need by providing an easy-to-use platform that is accessible to everyone.

The Friendify App is unique in that it allows users to remain anonymous while building relationships. This feature is especially appealing to individuals who are shy or introverted and may feel uncomfortable revealing their identity. By allowing users to remain anonymous, the app eliminates the pressure and anxiety associated with meeting new people. This feature also makes the app appealing to individuals who are concerned about privacy and security.
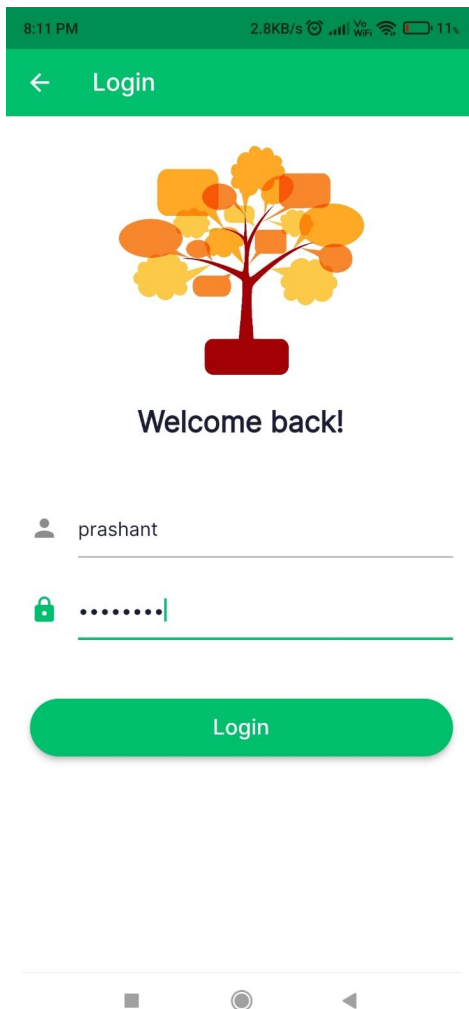
2.2   PRODUCT FUNCTIONS

The Friendify App is a chat application that allows users to communicate with strangers while maintaining anonymity. The app provides a range of functions that enable users to create an account, search for and chat with strangers, rate their conversations, and manage their profile information. Overall, the Friendify App provides a comprehensive set of functions that enable users to chat with strangers while maintaining anonymity and rate their conversations to provide feedback to other users. The app's emphasis on user privacy and security makes it a compelling choice for anyone looking for a safe and enjoyable way to meet new people. Details for each function are discussed below.

3) SPECIFIC REQUIREMENTS –

3.1) FUNCTIONAL REQUIREMENTS -

Registration and Login: The registration process is simple and requires users to provide basic information such as username, password, and email address. The app verifies the email address to avoid bots and spam. Once the registration is complete, users can log in and start using the app.
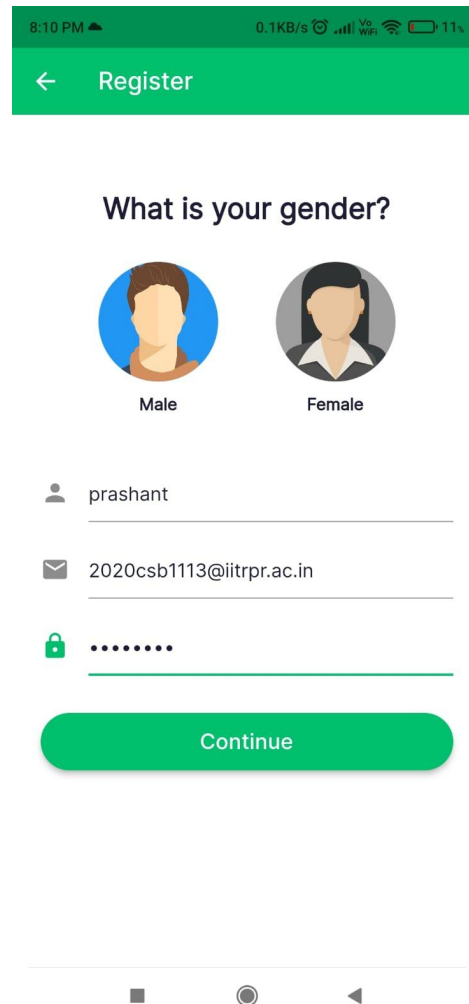
Profile Management: Users can view their username, email, avatar, and current rating.
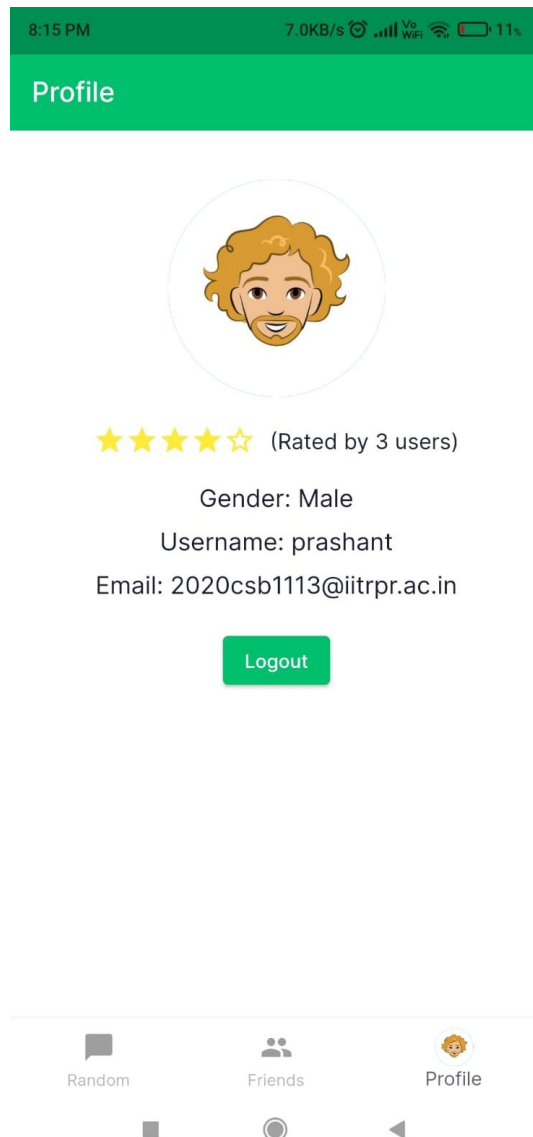
Search for Strangers: The Friendify App has a "Find Strangers" feature that lets users randomly connect with other online users anonymously.

Chatting with Strangers: Once users have found a stranger they want to chat with, they can initiate a conversation by sending them a message. The app also provides a range of functionalities such as text messaging.
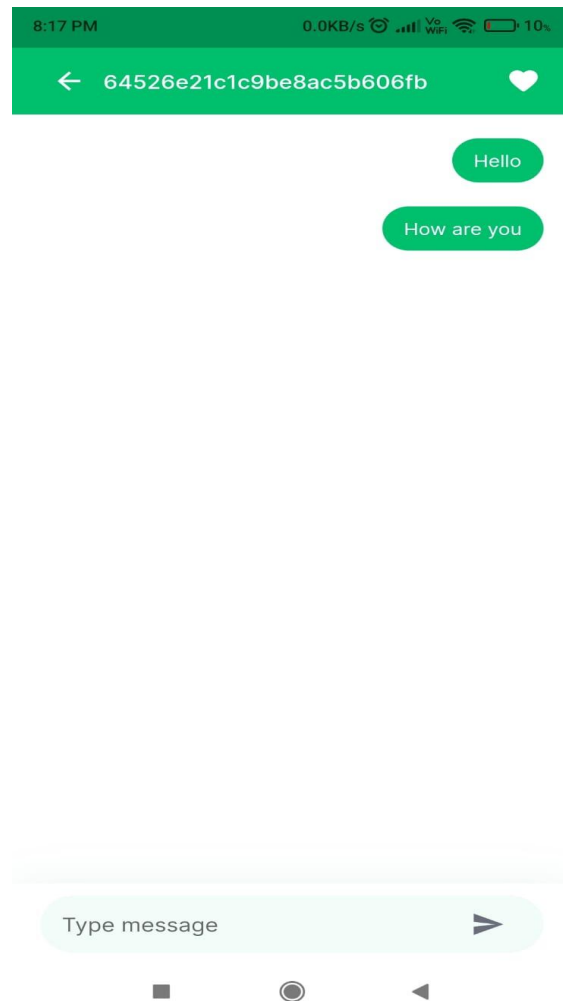
Chatting with Friends: User can start conversation with the existing friends.
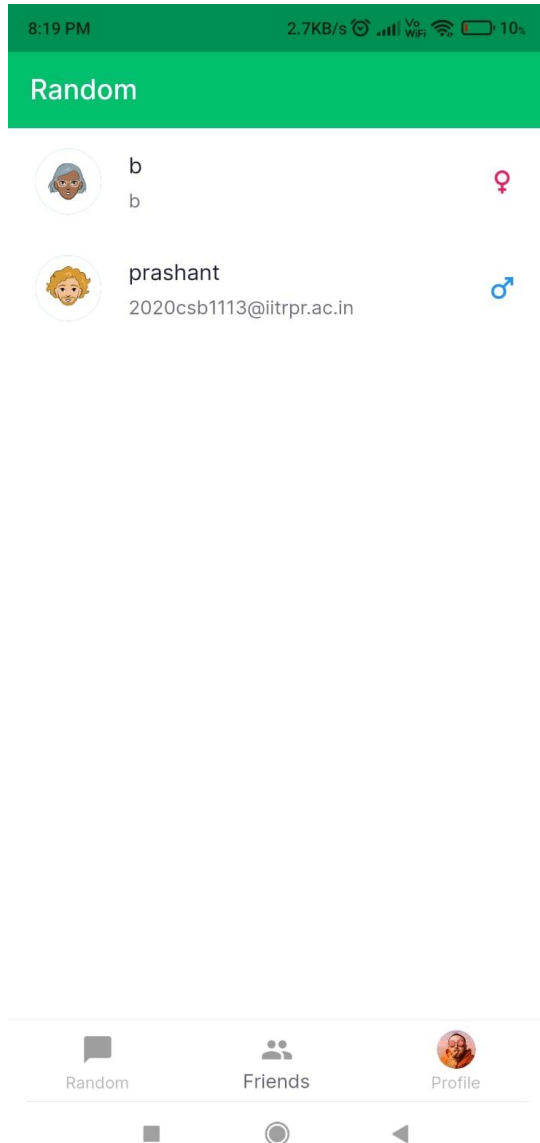
Rating Strangers: After completing a conversation with a stranger, users can rate their experience with a star rating (out of 5 stars). The rating is anonymous and the user's identity is never revealed to the stranger. This feature provides valuable feedback to both users. However, the stranger can view their current rating to get an idea of how they are perceived by other users. This feature promotes honest and constructive communication while maintaining privacy and anonymity for all users.
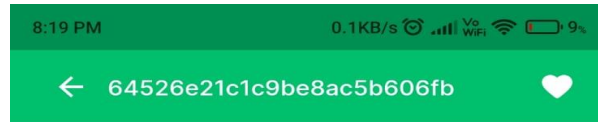
3.2) SYSTEM/HARDWARE FEATURES –

Cross-Platform Support: The Friendify App is developed using Flutter, a popular open-source framework for building cross-platform applications that run on Android and iOS devices. This ensures that the app is accessible to a wide range of users regardless of their preferred mobile device.

Scalable Backend: The backend of the Friendify App is built using Express, a robust and flexible web application framework for Node.js. The app uses MongoDB, a popular NoSQL database, to store user data and facilitate fast and efficient data retrieval.

Real-Time Communication: The Friendify App utilizes WebSockets to enable real-time communication between users. This ensures that messages are delivered quickly and reliably, providing users with a seamless chatting experience.

User Authentication and Authorization: The app includes a user authentication and authorization system to ensure that only registered users have access to the app's features. The app uses secure authentication protocols to protect user data and prevent unauthorized access.

3.3) Non-functional requirements -

Security: The app must ensure the security and privacy of user data at all times, utilizing secure encryption protocols and implementing robust access controls to prevent unauthorized access.

Reliability: The app must be highly reliable, with minimal downtime and minimal data loss in the event of a system failure or outage.

Usability: The app must be easy to use and navigate, with a user-friendly interface and intuitive controls.

Compatibility: The app should be compatible with a wide range of devices, operating systems, and browsers, ensuring a consistent user experience across different platforms.

Scalability: The app should be designed to scale to accommodate a growing user base and increasing demands on the system.

Availability: The app should be available to users at all times, with minimal downtime and maintenance windows scheduled during off-peak hours.

Maintainability: The app should be easy to maintain and update, with clear and well-documented code, modular design, and automated testing and deployment processes.

Performance: The app should be able to handle a large number of concurrent users and maintain fast response times even under heavy loads.

3.3) Database requirement –

User Table

| Attribute	Description	Data-type
userName	User name of the user	string
email	Email of the user	string
password	Password (hashed)	string
gender	Gender of the user	string
friends	Friends of the user	objectId
randomuser	Current random user	string
isVerified	Email verification	boolean
token	Middleware auth token	string
avatarImage	Profile image	string
isAvatarSet	Profile set status	boolean
Rating	Current rating	Number
RatedBy	No of people rated	integer

Messages Table

sender	User id of the sender	ObjectId
Message	Message text	String
Users	User id of the users	ObjectId

4. Software stack

Frontend Development	Flutter
Backend Development	express.js
Database	MongoDB

5. Data Flow Diagram
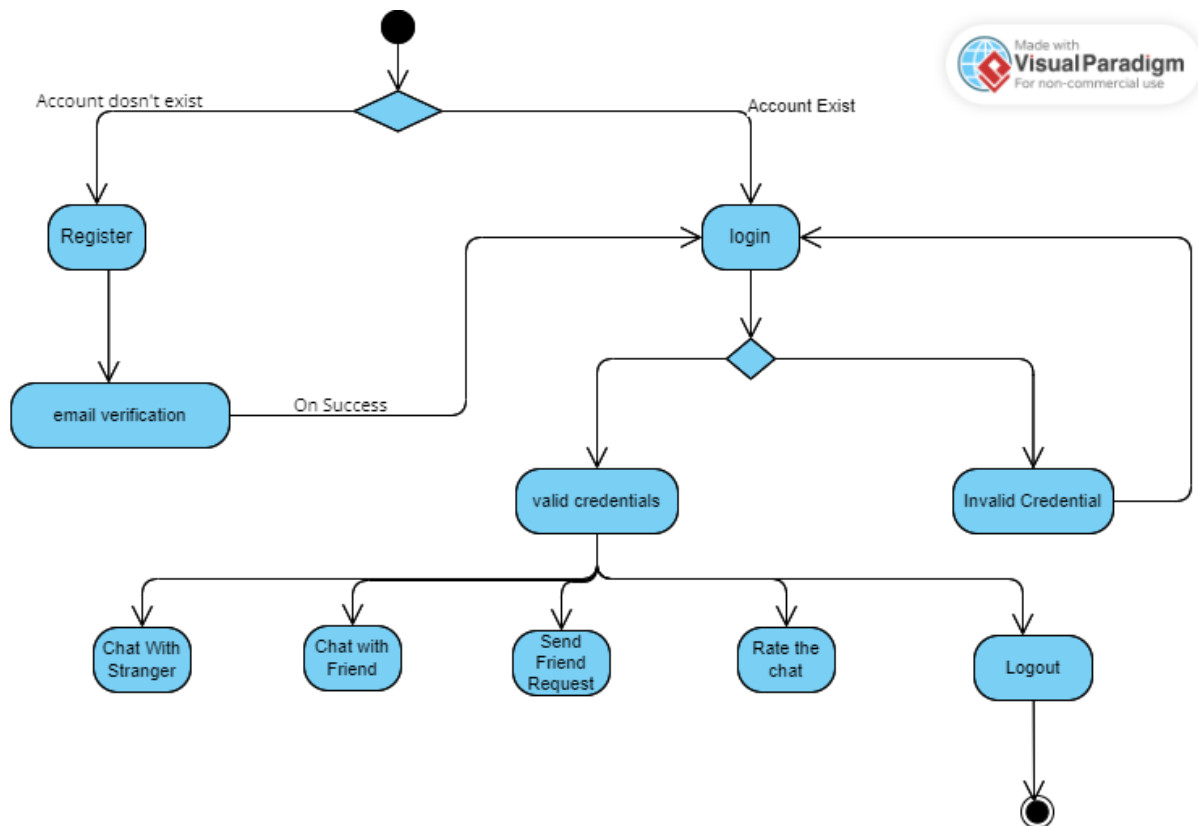
(Note :-
The email verification feature of our system has been developed and is operational to a large extent. However, due to resource constraints, we have had to disable this feature temporarily as emails are being blocked repeatedly. We are working towards resolving this issue with the help of additional resources, but in the meantime, the feature will not be fully functional.)

6. User Descriptions -

Target Audience: The target audience for the Friendify app are individuals who are seeking to connect with new people and make friends. The app can be used by people of all ages, however, it is expected to be more popular among college students and young adults.

User Profile: The typical Friendify app user is tech-savvy and comfortable with using mobile apps. They are open to meeting new people and are looking for a way to connect with individuals. The users are primarily interested in the anonymous chat feature, which enables them to chat with strangers without revealing their true identity. They are also

interested in making friends with those who are looking for a way to expand their social circle.

User Needs: The users of the Friendify app need a platform that provides a safe and secure environment for anonymous chatting with strangers. They also need an easy-to-use interface that allows them to quickly and easily navigate the app and find the features they are looking for.

User Goals: The primary goal of the Friendify app users is to meet new people and make friends. They want to be able to chat with strangers without fear of being judged or criticized. The users are also looking for an app that is reliable, user-friendly, and provides a seamless chatting experience.