REPORT

Multiple Client-Server Based Group-Chat System

Introduction

The **Chat Application** project serves as a comprehensive platform for real-time communication, offering a secure and user-friendly environment for individuals and groups to interact seamlessly. With its emphasis on authentication, group chat functionality, and private messaging features, this application caters to various communication needs, ranging from casual conversations to professional collaboration.

Demo:

For Video Demo:

https://drive.google.com/file/d/1dKGGwPipN3cnnVGk64uOzRo0rNplaQN-/view?usp=drive_link

LoginAuthentication

The login authentication mechanism ensures the integrity and security of user interactions within the Chat Application. Upon launching the application, users are prompted to enter their credentials, including a username and password. Screenshots showcase this initial login phase, highlighting the importance of password authentication in restricting access to authorized users only.
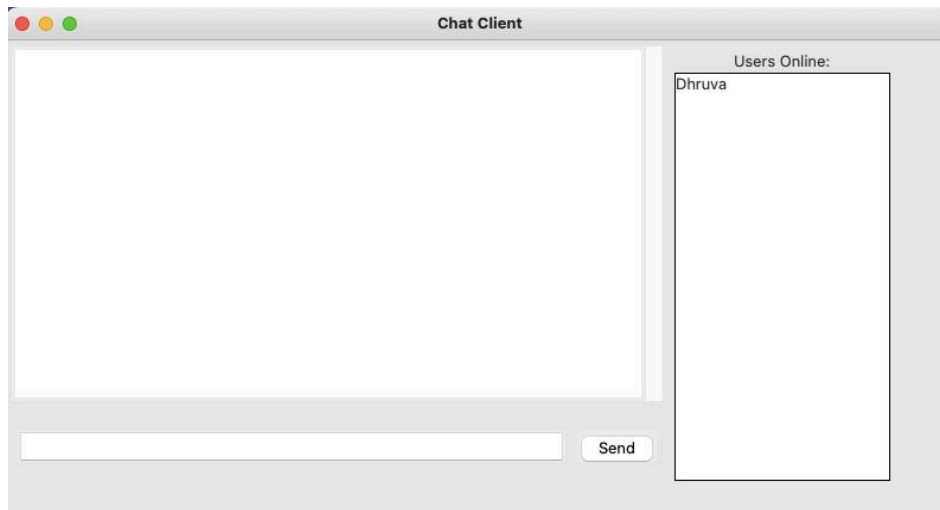
If any user failed to enter the correct password, then user will be unable to login, invalid password will be displayed.
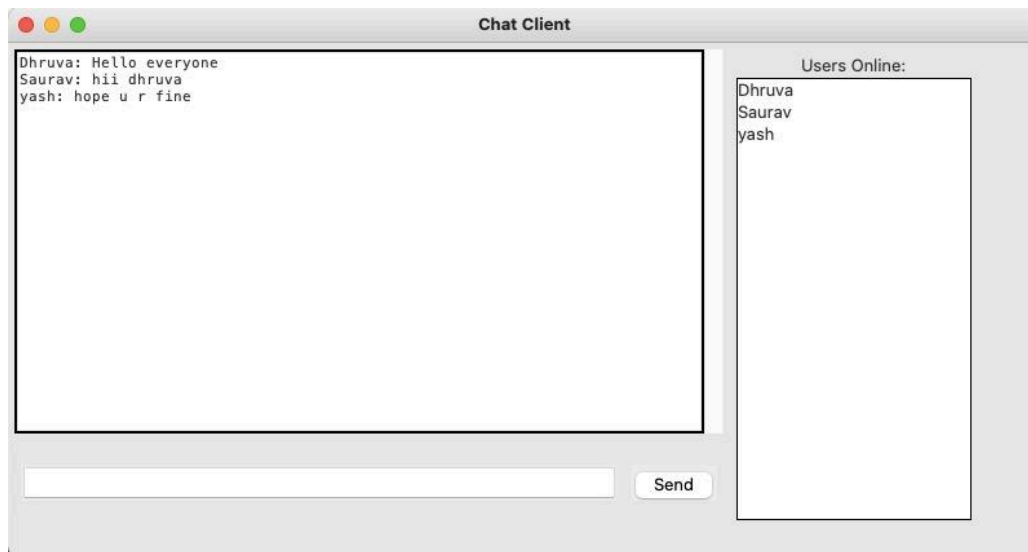

GroupChat Interface:

The main part of the Chat Application lies in its intuitive and visually appealing group chat interface. Below the image shown is the vibrant chat window, where users engage in dynamic conversations, share multimedia content, and exchange ideas in real-time. The interface also includes a comprehensive list of online users, enabling participants to identify active members and initiate conversations effortlessly.
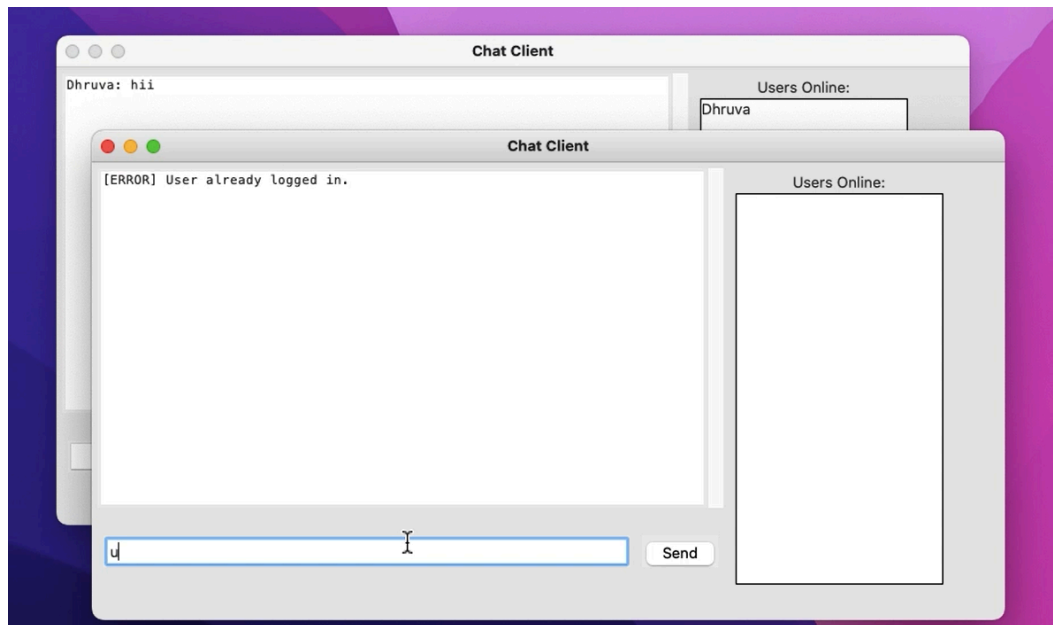
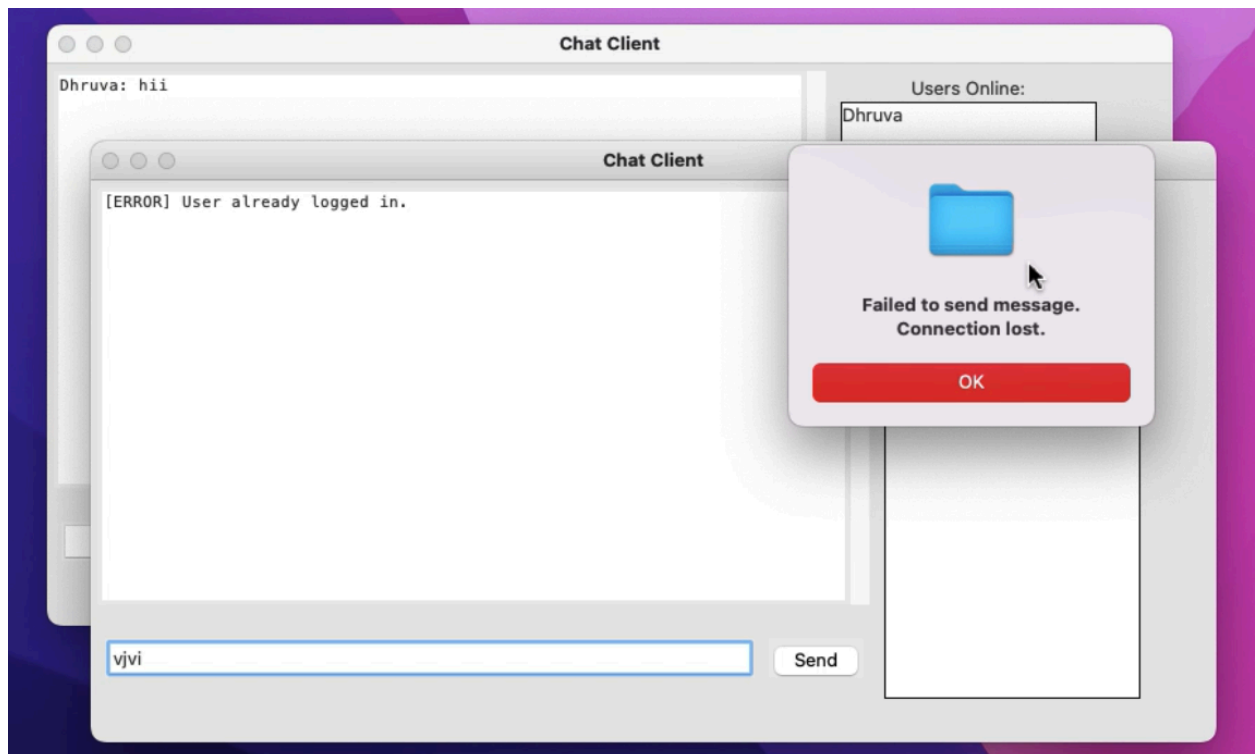Here, you can see that one user has entered the chat room.

Here, in below image, there are three users, and there names can be seen in right side, which shows all the users that are online.

Also, there is one constraint that, every user should have unique name, if any new user enters with the name , that is already present in the chat, then error message wil appear.

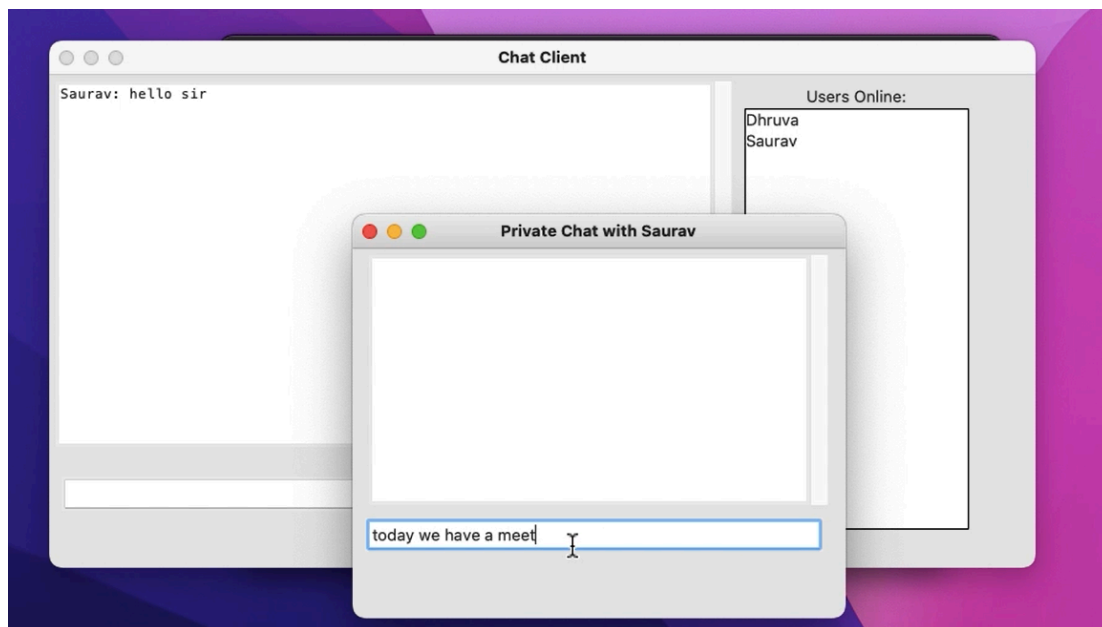And if enter any message then, message will be failed to send.

Public Chat Interaction:

The public chat functionality fosters community engagement and collaborative communication among users. Screenshots depict lively group discussions, with participants actively contributing to the conversation thread. Users can send text messages, creating a rich and interactive chat environment conducive to social interaction and knowledge sharing.

Private Chat Interaction:

An essential aspect of the Chat Application is its robust private messaging feature, enabling discreet communication between individual users. Screenshots demonstrate the seamless process of initiating private chats, composing personalized messages, and receiving responses within dedicated private chat windows. This feature ensures privacy and confidentiality while facilitating one-on-one interactions.

Here, you can see that Dhruva and Saurav , the two user can chat privately in private window.

In conclusion, the Chat Application project represents a versatile and user-centric solution for modern communication needs. By providing a robust authentication mechanism, dynamic group chat functionality, and seamless private messaging features, this application empowers users to connect, collaborate, and communicate effectively in both personal and professional settings.

This Project was collectively developed by:

Saurav Soni (B22AI035)

Dhruva Kumar Kaushal (B22AI017)