

Chat Application

Goal : Group Chat

We'll make a chat server. The server is like a middle man among clients. It can queue up to 10 clients. The server broadcasts any messages from a client to the other participants. So, the server provides a sort of chatting room.

Server side :

The server side script will attempt to establish a socket and bind it to an IP address and port specified by the user. The script will then stay open and receive connection requests, and will append respective socket objects to a list to keep track of active connections. Every time a user connects, a separate thread will be created for that user. In each thread, the server awaits a message, and sends that message to other users currently on the chat. If the server encountered an error while trying to receive a message from a particular thread, it will exit that thread.

Client side :

The client side script will simply attempt to access the server socket created at the specified IP address and port. Once it connects, it will continuously check as to whether the input comes from the server or from the client, and accordingly redirects output. If the input is from the server, it displays the message on the terminal. If the input is from the user, it sends the message that the users enters to the server for it to be broadcasted to other users. This is the client side script, that each user must use in order to connect to the server.

Bonus : Private Group Chat