

[Unix/Linux Socket Programming]

Name: SRIKARSHA

Roll no: 2210030432

How to run:

- Open 5 terminals(one will be a server and the other 4 will be clients)
 - Note: terminals need not be on the same machine
 - Note: it does not need 5 terminals you can use n terminals where $n \leq 10$
- Compile the server code and run it in one terminal by running the following command
 - `gcc server.c -o server && ./server _PORT_`
 - Example: `gcc server.c -o server && ./server 1235`
- Compile the client codes in the other 4 terminals by running the following command
 - `gcc client.c -o client && ./client _SERVER-IP-ADDRESS_ _SERVER-PORT_`
 - Example: `gcc client.c -o client && ./client 10.10.75.20 1235`
- Use the following format to interact with the server
 - `~list` (to see the list of free users)
 - Example: `~list`
 - `~connect_to_$userid` (to connect to a user with user-id \$userid)
 - Example: `~connect_to_03`
 - `~stop` (to stop the chat and log off the session)
 - Example: `~stop`
 - `~quit` (to disconnect from server)
 - Example: `~quit`
 - `~my_id` (to know user id)
 - Example: `~my_id`
 - `$message` (to send any message \$message)

- Note: the size of the message should be less than 200 characters and don't use spaces
 - Example: hello_user_03_how_are_you
- Note:
 - one user can able to receive messages from other users only after sending the message.
 - Chatting happens by alternatively sending one message only between two users.
 - The server will log the active user when a new user joins or quit.
 - The server will log the session when two users connect for a chat or they logged out of the session.
 - Use only the ~quit command to quit from the server in the user otherwise, the server might crash
 - If any issue then restart the server and the clients