

Ex2 - Report - u38174ys

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1 Main ideas

1.1 Server

The server should be able to accept and parse some commands. These commands are [new, give, send, one, quit].

For new, when the client enters it, it means he is a new user, followed by the name he needs to register. (Also, it will determine if there is a duplicate username. And one name should link to one socket)

For give, He can let users know who is online.(When one client online along, he can wait a second and ask that do more clients join in.)

For send, when the client enters it, it means that the user wants to send a message to all other users online. (Also, if the client do not register, the message will not be sent. If one client do not put his name, the system will not tell him how to send message. And if no other client online, the message will also not be sent.)

For one, when the client enters it, it means that the user wants to send a message to a specific online user. (Also, if the client do not register, the message will not be sent. And if no other client online/ no this specific client, the message will also not be sent.)

For quit, when the client enters it, it means that the user wants to exit the chat system, followed by his username(tell the server who want to leave).(The socket will be closed.)

If the client type the wrong commands, the server will send a message - Invalid command.

2 pseudo-code

2.1 Server

just for function - onMessage

the pseudo code in figure 1

```

input: command parameter

if command == "new":

    name = parameter
    if name not in client list
    add name in to client list
    print the list out

elif command == "give":

    message = parameter
    give the list of clients who is online to one client

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elif command == "send":

    message = parameter
    message encode
    send message to other clients

elif command == "one":

    infor= subcommand subparameter
    subcommand = name
    message = subparameter
    send message to specific person

elif command == "quit":

    name = parameter
    the client disconnect the server

else:

    invalid command

```

Figure 1: Server