

Homework #1

Server – “ChartServer.java”

- 1.) Uses Server Socket to connect to port 3000.
- 2.) It then waits for a client to join. When a client joins It prompts the user to enter in a Name and a Password. If the user does not enter the correct password, then it will alert the user was incorrect and they need to reenter the password till it is correct.
- 3.) Next it calls “ClientThread.java” and stores the user’s information into a Vector.
- 4.) Lastly it starts a new thread in order to connect multiple clients.

Client – “ChatClient.java”

- 1.) Connects to the same port as the server
- 2.) Has two threads that read and write data to the user
- 3.) It writes all the messages to the server

Client Thread – “ClientThread.java”

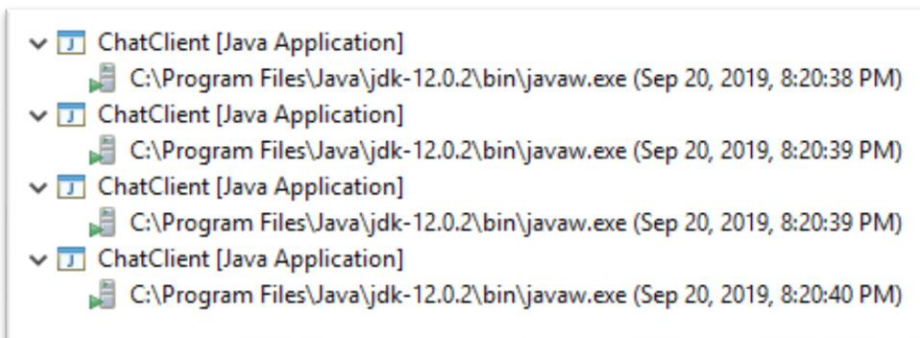
- 1.) Takes in data from the user (Username, Input)
- 2.) Loops through all the clients and outputs the message a user sent to everyone but them.

Running the Program

- 1.) Run “ChatServer.java”. The following will output if it a successful connection.

Binding to port ServerSocket[addr=0.0.0.0/0.0.0.0,localport=3000] Please wait...

- 2.) Run “ChatClient.java” Multiple times in order to simulate multiple clients



3.) Enter a Name and Password to each client. The Access Code is "Password"

If the Password is correct:

```
>Enter a Name:
Eric
>Enter a AccessCode:
Password
Thanks Eric you have been added to socket: Socket[addr=/127.0.0.1,port=53024,localport=3000]
```

Incorrect Password:

```
>Enter a Name:
Andrew
>Enter a AccessCode:
NotCorrect
incorrect access code
>Enter a AccessCode:
```

4.) Go to a client and send a chat

Sender:

```
>Enter a Name:
Eric
>Enter a AccessCode:
Password
Thanks Eric you have been added to socket: Socket[addr=/127.0.0.1,port=53024,localport=3000]
Hey, How are you guys doing?
```

Receiver:

```
>Enter a Name:
Andrew
>Enter a AccessCode:
NotCorrect
incorrect access code
>Enter a AccessCode:
Password
Thanks Andrew you have been added to socket: Socket[addr=/127.0.0.1,port=53025,localport=3000]
Eric: Hey, How are you guys doing?
```

5.) More in depth look

```
>Enter a Name:
Andrew
>Enter a AccessCode:
NotCorrect
incorrect access code
>Enter a AccessCode:
Password
Thanks Andrew you have been added to socket: Socket[addr=/127.0.0.1,port=53025,localport=3000]
Eric: Hey, How are you guys doing?
Pretty good, How are you?
Jeremy: NOT GOOD
Maureen: OMG
Eric:
```

6.) The server prints all of the user's messages for testing purposes.

```
Binding to port ServerSocket[addr=0.0.0.0/0.0.0.0,localport=3000] Please wait..
A new client is connected
Eric Has been added to the Server
A new client is connected
Andrew Has been added to the Server
A new client is connected
Maureen Has been added to the Server
A new client is connected
Jeremy Has been added to the Server
Eric: Hey, How are you guys doing?
Andrew: Pretty good, How are you?
Jeremy: NOT GOOD
Maureen: OMG
```