Keven Lin
Section 3

HOMEWORK2: Client Server Thread

Chat Room Server

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First I created main class ChatRoomServer class to be the main runner of the server and a ServerThread class that will service multiple clients that are connected to the server.

Within the ChatRoomServer class, it sets up the server so that it is listening to the designated port and secure the connection with the connecting clients.

In the ServerThread class that is where multiple threads are created for each connected clients.
First, the class ask for and verify the client's access code, otherwise they cannot connect.
Second, if the password is correct, the client is connected and is allowed to view the chat and participate in it.
Third, all the messages are synchronized and broadcast to the clients to prevent any file corruption.
Lastly, the server keeps a transcript of the messages.

Client Server

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First, I created a main class called client that connect to the ChatRoomServer. The client will gather the username of the user (cannot have any whitespace or be empty) and delivered it to the ChatRoomServer.

Afterward, the clientRunner helper class will take over and create new clients that as long as they have a connection to the ChatRoomServer, will continuously deliver messages from the to the chat room.

1.1

```
"C:\Users\Keven Lin\AppData\Local\JetBrains\Toolbox\apps\IDEA-U\ch-0\193.5662.53\jbr\bin\java.exe"
Enter your name: (After giving input "name", then press Enter)
jason
Enter access code: (PRESS ENTER FIRST then type in "access code" then press enter)
jason
Incorrect Access Code
Enter access code: (PRESS ENTER FIRST then type in "access code" then press enter)
cs319spring2020
you are connected
Welcome :jason
jason -->
```

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```
"C:\Users\Keven Lin\AppData\Local\JetBrains\Toolbox\apps\IDEA-U\ch-0\193.5662.53\jbr\bin\java.exe" "-javaagen
Enter your name: (After giving input "name", then press Enter)
tim
Enter access code: (PRESS ENTER FIRST then type in "access code" then press enter)
tim
Incorrect Access Code
Enter access code: (PRESS ENTER FIRST then type in "access code" then press enter)
cs319spring2020
you are connected
Welcome :tim
tim -->
```
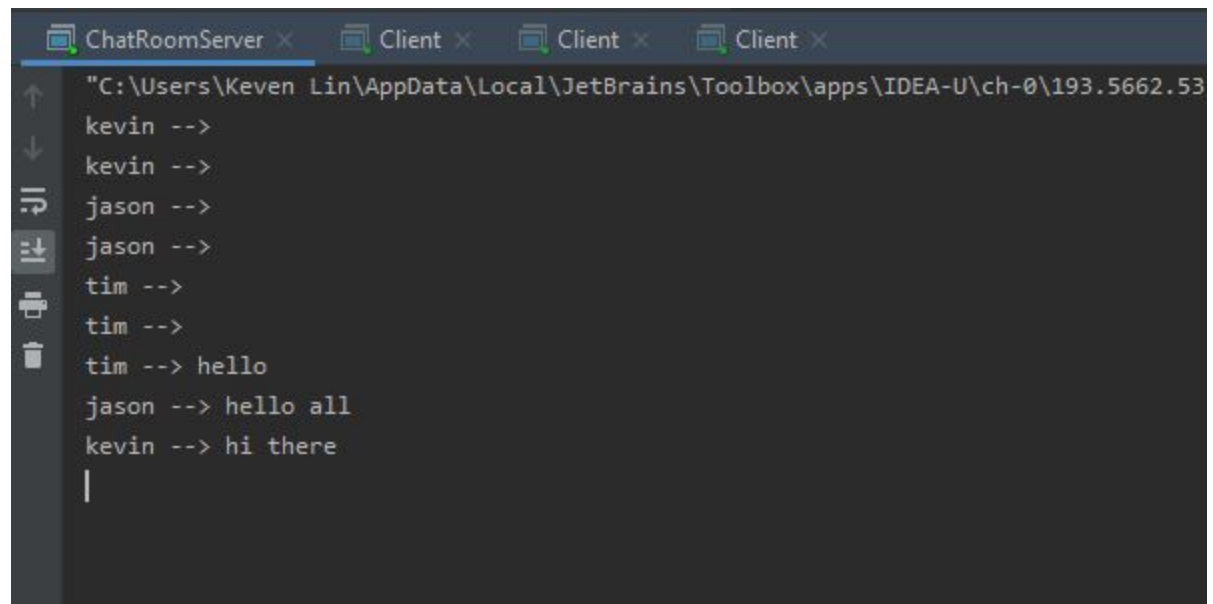
HOMEWORK2: Client Server Thread

1.2

```
tim -->
hello
tim --> hello
jason --> hello all
kevin --> hi there
```

```
ChatRoomServer ×    Client ×    Client ×    Client ×

"C:\Users\Keven Lin\AppData\Local\JetBrains\Toolbox\apps\IDEA-U\ch-0\193.5662.53
kevin -->
kevin -->
jason -->
jason -->
tim -->
tim -->
tim --> hello
jason --> hello all
kevin --> hi there
```