

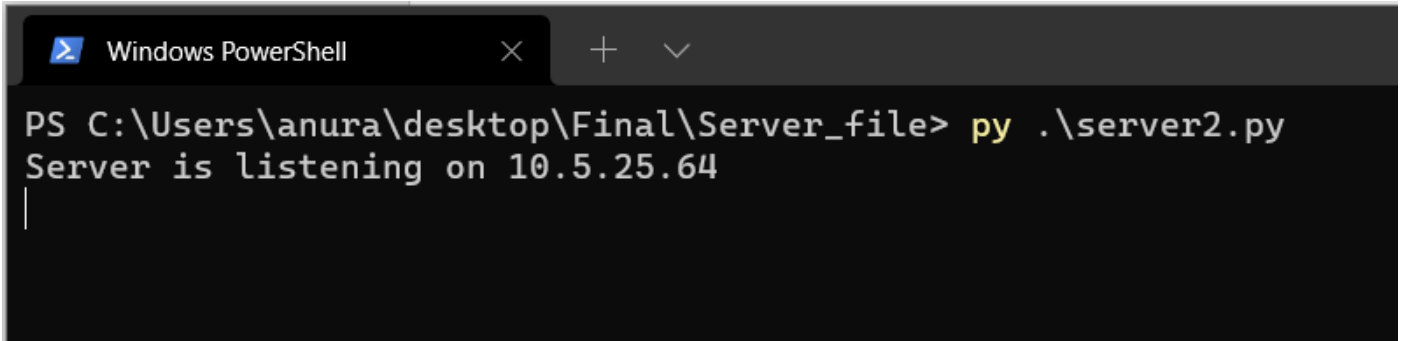
COMPUTER NETWORKS

Socket Programming Assignment

CHAT ROOM APPLICATION WITH FILE TRANSFER

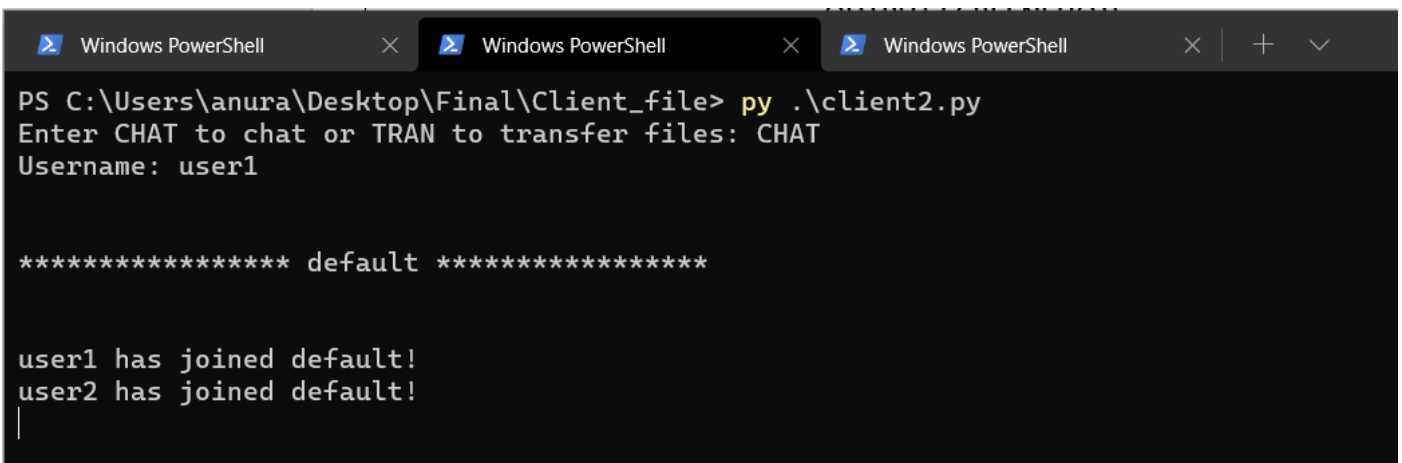
OUTPUT SCREENSHOTS

When the server is started



```
Windows PowerShell
PS C:\Users\anura\desktop\Final\Server_file> py .\server2.py
Server is listening on 10.5.25.64
|
```

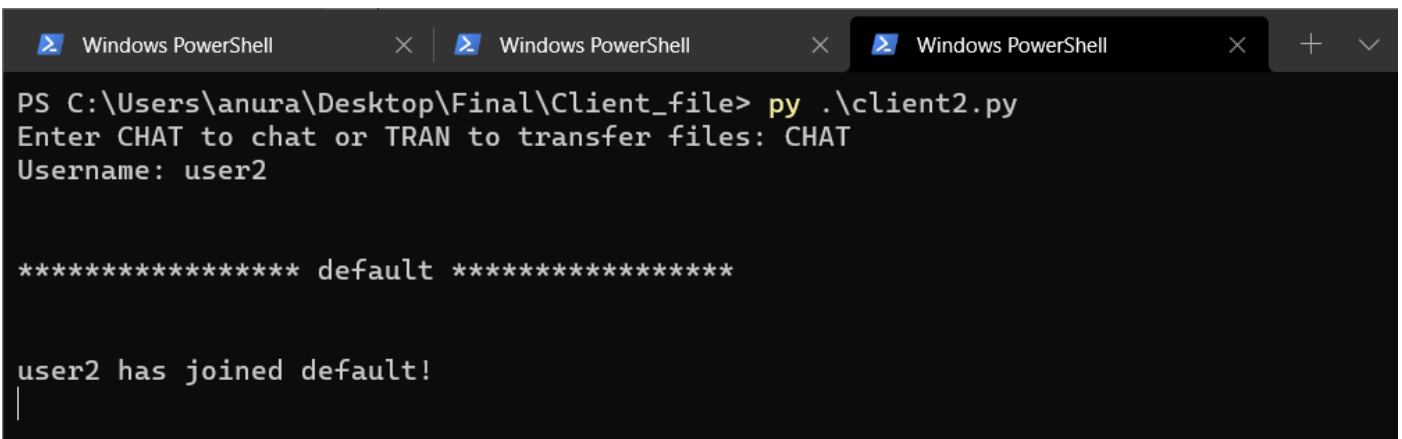
When the users join the chat room in the default channel:



```
Windows PowerShell
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: CHAT
Username: user1

***** default *****

user1 has joined default!
user2 has joined default!
|
```



```
Windows PowerShell
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: CHAT
Username: user2

***** default *****

user2 has joined default!
|
```

Now the users can chat with each other...

```
Windows PowerShell x Windows PowerShell x Windows PowerShell x + v
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: CHAT
Username: user2

***** default *****

user2 has joined default!
hello
user2: hello
```

```
Windows PowerShell x Windows PowerShell x Windows PowerShell x + v
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: CHAT
Username: user1

***** default *****

user1 has joined default!
user2 has joined default!
user2: hello
```

More than 2 users can join the chat room

```
Windows PowerShell x Windows PowerShell x Windows PowerShell x
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: CHAT
Username: user3

***** default *****

user3 has joined default!
```

Now, users can join specific channels by typing join <channelName>

```
join new_channel

***** new_channel *****

user3 has joined new_channel!
user2 has joined new_channel!
user2: hi
```

```
user3 has joined default!
user3 left...
join new_channel

***** new_channel *****

user2 has joined new_channel!
hi
user2: hi
|
```

To leave a channel, simply type leave (then you will be back to the default channel)

```
leave

***** default *****

user2 has joined default!
|
```

To exit the program, simply type disconnect

```
***** default *****

user3 has joined default!
disconnect

*****

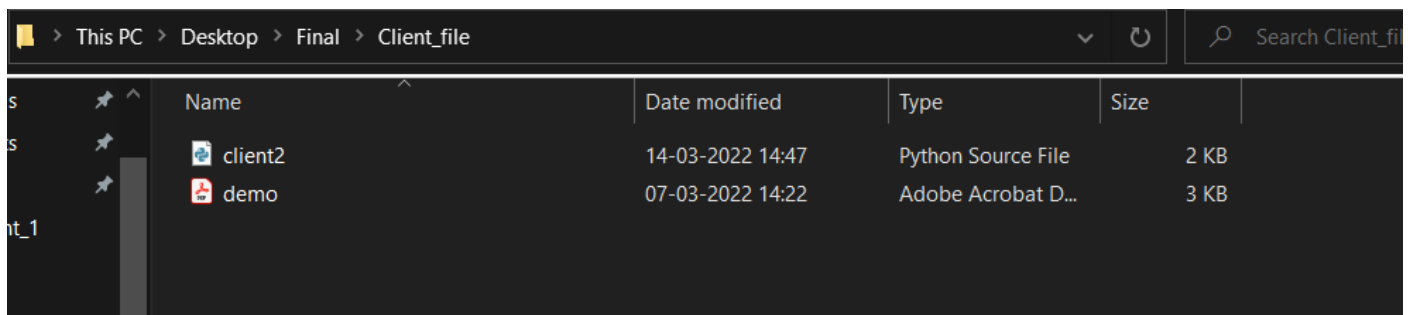
PS C:\Users\anura\Desktop\Final\Client_file> |
```

The server when new users come in and go out of the Chat Room:

```
PS C:\Users\anura\desktop\Final\Server_file> py .\server2.py
Server is listening on 10.5.25.64
New client: user1, ('10.5.25.64', 52649)
Client count: 1
New client: user2, ('10.5.25.64', 52650)
Client count: 2
New client: user3, ('10.5.25.64', 52692)
Client count: 3
New channel created: new_channel
user3 has disconnected.
Client count: 2
user2 has disconnected.
Client count: 1
user1 has disconnected.
Client count: 0
|
```

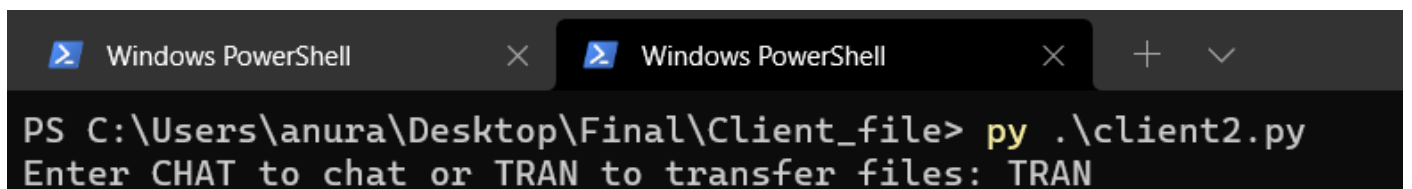
Now showing the file transfer capabilities

Initially, the demo pdf file is in the client file



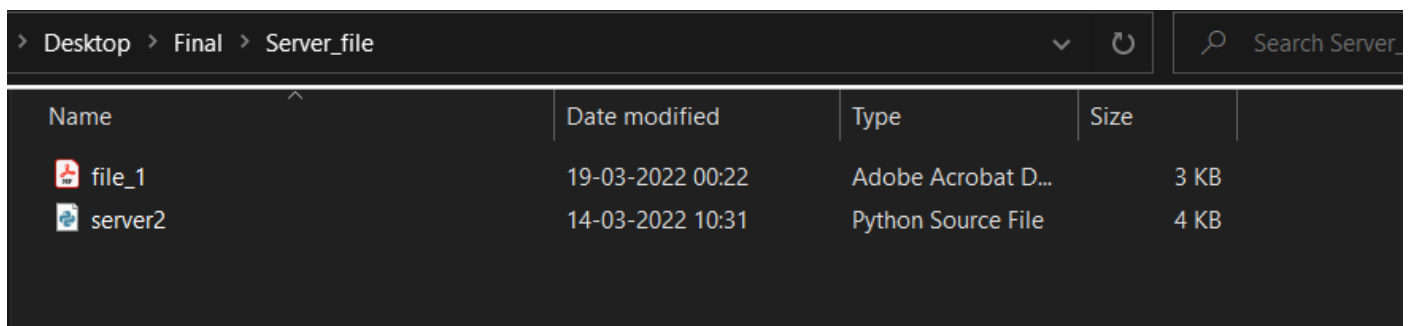
Name	Date modified	Type	Size
client2	14-03-2022 14:47	Python Source File	2 KB
demo	07-03-2022 14:22	Adobe Acrobat D...	3 KB

Now the client choses to transfer the file



```
PS C:\Users\anura\Desktop\Final\Client_file> py .\client2.py
Enter CHAT to chat or TRAN to transfer files: TRAN
```

Now a file named file_1 appears in the server file



Name	Date modified	Type	Size
file_1	19-03-2022 00:22	Adobe Acrobat D...	3 KB
server2	14-03-2022 10:31	Python Source File	4 KB

The file_1 pdf file has the same content as that of the demo file and hence, the file transfer is complete