

Chat Room App

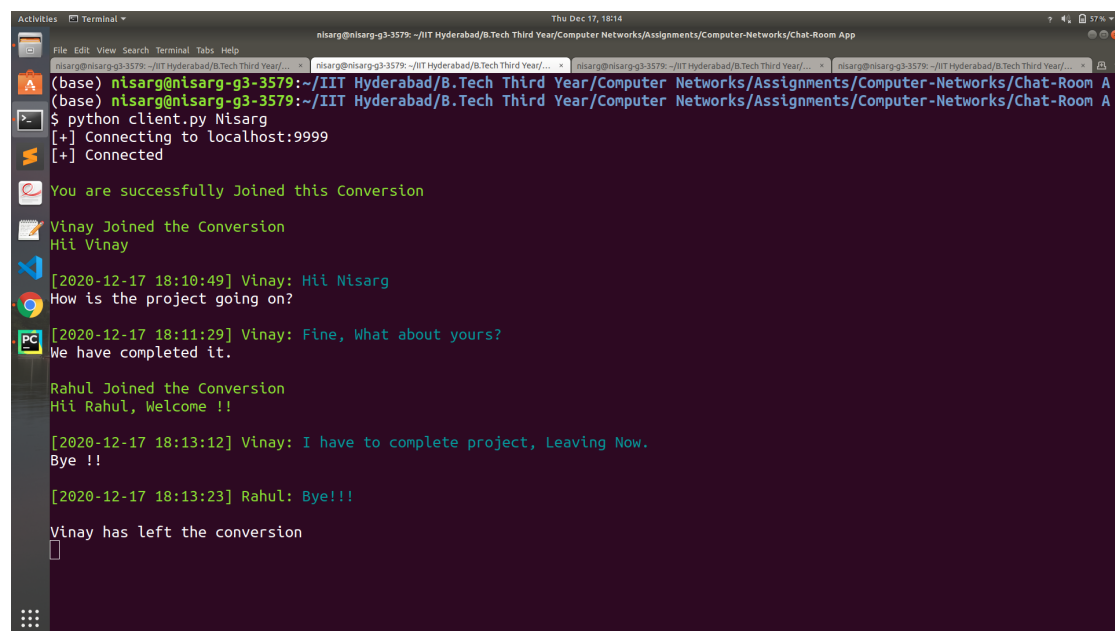
Computer Networks

Dec 17 2020

We have created **Chat Room App** which has one sever and multiple clients. Client can communicate with each other via server. Following are the some of the key features:

- No Limit on Number of Clients
- Every Message has Timestamp
- Notifying others on Joining or Leaving
- Built using Multi threading and Socket Programming

Client 1:



```
(base) nisarg@nisarg-g3-3579:~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room A
$ python client.py Nisarg
[+] Connecting to localhost:9999
[+] Connected

You are successfully Joined this Conversation

Vinay Joined the Conversation
Hii Vinay

[2020-12-17 18:10:49] Vinay: Hii Nisarg
How is the project going on?

[2020-12-17 18:11:29] Vinay: Fine, What about yours?
We have completed it.

Rahul Joined the Conversation
Hii Rahul, Welcome !!

[2020-12-17 18:13:12] Vinay: I have to complete project, Leaving Now.
Bye !!

[2020-12-17 18:13:23] Rahul: Bye!!!

Vinay has left the conversation
█
```

Client 2:

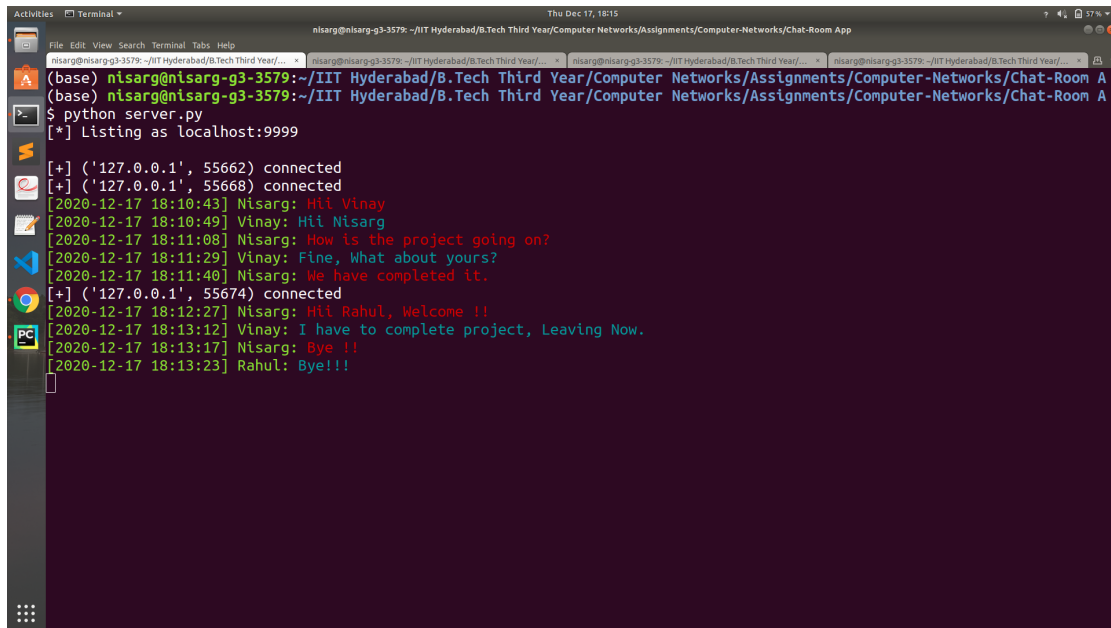
```
Activities Terminal Thu Dec 17, 18:14
File Edit View Search Terminal Tabs Help
nisarg@nisarg-g3-3579: ~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room App
rks/Chat-Room App$ python client.py Vinay
[+] Connecting to localhost:9999
[+] Connected
You are successfully Joined this Conversion
[2020-12-17 18:10:43] Nisarg: Hii Vinay
Hii Nisarg
[2020-12-17 18:11:08] Nisarg: How is the project going on?
Fine, What about yours?
[2020-12-17 18:11:40] Nisarg: We have completed it.
Rahul Joined the Conversion
[2020-12-17 18:12:27] Nisarg: Hii Rahul, Welcome !!
I have to complete project, Leaving Now.
[2020-12-17 18:13:17] Nisarg: Bye !!
[2020-12-17 18:13:23] Rahul: Bye!!!
QUIT
(base) nisarg@nisarg-g3-3579:~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-
Networks/Chat-Room App$
```

Client 3:

```
Activities Terminal Thu Dec 17, 18:14
File Edit View Search Terminal Tabs Help
nisarg@nisarg-g3-3579: ~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room App
(base) nisarg@nisarg-g3-3579:~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-
Networks/Chat-Room App$ python client.py Rahul
[+] Connecting to localhost:9999
[+] Connected
You are successfully Joined this Conversion
[2020-12-17 18:12:27] Nisarg: Hii Rahul, Welcome !!
[2020-12-17 18:13:12] Vinay: I have to complete project, Leaving Now.
[2020-12-17 18:13:17] Nisarg: Bye !!
Bye!!!
Vinay has left the conversion

```

Server:



```
Activities Terminal Thu Dec 17, 18:15
nisarg@nisarg-g3-3579: ~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room App
File Edit View Search Terminal Tabs Help
(base) nisarg@nisarg-g3-3579:~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room A
(base) nisarg@nisarg-g3-3579:~/IIT Hyderabad/B.Tech Third Year/Computer Networks/Assignments/Computer-Networks/Chat-Room A
$ python server.py
[*] Listing as localhost:9999
[+] ('127.0.0.1', 55662) connected
[+] ('127.0.0.1', 55668) connected
[2020-12-17 18:10:43] Nisarg: Hii Vinay
[2020-12-17 18:10:49] Vinay: Hii Nisarg
[2020-12-17 18:11:08] Nisarg: How is the project going on?
[2020-12-17 18:11:29] Vinay: Fine, What about yours?
[2020-12-17 18:11:40] Nisarg: We have completed it.
[+] ('127.0.0.1', 55674) connected
[2020-12-17 18:12:27] Nisarg: Hii Rahul, Welcome !!
[2020-12-17 18:13:12] Vinay: I have to complete project, Leaving Now.
[2020-12-17 18:13:17] Nisarg: Bye !!
[2020-12-17 18:13:23] Rahul: Bye!!!
```

This functionality is similar to Whatsapp Group. We have also implemented file transfer using socket programming in another module which can also be integrated to this easily using GUI.

Here are the References:

<https://realpython.com/intro-to-python-threading/>

<https://realpython.com/python-sockets>

<https://www.thepythoncode.com/article/make-a-chat-room-application-in-python>

<https://www.geeksforgeeks.org/simple-chat-room-using-python/>