

Aasrija Puchakatla, aap435  
11211759  
CMPT 436  
A3

#### To start my code:

Get docker ready, and in the terminal where the files are, **docker-compose up -d**

For the server:

- 1) Then: **docker attach Java1**
- 2) **cd code**
- 3) **java \*.java -d .**
- 4) **rmiregistry &**
- 5) **java -Djava.rmi.server.codebase=file:/code Server.java**
- 6) Should get a message in the terminal of the server saying, "server ready".

-> might get some errors about void main(String args) for step 3 but keep going

-> there will be some warnings after 4, but keep going

For client(s)

- 1) **docker attach Java2** (Java3 for the second client)
- 2) **cd code**
- 3) **java Client.java Java1**
- 4) Will then be prompted to enter username.

#### Test Report

To test my code, I wrote down various test cases where I use the various functions I have implemented to my client-server.

An example would look like this:

- 1) Enter username azi
- 2) Enter 2, check list of chatrooms
- 3) Enter 1, create chatroom r1
- 4) Enter 2, check list of chatrooms -> should show r1
- 5) Join chatroom r1
- 6) Enter message "hi"
- 7) Enter "X" to leave chatroom
- 8) Enter 4 to leave server

I would come up with various test cases to ensure the functionality of my code and that it is able to perform all the requirements necessary.

Although everything works well, my only issue is that to get updated messages from other clients in the same chatroom, I must press enter/enter a new message. I have tried creating a broadcasting function but was unsuccessful. But the new messages will pop up if u hit enter/enter a new message. That was the one issue I was having with my implementation. Other than that, my code works well for the most part.

I also have screenshots of my output from one of my testcases:

Client 1: azi

```
bash-4.4# java Client.java Java1
Enter username:
azi

-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server

input:
1
Enter chatroom name:
r1

-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server

input:
2
list of chatrooms:
r1,

-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server

input:
3
Enter chatroom name u wish to join:
r1
r1 is selected

-----
Enter X Leave Chat Room
azi:
hi

-----
Enter X Leave Chat Room
azi: hi

azi: hry?

-----
Enter X Leave Chat Room
azi: hi
riri: hey
azi: hry?

azi:
same!

-----
Enter X Leave Chat Room
azi: hi
riri: hey
azi: hry?
riri: good, u?
azi: same!

azi:
X
azi leaving chatroom

-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server

input:
4
leaving server..
bash-4.4#
```

1

2

Client 2: riri

```
bash-4.4# java Client.java Java1
Enter username:
riri
```

```
-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server
```

```
input:
2
list of chatrooms:
r1,
```

```
-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server
```

```
input:
3
Enter chatroom name u wish to join:
r1
r1 is selected
```

```
-----
Enter X Leave Chat Room
azi: hi
```

```
riri:
hey
```

```
-----
Enter X Leave Chat Room
azi: hi
riri: hey
```

```
riri:
X
riri leaving chatroom
```

```
-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server
```

```
input:
2
list of chatrooms:
r1,
```

```
-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server
```

```
input:
3
Enter chatroom name u wish to join:
r1
r1 is selected
```

```
-----
Enter X Leave Chat Room
```

```
azi: hi
riri: hey
azi: hry?
```

```
riri:
good, u?
```

1

2

```
-----
Enter X Leave Chat Room
azi: hi
riri: hey
azi: hry?
riri: good, u?
```

```
riri:
X
riri leaving chatroom
```

```
-----
OPTIONS
1 Create Chat Room
2 List All Existing Chat Rooms
3 Join a Chat Room
4 Leave Server
```

```
input:
4
leaving server..
bash-4.4#
```

3