

CS372 Project 4

Client Server Chat

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Instructions

The server code is contained in the file `server.py` and the client code is contained in the file `client.py`. The server needs to be running before the client can connect to it. By default, both the client and the server connect to `localhost:50000`. Since the OS may hang onto the port after exiting the program, an optional argument can be passed on the command line to specify the port. For example:

```
python3 ./server.py 500001
python3 ./client.py 500001
```

If you would like to run the client and server on different machines on your local network, simply change the value of `SERVER_NAME="localhost"` to `SERVER_NAME="<ip address of the server>"` in both the files `server.py` and `client.py`.

I have used the walrus operator, that is `:=`, in my python code which was introduced in version 3.8. I have tested the code on python version 3.8 and everything works as expected. I would bet that any version newer than 3.8 would also be fine.

Additionally, the unit tests can be run by using `pytest` or `python -m unittest`.

Screenshots

```
$ 0 1:python*
(python38) [ethan@optiplex3050 ~/git/osu/cs372/osu-cs372-project4]
~ python server.py
Server listening for a connection on ('localhost', 50000)
connected by ('127.0.0.1', 55090)
waiting for message
Hi, how is it going?
type /q to quit
> Great, how about yourself?
Enter message to send...
I am doing the exact same as you seeing as you are messaging yo
yourself
> Wow, I never thought about it that way.
Yeah, I am glad I have you here to keep me company
> This is getting creepy, you should quit by typing /q
Wow, okay
> Sorry, I didn't mean to be rude.
error reading from socket
(python38) [ethan@optiplex3050 ~/git/osu/cs372/osu-cs372-project4]
~

ethan@optiplex3050 12:28 PM
(base) [ethan@optiplex3050 ~/git/osu/cs372/osu-cs372-project4]
~ python client.py
Connected to localhost:50000
Type /q to quit
Enter message to send...
> Hi, how is it going?
Great, how about yourself?
> I am doing the exact same as you seeing as you are messaging
yourself
Wow, I never thought about it that way.
> Yeah, I am glad I have you here to keep me company
This is getting creepy, you should quit by typing /q
> Wow, okay
Sorry, I didn't mean to be rude.
> /q
(base) [ethan@optiplex3050 ~/git/osu/cs372/osu-cs372-project4]
~
```

Figure 1: Talking To Myself