

# Exploration Session – Network Programming Homework

Write a simple instant messaging program similar to the single message program we wrote in section. The program will consist of two scripts: client.py and server.py.

The program should accept a message from one user at a time (i.e., it should allow User A to post something, then User B, then User A, etc., but not User A, then User A, then User A, then User B). Have the program continue looping until one of the users enters the string “QUIT”. The server should be the first to send a message, once the client has connected with the server.

Note that the server and the client will be the two users. In a professional chat program, this would not be the case; a central server would handle messages sent by clients, sending the messages to the correct destination. To keep things simple, though, we're going to have the server be one of the users.

Your scripts should have a header comment saying whether your script was designed to run with Python 2.7 or Python 3.2.

It is fine to simply modify the client\_message.py and server\_message.py files provided on the website; you don't have to write this assignment from scratch.

## Development Hints:

You will need to have some kind of loop structure to iterate the steps of 1) receiving and printing message from other program, 2) taking the new message as input, 3) sending the new message to the other program. Since you don't necessarily know how long each conversation will run, a while loop is the appropriate structure in this case.

## Expected Output:

The output will not be as strictly graded as on the normal homeworks, but it should look something like this (with user input bolded and underlined):

Server output:

Your message: **Hello, client!**

They say: Hi back to you server! How are you doing?

Your message: **I'm great. I just learned how to network program in Python!**

They say: I just did too! I'm going to go program now. Bye!

Your message: **Bye!**

Client output:

They say: Hello, client!

Your message: **Hi back to you server! How are you doing?**

They say: I'm great. I just learned how to network program in Python!

Your message: **I just did too! I'm going to go program now. Bye!**

They say: Bye!

Your message: **QUIT**

Note that the server can continue running indefinitely, having conversations with clients one after another until the server script is shut down. Also note that the server should be able to end the conversation too.