## CSC 4350 Python Chat System Due Thursday, Dec 1, 2016

Your assignment is to build a client/server messaging/chat system in Python. The server should receive messages from clients and relay them back to all clients (one big chat room). The client program should be a graphical application that allows a user to identify themselves and type messages that get sent to the server. There should also be a running display of the conversation in the client window (all messages received from the server). Each message should contain the name of the sender. All messages should go to all users.

There are several questions that you must answer? For example, do you use TCP or UDP? I suspect UDP will be easier because the server app will have more work to do managing TCP connections, but either will work.

If you are using TCP, the server knows when you establish a connection so that it can begin copying messages to you. However, with UDP, how does the server know you are there until you actually send a message? Basically, how do you make sure that your client begins receiving messages as soon as it joins?

Similar to the above problem, if you are using UDP, how does the server know when you have left the conversation?

How many simultaneous users will your system support?

Your documentation should include a discussion of problems you encountered and your design decisions -- like with the above issues.

Individually, each person needs to submit an evaluation of the project, yourself, and your teammate(s). Include comments about your efforts and level of involvement and that of your teammate(s).

After you submit the assignment, your team needs to make an appointment with me to demo your project.

