ECE 146: Computer Networks

Fall 2018

Instructor: Dr. Hovannes Kulhandjian

Project 1: Chatting Program using Python

Due: Oct. 10th, 2018.

Please submit a soft pdf copy of your project through Blackboard.

In this first project you are going to implement an instant messaging system or a chatting program by writing a Server and a Client application using Python. In other words, you would need to generate the following two codes Server.py and Client.py. Please document and explain all your Python codes.

Client. The client is a program that opens a network connection with the IM server at a specified IP address and port number. Once the connection is open, the client program presents a graphical user interface for performing the interactions listed below.

Server. The server is a program that accepts connections from clients. A server should be able to maintain an unlimited number of open client connections, and clients should be able to connect and disconnect as they please.

The server is responsible for managing the state of both clients and conversations.

Your server should allow **multiple clients** to connect to it using a client-side script. The code that you will write will use the concept of sockets and threading.

For information and tutorial on Socket Programming using Python please refer to the following links.

https://docs.python.org/3/howto/sockets.html

https://www.ibm.com/developerworks/linux/tutorials/l-pysocks/index.html

For the Python program you may either download it from here.

https://www.python.org/downloads/

Or use the online IDE platforms available such as:

https://www.tutorialspoint.com/execute_python_online.php

https://repl.it/repls/PlaintiveCulturedEquipment