a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

COSC 328 – LAB 3
Introduction to Networks
2021 Winter Term 1

Deadline: October 11th, 2021 at 4:30 AM Pacific Time (Sharp).

Introduction
In this lab, we will have some fun on writing a simple TCP client-server program.

TCP Client-Server Paradigm (100 Marks)

In this lab, we build a very simple TCP Client-Server paradigm like the one that was given in the lecture. You will have 2 python files: client.py and server.py in the same directory. Here is what to expect from the program.

Note: you need to handle errors, for example if the camera didn't open, you should display a proper message on the "server".

1-Open a connection between the client and the server on port 12010 or any other port.

2-Once the connection is open, the server will open the camera (assuming client and server are located on your machine). You don't need to send anything from the server back to the client at this point.

3- Close the camera window to continue on the program.

4-Send any random lower-case letters from the client to the server

5-Once the server receives these random letters, it will send back
- a- The capitalized version of these letters
- b- The names of the files located at current folder (assuming we only have 2 files client.py and server.py).
- c- The name of the server machine (i.e., the name of your computer such as DESKTOP-John or something similar).

Submission Requirements:
A zip file containing the client and the server programs Screenshots of the client and server running will help if there are issues running your programs.

NOTES:

The way you should see if your program is working is as follows:

- run your server
- run your client
- test your code

Please write a professional program, readable and maintainable code!

Advanced practices (0 points)

For those of you who want to take things to the next level, You might read about Remote Access Control (RAT) and add more features to your code such as sending the photos taken from the server computer to the client computer. Read the .csv password file of, for example, Google chrome and send it to the client computer, or even read what the user types in the browser or on the keyboard, etc.