CS 307: Systems Practicum
Assignment 4: Socket Programming in Python
To be done in class groups; due: before the beginning of the class on 15th Feb 2024

Q1. Please program the server and client scripts in Python for the file transfer application.   [1]

Q2. Please start the server, make a client connect, and simulate file transfer.   [1]

Q3. Using the time module (see here for examples), measure the average time taken to send data in the client script for a file of size 5 KB and 1 MB. Also, measure the average time taken to receive the same data in a server script for the two file sizes (5 KB and 1 MB). For this purpose, you may create two text files of the respective sizes. Simulate data sending for each file size 5 times from the client to the server to compute the average time in milliseconds. How do these average times for sending and receiving data at the client and server, respectively, compare for the files of the two sizes?   [2]