

SOCKET PROGRAMMING USING PYTHON

Please go through examples in the below link to understand basic functions of **socketserver** framework.

<https://docs.python.org/3/library/socketserver.html>

Note: Use Router 2 as server and Router 4 as client. Submit your outputs and code with clear explanation

- Write an Echo Server/Client code using **socketserver** framework (10 points)

Echo Server:

- a) should receive a string from Client
- b) If the string contains secret code "SECRET", then server should return all the digits in the string and count of digits
- c) close the connection with client

Echo Client:

- a) Should send a string to the server
- b) Should receive the output

Example: If client sends "socket 123345nfjkw345 SECRET ", then server should reply

Digits: 123345345 **Count:** 9

- File Transfer over network using sockets. (10 points)

Server:

- a) should receive data from Client (create a text file)
- b) write the received data in a file
- c) close the connection

Client:

- a) Connect with the server
- b) Send the file
- c) close the connection

what to submit?

Show Server/Client code and screenshots of output for the both of the questions.