

# IT304 Computer Networks

## Socket programming assignment II

### 1 Exercises

1. Extend the application you have designed in assignment part I : Exercise 2 such that server can handle multiple clients in parallel. Use multithreading.  
Hint:[Code for multithreaded server is already available in folder ]
2. Compare sequential and multithreaded FTP:  
Connect 10 clients to server and transmit file of the fixed size to each client. Measure the time required to send these data in sequential and multithreaded server. Vary the number of clients and observe the change in time required in both the application. Compare performance of both the applications.  
Refer the material given with previous assignment.

### 2 Submission guidelines

Submit a zip file which contain all the codes and output screenshot. Submission only considered in c/c++ language.

The naming convention should be as following:

- zip file name must be ID\_socket2.
- Codes must have name ExerciseNumber\_Client and ExerciseNumber\_server.
- Zip file should have screenshot of outputs.

### 3 Suggested reading:

1. **Socket Programming:**  
<https://www.geeksforgeeks.org/socket-programming-cc/>
2. **FTP:**  
<https://gist.github.com/XBachirX/865b00ba7a7c86b4fc2d7443b2c4f238>