Assignment 2

1. Multi threading
   Multi-Threaded Programming With POSIX Threads (villanova.edu)
   Multithreading in C++ - GeeksforGeeks
   Advanced Programming in the UNIX Environment, 3rd Edition-Chapter 11,12
   std::thread - cppreference.com

Tasks:

Report submission:
(5 marks)

1. Submit self-learning notes for revision and future reference on the topics mentioned here.

Code submission:
(5+5 marks)

1. Do the earlier assignment exercises in multithreaded manner.(One server can handle multiple clients simultaneously. Open a new thread for every accept call and handle it using a function that is run by thread.)
2. Try to extend to task for tracker.

3. Create a tracker program(which is multi-threaded server which saves information about files provided by peers(in future) with format(which will be discussed) and write in a file, and read it on demand and provide to a peer on request). This will be explained on what to implement.

    - Message from every peer it connects first time to tracker

PortNo1:Peername1:Password1:UserId 1
PortNo2:Peername1:Password1:UserId 1
PortNo1:Peername1:Password1:UserId 1

- Save it a file which managed by tracker

Commandline input

Peer.cpp
Waiting for input
Register
Peername:Password:UserId:PortNo
Print if success
Waiting for input
Get my details (prints details saved in tracker file)

Client

Function sendMydetailstoserver():
// send receive operation
Cleint_fd = socket()
Return;

Function getMyDetails():
Conn_fd =
Server
Stringstream -split in c++
Message TYPE 1 getmydetailsReqformat------ “GetMyDetails PortNo”
Open thread with allocated function --getmydetails: return details of peer with port No to client.

MESSAGE TYPE2 sendMydetailsReqFormat-----” Sendmydetails Peername:Password:UserId:PortNo”
Open a thread with allocated function: setmydetails : saves the details of per in file

Client ----------server
Conn
Connfd, address= Accept
#conn = (#threads + function)