

COMP3331/9331 Computer Networks and Applications

Assignment for Session 1, 2017

Program design

Server:

Main thread: looping for updating the blocking information and timeout information, and let the timeout client log out.

One connection thread: Accepting all

Multiple client thread: receiving the application layer message, parse and execution.

Client:

Main thread: User input and parse some input for p2p purpose

One server receiver thread: Receive message from server and print out the response

One p2p connection thread: Receive the connection from p2p user and create new receiver thread for each new p2p user.

Multiple p2p receiver thread: Receive message from p2p user and print out the response

Improvement:

Main thread keep looping and executing may use too much of cpu time. There is not really necessary to check timeout every loop. Perhaps set some time interval to do checking. For example, wait every 0.5 seconds.