Assignment - B4

Problem Statement -

Write a program using IP sockets for wired network to implement -
a) Peer to Peer chat   b) Multi user chat

Demonstrate the packets captured Traces using Wireshark Packet Analyzer tool for peer to peer mode.

H/W & SW Requirements -

Windows 10, 8GB RAM, Java JDK, IntelliJ IDE, Wireshark Packet Analyzer.

• Theory -

Network Socket -

- A network socket is an internal endpoint for sending or receiving data at an single node in a computer network.

- Concretely, it is a representation of their endpoint in networking software such as in a table and is a format of system resources.

- The term 'socket' is analogous to physical female connectors, communication between two nodes through a channel being visualized as a cable with male connectors.

- It is used for an internal endpoint of local inter process communication (IPC) not over a network.

Peer to Peer chat -

- The principle of communication can be categorized into 2, Client Server and peer to peer.
- In peer to peer, a node can be either a client or server depending whether it is a requestor or provider of the service at that specific time.
- P2P is popular as it offeres many advantages such as low maintenance cost for server side and high availability content distribution system.
- Many popular applications like Skype, BitTorrent rely on P2P network.

Conclusion -

Thus the peer to peer chat and multiuser chat was successfully implemented.