**Network, Packets and Protocols**

Computer network consists of machines interconnected by communication channels. These are Host and Router

Hosts are computers that run applications

Routers connect hosts together. They can run programs but application programs

The information they send is a sequences of byte, is called packets

Protocol tells how packets are structured and the information they are to be interpreted.

To keep things manageable and modular, different protocols are created to solve that problem. One of them is TCP/IP. Main protocols in TCP/IP suite are IP, TCP and UDP

It is organized into layers

There are different between TCP and UDP

**About Addresses**

Addresses are used to identify program

Addresses contain IP and port

They are binary numbers. IP have 2 versions: IPv4 and IPv6

The post number is like room number at a given street address

Loopback address. The information is send back to the user after it reaches destination

Link-local: Addresses which only be used between 2 hosts in the same network, routers will not forward them

Unicast vs multicast

**About Names**

It is used for convenient

DNS maps name to address

**Clients and Servers**

Clients initiates communication, server waits passively for and then responds to clients that contact it

**What is Socket**

A socket is an abstraction which an application may send and receive data. Allow an application communicates with other application in the same network

Main type of sockets in TCP/IP are stream sockets (use TCP) and datagram sockets (use UDP)