**Computer network:**

When two or more computers are connected with a network is called a computer network.

**SERVER COMPUTER:**

The server computer is a computer that fulfills the request of another computer that is connected to them in a network.

It is used to share resources and software.

**Client computer:**

The client computer is a computer that sends the request to the server connected to a network.

***OSI model***

OSI model stands for open system interconnection.

Which is given by the ISO (an international organization of standardization).

This model is used to connect us with any network.

This model has seven layers.

**These three layers are the software layer.**

***Application Layer:***

The layer that provides the interface to send the data to the network.

***Presentation layer:***

The layer checks how the data is presented to the receiver.

***Session layer:***

The layer which makes the connection between the sender and receiver.

Transport layer:

In this layer, data is segmented, in which TCP and UDP

Is used.

Network layer:

This layer chooses the free path to send the data or check the addresses, of the sender and receiver or converted into packets.

In this layer routers were used.

Data link layer:

The layer detects the error in data and converts it into frames.

Physical layer:

This layer converts the frames into bits and sends the data via guided media or unguided media.

**Transmission Mode:**

Transmission mode is a way of transferring data between two computers.

**Simplex mode:**

Communication is unidirectional.

This means we have the sender which only sends the data and the second is only receives the data.

**Half Duplex mode:**

In this, each computer can transmit data but when one is sending the other is only receiving.

**Full Duplex mode:**

In this mode, both computers can behave as a sender and receiver. Data can be sent simultaneously from sender and receiver.

**Mac Address:**

Mac Address stands for media access control address that identifies the device uniquely. It is assigned on the hardware level.

It works on a data link layer.

**IP Address:**

IP address is used to indicate the device uniquely in the network. It helps us to send or receive the data at the correct destination.

**PORT Address:**

Port address is used to indicate the process or service currently running on the network. Because we using web service or email service at a time so that’s why port address indicate them uniquely we use the port address. Which help us to send or receive the data to correct destination.

**LocalHost:**

Localhost is a hostname that refers to the computer or device that is serving something itself.

We associate the localhost with “127.0.0.1” this IP address.

**Host:**

Host indicates the computer or any device that is available on internet and provide some services.

Like in behind the web hosting we have a server is available on internet continuously and provide web services like (websites);

**Web hosting:**

Web hosting is a service which available our websites on the internet. It stores your HTML, CSS, script, video, etc. files.

Web hosting server is continuously running on the internet.