Lecture 2 : Understanding Internet, Networks, Web & More
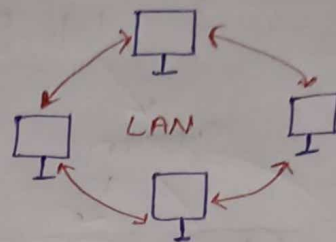
→ Network : A network consists of two or more computer or devices that are linked to share resources within single system.
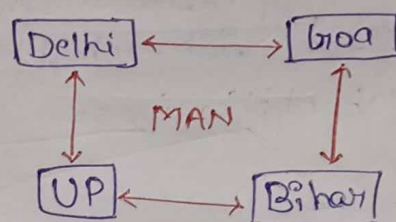
⇒ Types of Network :

* LAN (Local Area Network)

• LAN is a group of computers connected to each other in a small area such as building, office, home.
• The data is transferred at an extremely faster rate in Local Area Network.
• It is less costly and it is used for connecting computers using twisted pair or coaxial cable, etc.
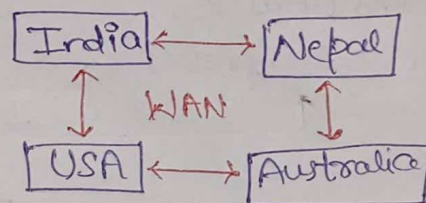
* MAN (Metropolitan Area Network)

• MAN is a network that covers a larger geographic area by interconnecting different networks.
• In MAN, various LAN's are connected to each other through telephone exchange line.
• It has higher range than LAN and it is used to connect citizens and private industries.

* WAN (Wide Area Network)

• WAN is a network that extends over a large geographical area such as Countries.
• A WAN is quite bigger network than LAN.
• The internet is one of the biggest WAN in the world and also used for businesses.

→ What is Internet ?

The internet is a global network of billions of computers and other electronic devices. With the internet, it is possible to access almost any information, communicate anyone else in the world and do much more.

→ What is the Web ?

The (WWW) World Wide Web usually called the web for short and it is a collection of different websites we can access through the internet.

→ What is IP-Address ?

An IP Address represent a unique address that distinguish any device on the internet or any network from another. It is an identifier that enable our device to send or receive data packets across the internet.
An ip address is represented by a series of numbers segregated by period (.).
They are expressed in the form of four pairs for example : 255.255.255.255 where each set can range from 0 to 255.

→ What is browser?

A browser is a tool that is used to explore, retrieve and display the information available on the World Wide Web. This information may be in form of pictures, web pages, docs, etc.

→ What is browser engine?

A browser engine is a core software component of every major web browser. The primary job of browser engine is to transform Html documents and other resources of a web page into an interactive visual representation.

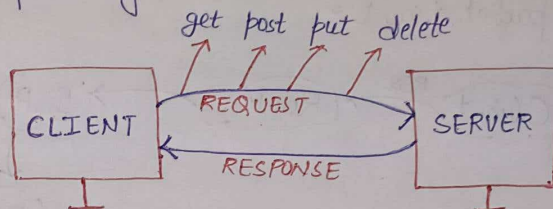→ Browser and its browser engine

* Google - Blink Engine
* Opera - Blink

* Safari - Webkit
* Mz. Firefox - Quantum

→ Client Server Model -

The Client server model describes the communications between two computing entities over a network. Clients are the ones requesting a resource or service and servers are the ones providing that resources.

• Client : A Client is a program that runs on the local machine requesting service from the server, for example, laptop, pc, app, browser, etc.

get post put delete

• Server : A server is a program that runs on the remote machine providing services to the clients. for example DB server, file server, app server, web server, email server, etc.
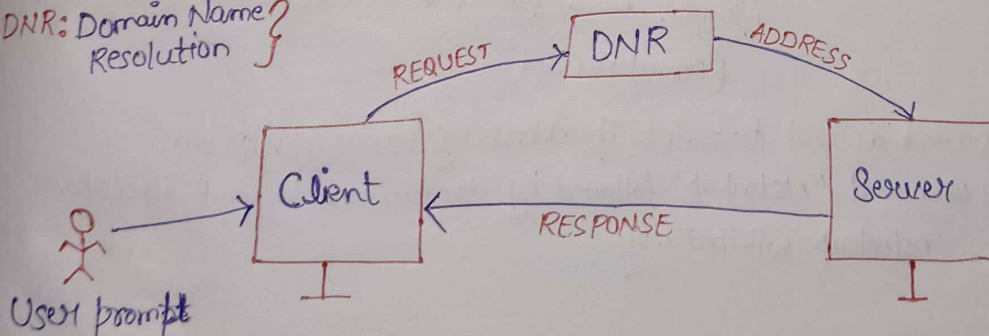
→ What is DNS ?
• DNS stands for Domain Name System.
• DNS is required for the functioning of the internet.
• It also Converts domain name into ip address for fetching response.

{DNR: Domain Name Resolution}

User prompt
(www.facebook.com)

So, basically user request a prompt via client and after that DNR fetches address of that particular prompt then after finding the address finally server is sending back response to the client where user is already present.