INTERNET

Internet:-

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers). It was conceived by the Advanced Research Projects Agency (ARPA) of the U.S. government in 1969 and was first known as the ARPANet. The original aim was to create a network that would allow

users of a research computer at one university to be able to "talk to" research computers at other universities.

Network:-

In information technology, a network is a series of points or nodes or computers interconnected by communication paths. Networks can interconnect with other networks and contain subnetworks.

The most common topology or general configurations of networks include the bus, star, token ring, and mesh topologies. Networks can also be characterized in terms of spatial distance as local area networks (LANs), metropolitan area networks (MANs), and wide area networks (WANs).

Types of Networks:-

LAN - Local Area Network

WLAN - Wireless Local Area Network

WAN - Wide Area Network

MAN - Metropolitan Area Network

SAN - Storage Area Network, System Area Network, Server Area Network, or sometimes Small Area Network

CAN - Campus Area Network, Controller Area Network, or sometimes Cluster Area Network

PAN - Personal Area Network

DAN - Desk Area Network

LAN - Local Area Network

A LAN connects network devices over a relatively short distance. A networked office building, school, or home usually contains a single LAN, though sometimes one building will contain a few small LANs (perhaps one per room), and occasionally a LAN will span a group of nearby buildings.

WAN - Wide Area Network

A WAN is a geographically-dispersed collection of LANs. A network device called a router connects LANs to a WAN. In IP networking, the router maintains both a LAN address and a WAN address.

Wireless Local Area Network –

 A LAN based on WiFi wireless network technology

Metropolitan Area Network -

A network spanning a physical area larger than a LAN but smaller than a WAN, such as a city is known as MAN. A MAN is typically owned an operated by a single entity such as a government body or large corporation.

Campus Area Network –

A network spanning multiple LANs but smaller than a MAN is known as CAN, such as on a university or local business campus.

Storage Area Network –

SAN connects servers to data storage devices through a technology like Fibre Channel.

System Area Network –

It links high-performance computers with high-speed connections in a cluster configuration. It is also known as Cluster Area Network.

Homogenous Network: -

A network running a single network layer protocol is known as Homogenous Network.

Heterogeneous Network: -

A network running multiple network layer protocols is known as Heterogeneous Network. A heterogeneous network is a network connecting computers and other devices with different operating systems and/or protocols. For example, local area networks (LANs) that connect Microsoft Windows and Linux based personal computers with Apple Macintosh computers are heterogeneous.

SWAN (State Wide Area Network): -

In India, SWAN is a government-subsidized project to create a state wide area network (WAN) that will improve government efficiency. SWAN was approved by the government of India in March 2005 and is targeted for completion in June 2010.

When the SWAN project is completed, government offices in each of India's 29 states and six union territories will be connected and able to support National e-Governance Plan (NEGP) initiatives for government-to-government and government-to-consumer services.

What is a Topology?

The physical topology of a network refers to the configuration of cables, computers, and other peripherals. Physical topology should not be confused with logical topology which is the method used to pass information between workstations.

Network topologies are categorized into the following basic types:

1. Bus
2. Ring
3. Star
4. Tree
5. Mesh

More complex networks can be built as hybrids of two or more of the above basic topologies.

Wi-Fi (wireless fidelity)

Wi-Fi (short for "wireless fidelity") is a term for certain types of wireless local area network (WLAN) that use specifications in the 802.11 family. The term Wi-Fi was created by an organization called the Wi-Fi Alliance, which oversees tests that certify product interoperability. A product that passes the alliance tests is given the label "Wi-Fi certified" (a registered trademark).

What is a Network Protocol

A protocol is a set of rules that governs the communications between computers on a network. These rules include guidelines that regulate the following characteristics of a network: access method, allowed physical topologies, types of cabling, and speed of data transfer.

Types of Network Protocols

1. Ethernet
2. Local Talk
3. Token Ring
4. FDDI
5. ATM

The different types of protocols are.

1. Connection oriented protocol.
2. Connection less protocols.

Example: TCP is a connection oriented protocol. UDP is a connection less protocol.

TCP/IP:- Transmission Control protocol
FTP: - File Transfer Protocol
HTTP: -Hyper Text Transfer Protocol
HTTPS: - Secure Hyper Text Transfer Protocol
UDP: - User Datagram Protocol

WWW

WWW Stands for "World Wide Web." It is important to know that this is not a synonym for the Internet. The World Wide Web, or just "the Web," as ordinary people call it, is a subset of the Internet. The Web

consists of pages that can be accessed using a Web browser. The Internet is the actual network of networks where all the information resides. Things like Telnet, FTP, Internet gaming, Internet Relay Chat (IRC), and e-mail are all part of the Internet, but are not part of the World Wide Web. The Hyper-Text Transfer Protocol (HTTP) is the method used to transfer Web pages to your computer. With hypertext, a word or phrase can contain a link to another Web site. All Web pages are written in the hyper-text markup language (HTML), which works in conjunction with HTTP.

E-Mail (electronic mail or email)

E-mail (electronic mail) is the exchange of computer-stored messages by telecommunication. E-mail messages are usually encoded in ASCII text.

However, you can also send non-text files, such as graphic images and sound files, as attachments sent in binary streams. E-mail was one of the first uses of the Internet and is still the most popular use.

E-Mail Format in Gmail
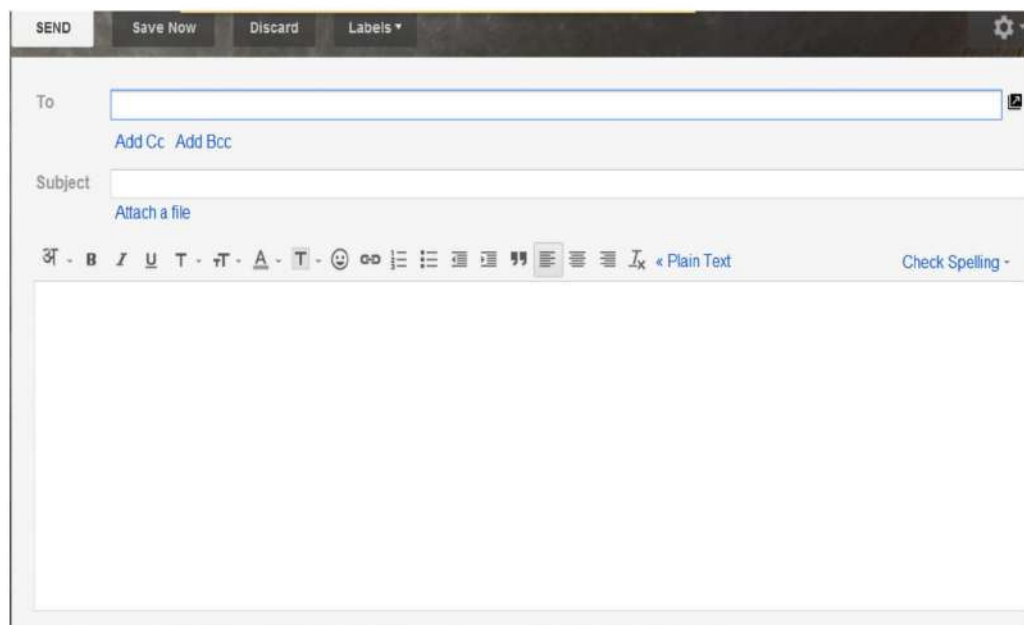
Cc

Cc stands for carbon copy, which means that whose address appears after the Cc: header would receive a copy of the message. Also, the Cc header would also appear inside the header of the received message.

Bcc

Bcc stands for blind carbon copy which is similar to that of Cc except that the Email address of the recipients specified in this field do not appear in the received message header and the recipients in the To or Cc fields will not know that a copy sent to these address.

Website:

A website is a collection of WebPages. A website is actually a collection of files and documents which is saved in a server (it's a specific computer that is connected to the internet all the time). Every file has its own address that called as URL (Uniform Resource Locators). If you want to have a website, here are thing that you need:

Website Address (URL = Uniform Resource Locator):

There are 4 important parts of URL. The first part is called Protocol, we know it as http:// stands for Hyper Text Transfer Protocol. The 2nd one is domain name (in many cases subdomain is included) e.g., www.mydomain.com or www.subdomain.mydomain.com. The 3rd one is Directory, just like a directory (folder) in your computer where the files located in specific area. The 4th one is file name e.g., index.html or myfiles.html. Here is an example of complete address of a website file http://www.wix.com/sachcorp/sp#!download/

E-Mail Websites

- Gmail
- Yahoo! Mail
- Rediffmail
- Sifymail
- Hotmail

Social Networking Sites

- Facebook
- Twitter
- Orkut
- LinkedIn

Search Engines

Search engines are programs that search documents for specified keywords and return a list of the documents where the keywords were found. A search engine is really a general class of programs; however, the term is often used to specifically describe systems like **Google, Bing and Yahoo!** Search that enable users to search for documents on the World Wide Web.