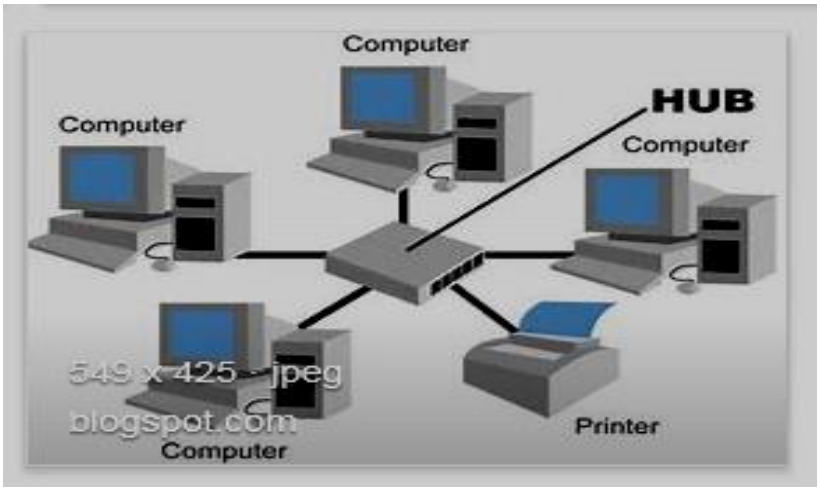
MSD Sanjeevani Public School, Mohan Garden
Subject- Computer Science (with Python)
Class-12th (Non-Med)
Assignment-8 (from ch-15 Computer Network)

Computer Network

Computer network is a collection of two or more computers linked together for the purpose of sharing information and resources. When these computers are joined in a network, people can share files and peripherals such as modems, printers etc. Each computer on the network is called a node and hence, a network is a series of points or nodes interconnected by transmission media.



Need/Advantage for Networking

1. sharing of files : A network enables users to share data files with each other. For e.g. different departments of an organization may be seperated physically, being at distant places, but their data could be stored on a central computer which can be accessed by computers located in different departments. In this way latest data can be made available at all times to all users.

2. Sharing peripherals: Laser printers and large storage media are quite expensive. Networks enable us to share such resources and hence reduce the operational cost of any organization. For e.g. a company with about fifty computers can share resources such as printers, scanners, hard disks etc to reduce the cost.

3. improving communication : A computer network can provide a powerful, fast and reliable communication medium among the users of various computers on the network. Using a network, it is easy for two or more people to prepare a presentation together in spite of being located in different cities. For example with the help of internet we can communicate efficiently and easily via email, instant messaging, chat rooms, telephone, video telephone calls, and video conferencing.

Evolution of Networking

Networking started in 1969 with the development of the first network called

the ARPANET. The U.S. department of defence sponsored a project named ARPANET (Advanced Research Projects Agency Network) whose goal was to connect computers at different universities and U.S. defence. They could play long distance games, exchange data and messages using ARPANET. In mid 80s, the National Science Foundation created a new high capacity network called NSFnet which allowed only academic research on its network. So many private companies built their own networks, which were later interconnected along with ARPANET and NSFnet to form Internet - a network formed by linking two or more networks.

Internet

The Internet is a system of linked networks that are worldwide and facilitate data communication services such as remote login, file transfer, electronic mail etc . The Internet is made up of many networks each run by a different companies and are interconnected. It is really a network of a networks spread across the globe, all of which are connected to each other.

Working of Internet

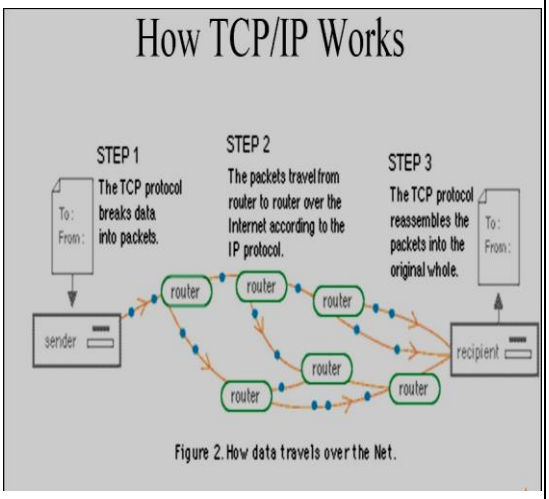


Figure 2. How data travels over the Net.

This super network is a WAN and It connects many smaller networks together and allows all the computers to exchange information with each other through a common set of rules for communication. These rules are called protocols and the internet uses :Transmission Control Protocol /Internet Protocol (TCP/IP).

Programs such as web browsers through which the users work on the Internet. Internet has become a communications highway for millions of users. The Internet was initially restricted to military and academic institutions, but now it is for any and all forms of information and commerce.