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Bachelor of Computer Applications

(For Students with Speech and Hearing Impairment)

Course: Internet and its applications
Unit -1

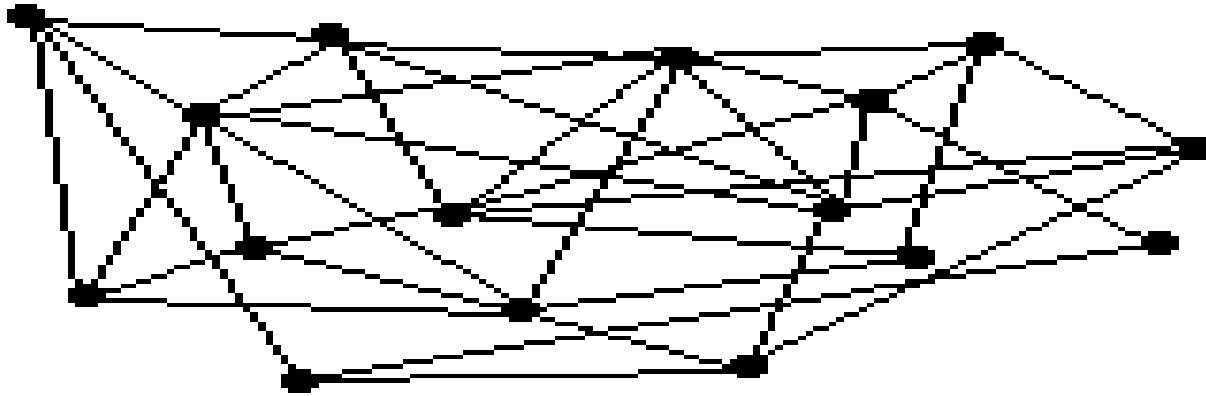
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Introduction

- ▶ Over the past century and a half, important technological developments have created a global environment that is drawing the people of the world closer and closer together
- ▶ Currently, we are in the information Age, where magnifying the computation power is an essential Goal.

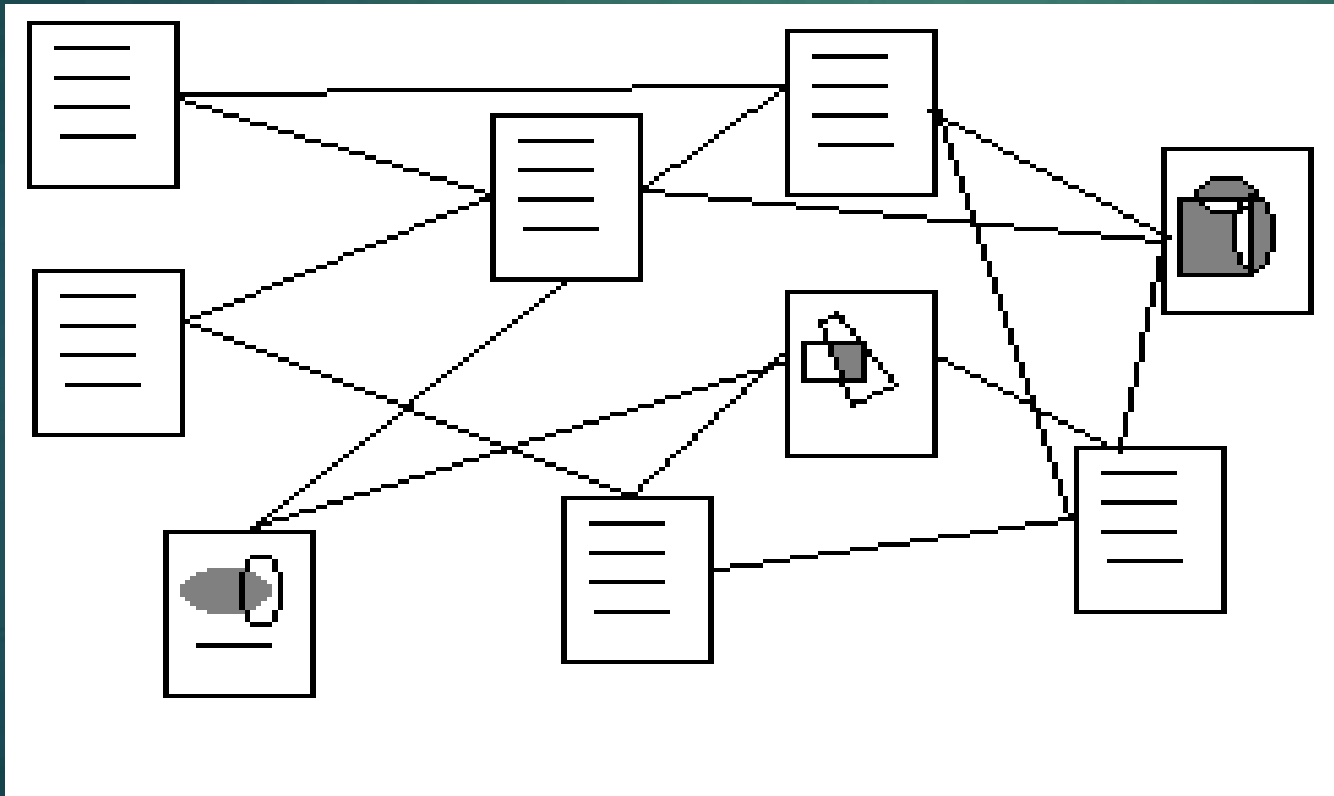
What is the Internet

- ▶ The Internet is a network of networks of computers.



World Wide Web

- The World Wide Web is a hyperlinked network of documents and other resources found on the computers of the Internet.



World Wide Web

- ▶ The World Wide Web (web for short or www) is a collection of interlinked multimedia documents that are stored on the Internet and accessed using a common protocol (HTTP).
- ▶ So, what is the relation between the internet and the World Wide Web?
 - ▶ World Wide Web (WWW) is an Internet based software application.
- ▶ Other Internet applications are:
 - ▶ Email
 - ▶ ftp (file transfer protocol)
 - ▶ Messenger

FTP/TELNET

TELNET

The Internet allows computers to converse with each other over networks.

A telnet program allows us to log into a distant computer almost as if we were actually sitting physically at that computer.

FTP

File Transfer Protocol allows us to transfer files between two different computers on the Internet.

URL

- Uniform Resource Locator
- A URL allows every resource (e.g. HTML page, image, sound clip etc.) on the WWW to have a unique address.
- The protocol gives the method of communication to be used. http is most common, but you may see ftp as well

<code>http://www.someaddress.com:8080/files/intro.html</code>			
Protocol	Domain name	Port	Directory and resource path

Directory and resource path

- Different levels of a path are always separated by forward slashes, regardless of the host system.
- If multiple users are hosted on a system, the first part of the path will be ~user.
- The last part of the path is the actual resource desired, usually an HTML page.
- The extension for HTML files can be .htm or .html (recommended)
- If no resource is given, the server will try to display a page named index.html. If not found, it may display a directory listing, if permitted.

Packets

- A message is broken up into small pieces called packets, usually about 1 kb in size.
- Each packet receives a header containing the destination IP address, the sender's IP address, the total number of packets that make up a message, and the sequence number of that packet.

Switching

- Since the packets are individually addressed, and numbered for sequence, they can be sent and received in any order.
- This means that packets can be switched to different routes to get to the destinations, according to network traffic.

Request/Response

- In a typical WWW example, you type in a URL in your browser's location window, and press enter.
- Your browser then sends a message (request) to a web server, asking for a given HTML page.
- The web server sends back the page, or a reason it can't comply (response).

Web browsers

A Web browser contains the basic software you need in order to find, retrieve, view, and send information over the Internet.

This includes software that lets you:

- Send and receive electronic-mail (or e-mail) messages worldwide nearly instantaneously.

- Read messages from newsgroups (or forums) about thousands of topics in which users share information and opinions.

- Browse the World Wide Web (or Web) where you can find a rich variety of text, graphics, and interactive information.

Search Engines



- ▶ Allows the user to type in a word or phrase to search for, then returns results that it determines most closely match the user's request.
- ▶ The user's request is called a *query*. Each individual result is called a *hit*.
- ▶ Some popular search engines are Yahoo, Google and AltaVista

Email



- ▶ To send and receive email, you need an email account.
- ▶ An email address of the form [username@domainname.tld](#).
- ▶ Mail storage where your incoming messages are stored. (ISP “10M”- and web mails “2G”)

E-Mail - Electronic Mail

- ▶ Send mail electronically via the Internet
- ▶ Requires an account on a mail server and supporting software on your PC
- ▶ The username and password will allow you to access your account
- ▶ All e-mail programs allow you to Send, Compose, Reply, and Forward mail

Obtaining an E-mail Account

- ▶ You will need an e-mail server (post office) in order to send and receive e-mail.
- ▶ You can obtain an account in school
- ▶ You can pay for an account through an ISP such as AOL
- ▶ You can get free accounts
 - ▶ www.hotmail.com
 - ▶ www.yahoo.com
 - ▶ www.gmail.com

Privacy and Terms of Agreement

- ▶ E-mail is less private than US mail
 - ▶ If you need privacy, send a letter
- ▶ Every mail server has terms that you must agree to
 - ▶ No copyright infringements
 - ▶ No harassing or stalking
 - ▶ No junk mail or spamming
 - ▶ No intentional sending of viruses

The Mail Folders

- ▶ *Inbox* – new messages as well as messages that have been read
- ▶ *Outbox* – messages not yet sent
- ▶ *Sent items* – messages that have been sent (moved here from outbox)
- ▶ *Deleted items* – messages deleted from any folder
- ▶ *Custom folders* – additional folders created by the user

An E-mail Address

- ▶ Every e-mail address is unique and consists of two parts, a user name and a host computer
- ▶ The @ sign is required
- ▶ The host computer can be omitted if you are logged onto the same network or host computer

Additional E-mail Capabilities

Address Book

- ▶ Contains the e-mail addresses of frequent contacts
- ▶ Enables you to enter an alias; e.g., “Bob” instead of the complete address

Distribution List

- ▶ A set of e-mail addresses stored under one name
- ▶ Ideal for your professor to e-mail the class

E-mail Protocols

POP Client – Post Office Protocol

- ▶ Lets you work without being connected to mail server
- ▶ Upload to send mail - Download to read mail
- ▶ Allows almost any e-mail program to access e-mail from server

IMAP – Internet Message Access Protocol

- ▶ Permits a "client" email program to access remote message stores as if they were local
- ▶ Enables user to access messages from more than one computer



► Thank you