MODULAR SYSTEM

INTERNET

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CHAPTER 1

UNDERSTANDING THE INTERNET

INTERNET

INTRODUCTION

A **network** is a group of computers and associated devices that are connected by communications facilities.

The Internet is made up of millions of computers linked together around the world in such a way that information can be exchanged between any computer at any time. These computers can be in homes, schools, universities, government departments, or businesses small and large.

The Internet is often described as '**a network of networks**' because all the smaller networks of organizations are linked together into the one giant network called the Internet. All computers are pretty much equal once connected to the Internet; the only differences will be the speed of

THE INTERNET
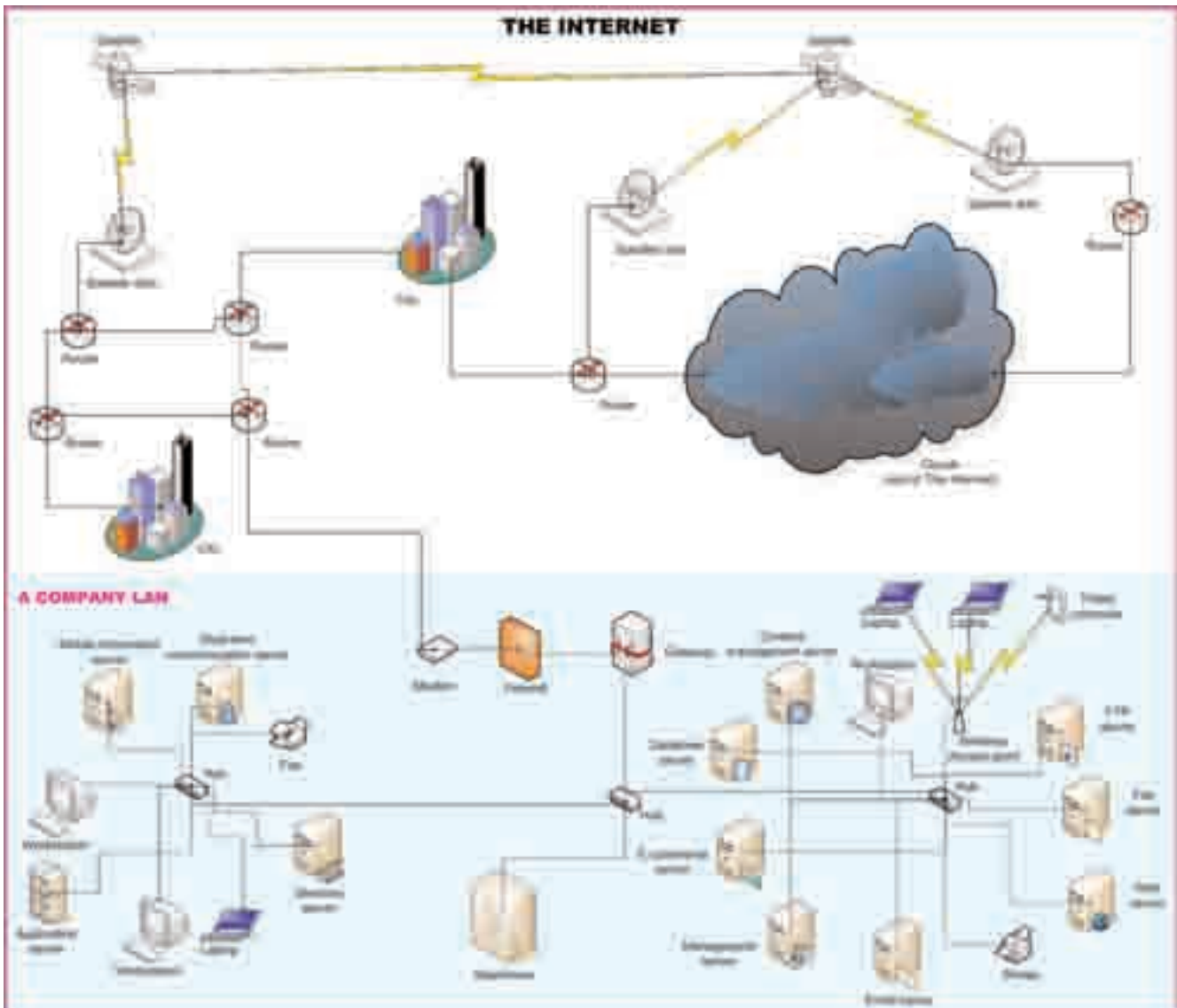
A COMPANY LAN

the connection which is dependent on your **Internet Service Provider** and your own connecting device such as modem, network card.

The Internet is the transport vehicle for the information stored in files or documents on another computer. The Internet itself does not contain information. It is a slight wrong statement to say a "document was found on the Internet." It would be more correct to say it was found through or using the Internet. What it was found in (or on) is one of the computers linked to the Internet.

The Internet is also called Information Superhighway, Cyberspace, the Virtual World or INET. INET is short form of InterNET.

A Part of Cyberspace

The most important properties of The Internet

- Network dedicated,
- Based on the Internet suite of **protocols** (TCP/IP protocol),
- A non-commercial,
- Self-governing,
- Used for mostly to communication and research,
- No real center or central "Hub.",
- Not an online service,

THE HISTORY OF THE INTERNET

The Internet was born in the sixties, as a result of the "Cold War" between the former Soviet Union and the US. At that time, the defense system of the US was built up on computers, which were interconnected. A nuclear attack on this central unit could bring the complete defense system of the US to a standstill.

If a nuclear bomb blew up one computer, another computer could instantly take over; thus, the computer network wouldn't go down. So, the Internet was created by the U.S. Department of Defense in 1969 under the name ARPANet (ARPA was the department's Advance Research Project Agency). It was built to serve two purposes;

- To share research among military, industry, and university sources.
- To provide a system for sustaining communication among military units in the event of nuclear attack.

At first each computer was physically linked by cable to the next computer, but this approach has obvious limitations, which led to the development of networks utilizing the telephone system. So the Internet systems are based on the phone systems, The Internet traffic basically travels over phone lines. Because of this reason the Internet and phone system are similar. The pictures and table help to understand showing the similarities:

After invention of the Internet, other organizations, such as colleges and universities, home and office users started connecting their computers to this growing network to share information.

In 1972 - when the network included 23 computers - electronic mail, or e-mail, was developed. At the end of the 1970s, the discussion groups called newsgroups came into existence.

ARPANET, 1972

Research

Find the information about inventors of the e-mail and the WWW.
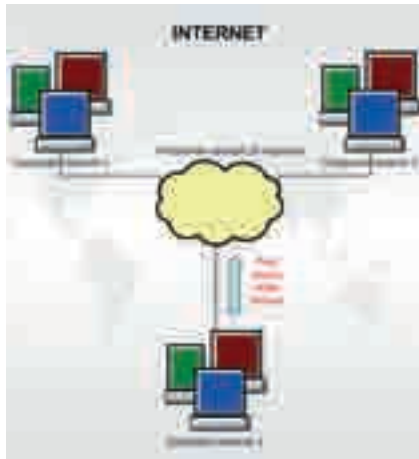
THE INTERNET	THE PHONE SYSTEM
Transmits data such as pictures, text, sound, and video via different types of transmission lines	Transmits data such as voice via standard telephone lines
Requires that each participant system have a unique ID, i.e., IP number, e-mail address	Requires that each participant in the system has a unique ID, i.e., phone number
Uses various types of equipment to perform many functions-phones, computers, routers, modems, and so on	Uses various types of equipment to perform many functions-phones, switches, and so on

Comparing the Internet and the Phone System

Between the 1970s and 1983, the ARPANet was connected to further networks. The large new network that resulted from these connections was called the Internet since it connected several networks with one another. Also in this year, an address system (**URL**) that allowed computers on the Internet to have names rather than the numbers by which they had previously been identified was established.

> **URL** is the acronym for "Uniform Resource Locator," this is the address of a resource on the Internet. World Wide Web URLs begin with http://

Gradually, more and more countries connected to the Internet, and by 1988, more than 50,000 computers were connected to this network. Until this point, the Internet was used primarily by the academic world. In 1989 Web pages were invented. **Web page** is a page on the World Wide Web.

> A **Web page** is a document designed for viewing in a Web browser. Typically written in HTML.

Web Browser is a software that gives a user access to the World Wide Web. Web browsers often provide a graphical interface that lets users click buttons, icons, and menu options to view and navigate Web pages. Microsoft Internet Explorer and Firefox are popular Web browsers.

In 1993, a **graphical Web browser** was invented that allowed users to navigate easily from one place to another on the Internet. More and more people outside of the academic world began to use the Internet. At the beginning of the year 2005, there were more than 300 million Internet users.

World Regions	Population (2006 Est.)	Population % of World	Internet Usage, Latest Data	% Population (Penetration)	Usage % of World	Usage Growth 2000-2005
Africa	915,210,928	14.1 %	23,649,000	2.6 %	2.3 %	423.9 %
Asia	3,667,774,066	56.4 %	364,270,713	9.9 %	35.6 %	218.7 %
Europe	807,289,020	12.4 %	291,600,898	36.1 %	28.5 %	177.5 %
Middle East	190,084,161	2.9 %	18,203,500	9.6 %	1.8 %	454.2 %
North America	331,473,276	5.1 %	227,303,680	68.6 %	22.2 %	110.3 %
Latin America	553,908,632	8.5 %	79,962,809	14.4 %	7.8 %	342.5 %
Oceania Australia	33,956,977	0.5 %	17,872,707	52.6 %	1.7 %	134.6 %
WORLD TOTAL	6,499,697,060	100.0 %	1,022,863,307	15.7 %	100.0 %	183.4 %

World Internet Usage and Population Statistics by March 2006

INTERNET SERVERS

Data is the raw material of information. Refers mostly to the information entered into, and stored within a computer or file.

The Internet is made up of client computers, servers, cables and network connection devices. Each has a different role in the Internet infrastructures: connection devices are responsible for **data** traffic whereas servers enable information and resources to be shared among the computers. Servers are configured as high performance computers and running special software to perform their tasks. They operate 24 hours a day for full time service to their clients.

Some of the Servers and Their Tasks

Web Servers

Web Servers are foundation of the Internet. The Web pages are stored in Web servers. Whenever you open up your browser and type in a Web site address, it is the server that gets you the page you request.

Mail Servers

Mail Serves are as crucial as Web servers. They move and store mails over private networks and across the Internet.

FTP (File Transfer Protocol) Servers

FTP servers store text files, graphic files, sound files, etc, and let the client download and upload them.

Database Servers

Database Servers are specifically configured to run database software. A **database** is a collection of data that is organized so that its contents can easily be accessed, managed, and updated.

Content Management Servers

Content management servers enable the process of creating, editing, storing, organizing, and publishing content on the Web.

Real-Time Communication Servers

Chat, and IRC servers enable a large number of users to exchange information in an environment similar to an Internet newsgroup but with real-time discussion capabilities. **Instant messaging servers**, like chat servers, facilitate communication in real time. However, instant messaging generally involves one conversation between two people.

> **Chat** is a real-time text based communication between two or multiple users over the Internet.

DNS (Domain Name Server)

DNS matches up the URL of a Web site (eg www.zambak.com) with its proper numeric **IP address**. It translates www.zambak.com into the unique numeric IP address 212.175.211.243. Whenever you request a Web page the Web browser must consult the domain name server to find out what the numeric translation of the URL is. This is necessary because computers only understand the numeric IP address, whereas people prefer to use meaningful and more memorable text.

> Every computer connected to the Internet is assigned a unique number known as an **IP (Internet Protocol) address.**

POPULAR USE OF THE INTERNET

There are so many things that the Internet users can do and participate in, once connected to the Internet;

Performing Research

Thousands of databases, libraries, and research institutions around the world are available, to gather information on any topics of interest for work or recreation. The information can be in the form of text, pictures, or even video material.

Communication

Keep in touch and send things to colleagues and friends using electronic mail, the Internet telephone, keyboard chat, and video conferencing.

Obtaining News

The Internet users can stay up to date with news, sports, the weather, and any current affairs around the world with information updated daily, hourly, or instantly. www.sciencesnews.org and http://news,com are two popular news sites.

Learning

Distant education (e-learning) is another possibility on the Web. Most colleges now offer courses via the Web, enabling the Internet users to earn college credit, diplomas, and degrees from home using the Internet user's computer. http://www.worldwidelearn.com/global-education.htm and http://www.uwex.edu/disted are two examples.

Shopping

People who can not stand parking hassles, limited store hours, and check out lines, the Web provides a shopping alternative. For example; www.ebay.com, www.theinternetmall.com link to online merchants selling anything such as flowers, clothing, computers, andelectronics are available on the Web. It is possible to find online shopping Web sites for each country and city.

Debate

What are the advantages and disadvantages of online shopping?

Practice

Search computer related books and CDs in the Internet. Write three names with prices.

NAME OF THE PRODUCT	PRICE

Downloading Computer Software

Software and other products that are available in cyberspace. Internet users can update their programs or download the **freeware**, **shareware** and commercial version of the products. www.download.com and www.shareware.com are two popular downloading sites. You should scan all downloaded files and programs for viruses before opening them.

Publishing

All type of information can be published on the Internet by uploading information to the Web servers.

Entertainment

The Internet users can listen to sounds and music, and watch digital movies, **Streaming media technology** permits to broadcast audio and video to users across the Internet. Nowadays most of the TV and Radio stations have the Internet broadcast. The Internet connection speed is very important for receiving TV and Radio **broadcasts**. Besides the Web browsers media programs also can be used for watching TV. such as; Windows Media Player, iTunes, and Real Player.

There are also a growing number of interactive multimedia games in the Internet.

Download is the process of copying a file from a remote computer to your computer.

Freeware is software that is available free of charge for personal use.

Shareware is software that is distributed free on a trial basis with the understanding that the user may need or want to pay for it later.

Playing video or sound in real time as it is downloaded over the Internet is called **streaming**. Streaming requires a powerful computer and fast connection since the file is not stored on your computer.

Broadcast is the sending of messages or video to all points simultaneously.

Listening to Internet Radio Stations

Travel Plans

Using the Web makes possible to organize a travel plan while sitting in front of a computer. The Internet users can search for flights, hotels and book reservations through the Internet. Also, it is possible to have your ticket delivered to your home. In addition, reviews of restaurant guides and reservations are available on the Internet. The Internet also helps to get information about the weather, maps, and regions of interests. www.mobissimo.com, www.travel.com and www.hotwire.com are examples of such sites.

Research

Complete the following table with the useful Internet addresses for the given items to have a holiday in Istanbul.

	WEB ADDRESS		WEB ADDRESS
Restaurant		Flights	
Travel		Hotels	
Weather		Shopping	

Practice

Visit the following Web sites.

Microsoft Encarta	www.encarta.com	This lets you search through an online encyclopedia.
Internet Public Library	www.ipl.com	An online collection of reference material including magazines, newspapers, almanacs, `encyclopedias.
Library of Congress Site	www.loc.gov	This includes online exhibits, photographs, catalogs, and publications.

INTERNET TOOLS

World Wide Web (WWW)

Consists of an interconnected system of sites, of servers all over the world. It is a huge collection of pages. All of them are mutually interconnected with each other. These pages can contain text, pictures, films, sound and much more information. Using the Web is a bit like flipping through a huge book that has been written by millions of authors. The World Wide Web is also called **WWW** or the **Web**.

Sometimes people use the words **The Internet** and **World Wide Web** synonymously but they are different. **The WWW** is a component of the Internet that presents information in a graphical interface. The Internet users can think of the WWW as the graphical version of the Internet.

Electronic Mail (E-Mail)

Exchanging information through the electronic mail (**e-mail**) is the most widely used feature of the Internet.

Just like regular paper mail, the Internet users can send and receive e-mails with people around the world, as long as they have access to a computer and the Internet. Unlike regular paper mail, e-mail is usually delivered to its destination almost instantly.
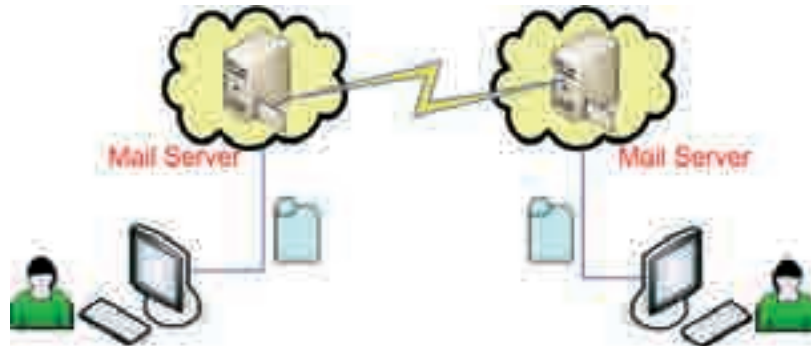
Electronic Discussion Groups

Usenet Newsgroups are discussion groups on the Internet that the Internet users can join to read and post messages to and from people with similar interests. There are thousands of newsgroups on topics such as computers, education, romance, hobbies, politics, religion, etc.

E-mail Based Discussion Groups

Mailing lists combine e-mail and **newsgroups**. They are also called **listservers**. Listservers allow anyone to subscribe (generally at no charge) to an e-mail mailing list on a particular subject or subjects and to post messages. Maintainer of the mailing list (**moderator**) then sends those messages to everyone on that list. Thus, newsgroup listserver messages appear automatically in the Internet user's mailbox; The Internet users do not have to make the effort of accessing the newsgroup.

The Internet Relay Chat (IRC)

Some Web sites provide chat rooms, which are a way to socialize with a group of other individuals interactively and in a casual manner. Participants can type in messages for the group to view; other group members can respond immediately. Many types of chat rooms also allow private messages to be sent to specific individuals.

A wide range of chat rooms exist. Some are designed for discussions on specific topics, while others are simply for socializing. Some chat rooms are monitored for proper etiquette and content, out of a concern, for example, that children may participate. Others are totally uncensored.

Besides the Web chats, software are also available to chat. They have their own interface and protocols to communicate each other. The Internet users do not need the Web browsers (**IE**, **Opera**, **Firefox**.) to participate to the chat environment like while using the Web site's chat room. **MSN Messenger**, **Yahoo Messengers**, **ICQ** are some of the most popular chat programs.

File Transferring from an FTP

> **Download** is the process of copying a file from a remote computer to your computer.
>
> **Upload** is the reverse process of downloading.
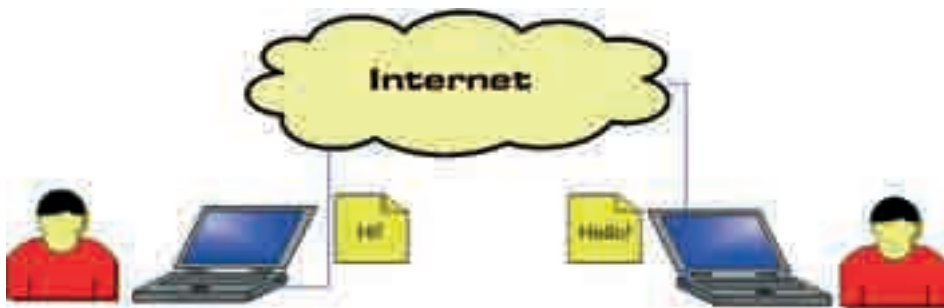
File Transfer Protocol (FTP)

The Internet users can connect to a remote computer called an FTP site and transfer publicly available files to their own computer's hard disk. The free files offered cover nearly anything that can be stored on a computer , including software, games, photos, maps, art, music, books, and statistics. Some FTP sites are open to anyone, so called **anonymous** FTP sites. Other FTP sites can be accessed only by means of a password. The Internet users can also use FTP to **upload** (transfer) the Internet user's files to an FTP site.

> **Anonymous** is a way of logging on to servers as a guest, which gives you limited access to that server. Many FTP sites allow you to login anonymously in order to download files. Directories or files requiring a secure User ID and Password will not be accessible.

Telnet

Telnet is an old Internet technology. Telnet is a terminal emulation protocol that allows Internet users to connect (**log on**) to a remote computer. This feature, which allows microcomputers to communicate successfully with mainframes, enables the Internet users to tap into the Internet computers and access to public-files, instead of connecting directly. Many public and university libraries employ Telnet to make their library catalogs available on the Internet, so that users can access the catalogs at home as if they were seated at one of the terminals in the library.

> **Log on** (log in) is to start a session with a system, usually by giving a user name and password as a means of user authentication.

A Telnet Session

Gopher

A software program called Gopher has been used to browse the resources of the Internet for some time. Its goal was similar to that of the World Wide Web, and it has been almost completely displaced by the Web. A Gopher organizes information using hierarchical menus, or lists of items, from which the Internet users can choose. Each menu leads to files, Internet resources, data, or anything else that the Internet users might search for on the Internet. Since the introduction of the World Wide Web, gophers are not as prevalent. Today they are used mainly for scholastic research, since many libraries, universities, colleges, and government facilities maintain information on Gopher servers. **Gopherspace** is the term used to describe the collection of all interconnected Gopher servers.

THE INTERNET PROGRAMS

Surf means to go from one location to another in search of information in the Internet.

ISP stands for Internet Service Provider. An ISP is a company that provides access to the Internet to individuals or companies.

Point-to-Point Protocol (**PPP**) is a protocol for communication between two computers using a serial interface, typically a personal computer connected by phone line to a server.

Internet programs are the software that you use when you are on the Internet, like your **Web browser** which you use to **surf** on the Web pages, and your e-mail program which you use to read your e-mail.Usually, most of the necessary Internet programs come with the operating system (Windows, Linux).

In general, the Internet users set up the Internet connection by activating a dialer program that came from **ISP.**

Frequently Used Six Main Internet Program Categories

Dialer Programs

Dialer programs that creates a connection to the Internet or another computer network over the analog telephone or ISDN network. Many operating systems already contain such a program for connections through the **Point-to-Point-Protocol** (**PPP**).

Many Internet service providers offer installation-CDs which are meant to simplify the process of setting up a proper Internet connection. This is possible through either creating an entry in the Operating System's dialer or by installing a separate dialer.

Web Browsers

Web browsers are used to access the Internet services and resources available through the World Wide Web.

Text and images on a Web page can contain hyperlinks to other Web pages at the same or different Web sites. Web browsers allow a user to access information provided on many Web pages at many Web sites by traversing these links. Popular browsers available for personal computers include **Microsoft Internet Explorer**, **Mozilla Firefox**, **Opera**, **Netscape**, **Apple Safari** and **Konqueror**.

Mail Programs

Mail programs (e-mail clients or mail user agent -**MUA**) are used to send, receive, and organize e-mail.

Originally, the MUA was intended to be just a little program to read the messages, which **MTA** (Mail Transfer Agent) would transfer into a local mailbox. E-mails which need to be sent would be handed over to the MTA, therefore an MUA would not have to provide any transport-related functions.

> **IMAP**, **POP3**, and **SMTP** are fundamental e-mail protocols. IMAP stores e-mails on the mail server, POP3 downloads e-mails from mail server to client computer, and SMTP sent e-mails from client computer to mail server.

Since the various Windows versions intended for home use never provided an MTA, most modern MUAs have to support protocols like **POP3** and **IMAP** to communicate with a remote MTA located at the e-mail provider's machine. IMAP and the updated IMAP4 are optimized for storage of e-mail on the server, while the **POP3** protocol generally assumes that the e-mail is downloaded to the client. The **SMTP** protocol is used by most e-mail clients to send e-mail.

News Readers

New readers are used to read articles on **Usenet** (generally known as **newsgroup**). Most of the newsgroups are with paid subscription.

Chat Programs

Chat programs are used to chat on the Internet.

Download Clients

Download clients are used to download programs, movies, documents etc.

What are the following Internet programs used for?

PROGRAM NAME	DESCRIPTION
Firewall	
Antivirus	
AD-Popup Cleaner	
Spyware	
Ad-aware	

THE WORLD WIDE WEB (WWW)

The Web consists of millions of documents that are stored on millions of computers. These computers are always connected to the Internet. The documents are called Web pages. The Internet users can find Web pages on every subject imaginable.

The World Wide Web (**WWW**) allows text, pictures, sound and movies to be displayed on the Internet user's screen, via a software called **Web browsers** (such as Microsoft the Internet Explorer, Netscape, Firefox, Opera) that uses a specific Internet Protocol called **HTTP**.
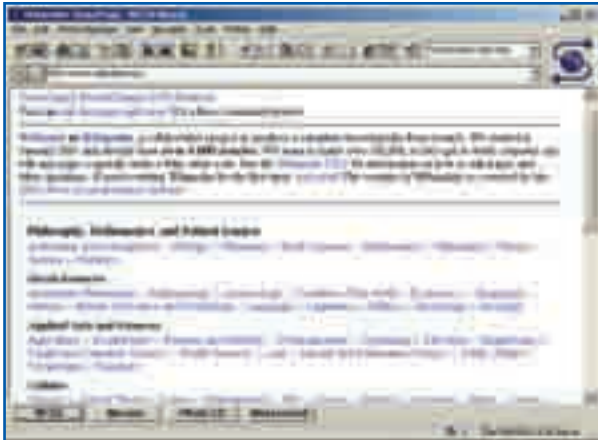
HTML codes of a Web page

There Are Three Important Properties of World Wide Web:

- It has information on every subject imaginable.

- It is the fastest-growing part of the Internet (growing at perhaps 5% per month in number of use).

- It is the most graphically inviting and easily navigable section of The Internet.

The World Wide Web is what the Internet users probably think of when they think about the Internet. But this is wrong. The Internet consists of many services. The World Wide Web (WWW) is a graphical part of the Internet.

The WWW began in the late 1980's when physicist **Dr. Berners-Lee** wrote a small computer program for his own personal use. This program allowed pages, within his computer, to be linked together using keywords. It soon became possible to link documents in different computers, as long as they were connected to the Internet. The document formatting language used to link documents is called **HTML** (Hypertext Markup Language).

> **HTML** stands for HyperText Markup Language, the authoring language used to create documents on the World Wide Web.

The Web remained primarily text based until 1992.

An event occurred that year that changed the way the Web looked forever. Marc Andreessen developed a new computer program called the NCSA Mosaic and gave it away! The NCSA **Mosaic** was the first Web browser.

The browser made it easier to access the different Web sites that had started to appear. Soon Web sites contained more than just text, they also had sound and video files. The development of the WWW has been the catalyst for the popularity of the Internet

The WWW is also the easiest part of the Internet to use. We now have The Internet Chat, Discussion Groups, The Internet Phone capabilities, Video conferencing, News Groups, Interactive Multimedia, Games and so much more.

Debate

Find out the capabilities of the first Web browser Mosaic.

Mosaic Home page:

http://archive.ncsa.uiuc.edu/SDG/Software/Mosaic

General Information:

http://en.wikipedia.org/wiki/Mosaic_web_browser

WORLD WIDE WEB TERMINOLOGY

During surfing the World Wide Web, the Internet users are bound to encounter some technical terms, phrases, and tools. Much of this terminology relates to common activities and components present on the World Wide Web.

A. World Wide Web Tools

Browser

A software program that requests, interprets, and presents World Wide Web documents. Frequently used browsers include the Internet Explorer, Opera, Firefox, Lynx, and Mosaic.

Server

In a general sense, a server is any computer that provides information or services to the other computers on a network. Example of a server includes a file server, a printer server and a mail server. In addition to being a computer,a server also can be a software program that the entire Internet is based on.

Client

A client is a computer system that requests a service of another computer system (a server) on a network. A client also can be a software program that requests and acquires information from computers that store World Wide Web documents and files. For example; WWW browsers are known as clients.
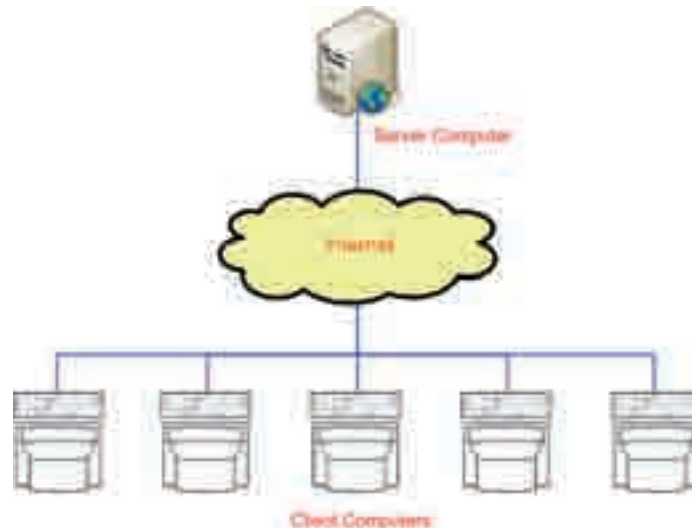
Client - Server Architecture

B. Essential Units of the Web

There are some elements of the World Wide Web that actually create the foundation.

HTML

Hypertext Markup Language. HTML is the coding language for the World Wide Web that informs browsers how to display a document's text, links, graphics, and other media. This language forms the foundation for all Web pages.

Beside HTML other new programming languages for the Web is available. Such as ASP, PHP, CGI, JAVA, Java Scripts. Some of them working with in HTML but some of them perform separately.

WEB PAGE	HTML CODE
HELLO INTERNET WORLD	

Webmaster

The individual responsible for maintaining and updating the content of a World Wide Web document. Webmasters are the creative forces behind the World Wide Web.

Domain Name

The name given to any computer registered on the World Wide Web as an official provider of information and files. Domain names are usually two or more terms separated by periods. Some examples are www.google.com or www.msu.edu google is the domain (location) name and com is the domain type in the first example. Domain type denotes type of the organization. Outside of the United States,domains have another extension to identify the country. For example, .ru for Russia, .tr for Turkey. www.zambak.com.tr is a domain name for a commercial company that is Zambak in Turkey.

Domain types and related organizations:

.com	commercial
.net	network
.org	organization
.edu	education
.gov	government
.mil	military

Hotlist

URL

Uniform Resource Locator. A URL serves as identification for all World Wide Web documents. The URL is sometimes referred to as a World Wide Web page address. Every site and page on the World Wide Web has a URL.

Hotlist

An option available in most World Wide Web browsers that maintains a list of frequently accessed home pages. A hotlist also refers to a list of home pages related to a particular subject that is published on an organization's home page.

WEB SITE TERMINOLOGY

The most important parts of the World Wide Web are elements of the Web site, such as home pages, pages, hot links, and more--all of which comprise the bulk of the World Wide Web. You will find some related terms on the following picture;

Web Site

A collection of World Wide Web documents, usually consisting of a home page and several related pages. The Internet users might think of a Web site as an interactive electronic book.

Home Page

Frequently, the "cover" of a particular Web site. The home page is the main, or first page displayed for an organization's or person's World Wide Web site.
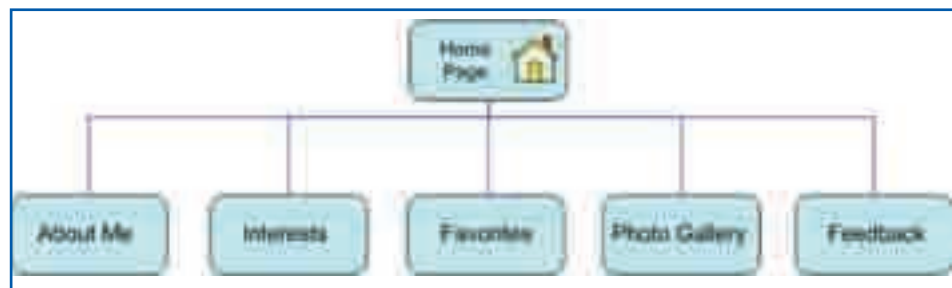
A Simple Web Site Diagram

Hyperlink

Short for "hypertext link." A link provides a path that connects The Internet users from one part of a World Wide Web document to another part of the same document, a different document, or another resource. A link usually appears as a uniquely colored word that The Internet users can click to be transported to another Web page.

Anchor

A link that takes The Internet users to a different part of the same Web page.

Image Map

An image map enables The Internet users to click various locations in a graphic image to link to different documents.

Frame

A feature available on the World Wide Web that presents text, links, graphics, and other media in separate portions of the browser display. Some sections remain unchanging, whereas others serve as an exhibit of linked documents.

Table

A feature available on the World Wide Web that presents document text, links, graphics, and other media in row and column format. Table borders may be visible in some documents but invisible in others.
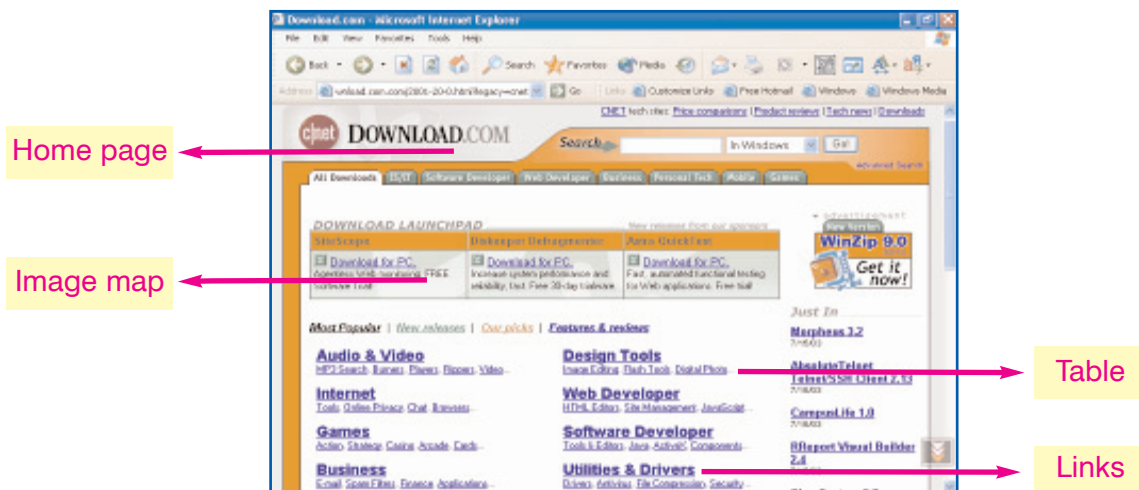
Research

Find out the meaning of the following Internet words.

TERM	DESCRIPTION
Java Applet	
Java Script	
PHP	
CGI	
PERL	
Links Bar	
GIF Animation	
Flash Animation	
Form	

Survey

Visit your school Web site. Prepare a report about what you like and what you don't like on the site. Give the report to your Web master

Practice

Visit the useful and interesting Web sites below.

WEB SITE	DESCRIPTION
http://webopedia.com	Online dictionary and search engine The Internet users need for computer and The Internet technology definitions.
http://brainmuseum.org	This Web site provides browsers with images and information from one of the world's largest collection of brains.
http://www.mnh.si.edu/earth	A good designed Web site.
http://earth.google.com/	Dive right in -- Google Earth combines satellite imagery, maps and the power of Google Search to put the world's geographic information at your fingertips.
http://www.howstufworks.com	Explains how the mechanical and electronic devices work.
http://www.whatis.com	An IT encyclopedia and learning center. Contains definitions on thousands of the most current IT and computer related words.
www.wikipedia.com	An online free encyclopedia in several language that anyone can edit.
www.amazon.com	An online shopping site for books, video games, toys, music, video etc.
www.about.com	A guide site for information, goods and services.
www.langtolang.com	A language dictionary. Translates a word from one language to another.

Beside many advantages of the Internet, there can be some drawbacks. Discuss the advantages and disadvantages of the Internet in the classroom. Make a list of advantages and disadvantages.

Questionnaire

Ask ten people from different occupations for what purpose (mail, reading news, entertainment, researching, chatting etc.) they mostly use the Internet.

SUMMARY

The Internet is an international network composed of thousands of smaller networks. The Internet carries messages, documents, programs, data files between the companies, organizations and individual users. There is no single center or authority that controls the Internet.

The Internet was created for the U.S Department of Defense for military communications purposes in 1969. It first was known as **ARPANET**. It has expanded by establishing interconnection with other networks around the world.

TCP/IP is the standard protocol to exchange commands and data in the Internet. Every computer (host) in the Internet has a unique IP address. People use meaningful names instead of numeric IP addresses. **Domain Name System** resolves a host name to its associated IP address.

The World Wide Web is the fastest growing part of the Internet. It combines text, illustrations, and links to other files in hypertext documents. **Electronic mail** is the most popular use of the Internet. **FTP** is used to copy the data and program files between the computers. **Newsgroups** are the discussion groups that are related to one topic. **Gopher** is a hierarchical menu systems that helps users find resources on the Internet.

ENTERTAINMENT
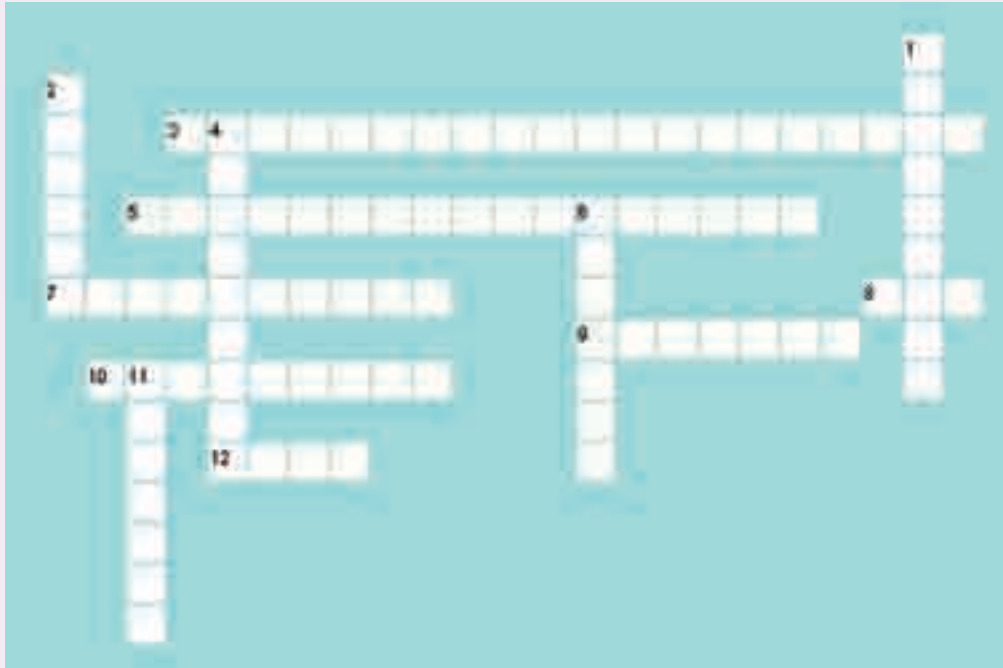
Across

3. What does FTP stand for?

5. What does IRC stand for?

7. Another name of the Internet

8. Short of frequently asked questions

9. Which program is not an Internet program? Download client, chat, FTP client, firewall, antivirus, archive, mail client.

10. Next Generation of the Internet

12. When was the Internet born?

Down

1. Sending a message from one station to all other stations in a network.

2. Name of the first Internet browser

4. Which one is not an essential unit of Web? HTML, Web site, Web page, link, Internet1, frame, table.

6. The computer network system that gave birth to the Internet.

11. A group of computers and associated devices that are connected by communications facilities

QUESTIONS

1. A bulletin board system that allows for posting and responding messages on the Internet.
   - **a.** USENET
   - **b.** IRC
   - **c.** ListServer
   - **d.** E-Mail

2. Another name for the Internet.
   - **a.** Network
   - **b.** Cyberspace
   - **c.** WWW
   - **d.** Web Site

3. Translates domain names to their IP addresses and wise versa.
   - **a.** FTP Server
   - **b.** Mail Server
   - **c.** Web Browser
   - **d.** Domain Name Server

4. A software that provides a way to look at and interact with all the information on the World Wide Web.
   - **a.** Chat Client
   - **b.** Web Browser
   - **c.** HTML
   - **d.** Dialer Programs

5. Which one of the following is not a part of a Web page?
   - **a.** Hyperlink
   - **b.** Anchor
   - **c.** URL
   - **d.** Frame

6. Which of the following is not true for both the Internet and the phone system?
   - **a.** Transmit data
   - **b.** Each participant has a unique ID
   - **c.** Use same kind of media to transmit data
   - **d.** Uses various types of equipment

7. Which one of the following is not a language for making Web pages?
   - **a.** C++
   - **b.** PHP
   - **c.** HTML
   - **d.** ASP

8. _____is a simultaneously communication.
   - **a.** USENET
   - **b.** News Groups
   - **c.** E-Mail
   - **d.** Chat

9. It is the Internet tool using one computer to control a second computer.
   - **a.** FTP
   - **b.** Telnet
   - **c.** Gopher
   - **d.** Usenet

10. The Internet is
    - **a.** a set of protocols.
    - **b.** an online library.
    - **c.** a communication environment.
    - **d.** is the publicly accessible worldwide system of interconnected computer networks that transmit data using a standardized Internet Protocol (IP).

CHAPTER 2

CONNECTING TO THE INTERNET

INTERNET

To access the Internet by computer, you need a computer, physical connection (a modem or other telecommunications link), and software to connect to an Internet Service Provider (ISP).
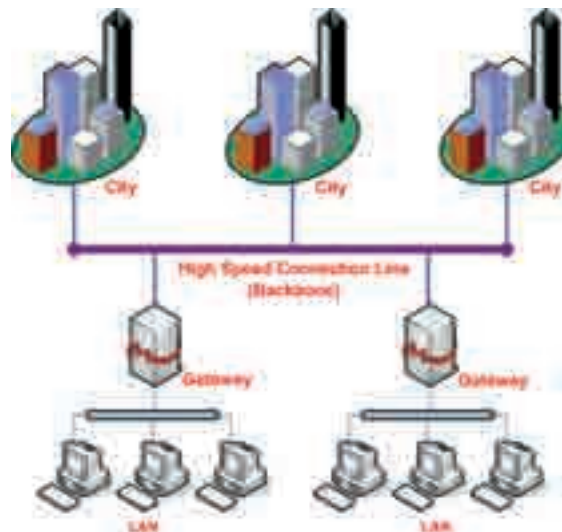
PHYSICAL CONNECTION TO THE INTERNET

Most computers are not connected directly to the Internet. They are connected to smaller networks (LAN) that connect through gateways to the Internet **backbone**. That is why the Internet is called as network of networks.

A network connection provides connectivity between your computer and the Internet, a network, or another computer. With network connections, you can gain access to the Internet resources and functionality, whether you are physically located at the location of the network or in a remote location.

Type of your network connection between your computer and ISP define your Internet connection and connection speed.

Connection Speed (Transmission Speed)

Connection speed is how fast your computer is able to talk to other computers or how fast a computer can send and receive information. Depending on how you are connected to the Internet it will take a certain amount of time for information to be transferred to your computer.

Backbones are the main network connections that make up the Internet. They are made up of ultra-high speed lines and connections.

A **gateway** is a network point (a computer or router) that acts as an entrance to another network. It allows users to connect from one network to another.

Bandwidth is the amount of information or data that can be sent over a network connection in a given period of time.

Connection speed (**bandwidth**, data transfer rate, transmission speed) is typically expressed in terms of bits per second (bps) or, kilobits per second (Kbps). Dial-up modems typically operate at speeds of 56 Kbps. A ten pages letter can be transmitted a 56 Kbps modem in about 5 seconds

> A **bit** is a single ZERO (off) or ONE (on). So **bps** (bit per second) refers to the number of bits (zeros and ones) that can be sent over the modem in a second.

Kbps: thousand bits per second. (1024 bits)

Mbps: million bits per second. (1024*1024=1 048 576 bits)

Gbps: milliard bits per second. (1024*1024*1024=1 073 741 824 bits)

Measure your home Internet connection speed and school Internet connection speed. Use the following link.

http://us.mcafee.com/root/speedometer/default.asp)

Communication Channel

All network connection types use a path or way to send and receive information. A communication channel is the path -the physical medium-over which data travels from its source to its destination. Channels are also called links, lines, or media.

Nowadays, individual communications generally are carried by

- A telephone wire

- A wireless method such as shortwave radio.

Besides, there are many kinds of communications channels are available especially for network communications.

INTERNET SERVICE PROVIDER (ISP)

An Internet Service Provider is a kind of a phone company, except instead of letting you make telephone calls to other people, an Internet service provider (ISP) provides the Internet access. Once connected, you have access to the Internet and any other services, such as e-mail, that are provided by the ISP.

There are Internet service providers around the world. Internet Service Providers charge for their services. Most users subscribe to an Internet service provider (ISP) for their dial-in access.

You should take into the consideration the following questions when choosing your ISP:

- Can you connect with a local call?

- What is the setup charges and monthly fee?

- What services does it provide?

- Does it give you an e-mail and publish your own Web site from their server. What is the capacity of your **mailbox** and **Web area**?

Mailbox is a directory maintained in an ISP's server that stores email until a user downloads it.

Web area is a directory in an ISP's server where you publish your personal Web site.

Research

List the names of Internet Service Providers in your town. Check if they are available at the following Web sites. ISPs can be listed by Area Code or Country Code.

http://thelist.internet.com and http://ispfinder.com

INTERNET SOFTWARE

There are lots of online Internet programs, and new ones are being invented all the time. So there are many different ways of connecting and using the Internet, depending on Internet users interests and needs. For example, a Web browser for The World Wide Web, e-mail clients for the e-mails, FTP clients for file transferring, chat programming etc. If you have one of these program and if the program is working with Internet that means that you get connected. Generally, a Web browser is enough to check Internet connection.

Web Browser

A Web browser is a program that lets your computer view and navigates the World Wide Web. One of the biggest improvements in operating systems is that it comes with a built-in Web browser-Windows with **Internet Explorer**, Linux with **Netscape Navigator**. Other Web browsing programs are also very popular. Such as **Opera**, **Firefox** and **Maxthon**.
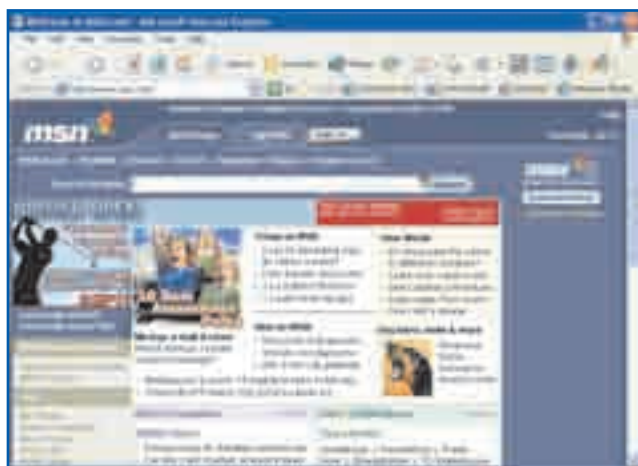
Internet Explorer

Opera

INTERNET CONNECTION TYPES

This section explains the most common used network connection which is used for connecting to the Internet. The one you use --Modem, ADSL, Cable modem, T1 line, or T3 line-- depends on many factors, with cost being one of the greatest determiners.

Dial-Up Modem Connections

Data can be transmitted by two types of signals, **Analog** and **Digital** signals. An analog signal represents a continuous electrical signal in the form of a wave. A digital signal is discontinuous, expressed as discrete bursts in on/off electrical signal.

Internal Dial-Up Modem

A modem is an electronic device that converts computer data into audio signals. This conversion process is called MOdulation. These audio signals can then be transmitted over a normal phone line. At the receiving end, another modem converts the audio signals back into computer data. This conversion process is called DEModulation. Modulation and Demodulation is where the name MODEM comes from. Nowadays typical modems for home use are 56 kbps.

External Dial-Up Modem
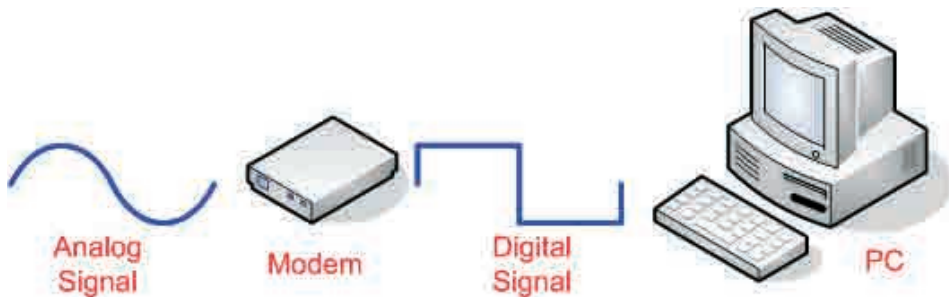
Modems (almost always - both external and internal) have two phone jacks. One is to connect the modem to the telephone company by way of a wall jack. The other connection is for a regular phone machine. Do not get them backwards.

ISDN

ISDN stands for Integrated Services Digital Network. ISDN lines are connections that use ordinary phone lines to transmit digital instead of analog signals. With digital signals, data can be transmitted at a much faster rate than with a traditional modem.

ISDN converts audio signals--your voice, for example--into digital bits. Because bits can be transmitted very quickly, you can get a much faster speed out of the same telephone line, roughly 128 Kbps. ISDN connections are made up of two different channels, allowing two simultaneous "conversations"; therefore you can speak on one channel and send a fax or connect to the Internet over the other channel.

All these transactions occur on the same ordinary phone line currently plugged into your telephone. Your local telephone company can tell you if ISDN is available in your area.

ADSL

A recent hardware and software technology called Asymmetric Digital Subscriber Line (ADSL) is considered to be the successor o ISDN.

As the connection is asynchronous, the download speed is typically higher than the upload speed, with upload speeds typically limited to around 256kb/s, despite download speeds of up to 8Mb/s.

Compaq, Microsoft and Intel are promoting ADSL through various phone companies. ADSL is also using two different channel system that makes possible to connect Internet without preventing normal telephone communication on a regular phone line.

Cable Modems

A cable modem is a new type of modem that connects up your computer to a local cable TV line and provides Internet access. A cable modem is more accurately described as a network interface card. Cable modems run over coaxial cable which allows much faster data transfer rates than phone wiring and ADSL. Cable modem connections are digital - not analog.

Cable Modem

The actual bandwidth of a cable modem is up to 27 Mbps on the receiving end and about 2.5 Mbps on uploads or interactive responses. The cable modem takes the signal from the cable company and separates the signal into a regular cable TV signal and also provides a constant connection to the Internet.

T1 Line

A T1 line is a high-speed digital connection capable of transmitting data at a rate of approximately 1.5 Mbps. A T1 line is typically used by small and medium-sized companies with heavy network traffic. It is a widely used standard in telecommunications in North America and Japan to transmit voice and data.

This line is large enough to send and receive large text files, graphics, sounds, and databases instantaneously, and it works at the fastest speed commonly used to connect networks to the Internet. Sometimes referred to as a leased line, a T1 line is basically too large and too expensive for individual home use.
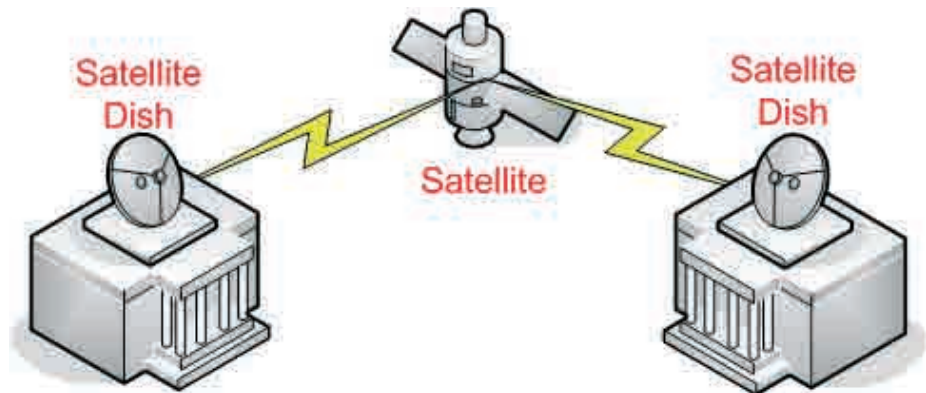
T3 Line

A T3 line is a super high-speed connection capable of transmitting data at a rate of 45 million bits per second. This connection represents a

bandwidth equal to about 672 regular voice-grade telephone lines. A T3 line is wide enough to transmit full-motion, real-time video and very large databases over a busy network. It is a widely used in Europe.

A T3 line is typically installed as a major networking artery for large corporations and universities with high-volume network traffic. The backbones of the major Internet service providers, for example, are made up of T3 lines.

Satellite Connection

Satellite connection lets to download data from the Internet to your PC at speeds almost eight times faster than a dial-up modem. Data uploads via satellite at speeds faster than or similar to a dial-up modem, all without tying up your phone-line. Download speeds of up to 400 Kbps and upload speeds of up to 60 Kbps. Although, the connection speeds are not guaranteed.

CONNECTION TYPE	SPEED (BIT PER SECOND)
Dial-Up Modem	56 000
ISDN	128 000
ADSL	8 000 000
Cable Modem	27 000 000
T1 Line	1 500 000
T3 Line	45 000 000
Satellite Connection	400 000

ACCESSING THE INTERNET

After choosing your ISP and deciding to the Internet channel, (for example ISDN, ADSL or dial-up), third step is configuring operating system and establishing connection between your computer and ISP's system .

Permanent Internet Connection

Instead of dial-up connections, most of the Internet network connections are 24 hours available. So, you do not need to establish connection or to run connection programs. The only necessary step is running the Internet programs such as Browsers or Mail clients.

Check the taskbar, if the connection icon 📶 is available, you have a network connection and possibly you have Internet access to;

Dial-Up Access

Dial-up access is a form of Internet access through which the client uses a modem connected to a computer and a telephone line to dial into an Internet service provider's (ISP) node to establish a modem-to-modem link, which is then routed to the Internet.

Setting Up a Connection

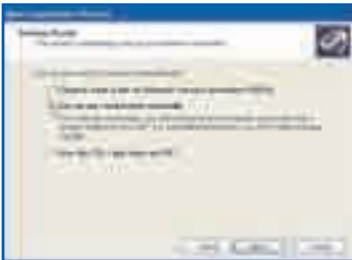Step 1: Click the Start button and choose All Programs > Accessories > Communications > New Connection Wizard.
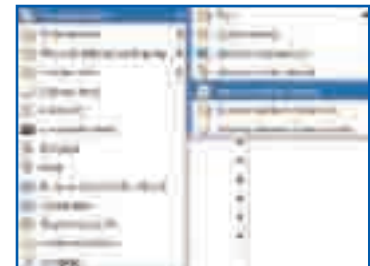
Opening New Connection Wizard
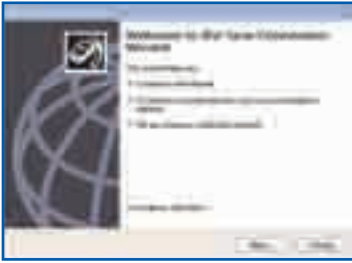
Step 2: From the first wizard screen, click the Next button.

Step 3: Choose Connect To the Internet from the second wizard screen and then click the Next button.

Step 4: The third wizard screen, shown in the Figure, asks how you want to set up your account. Choose Setup my connection manually option,

- First option lets to use one of the Internet service providers from a list, such as American Online (AOL).

- For dial-up connection, choose second option. You need your connection account name, password, and phone number for your ISP. If you have them, then chose second option.

- Some ISPs give their connection software that connects automatically by adjusting all connection options. If you have such program, chose third option.
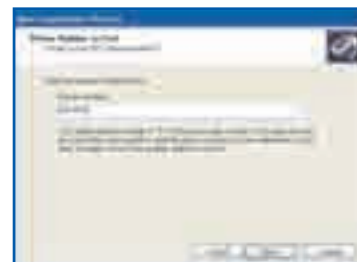
Step 5: If you are connecting to your ISP using a standard modem, click Connect using a dial-up modem, click Next, and follow the instructions in the wizard.

Step 6: Give a name to your connection. It can be your Internet service provider's name or any name that you choose.


Step 7: Type the ISP telephone number to the textbox.

Step 8: You will need to enter an account name and a password to sign in to your Internet account. Don't forget to insert your password second time to Confirm password textbox.

● If you check the first check box, Windows XP uses this account name and password when any user try to connects to the Internet form this computer.

● Second check box makes available this connection as a default Internet connection, if you have more than one connection.

● Third option turns on Windows XP built-in Firewall.
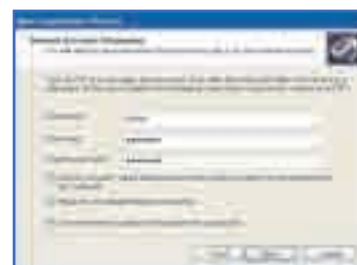
> A **firewall** is a hardware or software solution to protect the resources of a private network from users from other networks.

Step 9: If you pass all steps successfully, completing the New Connection Wizard dialog window appears as a last step with a option that lets you add a shortcut of this connection to your desktop. Click the Finish button to end this wizard.

Wizard creates a shortcut icon on the desktop and on the Start menu.


A Shortcut to Internet Connection

Dialing The ISP

Step 1: Click Connect to from the Start menu, Select the connection icon.

Step 2: The Dial-up Connection dialog box appears, as shown in the Figure. Click the Connect button. You should hear a dial tone, when your modem dials the phone, and finally a screeching sound as your ISP answers the phone.

Step 3: After a connection to the Internet has been established, you might see a small network icon (two monitors) in the Notifications area. Pointing to this icon shows some information about the connection.
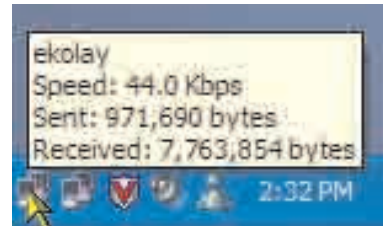
Step 4: Double-clicking the connection icon shows some more information, as shown in Figure

> **Home page** is the page your Web browser displays when it connects to the Internet.

When you are connected, you will stay connected until you specifically break the connection. While you are connected to the Internet yon can use Internet programs, such as Microsoft Internet Explorer or Outlook Express.

Internet Explorer displays home page of your Browser . The default start page for Microsoft Internet Explorer is Microsoft's start page. You can easily change your default start page from The Internet Explorer Options from the Tools menu.

Ending the Connection

If you have a dial-up account, remember that you are connected until you specifically disconnect. This means that if you use the same telephone line for both voice and Internet connectivity, anybody who attempts to call you will get a busy signal while you are connected. As long as that little two-monitor icon is visible in the taskbar, you are connected to your ISP. When you finish your work on the Internet, you should always disconnect, using whichever of the following methods you prefer:

Step 1: Right-click the little two-monitor icon and choose Disconnect.

Step 2: Double-click the little two-monitor icon on the taskbar and then click the Disconnect button in the dialog box that appears.

Step 3: Open Network Connections as described earlier, right-click the connection's icon, and choose Disconnect.

If you use your voice telephone line for your Internet connection, the line will be freed up for normal phone conversations.

ACCESSING THE WORLD WIDE WEB

After connecting to the Internet, you can connect to the World Wide Web by entering one of the Web site addresses in the Internet Browser. For connecting to the WWW firstly run the Internet Explorer then display a specific Web Page.

Running Internet Explorer Browser

Step 1: Click the Start menu

Step 2: Click Internet Explorer to start Internet Explorer.

Step 3: If Internet Explorer home page is http://www.msn.com, your browser connects that Web site automatically.
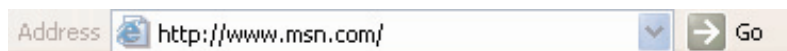
Msn Web Page

Displaying a Specific Web Page

Step 1: Click the words in the Address bar in your Internet Explorer program. The text in the Address bar becomes highlighted.

Step 2: Press to Enter key or click to the Go button.

Step 3: Type www.yahoo.com in the Address bar and press Enter. Possibly one of the most famous Web sites on the Internet, the Yahoo home page, appears.

Yahoo Web Page

SHARING THE INTERNET IN A WORKGROUP

If you have more than one computer, or other hardware devices such as printers, scanners, or cameras, you can use a network to share files, folders, and your Internet connection. For example, if you are working online, someone else can be surfing the Internet from another computer at the same time.

There are several ways to connect computers or create a network. For a home or small office, the most common model is peer-to-peer networking (Workgroup).

> Each computer has equal status and control in a **peer-to-peer network**,

In a **peer-to-peer network**, also called a **workgroup**, computers directly communicate with each other and do not require a **server** to manage network resources. A peer-to-peer network is the most appropriate when fewer than ten computers are located in the same general area.

Advantages of The Home or Small Office Networking

With home or small office networking, you can:

- Use one computer to secure your entire network and protect your Internet connection.
- Share one Internet connection with all of the computers on the network.
- Work on files stored on any computer on the network.
- Share printers with all of the computers on the network.
- Play multiplayer games.
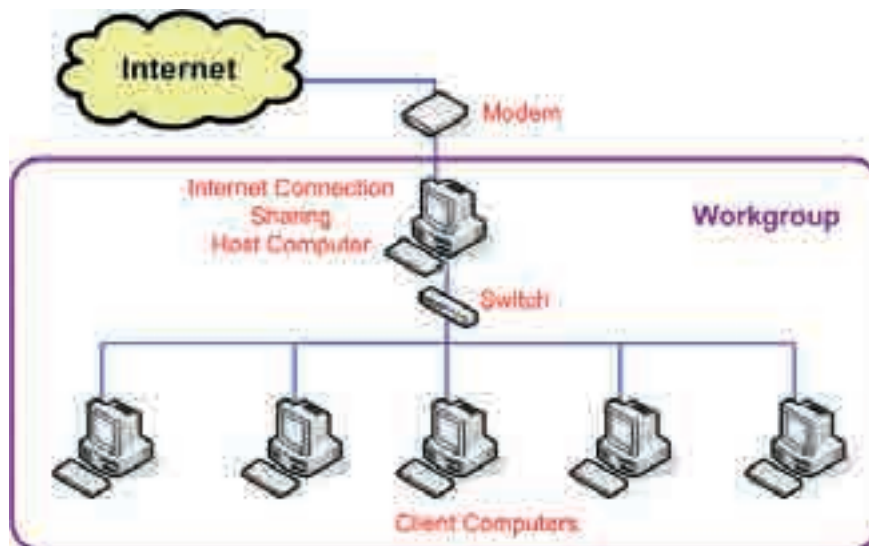
Research

- What type of network (workgroup or client/server) have you got in your school?
- How many computers have you got in your school computer network?

SETTING UP A NETWORK

Setting up a network is a two-part process:

1. Network Hardware Installation

2. Setting Up the Computers

Physically Setting Up Network

Install and configure the appropriate hardware (Such as Network cards, Hubs, Network Cables, Modem) on each computer. Some hardware might require additional configuration to get connected to the Internet.

> **ICS host computer** is a computer which is connected to the Internet Service Provider and distributes the Internet to other computers in the workgroup. ICS host computer has the role of gateway.

Setting Up Computers

After the network hardware installation and configuration, run the Network Setup Wizard.

Step 1: Run the wizard on the **Internet Connection Sharing (ICS)** host computer first,

Step 2: And then run the wizard on the rest of the computers. (These are called the client computers.)

After you answer some basic questions, the wizard configures the computers to operate correctly on the network, and enables the Internet Sharing and File and Printer Sharing.

The Wizard Guides You Through the Following Steps

- Configuring your network adapters.
- Configuring all of your computers to share one Internet connection.
- Naming each computer.
- Automatically sharing the Shared Files folder with the computers on the network.
- Automatically sharing printers that are connected to computers on the network.
- Installing a firewall.
- Installing network bridging components.
- Installing Internet Connection Sharing Discovery and Control components.

Running the Network Setup Wizard on the Host

Step 1: Click Start, and then click Control Panel.

Step 2: Double-click Network Setup Wizard. or click Start and then click Control Panel. Click Network and Internet Connections.

Step 3: Click Set up or change your home or small office network. Follow the instructions that appear on the screen. Designate this computer (the host) as the one sharing its Internet connection.

Step 4: The wizard offers several different Network connection methods; choose the best structure according to the network hardware. If you click View an Example you can see a related network structure diagram.

Step 5: Next steps ask to enter Computer Name and Workgroup name. You can also enable the File and printer sharing in the following step.
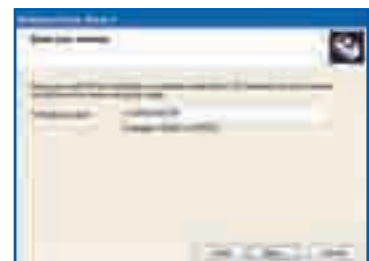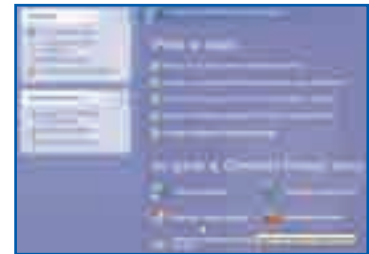
Step 6: After running the wizard on your Internet Connection Sharing (ICS) host computer, run it on the client computers by performing the following steps:

Running the Network Setup Wizard on the Clients

There are two main ways to run Network setup wizard on the client computers:

1. With Windows XP installation CD-ROM

Step 1: Insert the Windows XP CD-ROM.

Step 2: Click Perform Additional Tasks.

Step 3: Click Setup home or small office networking.

2. With Network Setup Wizard Floppy Disk or USB Flash Memory

If you do not have a Windows XP CD-ROM, you can copy Network Setup Wizard onto a floppy disk of Flash Memory while running the wizard on the Internet Connection Sharing (ICS) host computer. Then use the floppy disk to run the wizard on the client computers.

The floppy disk is created when you run Network Setup Wizard on the ISC host computer. The wizard tests to make sure everything on your network are functioning correctly. When it is done, you are ready to enjoy your home network!

Wireless Network Setup Wizard

You can use the Wireless Network Setup Wizard to set up a wireless network. You must first install the appropriate hardware on each computer or device (for example, install a wireless network adapter on any computer or device that does not have one). Then you can run the Wireless Network Setup Wizard and follow the instructions.


A Wireless Network Card
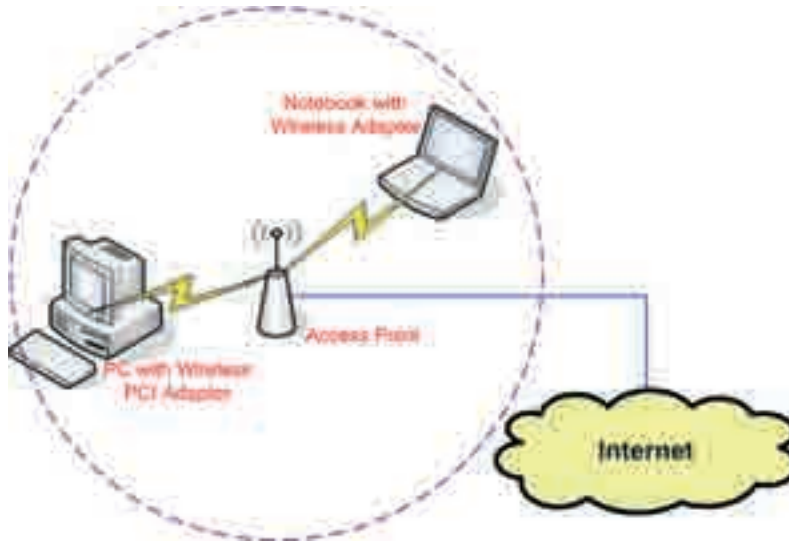
PROTECT YOUR NETWORK

When you create a home network connected to the Internet, you increase the vulnerability of your computers to unauthorized access, including viruses. To protect your network, you need to create a type of barrier called a firewall. Windows XP comes with a firewall that you create when setting up a home network.

How Does a Firewall Work?

Like an actual firewall built to prevent fire from spreading between adjoining buildings, computer firewalls prevent the spread of unauthorized communication between an individual computer or group of networked computers and the Internet. One of the most effective ways to protect a home network-and the least expensive-is to create a firewall on the Internet Connection Sharing (ICS) host computer, and to make sure that computer is the only one on the network with a direct connection to the Internet.
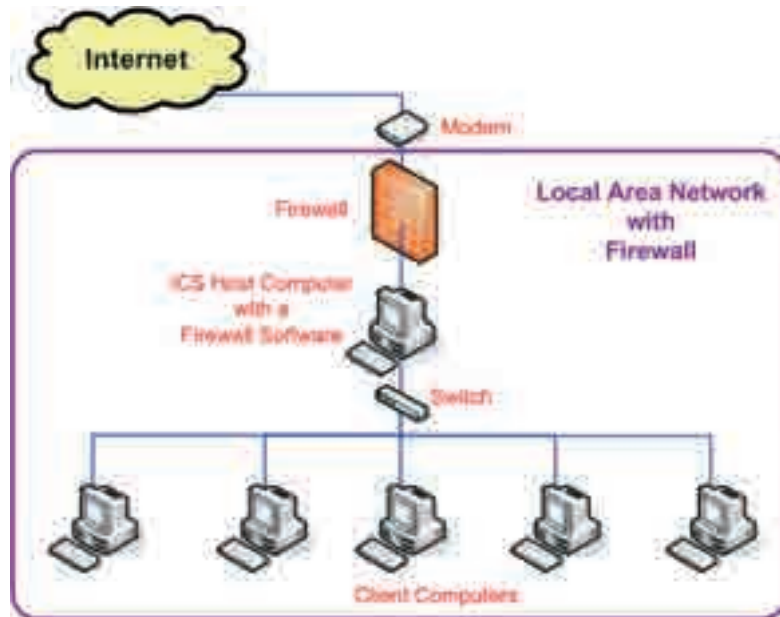
Spyware refers to software that performs certain tasks on your computer, typically without your consent. This may include giving you advertising or collecting personal information about you.

Not only the firewall but also some other security programs are necessary to install all networked computers. Such as, Antivirus programs, **advertisement removers**, **spywares**.

SUMMARY

You need to have certain equipment to connect to the Internet and access the World Wide Web;

- **a computer** (running an up-to-date operating system)
- **a modem and access to a telephone line or a local area network** (LAN) that is connected to the Internet
- and a **connection software** that will allow you to establish an account with a service provider and access the Internet.

Dial-up connection is adequate for individual users or for small companies. **ADSL**, **cable Internet**, **T1 and T3 connections** provide a high speed Internet and full time connection to the Internet. Each connection type costs an establishing expence and monthly fee that may vary depending on your bandwidth and data transfer.

The Internet have become a crucial element in how we communicate, educate ourselves, and most importantly, how we do business. Use a **firewall** to protect your computer or network from unauthorized access and potentially dangerous materials from the outside.
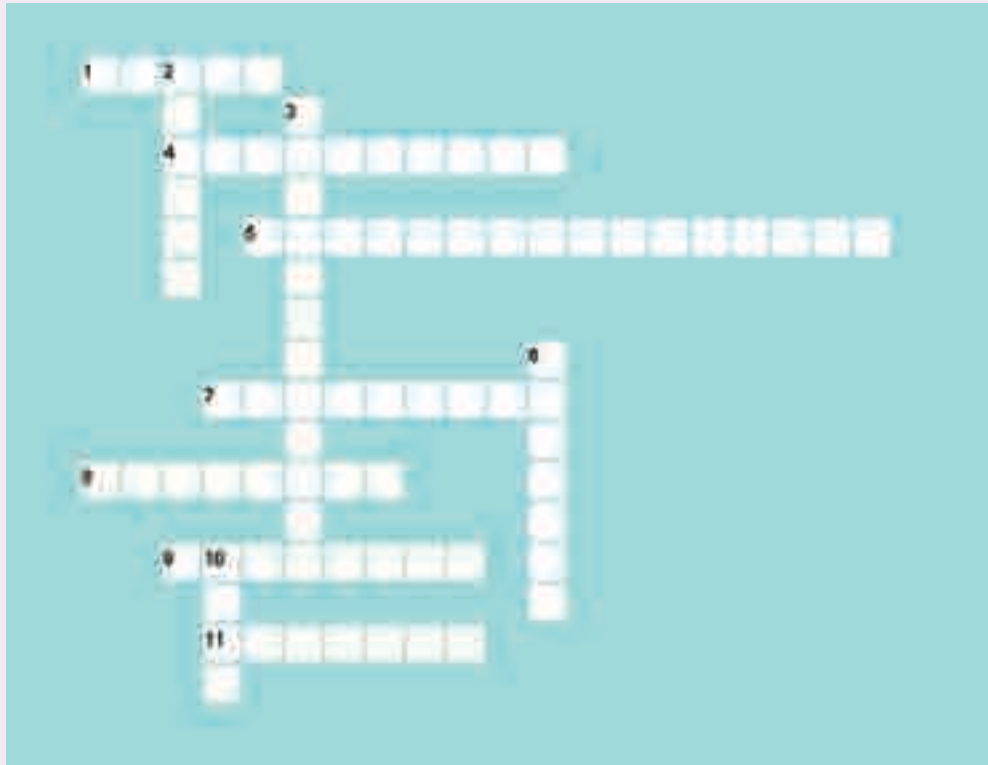
Across

1. A communications device that converts one form of a signal to another.

4. A component of Web browser where you type the URL.

5. Microsoft's Web browser.

7. A kind of computer network for communication among two or more computers.

8. The main page of a Web site.

9. Communication system that allows transmission of information without a physical connection

11. Method of representing information using "1" and "0" numbers.

Down

2. The technology that permits a user to connect his personal computer to an online host by means of modems and ordinary voice telephone lines.

3. The speed at which data can be transferred from one device to another.

6. Software that sends information about your Web surfing habits to its Web site.

10. An information transfer standard for transmitting digital voice and data over telephone lines at speeds up to 128Kbps.

1. A company that provides access to the Internet for others via some connectivity services.
   a. Gateway
   b. Backbone
   c. Firewall
   d. Internet Service Provider

2. A major cable (High speed connection line) that carries the Internet traffic.
   a. Gateway
   b. Backbone
   c. ISP
   d. Communication Channel

3. A combination of hardware and software that links two different types of networks. A kind of translator between two dissimilar protocols.
   a. Gateway
   b. TCP/IP
   c. Modem
   d. Web Browser

4. A measurement of transmission speed of a network
   a. Bit Per Second
   b. Bandwidth
   c. FTP
   d. TCP/IP

5. Which one is wrong for modems and modem connection?
   a. Modem device converts any signals into audio signals.
   b. The conversion data into signals process is called modulation.
   c. Audio signals can be transmitted over a normal phone line.
   d. A modem converts the audio signals back into the computer data, process is called demodulation.

6. Which one is the fastest connection among them?
   a. ADSL
   b. T1
   c. Cable Modem
   d. ISDN

7. Which is not advantages of the home or small office networking?
   a. You can share one Internet connection and printers with all of the computers on the network.
   b. You can use one computer secure your entire network and protect your Internet connections.
   c. Files and folders can be stored on any computer on the network
   d. You can repair hardware problems on the network.

8. After you have made the physical connection, what else do you need to make a dial-up connection to your ISP?
   I. user name
   II. password
   III. ISP phone number
   IV. ISP Web address
   a. I, II
   b. I, II, III
   c. I, II, III, IV
   d. I, II, IV

9. What is wrong for a workgroup?
   a. All the computers have the same priority
   b. There is no server
   c. Suitable for small networks
   d. The Internet sharing is not possible

10. It is a hardware or software solution to protect the network from unauthorized access from the outside.
    a. Firewall
    b. Gateway
    c. ICS
    d. Host

CHAPTER 3

BROWSER BASICS

INTERNET

INTRODUCTION TO WEB BROWSERS

The World Wide Web (or WWW, or just the Web) is a system that uses the Internet to link vast quantities of information all over the world. To start using the World Wide Web, all you need is an Internet connection and a Web browser, such as **Internet Explorer**, **Netscape Navigator**, **Opera**, **Firefox**, or **Maxthon**. A Web browser displays, as individual pages on your computer screen, the various types of information found on the Web and lets you follow the connections **hypertext** links - built into Web pages.

> **Hypertext** is a type of electronic document that contains pointers or links to other documents.

MSN Explorer

Opera
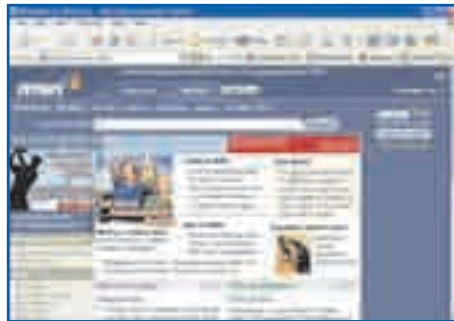
Internet Explorer

Firefox

With Internet Explorer and an Internet connection, you can search for and view information on the World Wide Web. You can type the address of the Web page you want to visit into the address bar, or click an address from your list of Favorites. The Browser also lets you search the Internet for people, businesses, and information about subjects that interest you.
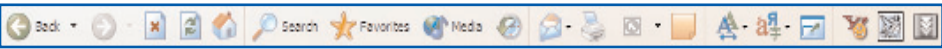
This chapter explains how to find your way through the millions of Web pages that are on the Internet.

INTERNET EXPLORER

Microsoft's version of a Web browser is called the **Microsoft Internet Explorer**. It has the advantage of being tightly integrated into Windows operating systems and Microsoft Office.
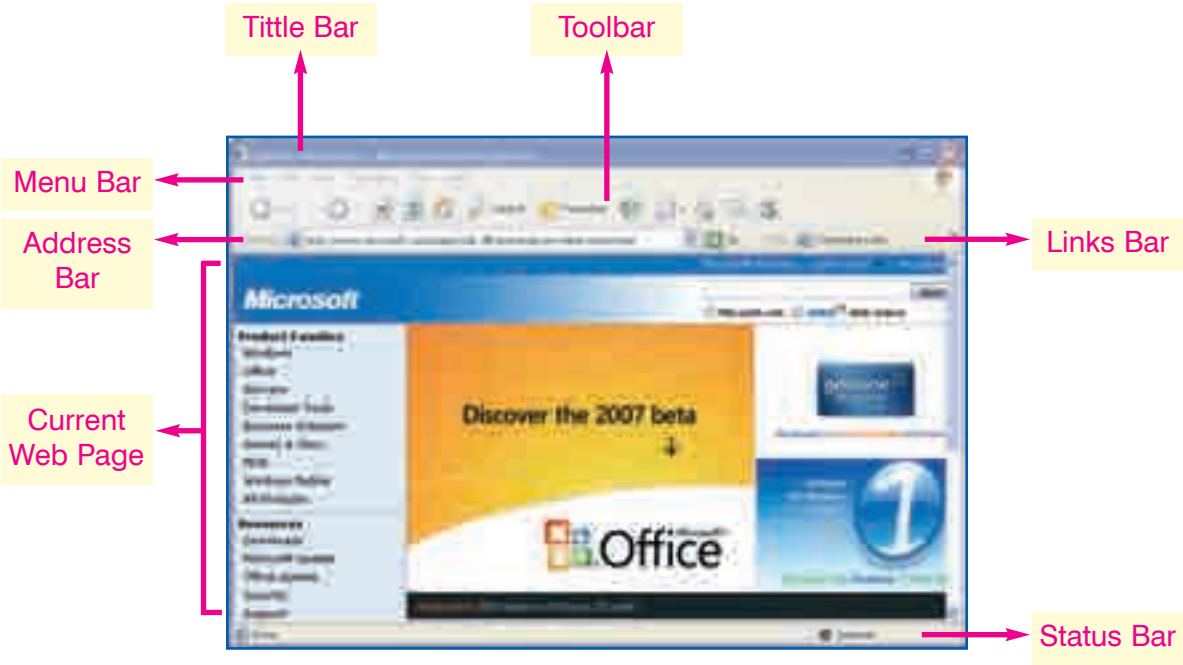

TOOLBAR

Internet Explorer Standard Toolbar

Back	The **Back** icon will re-display the previous page that you visited.
Forward	The **Forward** icon will display the next page (assuming that you have first moved back a page).
Stop	The **Stop** icon will halt the downloading of information. (This button is useful when you visit a slow loading site and you wish to cancel the loading of that page.)

Refresh	The **Refresh** icon reloads the information from the Web site that you are visiting.
Home	The **Home** icon will take you to your default starting page. This page can be set up to be any page on any Web site. If your organization has it's own Web site then you may wish the Home Page to be the starting page of your own Web site.
Search	The **Search** icon allows you to search the Internet for sites containing information that is of interest to you.
Favorites	The **Favorites** list icon is basically a series of bookmarks that allows you to store pointers to your favorite Web sites, so that you can easily re-visit the Web site of interest.
History	The **History** icon allows you to access recently visited Web sites.
Mail	The **Mail** icon allows you access to your e-mail and newsgroup programs.
Print	The **Print** icon allows you to print a Web page that is displayed on your screen.
Edit	The **Source** icon allows you to see how any Web page was coded by using a html editor or text editor. You can choose the editor by clicking on the arrow.
Discuss	The **Discussion** icon allows you to access Internet Discussion Groups.
	Full Screen icon allows you to surf on the Internet in full screen window. If you click to this icon second time, previous screen size will be restored.
	Text Size icon allows you to change the Web page text size. Changes effect only your Internet Explorer view.
	The **Encoding** icon, most Web pages contain information that tells the browser what language encoding (the language and character set) to use (English, Russian, Turkish, Chinese). If the page does not include that information, and you have the Language Encoding Auto-Select feature on, Internet Explorer can usually determine the appropriate language encoding. If it can not choose correct language Encoding icon allows you to select true language.

LINKS BAR
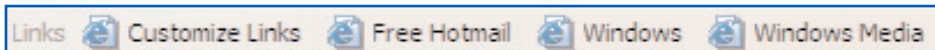
Internet Explorer Standard Links Bar

The Links Bar is a convenient place to add links to a few Web pages that you use frequently. Just click the link to display the page.

Adding the Links to the Links Bar

● Drag the icon from your Address Bar to your Links Bar.

● Drag a link from a Web page to your Links Bar.

● Drag a link to the Links folder from your Favorites list.

Remove the Links From the Links Bar

If you want to remove a link from the Links bar, click Organize Favorites on the Favorites menu, double-click the Links folder, and then delete the link.

If the Links Bar Does Not Appear

Step 1: Open the View menu,

Step 2: Select Toolbars,

Step 3: Click Links.

ADDRESS BAR

Internet Explorer Standard Address Bar

Address Bar has a textbox where you can write the **Web site** address (**URL**). When you are viewing a Web page, address of the page appears in the Address bar in the Internet Explorer.

Entering a Web Site Address

If you want to connect to a Web site address by using Internet Explorer,

Step 1: Type the address of a Web page (URL) in the Address Bar.

Step 2: Click Go button or press the Enter key on your keyboard.

Web site is a collection of Web pages devoted to a single subject or organization.

Webmaster is the person in charge of a Web site.

Surfing is the art and vice of bouncing from Web page to Web page in search of whatever.

Uniform Resource Locator (URL) is the standard format used for hypertext links on the Internet, such as http://www.microsoft.com .

URL (Universal Resource Locator)

All Web pages have an address. URLs are the addresses that you use to access pages of information on the WWW. To be able to see a particular Web page; you have to be able to find it among the many millions of others spread around the Internet. This is done using a Uniform Resource Locator (always abbreviated as URL). As the name suggests, a URL is a standard way of describing the location of a particular resource (like a Web page)

The trouble is that you have to know the address of the Web site, in much the same way as if you want to phone someone you have to know his or her phone number.

The Structure of an URL

The structure of the URL is very precise. Here is an example of an address:

http://www.microsoft.com/windowsxp/64bit/logon.html

The first time you see a URL, it looks very confusing, but in fact it is built up very logically. It contains the abbreviation http followed by the name of the computer containing the Web page, and then the name and location of the page.

THE STRUCTURE OF THE URL	
http://	This is the name of the protocol used to send the information between the server and your computer. Ordinary Web pages are sent using HyperText Transport Protocol, so most URLs start with the abbreviation http. The name of the protocol is always followed by a colon and two slashes (//).
www.microsoft.com	The address of a Web server. In this case, the address of the computer is www.microsoft.com.
/windowsxp/64bit/	The position of the Web page's folder (directory) on the server. Names of folders are separated by slashes .
login.html	The file name of the Web page. The .html extension shows that it is just an ordinary Web page. Most Web pages have either a .html or .htm. extension. This stands for **Hyper Text Mark-up Language** and shows that the file is in that format. There is a difference between large and small letters, so login.html is not the same file as Login.HTML.

Hyper Text Markup Language (HTML) is the coding syntax used to write WWW documents, which are read by browsers.

PROTOCOLS USING IN URL	
http://	Hypertext Transfer Protocol - server is supporting the Web protocol.
https://	Secure WEB page - server is supporting the Web protocol - but it is secure.
ftp://	File Transfer Protocol - server is set up to send and receive files.
news:	News Server - used to access a usenet newsgroup.
mailto:	Mail Server - access to e-mail server.
telnet://	Telnet - access to a terminal emulation session.

Country Codes

The last part of an address is usually a country code, showing in which country the computer is. Here are some of the most common country codes:

SOME COUNTRY CODES							
at	Austria	de	Germany	jp	Japan	ru	Russia
au	Australia	dk	Denmark	kr	Korea	se	Sweden
ca	Canada	fi	Finland	no	Norway	tr	Turkiye
ch	Switzerland	fr	France	nz	New Zealand	uk	Great Britain

You might imagine that the country code for the USA was us. And in some cases it is, but in general another system is used in the USA. As the Internet was invented in the USA. they use a number of three letter extensions showing what type of organization each computer belongs to.

These extensions are not limited to the USA, but can be used by anyone who can afford to pay for them.

So these addresses can actually be anywhere in the world, even though the majority of them are American. There is also the extension **int** specifying an international organization.

THE MOST USED DOMAIN TYPES	
com	Commercial companies
edu	Educational institutions, like universities
gov	The government
mil	The military
org	Non-profit organizations
net	Non-profit organizations
eu	European Union. Available for registered offices within the European Community
int	International organizations
biz	For business or commercial use.

The information used for **suggested matches** is stored on your computer and is encrypted to protect your privacy.

The AutoComplete Feature

The AutoComplete feature saves previous entries you've made for Web addresses, forms, and passwords. Then, when you type information in one of these fields, AutoComplete suggests possible matches. These matches can include folder and program names you type into the Address bar, and search queries, stock quotes, or information for just about any other field you fill in on a Web page.

Using the AutComplete Feature

Step 1: In the Address Bar, a field on a Web page, or a box for a user name or password, start typing the information.

Step 2: If you've typed a similar entry before, AutoComplete lists possible matches as you type.

Step 3: If a suggestion in the list matches what you want to enter in that field, click the suggestion.

Step 4: If no suggestion matches what you are typing, continue typing.
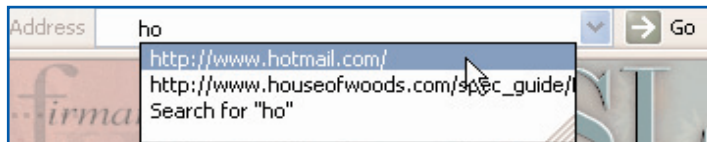
Internet Explorer AutoComplete

Deleting Autocomplete Entries From the Address Bar List

To delete entries from the Address bar, you must clear your History folder. You cannot clear individual entries from the list of saved entries.

Step 1: On the Tools menu in Internet Explorer, click Internet Options.

Step 2: Click the General tab.

Step 3: Under History, click Clear History.

Step 4: Click OK.

Internet Explorer, Internet Options Dialog Box, General Tab

Picture Hyperlink   Text Hyperlink

3D Chess Game

Using Hyperlinks

A hyperlink is simply a part of the text (or graphic) on a Web page, that when clicked on will automatically:

- Take you to a different part of the same page
- Take you to a different page within the Web site
- Take you to a page in a different Web site
- Enable you to download a file
- Lunch an application, video or sound
- Enable you to send an e-mail.

The words that are underlined indicate a hyper link. By default these text links are normally displayed in blue.

A link can be a picture, a 3-D image, or colored text (usually underlined).You can see whether an item on a page is a link by moving the mouse pointer over the item. If the pointer changes to a hand, the item is a link.

Responding to an E-mail Link on a Web Page

Many Web site pages will have text (or a graphic) asking you to Click here to contact. When you click on these links, you will see a small box displayed within your browser where you enter a message, and send that message via e-mail to the organization running the Web site. This has the advantage that you do not need to know the email address of the organization, as it is already coded into the Web site page for you.
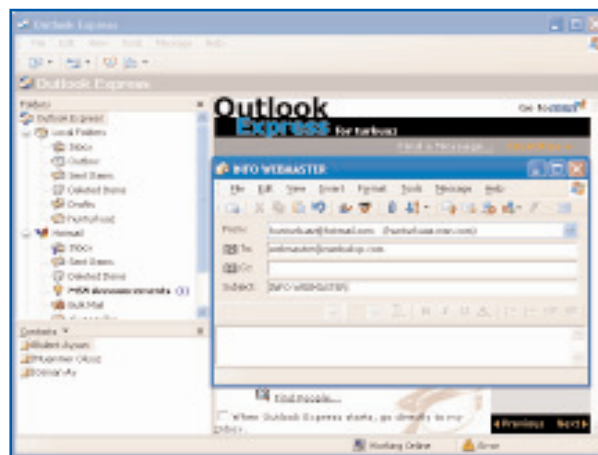
E-mail Message Window

OTHER COMPONENTS OF THE IE

Status Bar

Status bar shows status of the Internet Explorer when you are using it.

Tip of the Day

You can read tips about The Internet Explorer each time when you start The Internet Explorer. Next tip link lets you to read other tips. If you want to use it, click Tips of the day from Help menu.

The On-line Web Tutorial: Click on the Help drop down menu and then click on the Online Support command.
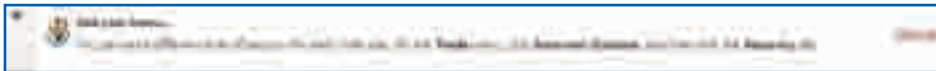
Extra Toolbars

Some of the Internet related programs icons, toolbars or links can be installed to the Internet Explorer as a component. For example; FTP program FlashGet, antivirus program's toolbars, MSN, Yahoo! and Google toolbars can be used with Internet Explorer toolbars.
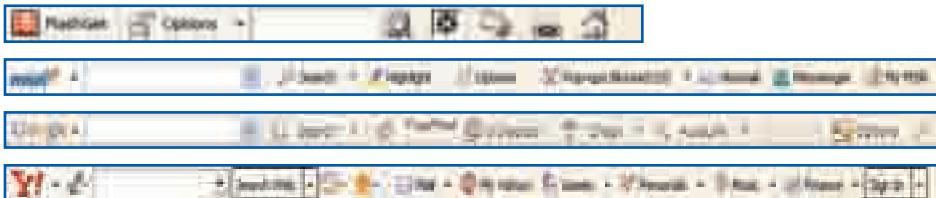
Favorites (Bookmarks)

You have finally found a Web page about your project, and you want to return back to it later. What should you do? Well, you do not have to write down the Web address on a Post-It note and stick on your monitor. Instead you can simply add the Web page to the favorites feature of the Internet Explorer so you can quickly return back to any Web page in the list.

To Go to a Web Site in Your Favorites List

Step 1: Select Favorites from the Internet Explorer menu bar
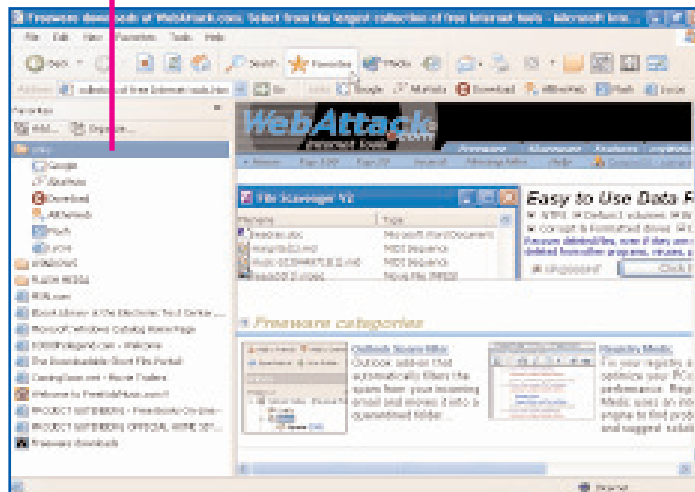
Step 2: Click the Web site you want to visit
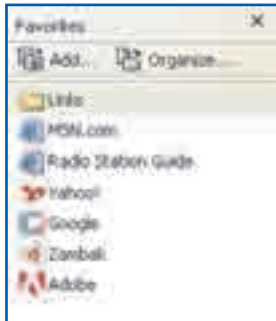
or

Step 1: Click the Favorites button [★ Favorites] on the Standard toolbar.

Step 2: Favorites panel opens.

Step 3: Click the Web site you want to visit. If your favorite Web page is in a folder, just click the folder and then the favorite Web site. The Web page you clicked appears in the right panel of Internet Explorer.

Favorites Panel

Favorites
Panel

Internet Explorer with Favorites Panel

To Add a Web Site to Your Favorites List

When you wish to add the current page to your favorites,

Step 1: Select Add to Favorites from the Favorites menu.

Step 2: The Add Favorites dialog box appears. The name of the Web page appears in the name box. If you want, you can replace default name of the Web page. with one that is more meaningful to you. Clicking the Create button lets you add shortcuts to a folder.

Step 3: Click OK to add the Web page.

A shortcut to the Web page is added to your list of favorites
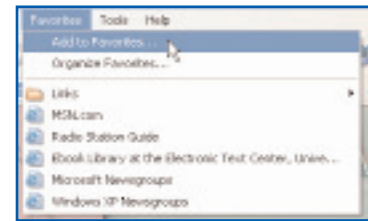
Favorites Menu
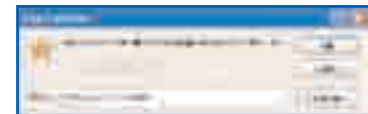
Add Favorites Dialog Box

Organizing Favorites

If you have added a lot of Web pages to your list of favorites, it can be difficult to find a specific Web page out of all those entries. You can organize your favorites list by creating subfolders to keep related Web pages together.

Step 1: Select Favorites > Organize Favorites from the menu.

Step 2: The Organize Favorites dialog box appears.

Step 3: You can organize your favorites using the same Windows file management techniques you already know. The Organize Favorite dialog box even provides you with several handy buttons to move, rename, and delete shortcuts and Create and move folder.

Organize Favorites Dialog Box

Using Web Files Offline

At times, you might want to view Internet sites without being connected to the Internet. The Browsers provide an easy way to do this. You can save files, folders, Web pages-even entire Web sites-for offline use. If you use the Make Available Offline menu command, Windows copies the files and folders you specify to your hard disk while you are connected to the Internet. You can then view or work with the files and folders when you are not connected to the Internet.

To make a Web page available offline, you need to add it to your Favorites list in Internet Explorer.

In this exercise, you make a Web page available for offline use.

Step 1: Click in the Address box.

Step 2: Type http://www.google.com and then press Enter. The home page of Google Search Engine appears.

Step 3: On the menu bar, click Favorites, and click Add To Favorites. The Add Favorite dialog box appears

Step 4: In the Add Favorite dialog box, select the Make Available Offline check box,

Step 5: Click OK. The Synchronizing dialog box appears briefly while the page is copied to your hard disk.

Step 6: On the menu bar, click File, and then click Work Offline. A small icon appears on the Status bar to indicate that you are working off line.

> If you no longer need a Web page while you are offline, start Internet Explorer, click Favorites on the menu bar, and then click Organize Favorites. Click the page in the Favorites list, and clear the Make Available Offline check box.

Google Search Engine

Add Favorite Dialog Box

Using the Synchronization Manager

The Synchronization Manager replaces the offline pages with their online Web versions.

Step 1: On the Internet Explorer menu bar, click Tools, and then click Synchronize.The Items To Synchronize window appears. Each item in the list has a check box to its left. If an item is selected, the Synchronization Manager synchronizes it when you click the Synchronize button.

Synchronize Manager

Step 2: Select and clear check boxes as necessary until only the pages you want to synchronize are selected.

Step 3: Click the Synchronize button. The Synchronizing window appears while the Synchronization Manager makes files available for offline use. This might take several minutes.Then the Synchronization dialog box appears briefly.

Synchronization Process

Displaying History of Visited Web Pages

Internet Explorer keeps track of the Web pages you have visited during the past 20 days. You can use Internet Explorer's history feature to return easily to any of these sites.

Step 1: Click the History button on the Toolbar to display a list of the Web pages you have recently visited.

Step 2: Click the day or week you visited the Web page that you want to view again.

Step 3: Click the Web site you want to revisit. The Web site's individual Web pages appear, each with a (Web page) symbol beside them.

Step 4: Click the Web page you want to view. The Web page appears.

Step 5: Click the History button on the Toolbar when you have finished working with your history of recently view Web pages. The History panel disappears.
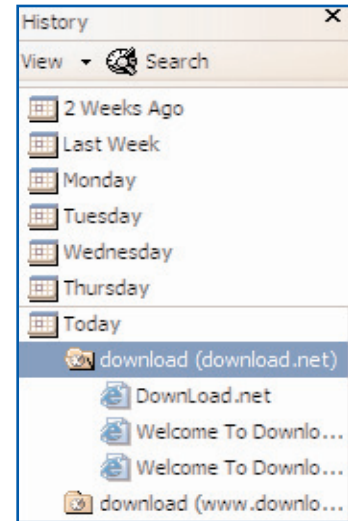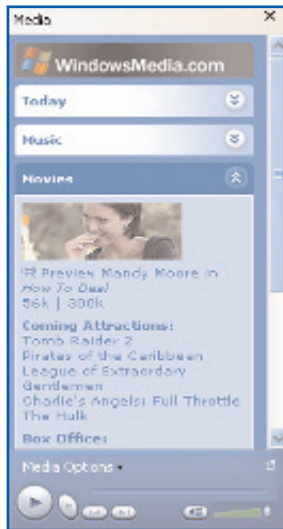

History Panel

Select the day or week when you last viewed the Web page

Select the Web site then the specific Web page

Internet Explorer History Panel

Media Bar

Using The Media Bar

The Media bar in Internet Explorer makes it easy for you to play music, video, or multimedia files. You can use the Media bar to listen to your favorite Internet radio station while you use your computer.

To Display the Media Bar

Step 1: Click the Media button on the Standard toolbar. This opens the Media bar (Media panel).

Step 2: Select the media you want to play.

To Play an Audio or Video File

On the Media bar, click the audio or video link that you want to play.

To Play a Radio Station

Step 1: On the Media options menu in the Media bar, click Radio Guide. Select the radio station that you want to listen to, and then,

Step 2: Click Play.

To Change Media Bar Settings

Step 1: Click Media Options, select Settings, and then check or clear the settings you want to turn on or off.

Step 2: Click OK.
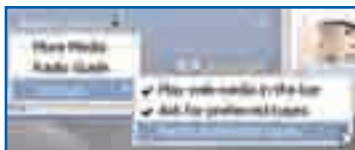
Media Bar Options

● **Play Web media in the bar:** Automatically play digital media files opened from Internet Explorer in the Media Bar instead of the default player.

● **Ask for preferred types:** Be prompted when you try to open a media file from the Web by being asked if you want to open that file in the Media bar. When you open a file in the Media bar, the file type for the file is saved.

If the Remember my preference check box is selected, when you open a file with that file type again, it will be opened in the Media bar.

Reset preferred types clears the list of file types that automatically open in the Media bar.

Media Bar While Playing Media

HTML Tags are the markup characters that indicate the start or end of an element - but not the element content itself.

Viewing the Code Behind a Web Page

What is HTML?

HTML (Hyper Text Mark-up Language - programming language) is the code that makes the WWW page work. When you view a Web page your browser program understands these HTML tags and will format the pages accordingly. What you see on the screen within your Web browser is a result of your browser interpreting a text file formatted using HTML mark-up tags.

Internet Explorer Edit Button

To View the HTML Code That Describes a Web Page

Internet Explorer has a button to edit the Web pages. This button allows you to see how any Web page was coded by using an html editor or text editor. You can choose the editor by clicking the arrow near the button.
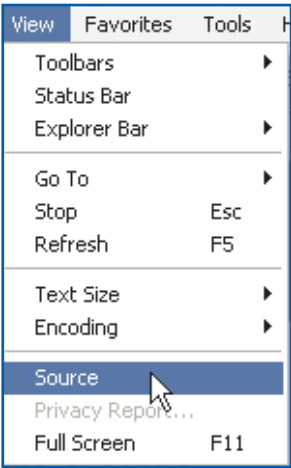
There is another way to see the HTML codes of the Web pages;

Step 1: Connect to the Web page, which you want to see the source codes.
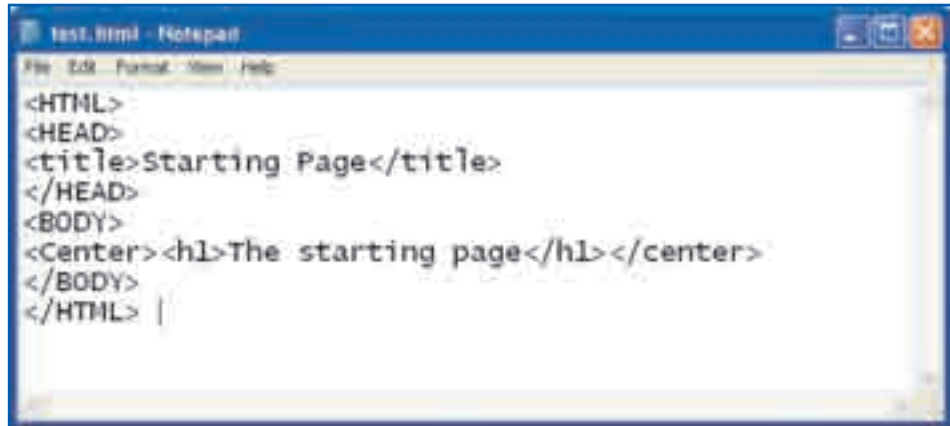
Step 2: Click the Source from the View menu.

Source Command

Step 3: The Notepad program automatically shows the source codes of the page.


```
test.html - Notepad
File  Edit  Format  View  Help
<HTML>
<HEAD>
<title>Starting Page</title>
</HEAD>
<BODY>
<Center><h1>The starting page</h1></center>
</BODY>
</HTML> |
```

A Fragment of HTML Code

INTERNET EXPLORER OPTIONS

You can change your Internet Explorer settings using Internet Options window. You can specify your default home page (the first Web page you see when you start the browser), delete temporary Internet files stored on your computer, use Content Advisor to block access to objectionable material, and specify how colors and fonts are displayed on Web pages. You can also set your security level , modify cookie and specify which programs to use for e-mail and reading Internet newsgroups.

To access Internet Options dialog box:

Step 1: From the Internet Explorer main menu, select Tools,

Step 2: Select Internet Options.
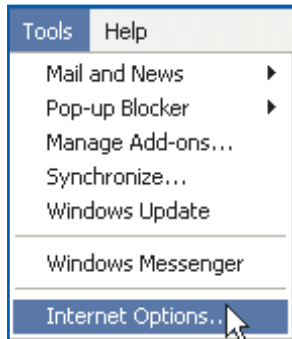
Internet Options Command

General Tab

To Set a Home Page

● To use the currently displayed page as your starting page, click the Use Current button.

● To use the default Microsoft starting page (www.msn.com), click Use Default.

● To start the program with a blank page, click Use Blank.

● To use another starting page, enter the full URL into the Address box.

To Delete Temporary Internet Files

Click the Delete Files button. You can find your temporary Internet files in the directory C:\Documents and Settings\Zambak\Local Settings\Temporary Internet Files where Zambak is a Windows XP user name.

To Delete the Contents of the History Folder

Click the Clear History button.

To Set How Many Days Files Will be Kept in the History Folder

Enter a value into the Days to keep pages in history box.

Internet Explorer Options, General Tab

Security Tab

The options within the Security tab of the Internet Options dialog box allow you to control the level of exposure to pages on the Web that may potentially compromise your security.

This really relates to sites with active content and you can choose between not allowing any active content to download, through to being warned about active content, right to low security in which case you will see no warnings at all. At least some level of security is advisable!

Internet Explorer Options, Security Tabs

Understanding Cookies

A cookie is a piece of text that a **Web server** can store on a user's harddisk. Cookies allow a Web site to store information on the machine of a user and later retrieve it.

For example, a Web site might generate a unique ID number for each visitor and store the ID number on the machine of each user using a cookie file.

You can see all of the cookies that are stored on your machine. The most common place for them to reside is in a directory called **c:\windows\cookies.**

Looking Inside the Cookies

Cookies are simple, normal text files. You can open each file by clicking on it. For example, You have visited www.goto.com, and the site has placed a cookie on your machine. The cookie file for www.goto.com contains the following information:

UserID   A9A3BECE0563982D   www.goto.com

www.goto.com has stored on your machine a single name-value pair. The name of the pair is UserID, and the value is A9A3BECE0563982D. The first time you visited www.goto.com, the site assigned you a unique ID value and stored it on your machine. (Note that there probably are several other values stored in the file after the three shown above. That is housekeeping information for the browser.)

www.amazon.com stores a bit more information on machine. When you look at the cookie file Amazon has created on machine, it contains the following:

> **session-id-time 954242000 amazon.com**/
>
> **session-id 002-4135256-7625846 amazon.com**/
>
> **x-main eKQIfwnxuF7qtmX52x6VWAXh@Ih6Uo5H amazon.com**/
>
> **ubid-main 077-9263437-9645324 amazon.com**/

It appears that Amazon stores a main user ID, an ID for each session, and the time the session started on machine (as well as an x-main value, which could be anything).

A **name-value pair** is simply a named piece of data. It is not a program, and it cannot "do" anything. A Web site can retrieve only the information that it has placed on your machine. It cannot retrieve information from

other cookie files, nor any other information from your machine.

Privacy Tab

On the Privacy tab, move the slider up for a higher level of privacy or down for a lower level of privacy.

- **Block all cookies:** Cookies from all Web sites will be blocked. Existing cookies on your computer cannot be read by Web sites

- **High:** Cookies from all Web sites that do not have a permission will be blocked. Cookies from all Web sites that use your personally information without your permission will be blocked.

- **Medium High:** Cookies from third-party Web sites that do not have a compact policy will be blocked. Cookies from third-party Web sites that use your personally identifiable information without your permission will be blocked. Cookies

Internet Explorer Options, Privacy Tab

from first-party Web sites that use your personally identifiable information without your permission will be blocked

- **Medium:** Cookies from third-party Web sites that do not have a compact policy will be blocked. Cookies from third-party Web sites that use your personally identifiable information without your permission will be blocked. Cookies from first-party Web sites that use your personally identifiable information without your permission will be deleted from your computer when you close Internet Explorer

When you change your privacy settings, the changes might not affect cookies that are already on your computer.

- **Low:** Cookies from third-party Web sites that do not have a compact policy will be blocked. Cookies from third-party Web sites that use your personally identifiable information without your permission will be deleted from your computer when you close Internet Explorer.

Pop-up is a small box that appears over a visited page to deliver information or display an advertisement.

- **Accept all cookies:** All cookies will be saved on your computer. Existing cookies on your computer can be read by the Web sites that created them

Pop-up Blocker is turned on in Internet Explorer only after you install SP2 foWindows XP on your computer.

İnternet Explorer Options, Content Tab

İnternet Explorer Option, Connections Tab

Select the Block pop-ups check box to prevent from appearing the pop-up windows on your screen.

Content Tab

- **Content Advisor:** You can enable ratings of objectional content to control the pages that may be viewed with this browser.

- **Certificates:** This feature allows you to manage the identification certificates you may have. See the Help menus for more information.

- **Personal Information:** This consists of two options. AutoComplete will store entered Web address, information entered into forms, and usernames and passwords needed to access sites you have visited. When you are using your browser, previous entries will come up as choices so that you don't have to retype the information. My Profile offers a template for entering personal

information. If a Web site requests this information, you can give permission for it to be used.

Connections Tab

You can use the New Connection Wizard to set up an Internet connection. If you want to reach Internet connection settings, connection tab is one of another way instead of the control panel.

You can change you connection settings, by clicking on the Setting button.

This will display the Dial up Settings dialog box, if the dial-up connection is selected.

Be sure that you have checked the Disconnect if idle box in the Advanced Dial-Up settings. This can save you from large phone bills if you are using a dial-up account and you have to pay for local call access.
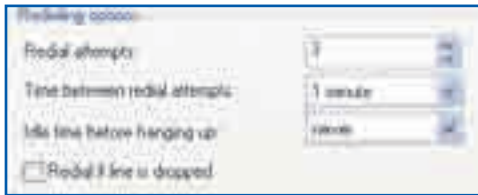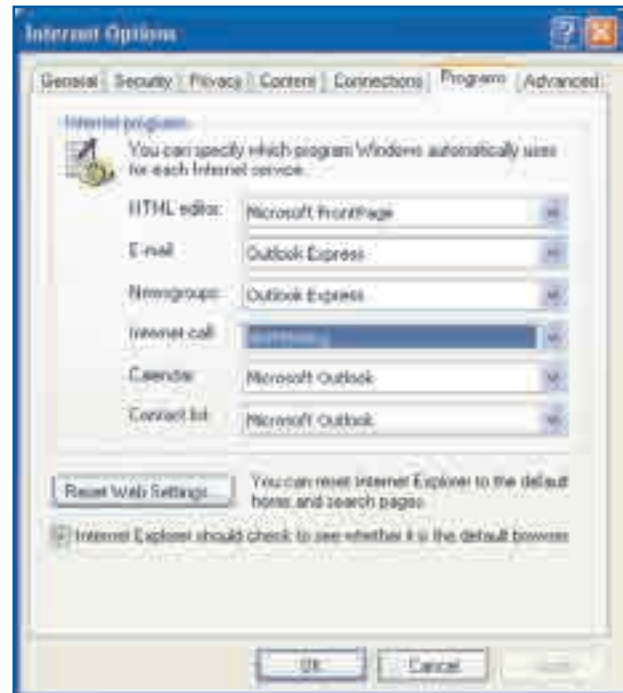
Dial-Up Properties Dialog Box

Advanced Dial-Up Dialog Box

Internet Explorer Option, Programs Tab

If you click on Properties button, you can reach modem properties dialog box where modem properties can be changed.

Programs Tab

You can change the default programs you use for HTML editor, e-mail, newsgroups, your calendar, Internet calls and contact list. Whenever you click a link on a Web page for these programs, Internet Explorer opens the program you specified.

Advanced Tab

There is a lot of detailed customization that can be performed via the Advanced tab of the Internet Options dialog box.

Getting Help About Advanced Tab Options

Internet Explorer Options, Advanced Tab

To get help on exactly what each option does, click on the Help icon (Questions Mark). Once you have clicked on the question mark, click on the tick box of the option that you wish to know more about.

Restoring Internet Explorer Installation Setting

Just click the Restore Defaults button. All Internet Explorer installation settings will be restored automatically.

CLEANING INTERNET ACTIVITY DATA

Windows and other software programs store information about what you have done, what documents you have used, what Web sites you have visited, and various other activities you have performed. Therefore, anyone else can see what you have been doing on your computer, which raises several privacy concerns. Furthermore, much of your activity information takes up valuable disk space, and recovering this space can be very beneficial.

There are Third party programs for cleaning this Internet activity information, cookies and Windows activity information from computer. Such as Window washer.

Window Washer

Window Washer

When Window Washer is installed it attempts to detect all the Standard

Wash Items directory locations, such as the Netscape or Internet Explorer cache directory. Clicking on the Change Wash Directories button on Window Washer's main window will display a listing of all the detected paths to each standard wash item that is to be cleaned.
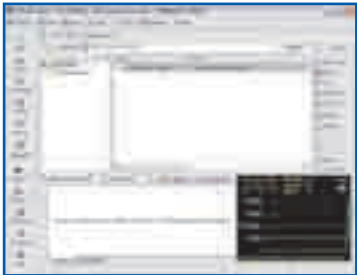
Some of the Standard Internet Explorer Directories

● Internet Explorer Cache C:\Windows\Temporary Internet Files

● Internet Explorer Cookies: C:\Windows\Cookies

● Internet Explorer History C:\Windows\History

OFFLINE BROWSERS

With Offline browsers you will be able to save Web pages and websites. The offline browser can save pages with Flash movies and dynamically loaded images. Offline browser is particularly useful when you want to save many Web pages.

Internet Researcher

With a few clicks of the mouse you will be able to save tens, hundreds, or even thousands of Web pages from your favorite Web sites. Offline browser will let you browse your favorite Web sites and read articles while you are on the road or at any other place where access to the Internet is not available.

You can use Offline browser as your alternative browser. Internet Researcher is an example for Offline browsers. It is not only browser, but also download manager, FTP client and organizer.
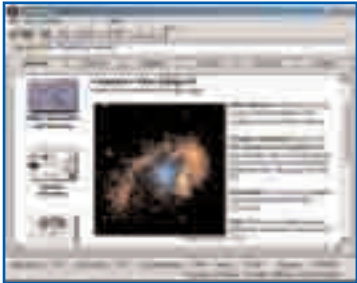
BlackWidow

SOME OFFLINE BROWSERS	
Internet Researcher	http://www.zylox.com
BlackWidow	http://www.softbytelabs.com
Check&Get	http://activeurls.com/en
Teleport Pro	http://www.tenmax.com/teleport/pro/home.htm
WebCopier	http://www.maximumsoft.com

Check&Get Program Window

PLUGINS (ADDS-ONS)

A plugin (or plug-in) is a computer program that interacts with another program (for example a Web browser or an email client) to provide a certain, usually very specific, function. Typical examples are plugins to display specific graphic formats, to play multimedia files, to encrypt/decrypt email, or to filter images in graphic programs.

Plugins allow websites to provide content to you and have it appear in your browser.

> **Encryption** is the process of coding data so that a specific code or key is required to restore the original data, used to make transmissions secure from unauthorized reception.

COMMON PLUGINS FOR WEB BROWSERS	
	Adobe Reader For viewing and printing Adobe Portable Document Format (PDF) files.
	Flash Player Macromedia Flash Player is the universal rich client for delivering effective Macromedia Flash experiences across desktops and devices.
	Quicktime Player QuickTime Player is an easy-to-use application for playing, interacting with or viewing video, audio, VR or graphics files.
	RealPlayer RealPlayer enables your computer to play streaming RealVideo and RealAudio.
	Windows Media Player Windows Media Player lets you play streaming audio, video, animations, and multimedia presentations on the Web.
	Java Runtime Enviroment The Java Runtime Enviroment enables your computer to run applications and applets that use Java technology.
	Shockwave Player Shockwave Player displays Web content that has been created by Macromedia Director.

KEYBOARD SHORTCUTS OF THE INTERNET EXPLORER	
F11	Toggle between full-screen and regular views of the browser window.
TAB	Move forward through the items on a Web page, the Address bar, and the Links bar.
SHIFT+TAB	Move back through the items on a Web page, the Address bar, and the Links bar.
ALT+HOME	Go to your Home page.
ALT+ RIGHT ARROW	Go to the next page.
BACKSPACE	Go to the previous page.
SHIFT+F10	Display a shortcut menu for a link.
CTRL+TAB	Move forward and backward between frames.
UP ARROW	Scroll toward the beginning of a document.
PAGE UP	Scroll toward the beginning of a document in larger increments.
PAGE DOWN	Scroll toward the end of a document in larger increments.
CTRL+F	Find on this page.
F5 or CTRL+R	Refresh the current Web page.
CTRL+A	Select all items on the current Web page.
DOWN ARROW	Scroll toward the end of a document.

MICROSOFT MSN EXPLORER

MSN Explorer is a program that is coming with Windows XP. It is similar to a Web browser, which provides access to **MSN Hotmail**, **Calendar, Messenger**, **Communities**, **Chat** and **Microsoft Passport**, all from one central location. MSN Explorer also offers easy access to other Web sites and search functions.


MSN Explorer

SUMMARY

A **Web browser** is a software application that handles the display of the data that the Internet connection brings to your computer. Internet Explorer is Microsoft's Web browser and comes with the Microsoft Windows operating system and can also be downloaded from Microsoft's Web site. It has been the most widely-used Web browser since 1999.

To load a Web page type the URL of it in the Address bar and press Enter key. **URL** is the address of a resource available on the Internet. **Domain type** is the last three letters of the domain name after the dot in a URL that tells you what kind of organization you are dealing with. Except USA, each country has a two letter **country code** in the URL that indicates where the Web page is been published from.

You can keep a list of your **favorite Web addresses** in your browser for quick access at a later time. In addition to this, you can save Web pages and Web sites to use **offline**.

A **plugin** (add-on) is a small software application that merges with browser software to enable it to play multimedia elements on a Web page. They are free and can be downloaded from the Internet.
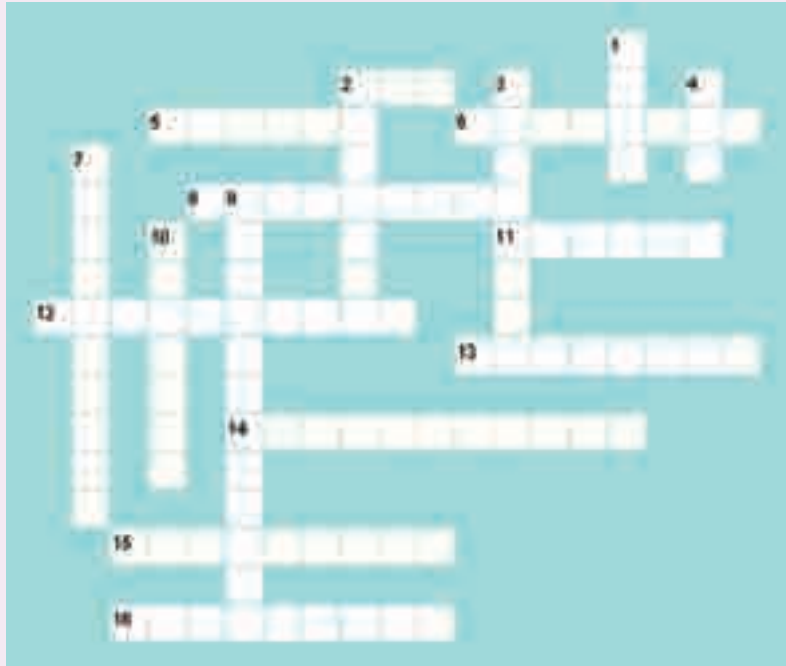
Across

2. Information system using the Internet to access hypertext documents.

5. Information stored on a user's computer by a Web site so preferences are remembered on future requests.

6. A link stored in a Web browser for easy reference.

8. A keyboard key to go to the previously visited Web page in IE.

11. A program that allows a Web browser to display a wider range of content than originally intended.

12. A software that allows a user to access and view HTML documents.

13. Where you can play music, video, or multimedia files easily in IE.

14. A web browser which comes with Windows XP that makes use of MSN features such as Hotmail and MSN Messenger.

15. An electronic connection between one Web page to other Web page.

16. Text with links to other text.

Down

1. A language in which web pages are written.

2. A collection of connected Web pages.

3. The main page of a Web site.

4. An address of an Internet resource.

7. Where you type URLs in a Web browser.

9. A feature of Web browsers that predicts the URLs when user starts to type them

10. An HTML document that is accessible on the Web.

QUESTIONS

1. Which is not an Internet Explorer bar?
   a. Links Bar
   b. Address Bar
   c. Toolbar
   d. History Bar

2. Which explanation is wrong for given toolbar icons?
   a. The book icon will redisplay the previous pages that you visited.
   b. The search icon allows you to search the Internet.
   c. The history icon allows you access to your e-mail and newsgroup programs.
   d. The source icon allows you to see HTML codes of Web pages.

3. You can add a page to the Links bar in a variety of ways. Which one is not one of them?
   a. Drag a link from Link bar to the address bar.
   b. Drag a link from a Web page to your link bar.
   c. Drag a link to the links folder from your favorite list.
   d. Drag on the icon from your address bar to your link bar.

4. All Web pages have an address. URLs are the addresses that you use to access pages of information on the WWW. True or False?
   a. True
   b. False

5. Which one is not a Internet protocol?
   a. https://
   b. ftp://
   c. new://
   d. telnet://

6. The Autocomplete feature saves previous entries. Where can we change auto complete options?

   a. Content tab
   b. Connections tab
   c. Privacy tab
   d. General tab

7. Which is wrong for hyperlinks?
   a. Take you a different page.
   b. Enable you to upload a file.
   c. Take you different part of the some Web page.
   d. Lunch an application, video or sound.

8. Which is wrong about favorites in Internet Explorer?
   a. You can go to the Web site in your favorites list by clicking on.
   b. You can add an URL to favorites list.
   c. If you have a lot of pages to your favorites list you can organize them
   d. If the addresses in the favorites list haven't been used for 20 days, they will be cleaned automatically.

9. You can view or work with _____ pages when you are not connect to the Internet.
   a. Favorite
   b. Offline
   c. Linked
   d. Home

10. Which explanation is wrong?
    a. If you have downloaded a Web page for offline use, you can synchronize with the Web versions in case it has changed by using synchronization manager.
    b. Internet Explorer keeps track of the Web pages you have visited during the past 20 days.
    c. The media bar makes easy to play multi media files.
    d. Internet Explorer can show html codes itself.

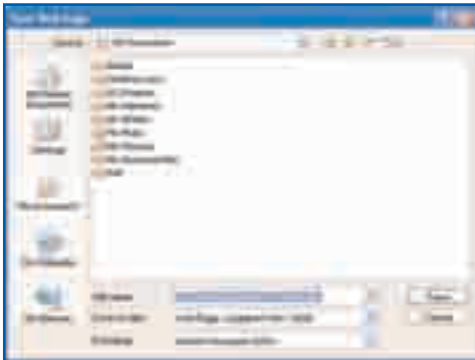# CHAPTER 4
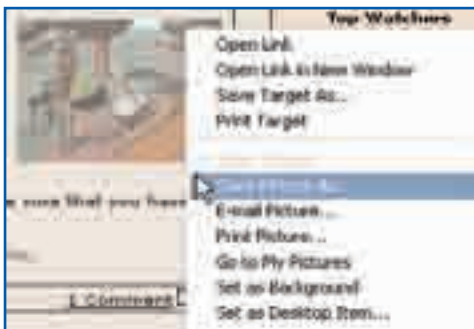
DOWNLOADING
&
SEARCHING

INTERNET

SAVING WEB PAGES, PICTURES AND FILES TO A DISK

Save Web Page Dialog Box

Saving a Web Page

Step 1: Click the File drop down menu.

Step 2: Click the Save command.

Step 3: Save Web Page dialog box will appears.

Step 4: Click the Save button. The Web page will be saved as a file in HTML format.

Saving a Picture From a Web Page

Saving a Picture or an Image

Step 1: Right-click the image you want to save.

Step 2: Select Save Picture As from the shortcut menu. The Save Picture dialog box will open.

Step 3: Navigate to the drive and folder where you want to save the image.

Step 4: Name the image.

Step 5: Click the Save button.

Windows saves the image to the specified drive and folder.

Saving Files

On Internet sites you will see text or graphics telling you Click here to download a file or some similar message. For instance many companies make software or demos available for Internet download in this way (FTP clients and Download Managers).

The procedure for downloading and saving programs and other files from the Internet is almost the same as downloading and saving an image. You can simply click a file you want to download, but doing this will sometimes open the file in Internet Explorer instead of saving it to your computer.

If you wish to **print** the page that you are viewing then in most browsers you would click on the File drop down menu, and click on the Print command.

Step 1: Find the file you want to download.

Step 2: Right-click it and select Save Target As from the shortcut menu.

Step 3: Specify where you want to save the file.

Step 4: Give a different name to the file if you want.

Step 5: Click the Save button.

Save Target As Shortcut Command

Windows will download the file and save it to the drive and folder you specified. It may take several minutes or several hours to download the file, depending on the file's size and how fast your connection to the Internet is. Windows displays a dialog box that shows the progress of the download.

File transferring Process

UNDERSTANDING FTP?

FTP is a fast, efficient, and reliable way to transfer information. It was one of the first Internet services developed to enable users to transfer files from one place to another. This service is designed to enable you to connect your **local machine (client computer)** to a **remote computer (FTP server)** on the Internet, browse through the files and programs that are available on the computer, and then retrieve those files to your computer.

You will see the terms "local" and "remote" a lot in reference to FTP. A **local machine** is your computer. A **remote machine** is simply a server to which you connect via means of a modem or network.

The servers that keep all these files for you are commonly called **FTP sites**. Each site is its own self-contained electronic library containing information, files, and applications on every topic imaginable.

Always remember that you should not download any files from the Internet without having an up-to-date virus checker on your computer.

The difference Between Web Site and FTP Site

The big difference is that a Web site offers a rich mix of text, graphics and media that can be interpreted by your Web browser. FTP sites on the other hand are normally used for storing files that you can download.

Web sites and **FTP sites** are different, but **Web sites** let you to download files by using **FTP**. When you click on a Web page hyperlink that allows you to download a file, you are usually using **FTP** (without realizing it) to transfer the file to your hard disk.

FTP site names generally (but not always) begin with ftp. As you also know, the protocol portion of an FTP URL is **ftp://**.

http://www.FTPplanet.com	ftp://ftp.FTPplanet.com
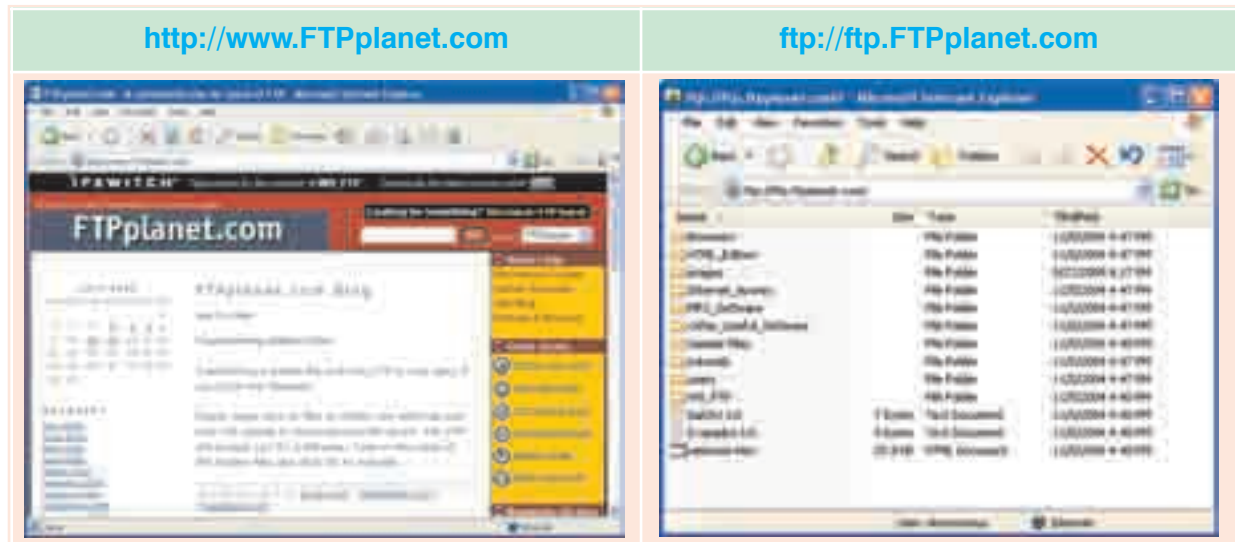
Web and FTP Views of the Same Site
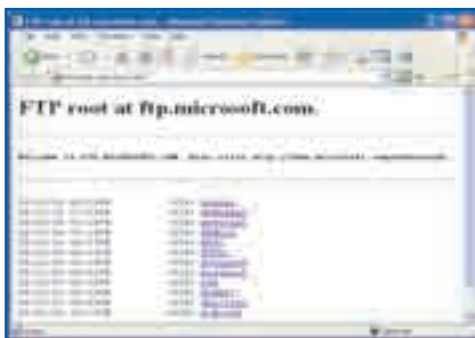
Anonymous Connection to ftp.microsoft.com

Anonymous FTP Sites

Many FTP sites are set up for a specific purpose or for a particular group of users. This limited purpose succeeds in somewhat restricting the access to some of the resources that are available via FTP. The good news is that lots and lots of sites are available to everybody. These sites are called anonymous FTP sites. They are called anonymous because they do not require you to identify yourself in order to gain access to the site.

Visit the site http://www.ftp-sites.org/ and get list of the largest five anonymous FTP sites with number of files and total file size information.

Nr.	SITE NAME	Nr. OF FILES	TOTAL SIZE
1			
2			
3			
4			
5			

FTP Site's Directory Path

Probably the most confusing part of FTP is navigating with really strange file and folder names. An FTP site's directory path even looks sort of like a tree. First, notice that directories on FTP sites all begin with a slash (/). Each slash represents one level, or branch, on the FTP site. If the file you want is in /pub/inet/web/browsers, for example, you take the /inet branch from the /pub trunk, go to the /web limb, and then jump to the /browsers twig. Presumably, the file you want is in that last subdirectory.

FTP Site Tree Structure

Navigating FTP Paths

If you are using a Web browser, selecting directories and using the Forward and Back buttons enable you to navigate nicely.

If you are using an FTP program (Also called FTP client), such as **CuteFTP** or **WS_FTP**, you can still click directory names to move down and to move back up. However, you need to remember to double-click the double-dot (..) to go up a directory.
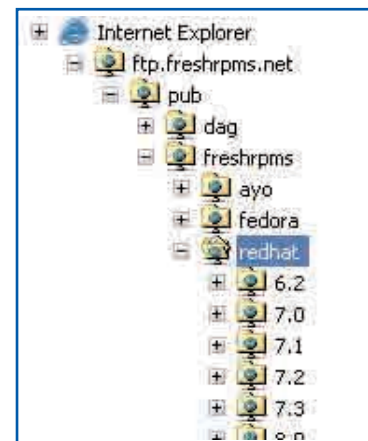
FTP Directories

Some of the Most Common Downloaded File Types

- Images and videos
- Programs
- Patches, Fixes, and Drivers
- Music
- Video

Make sure you remember where you save your downloaded files! Many people download software without thinking about where they're saving it, only to be unable to find the file once it's finished downloading. It makes sense to create and use a folder called "Downloads" or something similar when you can save your downloaded files.

Compressed Files
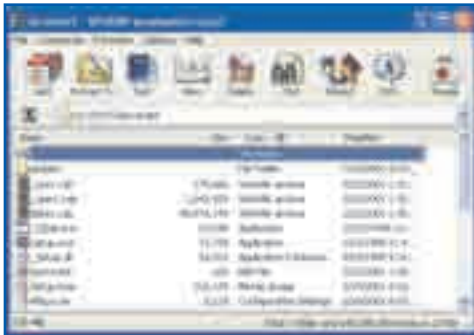
WinRAR Compression Utility

Most files you find on FTP sites are compressed to save space. A compressed file has its original code "compacted" into a smaller file. This means that you have to "decompress" files that you download before you can use them. A large percent of the programs you can download off the Internet are stored in ZIP and RAR files. ZIP and RAR files package programs and files together and make them easier to download. Once you have downloaded a ZIP file, Microsoft Windows XP should extract it for you. If it does not, there are programs that will extract such files. Some of these programs are **WinZIP**, **WinRAR**, and **WinACE**.

You can find and download the WinZIP program from the Internet. www.winzip.com.

FTP PROGRAMS (FTP CLIENTS)

You can obtain specialist FTP programs if you need to upload or download a lot of files to an FTP site. There are many free or demo versions of FTP programs on the Web such as **CuteFTP**, **WinFTP**, **WsFTP**.

Many clients for Windows actually act as miniature file managers as well as FTP clients. You can usually change download directories and filenames, delete files, and download multiple files all from one piece of software, as you can see in Figure Often, you can also view and even launch files right from within the FTP client. You can see FTP client's program window in figure. Both remote and local files and directories are all visible from one FTP client program.

CuteFTP FTP Client

Local Tree Pane

Local List Pane

Output Log Pane

Remote Tree Pane

Remote List Pane

File Filters

Session Tab
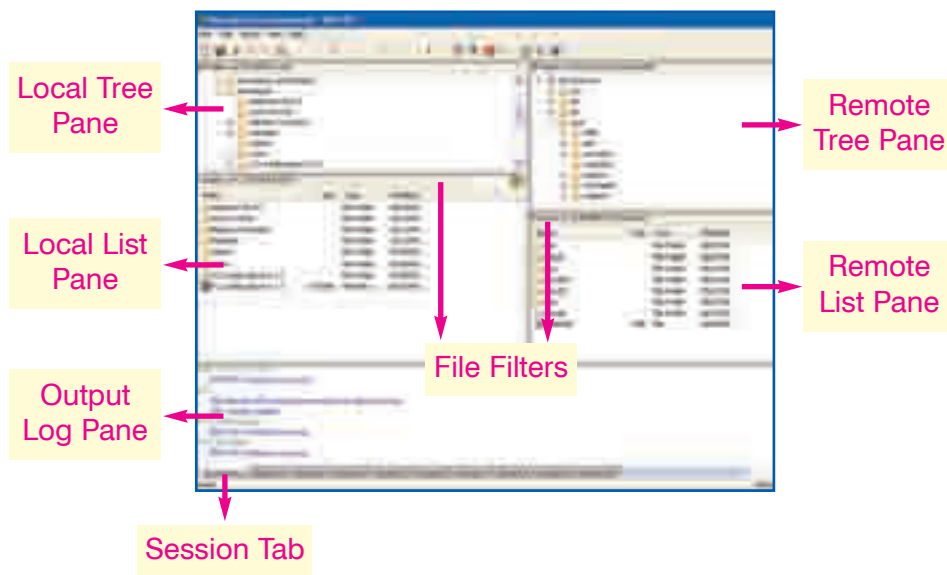
General FTP Client Interface

FTP Client is a software that uses the FTP protocol to connect to an FTP server to transfer files. Many modern Web browsers have built-in FTP clients.

Practice

Search in the Web for the keywords FTP programs or FTP clients and list the names and Web addresses of the first five programs.

Nr.	FTP CLIENT	URL OF THE CLIENT
1		
2		
3		
4		
5		

Many larger sites get so much traffic that they have a hard time handling all of the requests. The administrator of the site makes arrangements with another site to **mirror** the same information. This reduces the bandwidth across the entire Internet. Ideally, users are given a choice to get information from several different **mirror sites** They normally choose the geographically closest location.

DOWNLOAD MANAGERS

Download managers are specifically designed to solve two of the biggest problems when downloading files. Speed and management of downloaded files. Some of the common used download managers are **FlashGet**, **Download Accelerator**, **Godzilla**, **Getright**.

Advantages of Download Managers

- **Speed:** The download manager can automatically split files into sections or splits, and download each split simultaneously. Multiple connections are opened to each file, and the result is the most efficient use of the **bandwidth** available.

- **Management:** The download manager is capable of creating unlimited numbers of categories for your files. Download jobs can be placed in specifically-named categories for quick and easy access.

- **Quick Start:** Whenever your browser is asked to download a file, the download manager will be launched automatically to download it. Click OK and the download process will start.

- **Monitor Clipboard:** If download manager options are adjusted to monitor for URLs, when copying a valid URL to clipboard, the URL will be added to the job list, ready for download.

- **Drag & Drop:** Drag any URL from the browser window to **Drop zone** or the main window of the download managers to start new download tasks.

FlashGet Download Manager

Bandwidth is the amount of data that can be transferred over the network in a fixed amount of time.

ClipBoard is a special file or memory area (buffer) where data is stored temporarily before being copied to another location.

FlashGet Drop Zone

SEARCHING ON THE INTERNET

The greatest strength of the Internet is also its greatest weakness: with so much information, it can be extremely difficult to find what you are looking for. Fortunately, there are many **search engines** that catalog the millions of Web pages on the Internet so that you can find Web pages on topics that interest you. There are many tools available on the Internet like **Google**, **Yahoo!**, **Excite**, **MSN** and **Metacrawler**.

You already know that you can search for specific files on your hard disk or on your network. However, you can also use Windows to search for many other types of information, especially information stored on the Internet.

A search engine might well be called a **search engine service** or a **search service**.

You can use the Search Assistant to find a particular Web site or collection of related Web sites. This is one of the more common types of Internet searches. However, you can also use the Search Assistant to find many other types of information on the Internet.

Web Searching Via Microsoft Internet Explorer

You can search the Web with Internet Explorer's integrated search function. If you do not know the address of a Web site or just want general information on a particular topic, you can perform an Internet search.

Step 1: Click the Search icon within the Toolbar to display a page, which contains a number of different WWW search engines and directory listings, will open a page with the Search Companion.

Search Assistant

Step 2: Click the Search box and type in the word or phrase you want to search for.

Step 3: For better search results, use complete sentences or several keywords that describe what you are looking for. For example, typing "Turkish restaurants in Moscow?" would yield better results than simply "Turkish restaurant".

Step 4: Click Search.

Step 5: The Security Alert dialog box may appear. It appears any time you send information over the Internet, unless you check the In the future, do not show the warning check box. If it does, you can safely click YES.

Search Preferences
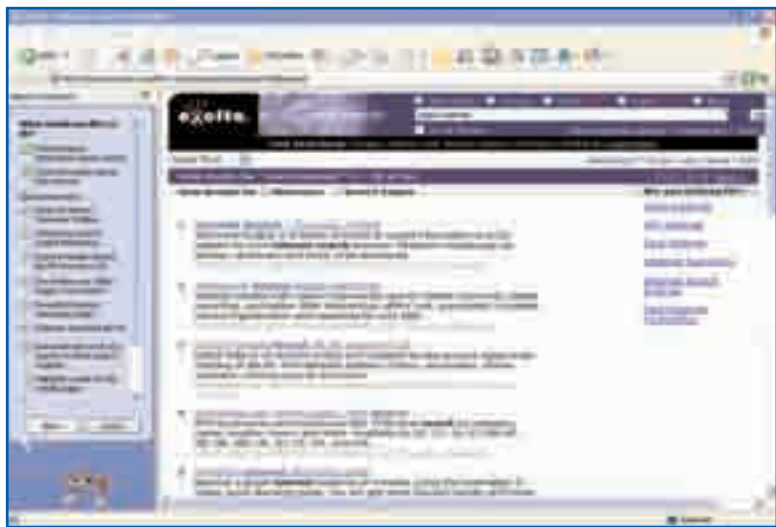
Search Results of Search Assistant In Internet Explorer

Security Alert Dialog Box

Step 6: Microsoft Internet Explorer returns a list of Web pages, ranked by relevance, that contain the word or phrase you specified. You may have to scroll down to view the entire list.

Step 7: Click the Web page you want to view.

You do not have to click Microsoft Internet Explorer's search button to look for information on the Web-you can also go directly to a search engine's Web site and specify what you want to look for there.

Research

By using the Search Assistant, search about most frequently used "Internet Search Engines". List the names of the first five results of the Internet Search Assistant.

SEARCH ENGINE NAME	URL
Google Search Engine	http://www.google.com

Internet Search Tools and Basics of Searching

The Internet is a self-publishing medium. It is not a library of evaluated publications selected by professionals. Rather, the Internet is a bulletin board containing everything.

Three Major Search Tools

- The search engines
- The subject directories
- The

Before you select a search tool, always think about your topic and what you are trying to find. Once you begin your research, be sure to try out a handful of sites. Don't rely on a single site or type of site.

SEARCH ENGINES

For targeted, multi-concept, and sometimes general queries, use a search engine. A search engine is a searchable **database** of Internet files collected by a computer program (called a wanderer, crawler, robot, worm, spider). Indexing is created from the collected files, e.g., title, full text, size, URL, etc. There is no selection criteria for the collection of files, though evaluation can be applied to the ranking of results.

> A **database** is a collection of information stored in a computer in a systematic way, such that a computer program can consult it to answer questions.

A Search Engine Consists of Three Components

- **Crawler (Spider or Ant):** Program that traverses the Web from link to link, identifying and reading pages.

- **Index:** Database containing a copy of each Web page gathered by the crawler.

- **Search engine mechanism:** Software that enables users to query the index and that usually returns results in relevancy ranked order.

> Some search engines will let you search within your search results. For example, you could do a search for "Microsoft Windows" and then further refine your search by searching the results for the word "Networking."

General Search Engines

Google (www.google.com)

The order of the results list returned on a Google search is based on a complicated formula (**PageRank**) relating to the number of pages linked to the page in question. The pages with the most links from the most important sites are given top priority on the list. Paid listings are displayed on the right side of the page. Google Databases are

> **PageRank** is a unique algorithm developed by Google founders Larry Page and Sergey Brin at Stanford University and determines the importance of a Web page. The main factor behind the PageRank algorithm is link popularity.

- **Web:** Indexed Web pages (also includes URLs that has not fully indexed) and additional file types in the Web database include PDF, .ps, .doc, .xls, .txt, .ppt, .rtf, .asp, .wpd, and more.

- **Ads:** Paid advertisements usually shown on the right side (or top) under a "Sponsored Links" heading.

- **Images:** Picture database.

- **Groups:** Usenet news database.

- **News:** Past 30 days of Web-based news sites.

- **Book Search:** Full text books with only limited viewing of in-copyright books.

www.google.com

- **Google Scholar**: Academic papers, articles, reports, and citations.
- **Directory:** A version of the Open Directory with entries ranked in Google's PageRank order.
- **Froogle:** Shopping and product search.
- **Catalog Search:** Scanned product catalogs.

http://search.yahoo.com

Yahoo! Search (http://search.yahoo.com)
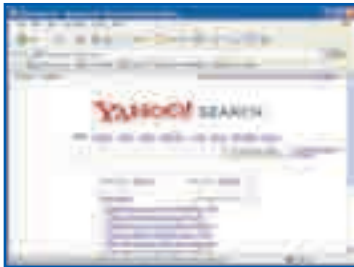
Yahoo now has its own search engine. The results of the Yahoo! search are also used by AlltheWeb, AltaVista, and MSN search.

All The Web (www.alltheweb.com)

AllTheWeb uses Yahoo!'s index to the Web which they claim contains "billions" of pages. The advanced search option allows word filtering and searching by language or by date.

http://www.altavista.com
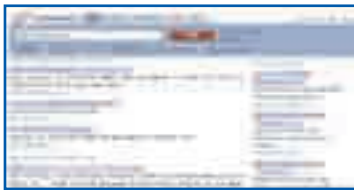
Alta Vista (www.altavista.com)

The advanced search option provides for Boolean searching, and by date. There are separate searches for audio, video, images and news. AltaVista search results are obtained from Yahoo!. AltaVista is owned by Overture.

MSN Search (http://search.msn.com)
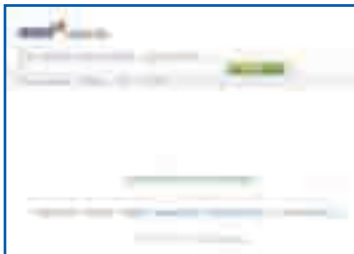
There are both simple and advanced searches. The advanced search offers several features for narrowing searches such as page content, place of origin, and file type. MSN search results are from Yahoo!'s search engine.

http://search.msn.com

Dogpile (www.dogpile.com)

Search results are returned speedily and may be viewed by relevance or by source. Results are also grouped into categories on the left side of the screen. The advanced search option has a lot of nice features for narrowing searches.

Search (www.search.com)

Provides general **metasearching** using search engines and directories. You must use the advanced search option to specify which engines and directories are searched. The ability to search by specific topic is a plus for this site.

http://www.search.com

WebCrawler (www.webcrawler.com)

You may not specify which search engines and directories to use, and you do not know which have been used. This is owned by InfoSpace.

MetaCrawler (www.metacrawler.com)

View results by relevance or by source. Search for Web sites, images, news, multimedia and shopping.

Research

Find the meaning of "**netiquette**" on the Internet.

http://www.metacrawler.com

WEB DIRECTORIES (SUBJECT DIRECTORIES)

Web Directories are for those searchers who know the subject that they are interested in, and want to browse lists of Web sites on that subject. Directories differ from search engines in that the content is chosen by human editors. Consequently the composition of the directory will be dependent upon the subject knowledge and selection skills of the editors.

There are Two Basic Types of Directories

● Academic directories

● Professional directories.

They are often created and maintained by subject experts to support the needs of researchers. Be sure you use the directory that appropriately meets your needs.

InfoMine (http://infomine.ucr.edu/), from the University of California, is a good example of an academic subject directory. Yahoo (http://www.yahoo.com/) is a good example of a commercial **portal**. A more complete list of both types of directories may be found on the page Subject Directories.

Many people don't make enough use of subject directories, but instead go straight to search engines. Keep in mind that academic directories contain carefully chosen and annotated lists of quality Internet sites.

Portals are intended to be a starting point for people when they are using the Web. Most of the time a portal will have a collection of Web site and a search engine like www.msn.com

Copernic Agent, and WebFerret are search software that make your Internet searches faster and easier. It queries leading search engines to bring you back relevant, high quality results.

- Connect to the Google Web directory (directory.google.com),
- Search for "Saturn" within the Science > Astronomy > Solar System > Saturn category of the Google Web Directory.
- Connect to the Google search engine (www.google.com),
- Search for "Saturn".
- Compare the results of Web directory and search engine.

Directories of Quality Web Sites

The emphasis here is on selecting quality Web sites by editors who may be librarians or subject experts.

About (www.about.com)

This is a very large searchable directory of reviewed and annotated Web sites. It relies on paid human editors to cover a specific topic by writing articles and constructing a Web directory.

http://www.about.com

Yahoo! (www.yahoo.com)

Yahoo is the grandfather of Web Subject Directories. It operates an Internet portal, the Yahoo! Directory, the Yahoo! Search and a host of other services including the popular Yahoo! Mail. It's mission is "to be the most essential global Internet service for consumers and businesses". Yahoo! is one of the most visited Web Site on the Internet today with more than 400 million unique users.

http://www.yahoo.com

Kid's Click (http://sunsite.berkeley.edu/KidsClick!)

A searchable subject guide to the Internet for young people. This site has been prepared by librarians of the Ramapo Catskill library as a guide to age appropriate Web sites.

The Open Directory Project (http://dmoz.org)

This is a general directory which claims to include over 5 million sites. The sites are selected by volunteer editors. Open Directory data is used by major Web portals such as Altavista, Google, HotBot, Teoma, and WiseNut.

sunsite.berkeley.edu/KidsClick!

Google Directory (http://directory.google.com)

Google Directory launched April 2000. The directory is a subset of the links in Google's database arranged into hierarchical subcategories. The source of the directory, and its categorization is from the Open Directory Project (ODP). The Web sites in the Google Directory are sorted by PageRank.

http://directory.google.com

Subject Directories with an Academic Approach

These sites are more suitable for the student doing research for school, or for the academic searcher.

InfoMine (http://infomine.ucr.edu)

An extensive directory of Web sites. This site is well-organized and searchable. A scholarly Internet resource collection from the Library of the University of California.

Academic Info (www.academicinfo.net)

Academic Info is an online subject directory of over 25,000 hand-picked educational resources for high school and college students as well as a directory of online degree programs (University of Phoenix, ITT Technical Institute, Kaplan, DeVry) and admissions test preparation resources (SAT, GRE, LSAT, MCAT, GMAT, USMLE, TOEFL).

http://infomine.ucr.edu

Librarians Index to the Internet (LII) (www.lii.org)

A searchable, annotated subject directory of more than 10,000 Internet resources selected and evaluated by librarians for their usefulness.

Academic Index (www.academicindex.net)

A metasearch engine for academic topics that provides access to academic reference and research sites recommended by teachers and librarians. It provides access to approximately 150,000 quality information Web pages.

http://www.lii.org

THE DEEP WEB (INVISIBLE WEB)

For targeted queries, when you are looking for non-textual information, use the Deep Web.

The deep Web consists of information stored in searchable databases mounted on the Web. Stored information in these databases is accessible by user query. These databases usually search a targeted topic or aspect of a topic, though entire Web sites may be contained within a database. Search engine crawler cannot or will not index this information.

http://www.Invisible-web.net

Many databases on the Web are searchable from their own sites. Therefore, a good directory will link to these sites. In addition, search engine results will also turn up database sites. Once you connect to the site, you can then search the database.

There are Web sites that specialize in collecting links to databases available on the Web. For example; www.Invisible-web.net web site links to high quality Web-accessible databases.

Information that is dynamically changing in content will appear on the Deep Web. For example, news, job postings, available airline flights, etc.

Directories are a part of the deep Web. For example, include phone books and other "people finders," list of professionals such as doctors and lawyers, patents, dictionary definitions, company data, etc.

Millions of people and organizations have registered with one of the many directory services available on the Internet. Some people register only their names and e-mail addresses, while others register their full postal addresses.

ALL-IN-ONE SEARCH PAGES

All-In-One-Search pages have forms on their site for submitting searches to individual search sites. Using these pages is a great way to become familiar with all the searchable sites on the Internet. There are also combination sites which have some search forms and also lists of links to other specialized search sites.

SurfSearcher (www.surfsearcher.com)

This site has a good selection of links to general search engines for the United States and the United Kingdom. There are also search boxes for reference sources.

Search AllInONe (www.searchallinone.com)

Combines the power of the worlds best search engines into a metasearch.

www.www.langenberg.com.com

Langenberg (www.langenberg.com)

Nicely structured site with many easy to use direct search categories.

Freeality (www.freeality.com)

Freeality has search links for a large number of general and specialized search sites. Freeality does not use **pop-ups** or any form of advertising.

A **pop-up** is a Web page that appears as a separate window over a site's content without a user clicking on a banner or other creative unit.

SEARCH TECHNIQUES

Choosing Keywords

For best results, it's important to choose your keywords wisely.

- Make keywords as specific as possible. For example, If you a're looking for information on Picasso, enter "Picasso" rather than "painters".
- Use words likely to appear on a site with the information you want. "Luxury hotel Turkiye" gets better results than "really nice places to spend the night in Turkiye".

General Search Strategies

Capitalization

Search engines are not case sensitive. All letters, regardless of how you type them, will be understood as lower case. For example, searches for "Good Manners", "good manners", and "GoOd MaNNeRs" will all return the same results.

Use Wildcard

The asterisk (*****) is a wildcard. that is any letters can take the place of the asterisk. "Bass*" would find documents with "bass", "basset" and "bassinet". You must type at least three letters before the *****. You can also place the ***** in the middle of a word. This is useful when you're unsure about spelling. For example; "Colo*r" would find documents that contain "color" and "colour".

Some sites now uses improved **stemming** technology. They will search not only for your search terms, but also for words that are similar to some or all of those terms.

> **Stemming** is the expansion of searches to include plural forms and other word variations.

Boolean Logic

Most search engines employ the principles of Boolean logic in the formulation of search queries. Boolean logic consists of three logical operators: AND, OR, and NOT.

> As the inventor of Boolean algebra, the basis of all modern computer arithmetic, **George Boole** is regarded one of the founders of the field of computer science, although computers did not exist in his day.

BOOLEN OPERATOR	DESCRIPTION
AND	Requires both search terms be present on the Web pages listed in results. For example "boolean AND search" will bring you all the Web pages containing both "boolean" and "search" keywords.
OR	Allows any of the specified search terms to be present on the Web pages listed in results. For example "boolean OR search" will bring you all the Web pages containing "boolean", "search" or both of them.
NOT	Requires that a particular search term not be present on Web pages listed in results. For example "boolean NOT search" will bring you all the Web pages containing "boolean" but not "search".

Proximity Searching

If the option is available, use proximity operators (e.g, NEAR) This will make sure that your search terms are located near each other in the full text document. The closer your terms are placed, the more possibly relevant the document will be. Google does proximity searching by default.

Phrase Search or Quotations

Ssearch for phrases within quotations, e.g, "Internet Searching".

Search Engine Math

Put a plus sign (**+**) in front of words that must be present on the Web page. A minus sign (**-**) in front of a word will tell the search engine to subtract pages that contain that particular word. "**+**Screen **-**Computer **+**TV" will give you the sites containing TV screen information and not containing computer screen information.

Practice

Use the following syntax for searching "CPU cooling system" in a search engine and see the differences between the search results.

- cpu cooling system
- +cpu +cooling +system
- cpu +cooling +system
- "cpu cooling system"
- +cpu +"cooling system"
- -cpu +cooling +system

Field Searching

Field searching is an extremely important way of limiting your search results in large search engines that contain millions of full-text files. The main fields that can be accessed in field searching are:

FIELD	DESCRIPTION
Title	The title normally contains important keywords referring to the content of the page. For example, "TITLE:slavery" in a search engine such as AltaVista will bring you more relevant hits than merely searching on the keyword slavery.
URL	You may restrict you search to pages with addresses that contain a certain word. For example, "URL:Vista" will give you all the URLs containing "Vista".
Domain	The domain is the unique name that identifies an Internet site. For example, "Kazakhstan DOMAIN:.kz" should display only the Kazak Web pages containing information about Kazakhstan.
Site	To find a home page when you know the location or sponsor of the information, use the SITE field. In this case, you search on the top-level and second-level domain names together. For example ""Vista" SITE:www.microsoft.com" will bring you all the Microsoft top and sub-domains containing information about Vista.

Title is the text you can read in the bar at the top of the browser window.

URL is the address (the Uniform Resource Locator) of a page, e.g. http://www.zambak.com/.

The **domain** is the unique name that identifies an Internet site. Domain Names have two or more parts, separated by dots.

Site (Web site) is the entire collection of Web pages for a specific organization, person or interest group.

Many search engines like www.google.com and www.altavista.com provides an advanced search page where you can make field search easily.

Google Advanced Search Page

http://www.excite.com

http://yahooligans.yahoo.com

WEB PORTALS

Portals are designed to be gateways to the Internet. They may have a link to a search engine, a subject directory, and provide other services such as news, weather, entertainment information, stock market information, shopping, and other services. Many portal sites provide an option to customize the site according to the user's personal interest. Portals are sponsored by the major search engine and browser providers.

General Portals

Excite (www.excite.com)

Excite has a search engine, subject directory, and links to other search and shopping sites. You can design a personalized page which includes news, sports, weather, stocks etc. Free e-mail is available.

Go (www.go.com)

Go is combination of ABC, ESPN, and other Disney enterprises. Go puts the emphasis on leisure, recreation, and entertainment.

Lycos (www.lycos.com)

North American portal that offers a subject directory, news, chat, shopping, and free e-mail. Web searching using the Fast database. This site is part of the Terra Lycos Network of sites.

MSN (www.msn.com)

Microsoft's portal. This site offers many of the standard services including free e-mail. It offers a good selection of items from which to create your own personalized page.

Yahoo! (www.yahoo.com)

Yahoo offers news, weather, stock market information, search engine, search directory etc. Yahoo has some very nice features for designing your personalized page including **News Clipper** for keeping up with the news about the topics you are interested in. Free e-mail, is available. **Yahooligans** (http://yahooligans.yahoo.com) is the Web guide for kids!

Specialized Portals

ZDNet (www.zdnet.com)

This is a portal for the computer user with links to news, shopping sites, software downloads, computer information and **how-to**'s, and investor information.

Start Spot (www.startspot.com)

This is the launch page for the specialized portals BookSpot, Cinema Spot, EmploymentSpot, GovSpot, GourmetSpot, Homework Spot, LibrarySpot, Museum Spot, People Spot, ShoppingSpot, and TravelSpot.

> A **how-to** is an informal, often short, description of how to accomplish some specific task. They are generally meant to help non-experts, and may leave out details that are only important to experts

SUMMARY

You can **save** the Web pages by using the Web browser's File > Save command, and **download** the pictures and other documents with the pop-up menu's Save Picture As or Save Target As commands.

FTP is the protocol used to download a file from a server using the Internet or to upload a file to a server. There are two computers involved in an FTP transfer: a **server** and a **client**. **Anonymous** FTP sites are accessible for everybody. Use "anonymous" for a user name and your e-mail address as password for anonymous FTP sites. **Download managers** are computer programs designed to download files from the Internet. They let you pause the downloading of large files, resuming of paused downloads, download several files from a site automatically, and scheduled downloads etc.

Search engines (Google, AltaVista) help users find Web pages on a given subject. Typically, a search engine works by sending out a spider to fetch as many documents as possible. Another program, called an indexer, then reads these documents and creates an index based on the words contained in each document. You can narrow down your search and access your desired information from billions pages with the help of **search techniques**.

Web directories contain a database of other Web sites listed, usually, by category. Search engines display Web pages based on keywords, Web directories list Web pages in convenient categories and subcategories.

Deep Web refers to information served up on Web sites that is hidden or generally inaccessible through traditional search methods.

Internet portals provide access to a number of sources of information and facilities, such as a directory of links to other Web sites, search engines, email, online shopping, etc.

1. Which one is not a download program?
   a. Download manager
   b. FTP client
   c. Windows Explorer
   d. Internet Explorer

2. Which one is wrong for FTP?
   a. FTP is fast and efficient way to transfer information.
   b. FTP services are designed to connect local computer to remote computer
   c. An FTP server can serve a single client at a time.
   d. FTP sites are electronic libraries which contain information.

3. What is wrong about anonymous FTP site?
   a. They are available to everyone.
   b. They require identifying users to access to site.
   c. No need password and username to access to the site.
   d. Many FTP sites are set up for a specific purpose so they not anonymous.

4. Which is not most common types of files people download from the Internet?
   a. Programs
   b. Music, video, images
   c. Patches, fixes and drivers
   d. Viruses and Trojans

5. Which is not an advantage of using download managers?
   a. Increase bandwidth
   b. Speed
   c. Management
   d. Drag and drop

6. Which one is not an Internet search tool?
   a. Subject directory
   b. Search engine
   c. Windows search
   d. Deep Web

7. Which is not a part of a search engine?
   a. Spider
   b. Index
   c. Search engine mechanism
   d. Download manager

8. Use a _____ if you want to search a subject in a category.
   a. Portal
   b. Search engine
   c. Web directory
   d. Deep Web

9. What is the equivalent of ""Search Engine" NOT Algorithm" in a search engine?
   a. +Search +Engine -Algorithm
   b. +(Search Engine) -Algorithm
   c. +Search +Engine Algorithm
   d. Search Engine -Algorithm

10. Which one is not a search technique?
    a. Capitalization
    b. Boolean logic
    c. Quotations
    d. Ignoring common words such as "where".

CHAPTER 5

- Web-Based E-Mail
- Client-Based E-Mail
- Mailing Lists
- Internet Forums
- Usenet and Newsgroups
- Messengers
- ICQ
- IRC

COMMUNICATION

INTERNET

ELECTRONIC MAIL (E-MAIL)

What Is An E-Mail?

Electronic mail (e-mail) is a message sent electronically over the Internet. You can use electronic mail (e-mail) to send messages to people all over the world. Just like you need to know a person's **postal address** if you want to send them **a letter**, you need to know a person's **e-mail address** if you want to send that person an **e-mail message**.

E-mail is fast and economical. Because, e-mail usually arrives at its destination in a matter of seconds and many e-mail accounts are completely free.

Many people prefer to use Web-based e-mail, such as **Hotmail**, **Yahoo! Mail**, and **Gmail**, since you can use it anywhere on any computer that has a connection to the **Internet**.

E-mail still makes up a majority of Internet traffic today because everyone with Internet access has an e-mail account, even though he or she may not have an access to newsgroups, the World Wide Web, or other portions of the Internet.

> E-mail addresses never contain spaces or commas. Only, underscore (_) can be used as a symbol.

How Does E-Mail Work?

Just as a postal mail makes stops at different postal stations along the way to its final destination, e-mail passes from one computer, known as an **e-mail server**, to another as it travels over the Internet. Once it arrives at the destination mail server, it is stored in an electronic **mailbox** until the recipient retrieves it. This whole process can take seconds, allowing you to quickly communicate with people around the world at any time of the day or night.

There are two ways to benefit from the e-mail services:

- **Web-based e-mail:** It is accessible via the Internet. A Web site allows users to read and write e-mail on the World Wide Web. **Hotmail**, **Yahoo! Mail**, **Mail**, and **GMail** are popular Web-based e-mails.

- **Client-based e-mail:** It is accessible via an e-mail client program that works on your computer. They are usually provided by the company where you work at or Internet service providers.

Understanding E-Mail Addresses

An e-mail address consists of three parts:

- **User Name:** This is the name of the person's e-mail account. It is similar to the person's name on an envelope.

- **@ (At) Sign:** This symbol separates the users e-mail name from the domain name.

- **Domain (Host) Name:** This is the name of the person's e-mail account address. It is similar to the person's address on an envelope.

One example of an e-mail address is, hunturkuaz@yahoo.com means that the user named **hunturkuaz** working at the **yahoo. com** domain.

Some Advantages of Using E-Mail

- Having an e-mail address gives you an advantage for networking and collaboration. E-mail is the phone number of today and the future.

- When you are working on a group project, either for business or personal purposes, you can e-mail ideas, feedback, and drafts of work to every member of the team. Often, without e-mail, these vital parts of collaboration have to be delayed until everyone can get together for a meeting.

- Join a **list server** related to a project or personal interest of yours. You will find no substitute for having access to experts and other interested parties all over the world.

- You simply cannot communicate less expensively than by sending e-mail, especially for long-distance communication.

- In addition, using e-mail usually provides a big time savings. You can sit down, type out your message, and move on, knowing that the person on the other end will get your message as soon as possible.

http://mail.yahoo.com/

http://gmail.google.com

http://www.hotmail.com

http://www.mail.com
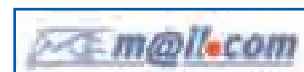
List Server is an e-mail based mailing list for people who share common interests.

Some E-Mail Terms

- **Mail Address:** A unique identifier on the Internet to sent and receive e-mail.

- **Login ID:** The full e-mail address or only the user name of e-mail address.

- **Password:** Secret code of letters and numbers needed to gain access to your mail server.

- **Inbox:** Where all of your incoming e-mails (E-mail you receive from others) resides.

- **Sent Items:** Where a copy of your outgoing e-mails (E-mail you send to others) resides.

- **Deleted Items:** This is like a recycle bin. Once you delete an e-mail it goes here.

- **Address Book:** Electronic list of people and their e-mail addresses.

- **To:** A text box where you should type the e-mail address of who you are sending the e-mail to.

- **From:** This is the e-mail address of who sent you the e-mail.

- **CC:** Sending a message as a **Carbon Copy**. That is, the receiver is not expected to reply. Typically, supervisory personnel are notified with CC.

- **BCC:** The CC recipients are revealed to all recipients, and this may not be desirable, depending on the situation. An alternative field, BCC (**Blind Carbon Copy)** is available for hidden notification.

- **Subject:** What the e-mail message is about. When we are looking at a list of all the e-mails we have received, often only the Subject and the From fields are displayed.

- **Compose:** Creating a new mail with sender and receiver e-mail addresses, subject, message body and maybe attachments.

- **Send:** Sending a composed mail to recipient(s).

- **Reply**: Returning a new message to the originator of the viewed message. When we reply, the original message that was sent to us is included in our response. This is handy in case we want to reference something in the original e-mail.

E-mail started in 1965 as a way for multiple users of a time-sharing mainframe computer to communicate. E-mail was quickly extended to become network e-mail, allowing users to pass messages between different computers. The messages could be transferred between users on different computers by 1966. The ARPANET computer network made a large contribution to the evolution of e-mail. Ray Tomlinson initiated the use of the @ sign to separate the names of the user and their machine in 1971.

- **Reply to All:** Replying a message to all addresses (from To and CC fields) listed in the header of the received e-mail.

- **Forward:** Sending a received e-mail to another person. You may modify the original message.

- **Signature:** The automatic addition of a few lines at the foot of an E-mail. These usually consist of the sender's E-mail address, full name and other details.

- **Stationary:** A template to format (background image, text font color etc.) your e-mail messages.

- **Attachment:** Sending file(s) with your e-mail message. It can be a program, image, document or whatever. Typically, it is represented by a paper clip icon.

- **POP:** Stands for **Post Office Protocol** is an Internet standard and it is used by e-mail clients to retrieve messages from an e-mail server. The current version is POP3.

- **IMAP**: **Internet Mail Access Protocol** is an Internet standard for the reading and manipulation of e-mail messages stored on a server. The current version is IMAP4.

- **SMTP:** Stands for **Simple Mail Transfer Protocol**, SMTP is used for sending e-mail.

- **Spam:** Unwanted, unsolicited junk e-mail sent to a large number of recipients.

Mind Your Manners

- Try to keep messages short and to the point.

- Make sure the subject field describes your message accurately.

- Break up your message into short paragraphs.

- Be as polite as you would be face-to-face.

- Try to be considerate by using proper grammar and punctuation.

- If you write a message for which you want a response, tell the recipient to please respond.

- DON'T SCREAM. TYPING IN ALL CAPITALS IS CONSIDERED SCREAMING AND IS OFFENSIVE.

- Do not spam.

WEB-BASED E-MAIL

Web-based e-mail is relatively new to the Internet. The advantage of it is that you can pick up your mail from any computer that is connected to the Internet and has a Web browser installed.

Another benefit of Web-based e-mail is that you can keep the same address for life. Once you have an account, even if you change companies or switch Internet service providers, the address remains yours.

To access your e-mail you log on to the site by entering your user name and password.

One thing to keep in mind is that many free Web-based e-mail services limit the amount of storage that they provide. For instance, Yahoo! Mail has a 1 GB, GMail 2 GB, and Hotmail 250 MB for users in North America and 25 MB for others.

Yahoo! Mail Starting Web Page

Choosing an ID and Password

Getting an Account

Establishing a new e-mail account takes only a few minutes. You'll have to provide information about yourself and choose an account name and password. Your account name or ID becomes part of your e-mail address. If you open a Yahoo! Mail account and choose "somebody" as your ID, your address becomes "somebody@yahoo.com."

The Web-based e-mail services all are pretty much the same. For the example, we are going to use Yahoo! mail.

Step 1: Go to the Yahoo! mail. (http://mail.yahoo.com) and click Sign Up. Yahoo! mail registration form opens.

Step: 2 Choose an ID and a password for your mail account and fill in other fields in Create Your Yahoo! ID section. Since e-mail may contain sensitive information, it is important to have a secure account that only you can access. Choose a password carefully.

Step: 3 Choose a secret question and type your answer and fill in other fields too in If You Forget Your Password... section. If you forget your password and answer the secret question, your password will be sent to your alternate e-mail address.

Security Question if You Forget Your Password

Step: 4 You may select the options that give the most accurate information about you in Customizing Yahoo! section. This section is optional.

Some Information About Who You Are

Step: 5 Type the code you see in the box in Verify Your Registration section. By entering the code, you help Yahoo! prevent automated registrations.

Entering the Code

Step: 6 Read Yahoo! mail Terms of Service and Privacy Policy carefully and click I Agree button if you accept them. Click Continue if the Security Warning windows appears.

Step: 7 The starting page of Yahoo! Mail opens. You have got only one message in your Inbox right now. A welcome message from Yahoo!.

Yahoo! Mail Starting Page

Log in In to Yahoo! Mail

Signing In (Logging in)

Each time to log in to your Web-based e-mail account, go to the Web page (http://mail.yahoo.com) and enter your username and password, and click the Sign In button.

Opening A Message

Step: 1 Click Inbox. Your inbox will open.

Step: 2 Click the message you want to open from the incoming messages list. The message will open.

Links to navigate the messages

Buttons to process the message

General information about the message

The Message

Welcome Message from Yahoo!

Downloading or Opening an Attachment

One of the most useful features of e-mail is the ability to send digital files (documents, pictures, movies, sounds etc.).

Once you have received an e-mail with an attachment, you can download it or open with your Web-browser or with an appropriate application.

Downloading an Attachment

Most of the Web mails show the a picture attachment as a thumbnail view and a file name (zebra.jpg). Other attachments usually shown as file name.

Step: 1 Click Scan and Save to Computer to download the file.

A Picture Attachment

Step: 2 The attachment will be scanned for viruses. Click the Download Attachment button to save the file in your computer.
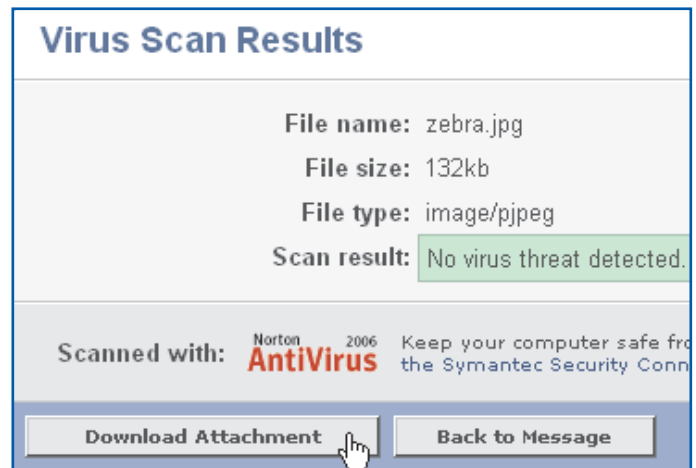
Virus Scan Result of the Attachment

Opening an Attachment

Instead of Scan and Save to Computer click View to open an attached file.

> The most common attached file types are compressed files (.zip, .rar), images (.jpg, .gif), music (.mp3, .mpg, .wma), video (.avi, .mov, .wmv), and documents (.doc, .xls, .pdf).

Composing and Sending an E-Mail

Step: 1 Click the Compose button. A new message screen comes.

Step: 2 Type the destination mail address (To), and subject of your message (Subject). Separate the addresses with comma for multiple recipients.

Step: 3 To send carbon copies and blind carbon copies, click Add CC and Add BCC.

Step: 4 Type your message. You can format your message by using the **rich text format** (.rtf) buttons.

> **Rich text format (RTF)** files are actually ASCII files with special commands to indicate formatting information, such as bold, italic, underline, bullets, different fonts, text justification. and margins.

Destination Address
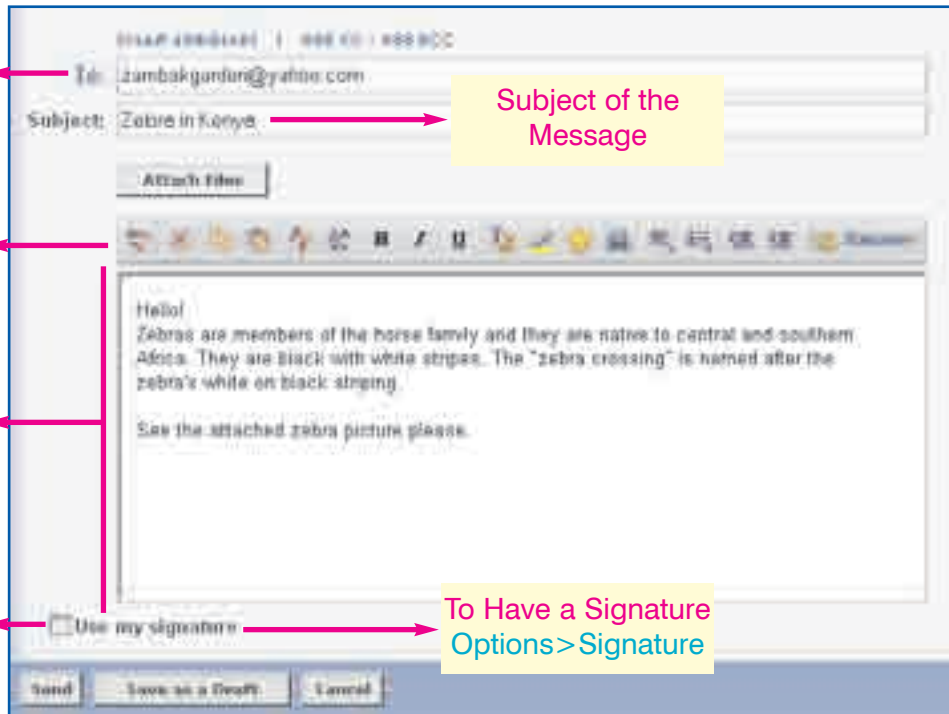
Subject of the Message

Text Editing and Formatting Buttons

Your Message

Add Your Signature

To Have a Signature
Options>Signature

Composing and Sending a Message

Attaching Files

Step: 1 Click the Attach Files button. Attach Files screen appears.

Step: 2 Browse your hard drive or other storage devices to locate the file(s) you want to attach, and add them to the list.

Step: 3 Click Attach Files button. The selected files will be attached to your message. You can see the list of the names of the attached files and their sizes.

Attaching Files

Multipurpose Internet Mail Extensions (MIME) protocol deals with the attachments.

Sending an E-Mail

Once you have finished composing your message, simply click the Send button to send your e-mail.

Click Spell Check button ![abc check] to be sure that there are no miss-spelled words in your message.
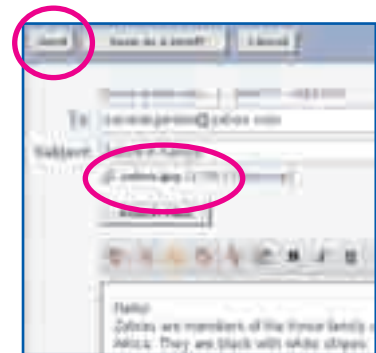
Sending a Message with an Attachment

Managing Messages

Each day billions of e-mail messages travel across the Internet. Thus, e-mail overload is a problem that affects nearly everyone with an e-mail account. Your inbox can become a garbage of messages if your incoming e-mail not managed properly.

Organize Your Messages Into Folders

Create a series of folders to categorize your e-mail. Inbox, Draft, Sent, Bulk, and Trash are the default folders of Yahoo! Mail. Keep the Inbox empty by move the messages from Inbox to the folders by their categories.
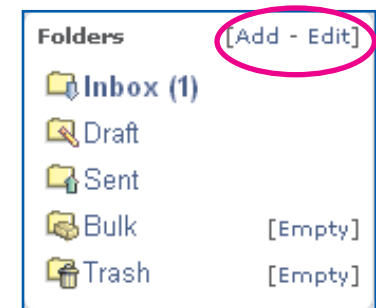
Yahoo! Mail Default Folders

Use Spam Protection

Spam (junk, bulk) e-mail has become a fact of electronic life. Use Spam Protection (Options > Spam Protection) feature of your mail to get rid of them. Even though you set a spam protection, some spam e-mail may drop into your Inbox . Quickly review message subjects and read a line or two of the message if necessary to identify spam. Never reply spam e-mail, instead. click Spam button to delete the message and report it to Yahoo! SpamGuard.
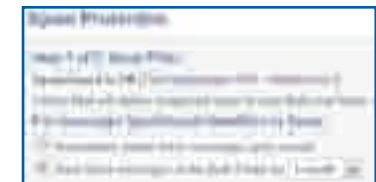
Yahoo! Mail Spam Protection

Use Filtering

Using filtering (Options > Filters) automatically route messages into designated folders you set up. For instance, if you belong to a discussion group, messages will go directly into that folder, instead of your Inbox.
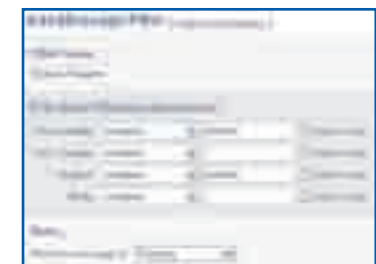
Setting Up a Filter

Use Address Book

Keep the frequently used e-mail addresses in your address book. Address book lets you keep not only e-mail addresses but also names, surnames, nicknames, phone numbers, postal addresses and some other personal information about your contacts. Click Addresses tab to access the address book.

Yahoo! Mail Addresses

CLIENT-BASED E-MAIL

Client-Based e-mail means you need a program on your computer to read the e-mail. Examples of e-mail clients are: **Outlook Express**, **Microsoft Outlook**, **Pegasus Mail**, **Eudora, Netscape Messenger**, **The Bat!**, etc.

What You Can Do with Mail Programs

● Exchange e-mail,

● Sign-up for newsgroups,

● Maintain multiple user accounts,

● Maintain an address book,

● Add stationery or a personal signature to your e-mail messages.

Outlook Express Logo
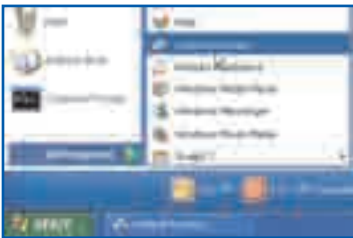
E-mail programs are similar each other. Since Outlook Express comes with Windows XP, for the example we are going to use Outlook Express.

Opening Outlook Express

Step 1: Click the Start button on Windows XP Desktop.

Step 2: Select Outlook Express from the All Programs.

Opening Outlook Express

Step 3: The Outlook Express window appears on the screen.

Toolbar

E-Mail List Pane

Folder Pane

E-Mail Pane

Contacts Pane
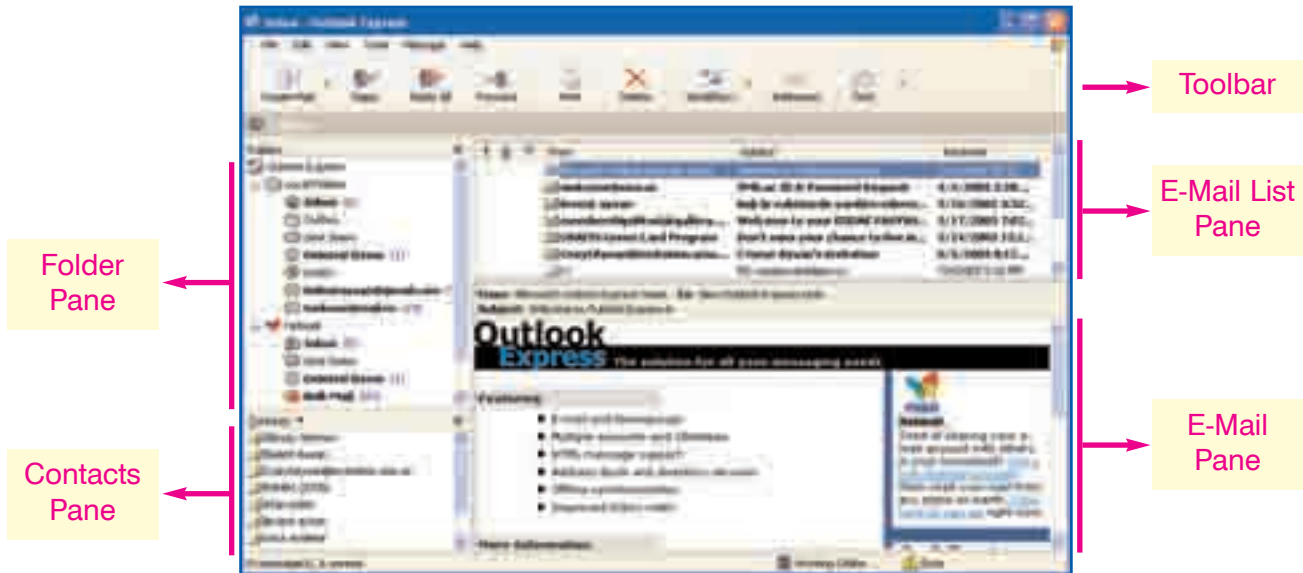
Components of Outlook Express

Using the Internet Connection Wizard

The Internet Connection Wizard automatically appears when you use Outlook Express for the first time.

The Internet Connection Wizard helps you to configure your e-mail settings so you can start sending and receiving e-mail. You will need to know your e-mail account name and password, the type of e-mail server you use, and the names of your incoming (POP) and outgoing (SMTP) e-mail servers.

Adding E-mail Accounts

Step 1: From the Outlook Express main menu, select Tools > Accounts. Internet Accounts dialog box appears.

Step 2: Click the Add button.

Step 3: Select Mail. Internet Connection Wizard starts.

There is No Account Yet

Step 4: Type your name that appears in the Display name.

Entering Display Name (Your Name)

Step 5: Insert your e-mail address other people use to send e-mail message to you.

Entering E-Mail

Step 6: Enter Incoming mail server (POP3, IMAP or HTTP) and Outgoing mail server (SMTP) names. You can learn the server names from your ISP For the Hotmail e-mail, you do not need to write POP3 and SMTP server's name. This information will be used automatically.
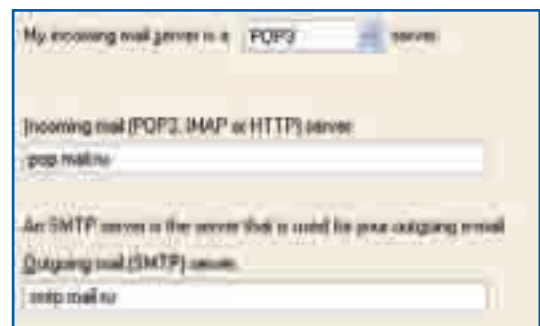
Entering E-Mail Server Names
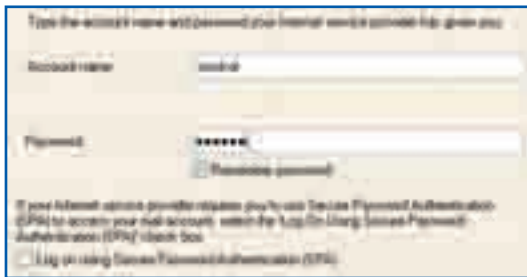
Entering E-Mail Account and Password

Step 7: Enter your account name and password into the Account name box and Password box.

Step 8: Finish the wizard. You will get an automatic welcome e-mail from Outlook Express.

Working with Multiple Accounts

Adding an Extra E-mail Account

Outlook Express can manage many e-mail accounts such as a personal e-mail account and a work e-mail account. Outlook Express makes it easy to check multiple e-mail accounts in the same window. You can add many e-mail accounts by using the Connection Wizard.

Receiving E-Mail

Normally, Outlook Express automatically checks your mail server for new messages every 30 minutes.

Step 1: Click the Send and Receive button on the Outlook Express Toolbar. If it finds any new messages on your mail server, it downloads them and saves them to your computer. New mails explained with a bold and closed envelope icon.

Step 2: Click the mail you want to open. The mail opens within the Outlook Express window. Double-click the mail to open it in its own window.

Reply: Sends the reply to the author of an incoming message.

Replay All: Sends the replay to everyone who received a message.

Forward: Sends an incoming message to someone else.

Composing and Sending E-Mail

Step 1: Click the Create Mail button on the Toolbar. New Message window opens.

Step 2: Specify the recipient's e-mail address in the To: field; or select a contact from the address book. Click to select contacts from the address book. To open the address book, click the Address Book button on the Toolbar.

Address Book Button

Attaching a File To an E-Mail

Step 1: Within the New Message window, select the File Attachment command from Insert menu, or click the Attach button ![Attach] on the Toolbar. Insert Attachment dialog box opens.

Step 2: Navigate and select the file you want to attach.
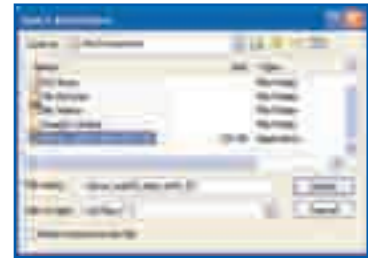
Find the File to Attach

Using Stationery

With Outlook Express stationery, you can create attractive messages for both e-mail and newsgroups.

You can only use stationery in messages that are sent in Rich Text (HTML) format. To turn on HTML formatting; From the New Message window click Format > Rich Text (HTML).

> Beware of attaching very large files, as they may not be properly delivered over the Internet!

To Apply Stationery to An Individual Message

Select Message > New Using, and then select a stationery style from the list.

To Apply Stationery to All Outgoing Messages

Step 1: Tools > Options.

Step 2: Click the Compose tab.

Step 3: In the Stationery section, select the Mail or News check box (or both), and then click the Select button.
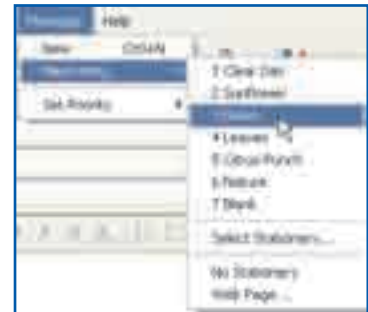
Selecting a Stationary

To Apply or Change Stationery After You Start a Message

Select Format > Apply Stationery, and then select a stationery style from the list.
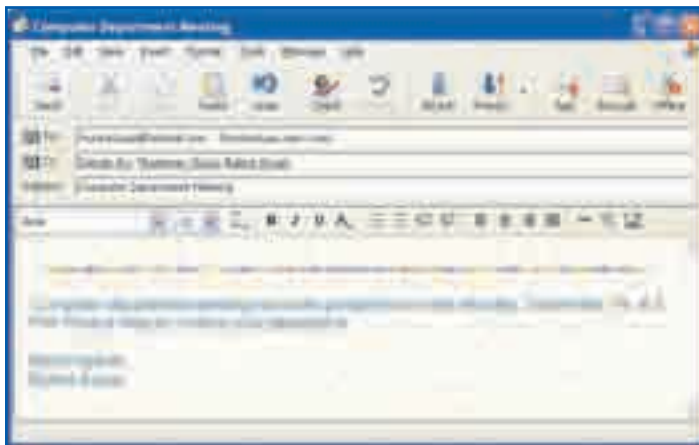
An Outgoing Message with Stationary

> If you want to use a stationery you see in a message from someone else, select the message, and then on the File menu, click Save as Stationery command.

Managing E-Mail Messages with Rules

When you have large volumes of incoming e-mail, or different e-mail accounts, Outlook Express can help you to process it more efficiently.

You can use rules in Outlook Express to

- Automatically sort incoming messages into different folders,

- Highlight certain messages in color,

- Automatically reply to or forward certain messages.

Before creating a rule for e-mail messages, you need a different folder, where Outlook Express automatically sorts incoming messages in.

Outlook Express Local Folders

Creating a New Folder

Step 1: Select Local Folders from folders pane.

Step 2: Click to New Folder command from File menu.

Step 3: You will have a new folder in folders pane, rename it.

Setting the Conditions and Actions

Creating a Rule For E-mail Messages

Step 1: On the Tools menu, point to Message Rules, and then click Mail.

Step 2: Message rules cannot be created for IMAP or HTTP e-mail accounts. If this is the first rule you are creating, on the Mail Rules tab, click Mail button.

Step 3: Select the conditions for your rule by selecting the desired check boxes in the Conditions section. (You must select at least one condition.) You can specify multiple conditions for a single rule by selecting more than one check box.

Step 4: Specify the actions for your rule by selecting the desired check boxes in the Actions section. (You must select at least one condition.)

Step 5: Click the underlined hyperlinks in the Rule Description section to specify the conditions or actions for your rule. For example: As shown in figure, Where the message is from the specified account and Move it to the specified folder rules are selected. So, e-mails from turkuaz@mail.ru account will be moved to the turkuaz@mail.ru folder which is crated as a new folder and renamed.
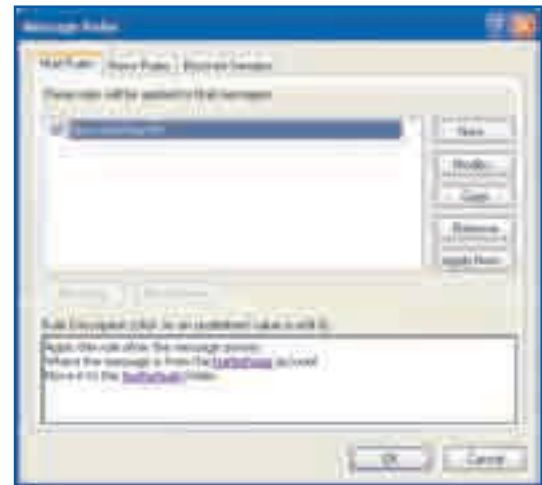
Displaying the Rule Description

Using a Signature

A signature is a small text file that contains information that your e-mail client automatically ads to the bottom of every message you send. Most people also use their signature when sending messages to newsgroups.

Adding a Signature to Outgoing Messages

Step 1: On the Tools menu, click Options, and then click the Signatures tab,

Step 2: To create a signature, click New,

Step 3: Enter your signature in the Edit Signature box, or click File, and then find the text or HTML file you would like to use.

Step 4: Select the Add signatures to all outgoing messages check box.

Step 5: Click OK.
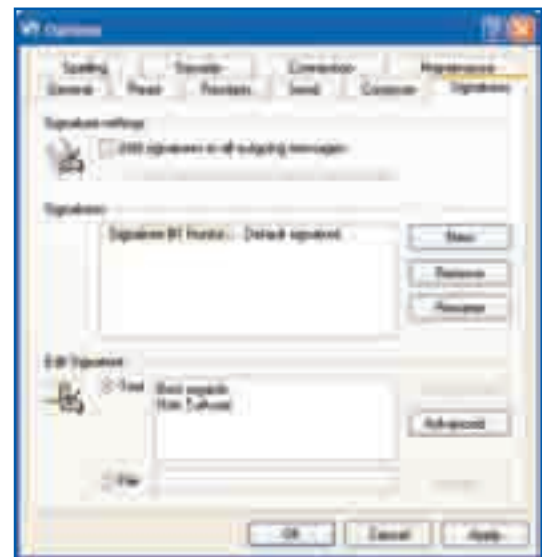
Managing Signatures

Using Different Signatures for Different Accounts

Step 1: In the Signatures section, select the signature,

Step 2: Click the Advanced button, and then select the account you want to use the signature with.

> You can add the signature button [icon] to the New Message window toolbar by customizing toolbar.

ELECTRONIC MAILING LISTS (LISTSERV)

Electronic mailing lists are a special usage of **e-mail** that allow for widespread distribution of information to many Internet users. A **Software** is installed on a **server** which processes incoming e-mail messages, and, depending on their content, either acts on them internally or distributes the message to all users subscribed to the mailing list.

Popular examples of mailing list software include **GNU Mailman**, **Listserv and Majordomo**.

Today, mailing lists are most often used for collaboration on various projects and as a way of distributing current news and other such information.

http://groups.yahoo.com

 Some mailing lists are open to anyone who want to join them,

Some mailing lists require an approval from the list owner before one can join.

In strict mailing lists, every message must be approved by a moderator before being sent to the rest of the subscribers.

SOME DISCUSSION GROUP PPROVIDERS	
Yahoo! Groups	http://groups.yahoo.com
MSN Groups	http://groups.msn.com
Free llists	www.freelists.org
Google Groups	http://groups.google.com
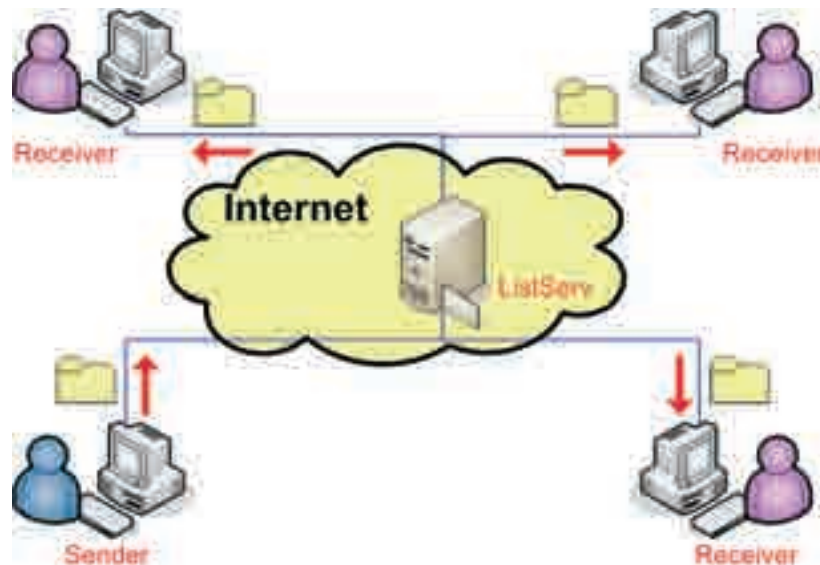
Some Basic Tips For The Listserv

- Save the first message you receive from the listserv. It contains information on how to unsubscribe and other features available .

- Read messages frequently.

- Do not reply to the listserv unless you intent to send it to the entire list.

- Delete messages that you do not want to keep. Listserv messages can accumulate fast and take up valuable drive space.

INTERNET FORUMS

An Internet forum is a **Web application** which provides for discussion, often in conjunction with **online** communities. The Internet Forum is a type of newsgroups and bulletin board systems. Forums are available for any number of different topics.

Internet forums are also commonly referred to as Web forums, message boards, discussion boards, discussion groups, or simply forums.

One significant difference between forums and **electronic mailing** lists is that mailing lists automatically deliver new messages to the subscriber, while forums require the member to visit the Web site, and check for new posts. Many modern forums offer an "e-mail notification" feature, where an e-mail is automatically sent to all users who have chosen to be notified of new replies.

Forums, do not allow people to edit other's messages. Some users, however, may be given this ability in order to moderate content (for example, if a spam is posted to the forum).

Forums typically allow anyone to start a new discussion (known as a **thread**), or reply to an existing thread.

Participants in Internet forums should realize that what they have to say will be public knowledge for years to come. For example, **Google's Groups** (formerly **DejaNews**) is an archive of Usenet articles dating back to 1981.

Visiting and participating in forums normally requires no additional software beyond the Web browser.

A **Wiki** is a Web application that allows users to add content, as on an Internet forum, but also allows anyone to edit the content.

A **Thread** is a chain of messages on a particular subject on the Internet.

Forum archives are sometimes the best way to find an answer to very obscure questions, such as how to fix a particular computer problem.

Forum was a large open space surrounded by buildings in the centre of every Roman town. It was the political, social, and commercial center of the town and the place to go for the latest gossip.

Practice

Visit the following forum sites.

- http://pcbb.3.forumer.com
- www.sysopt.com
- http://help.lockergnome.com
- http://forums.scotsnewsletter.com
- www.tweak3d.net
- www.techspot.com
- www.extremetech.com
- www.computershopper.co.uk
- www.opentechsupport.net
- www.codingforums.com

http://www.physicsforums.com

USENET AND NEWSGROUPS

UseNet is a worldwide bulleting board system of the Internet that consists of many interrelated machines around the world. The machines that participate in this worldwide network are personal computers and bigger storage machines, called **news servers**. Individual users like you connect to these news servers through their PCs to access and download their content (text or binaries files, such as music or movies).

Everyone can access Usenet with an Internet. Usenet was created in 1979 by Duke University graduate students Jim Ellis and Tom Truscott.

A **NewsGroup** is a discussion group on Usenet devoted to talking about a specific topic. There are currently thousands of newsgroups on Usenet.

What Does Usenet Contain?

The giant network, referred to as Usenet, contains tons of information, including but not limited to: text, graphics, software, games, music, movies, images, and so much more. There isn't a digital thing that Usenet is not capable of carrying. Every file type can be distributed within Usenet.

What Can You Do in Usenet?

- Download and watch movies, download and listen to music, download and look at pictures, download a cool new wallpaper, download and play games, download and use software.
- Learn a new language.
- Meet and communicate with new people.
- Make friends.
- Solve a problem that you have.
- Find detailed information that is not available elsewhere.
- Get a new hobby, and so much more.

Practice

Visit the Microsoft's public newsgroups and read some messages that interest you. http://support.microsoft.com/newsgroups

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The **news servers** host all the content in Usenet. Content, in the form of news articles, or posts, is posted by individual users from their own machines and is stored on the servers since they have the capacity to store an enormous amount of information.

You will need **newsreader** software to access and read Newsgroup messages via Usenet. Some frequently used newsreader programs are **News Shark**, **News Robot**, and **News Rover**. Most browsers now come equipped with a in-built newsreader.

You will remain anonymous if you use your Internet service provider's news servers. Also, there are companies which providing news servers to use the Usenet newsgroups. They are not free. Such as Newsgroups.com

Google has purchased and made available **Deja.com**'s huge database of Usenet postings. It has more then 1.000.000.000 articles.

Web-based forums, which date from around 1995, perform a similar function as the Internet newsgroups that were numerous in the 1980s and 1990s.

Newsgroups

Discussion Topics

Header of the Article

Article

http://support.microsoft.com/newsgroups

Using Newsgroups with Outlook Express

Step 1: From the Outlook Express main menu, select Tools>Accounts. This opens the Internet Accounts dialog box.

Step 2: Click the Add button. Select News. This starts the Internet Connection Wizard.

Step 3: Complete the Internet Connection Wizard steps to add a newsgroup.

Step 5: The most important step of the connection wizard is about News Server. Write your ISP's Internet News Service Name (**NNTP**).

Step 6: Click the Yes button to download newsgroups from the news server account which you have just added.

Step 7: The Outlook Express connects to the server and downloads the newsgroups and shows in the Newsgroup Subscription dialog box.

Step 8: To subscribe to a newsgroup, select the newsgroup name,

Step 9: Click the Subscribe button. The selected newsgroup will be signed. You can select more than one newsgroup.

Step 10: Click OK.

NNTP (Network News Transport Protocol) is the protocol that Usenet news servers use to communicate with each other and with newsreader clients.
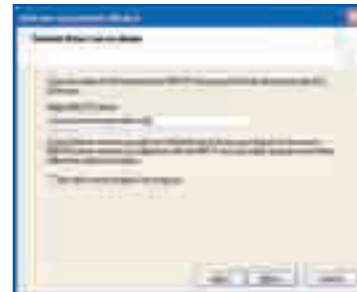
Connecting to a News Server

msnews.microsoft.com is the News (NNTP) Server name for Microsoft public news groups.

For more information about Usenet visit the site http://www.faqs.org/usenet that contains collection of FAQs and other introductory documents about Usenet.

REAL TIME COMMUNICATION (CHAT)

MSN Messenger

Yahoo! Messenger

ICQ

mIRC

Goggle Talk

Skype

Some Chat Serves

Online Chat is simultaneous text communication between two or more people via computer. Chat is synchronous communication. While chatting, one person types a message on their keyboard, and the people with whom they are chatting see the message appear on their monitors and can respond almost immediately. Other kinds of computer communication are asynchronous. E-mail, for example, may not be delivered or read until minutes or hours after it is sent, and any response need not be immediate.

There are many chat systems, including Internet Relay Chat (IRC), America Online (AOL) Chat, and Microsoft Chat. The different systems are very similar, but users can generally only chat with other people who are using the same system. Each chat system may have thousands of users spread throughout hundreds of **chat rooms**.

A **chat room** (chat session or chat channel) is a virtual room where people can communicate in real time while on the Internet. Chat rooms vary in topic and in level of conversation. Usually a chat room's name describes the topic people in it are supposed to discuss.

Netiquette is the etiquette on the Internet. Unofficial rules defining proper behaviour on Internet.

A **Netizen** (Internet citizen) is a person actively involved in online communities.

Netiquette for New Netizens

- Apply the golden rule: Treat others the way you would like to be treated.

- Remember there is a person on the other end of your message.

- Be forgiving of other people's mistakes, especially newcomers.

- Always remain calm.

- Avoid using ALL CAPS to emphasize-many perceive this as "yelling" or find it annoying.

- Refrain from using inappropriate or offensive language.

- Use your online name or nickname consistently and sign all messages with it.

- Do not send or forward junk e-mail (spam).

- Stay out of emotional arguments.

- Check your spelling, be concise, and keep messages short.

- When participating in chat rooms, avoid interrupting others and stay on topic.

- Follow the same rules of good behavior that you would in real life.

- Use **emoticons** to help communicate humor and sarcasm, and learn the common online **acronyms**

In a chat session, never give anyone:
- Your real name
- Your home, school address
- A photo of yourself
- Your parents' or your credit card details

Visit the site http://www.netsmartz.org/ and read real life stories about chat danger.

SMILIES			
:-)	standard smilie	:-o	surprised
:-(	frowning	|-I	user is asleep
;-)	winking	:-D	laughing
(-:	user is left handed	:'-(	User is crying

ABBREVIATIONS			
fyi	for your information	fwiw	for what it's worth
asap	as soon as possible	ttyl	talk to you later
btw	by the way	lol	laughing out loud
imho	in my humble opinion	rofl	rolling on the floor laughing
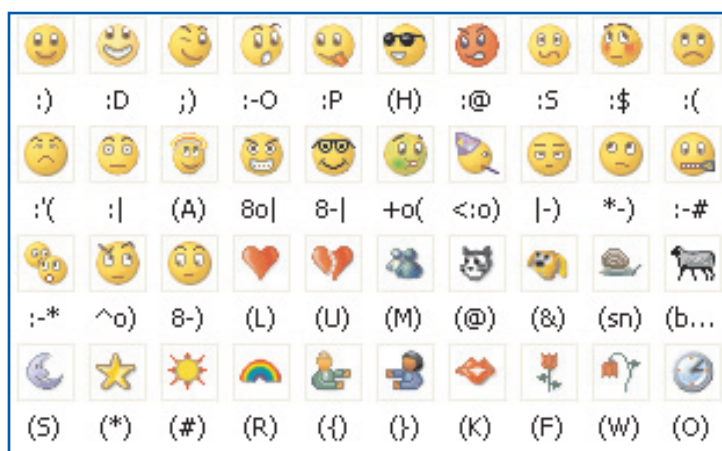
Some MSN Messenger Emoticons

Emoticons (Emotion Icons) or smilies are the sideways smiles and frowns used in to indicate emotions.

You can download thousands of MSN emoticons and smileys from the site smiley.smileycentral.com

MESSENGERS

Messenger allows you to send **instant messages (IM)**. Instant messages are used to communicate with friends on the Internet.

Windows Messenger, **MSN Messenger**, **Yahoo! Messenger** and others are instant messaging programs. They look like each other and allow you to communicate in real time over the Internet via voice or text. They are free, faster than e-mail and allow you to carry on multiple conversations at once and make phone calls to anyone, anywhere over the Internet.

Windows, MSN , Yahoo! and other messengers are similar. After you learn one of those messenger programs, you can easily use others. In this chapter, MSN messenger will be used to explain the general use of messenger.

The Instant Messaging Programs Generally Let You

- Send an instant message.
- Add contacts.
- Transfer files.
- Start a voice conversation.
- Start a video conversation.
- Perform other communication functions.

Opening Messenger Window

By default, the **Messenger** program icons are displayed in the taskbar notification area. (MSN and Yahoo! Messengers' program icons appear after installation.)
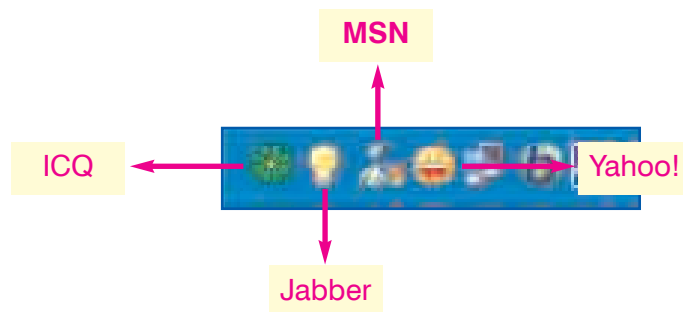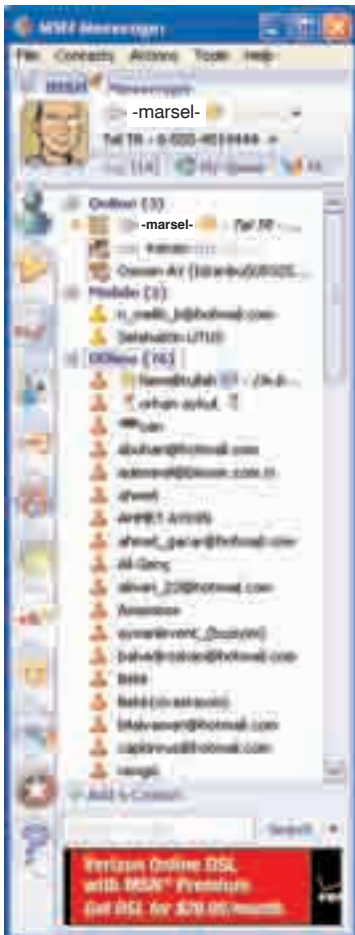
Some Messenger Programs' Icons

Step 1: Double-click on the Messenger icon in the taskbar notification area.

Step 2: If you have an ID, write your ID (Your Hotmail e-mail account name and password.) in the messenger window and get online.

Step 3: If you want to minimize Messenger, click close button from Messenger window. Messenger will continue to run in the taskbar, so that you can receive notifications messages and instant messages.

Step 4: If you receive a new e-mail, messenger mail alert dialog box appears.

Logging On

Adding a Contact

Step 1: Click Add a Contact from the Contacts menu

Step 2: Add a Contact dialog box opens. Follow the steps.

Sending an Instant Message

If you want to send an instant message to a contact, the contact must be online. Today, not only text, but also animations, picture and sounds and more effects are available with the new version of the messengers while sending an instant message.

Adding a New Contact

Step 1: Double click the contact name you want to send an instant message to.

Step 2: Conversation window appears. Type your message in the lower box.

Step 3: Click the Send button or press the Enter key.

Transferring a File

Step 1: Click the Send Files button [icon] during the conversation.

Step 2: Locate the file you want to send.

Step 3: Click the Open button. File transfer process will start after your friend accepts the file.

Online Chatting

Starting an Audio Conversation

Click the Audio button [icon] during the conversation. Your conversation will start after your friend accepts it.

Transferring a File

Starting an Audio Conversation

Starting a Video Conversation

Click the Webcam button during the conversation. Your conversation will start after your friend accepts it.

ICQ Main Window

ICQ (I SEEK YOU)

This small program takes the complicated work of finding friends, colleagues and people with similar interests across the globe, people who could be communicating by e-mail, chat, SMS, phone or pager, and makes it as straight forward as calling across a room and starting a friendly conversation.

What Can You Do with ICQ?

- Instant message.
- Chat.
- Send e-mails.
- Send SMS.
- Wireless-pager messages.
- Transfer files and URLs.
- **ICQphone** (ICQphone incorporates IP telephony functions enabling you to engage in PC-to-PC and PC-to-phone calls.)
- ICQ helps you find people. The **ICQ Community** can connect you to people with similar interests, beliefs and passions.

How Do You Get Started?

It's simple. When you install ICQ, the program asks you to register at a server, which is connected to a broad network of servers spanning the Internet. At the time of registration, you receive a unique ICQ number. In addition, ICQ gives you the option of entering personal information along with your ICQ#. This allows other ICQ users to recognize you when you log on.

IRC (INTERNET RELAY CHAT)

IRC (Internet Relay Chat) provides a way of communicating in real time with people from all over the world. It consists of various separate networks of **IRC servers**, machines that allow users to connect to IRC.

The largest nets are **EFnet** (the original IRC net), **Undernet**, **IRCnet**, **DALnet**, and **NewNet**.

Generally, the user runs a **client program** to connect to a server on one of the IRC nets. The server relays information to and from other servers on the same net.

> **mIRC** is a shareware IRC Chat client for Windows. mIRC attempts to provide a user-friendly interface for use with the IRC network.

Once connected to an IRC server on an IRC network, you will usually join one or more "**channels**" and converse with others there.

There Are Two Type Conversations on the IRC

- **Public Conversations:** Public conversations where everyone in a channel can see what you type.

- **Private Conversations:** Private conversations messages between only two people, who may or may not be on the same channel.

Some Details of IRC

- Channel names usually begin with a **#** sign, as in #irchelp. The same channels are shared among all IRC servers on the same net, so you do not have to be on the same IRC server as your friends.

- Each user is known on IRC by a nickname,

- IRC servers are run by IRC admins and by IRC operators, or "**IRC ops**". IRC ops, who can control the channel by choosing who may join (by "**banning**" some users), who must leave (by "**kicking**" them out),

- Commands and text are typed in the same place. By default, commands begin with the character / . If you have a graphical client such as mIRC for Windows, many commands can be executed by clicking on icons.

mIRC Main Window

SUMMARY

Communication is the process of exchanging information and ideas. It is a fact of society since people have started to live in communities. The Internet is the fastest and the cheapest communication tool of our technology age.

The Internet provides us to sent e-mail, subscribe newsgroups, chat with our friends, collaborate with others whom you have common interests, make a phone call, and more.

E-mail (electronic mail) is the exchange of computer-stored messages by telecommunication. Most e-mail messages usually contain text, but you can also send non-text files, such as graphic images and sound files as attachments. E-mail accounts for a large percentage of the total traffic over the Internet. An e-mail address is easily identified by the '@' symbol, for instance book@zambak.com.

There are two e-mail types; **Web-based e-mail** and **client-based e-mail**. You can access your Web-based e-mail with a computer that is connected to the Internet and has a Web browser. Hotmail and Yahoo! Mail are examples of Web-based e-mail. You will need a client program such as Outlook Express to access your client-based e-mail.

Electronic mailing list is a special usage of e-mail that allows for widespread distribution of information to many Internet users. Free web-based services (Yahoo! Groups, MSN Groups, Google Groups) are offering an easy way to run and maintain such lists. You can subscribe or unsubscribe to a mailing list by sending a message via e-mail. There are many good mailing lists. You can find the one that concerns your interest.

An **Internet forum** is an online notice board where users can post questions or post answers or comments to those questions.

Usenet is a worldwide bulletin board system that can be accessed through the Internet. The Usenet contains more than 14,000 forums, called **newsgroups**, that cover every imaginable interest group.

Chat is a real-time communication between Internet users via computer. Once a chat has been initiated, either user can enter text by typing on the keyboard and the entered text will appear on the other user's monitor. **Instant Messengers**, **ICQ**, and **IRC Network** are popular chat tools. They allow you not only to send text messages but also to make voice and video conversation, phone call, to send files and more.

1. Which one is not a reason that people prefer to use e-mail?

   a. E-mail is fast.
   b. E-mail is economic.
   c. E-mail is only the way to transfer information.
   d. E-mail lets you subscribe to forums and discussion groups.

2. Which one is wrong for Outlook Express?

   a. Comes with Windows XP.
   b. Lets you exchange e-mails.
   c. Lets you maintain many e-mail accounts.
   d. Works only with an Hotmail account.

3. What is a stationery?

   a. A database where you can store e-mail addresses.
   b. A template that includes a background image, font colours and custom images for outgoing messages.
   c. A small text that automatically attaches to every e-mail you send.
   d. An auto-filter system for e-mail systems.

4. What is wrong for Web-based e-mail?

   a. Generally free.
   b. Accessible from any computer connected to the Internet.
   c. You have unlimited e-mail storage.
   d. You can keep the same address for life.

5. What is wrong about attachment?

   a. You can attach more than one file.
   b. MIME protocol manages attachments.
   c. You can attach only images.
   d. Attached files may contain viruses.

6. To manage your incoming e-mail

   a. Organize messages into folders.
   b. Use a signature.
   c. Use spam protection.
   d. Delete the messages you do not need any longer.

7. _____ is a collection of messages postings to a newsgroup, mailing list or Internet forum.

   a. Thread   b. Forum
   c. Inbox   d. Usenet

8. Which one is true about e-mail or online chat?

   a. You can chat only with a person.
   b. You can not send files with chat programs.
   c. Chat services are with charge.
   d. Chat is a synchronous communication.

9. Which one of the following is not a real-time communication service?

   a. FTP
   b. Instant messaging
   c. IRC Network
   d. ICQ

10. Which one is not an e-mail protocol?

    a. SMTP   b. HTML
    c. IMAP   d. POP

ANSWER KEY

QUESTIONS

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1. a	1. d	1. d	1. c	1. c
2. b	2. b	2. d	2. c	2. d
3. d	3. a	3. a	3. b	3. b
4. b	4. b	4. a	4. d	4. c
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6. c	6. c	6. a	6. c	6. b
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8. d	8. b	8. d	8. c	8. d
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10. d	10. a	10. d	10. d	10. b

ENTERTAINMENT

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2. MOSAIC
3. FILE TRANSFER PROTOCOL
4. INTERNET1
5. INTERNET RELAY CHAT
6. ARPANET
7. CYBERSPACE
8. FAQ
9. ARCHIVE
10. INTERNET1
11. NETWORK
12. 1969

CHAPTER 2

1. MODEM
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CHAPTER 3

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