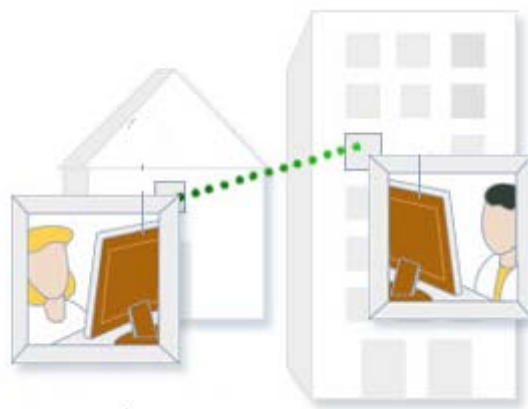Technology University
Building and Constructions Engineering Department
Computers Principles-First Class

INTERNET

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Internet

The word internet connect of two words , the first word is **"inter "**short of **"international"**, and second word **"net"** short of **"network"**. The whole word internet mean **"international network"**.

The internet is a network, a group of connected computers. Each runs software to provide or serve information and/or access and view information. The internet is the transport vehicle for the information stored in the files or documents on another computer. It can be compared to an international communications utility servicing computers. It is sometimes compared to a giant plumbing system. The internet itself does not contain information. it is slight misstatement 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 is found in (or on) is one of the computers linked to the internet.

The internet provides many services such as:
1. *Browsing.*
2. *Searching.*
3. *On – Line Business.*
4. *Electronic mail E- mail.*
5. *Chatting.*
6. *Shopping.*

Types of Networks

Network: A network is a group of computers (two or more) that are linked together to allow them to exchange information and share resources: There are two major types of networks:

1. *Local Area Network(LAN)*:connects a group of users in the same physical location (such in one building) so that they can share information and resource, like printers and internet connections ,with each other.

2. *Wide Area Network (WAN)*:connects people in the same company or organization but in different physical location. Several different networks are connected even though they may be in different cities or even in different country. The WAN can be large and very expensive to build and maintain. With a WAN ,the need to share resources is not the major consideration ,instead ,the need to share information is the major objective. A WAN allow members to share files , database , and e-mail. The internet is a prime example of a WAN.

Network Hardware

The physical media is the equipment that constitutes and supports a network:

Modem: a modem is a device that allows computers to exchange information via a telephone line .modem is short for modulator – demodulator .and it converts digital pulses to audio frequencies and back again to allow transmission over analog phone circuits.

Network interface card (NIC): some times called ***Network Adapter, is*** a circuit board that was installed inside a computer. It controls the exchange of data between a computer and network.

Transmission media: is simply something that allow computers and other devices to exchange information. it is basically a fancy way of describing cabling, though it includes technologies such as radio or infrared waves that are used on wireless networks. cables such as twisted pair, coaxial, or fiber optic ,connect network adapters to adapters on other computer or to other network equipment such as hubs ,routers, or switchers. with computers it is possible to use the phone lines and even your power lines as your network wiring. but most networks are built using dedicated Ethernet cables, called CAT5or category 5 coaxial cable.

Hub: a hub is central connecting device in a network thus joins all the computers and other device together.

Switch: a switch is similar to hub but provides more intelligent through limited routing capabilities.

Bridge: a bridge is a device that connects two networks together.

Router: a router is a device that forwards data from one network to another.

Protocols

Protocol: is a analogous to a language, or a set of rules, that determines, how computers communicate with each other. The major types of protocols are:

1. ***Transmission Control Protocol / Internet(TCP/IP)***:One of the earliest problem to be over come in the history of networking was how to get different type of computers to be able to talk to each other. this was done by creating ***Transmission Control Protocol / Internet Protocol(TCP/IP)***. ***TCP/IP*** is actually not just one protocol but a suits of protocols .TCP/IP allows computers with even totally different architectures to talk one to another. the TCP portion tell the computers how to talk to each others, and the IP portion acts as the "packaging" used to ship messages from one computer to another. two computers establish communication with ***TCP*** and then exchange data within the package of ***IP***.

2. ***File Transfer Protocol (FTP):*** Allows your computer to rapidly retrieve complex files intact from a remote computer and view or save them on your computer.

3. ***Hyper Text Transfer Protocol(Http):*** the method used to transmitted the data for that page. on the web ,its usually(http), in an address, the protocol is followed by ://

Upload: to upload is to copy a files from the computer to internet.

Download files: to download is to copy a file from the internet to your computer.

Hyper Text Markup Language(HTML) :the files in web sites are build using a programming language called *HTML (Hyper Text Markup Language)*. This markup language specifies the content, formatting graphics, and navigation for the files called a Web page.

World Wide Web(WWW)

*(World Wide Web WWW):*is actually a subset of the internet ,although most internet users deal almost exclusively with the word wide web. The web is a collection of servers and files. The files are created using HTML language.

The WWW incorporates all of the internet services and much more. when you log onto the internet using Netscape or another browser such as Microsoft internet explorer ,you are viewing documents on the World Wide Web. the current foundation on which the WWW functions is Hypertext using HTML Language. this is what provides highlighted links to other documents on the web, and it is the feature which is unique and revolutionary about the web. *URL "Uniform Resource Locations"* are The unique addresses of documents on the web.

The internet and the World Wide Web are closely related but not the same.
- The internet is a decentralized global network of computers.
- The web is a collection of documents, or web sites, that you can access using the internet and your web browser software. The web comprises the vast majority (but not quite all) of the content available over the internet.

Browser

*Browsers***:** web pages are vied using an application called a browser ,internet explorer being one example. the browser processes the HTML files to generate the display and manage your navigation.

Internet Explorer

Using the internet requires an internet connection , a modem plus an account with an internet service provider(ISP) once that connection is set up, we can lunch internet explorer.

To start internet explorer ,double click the icon

once the connection is established, internet explorer open to your home page.

Internet explorer includes the following interface elements:

1. *Address bar* : Contains the address of the page that's displayed, the address also referred to as the *URL (Uniform Recourse Locator)*,is the full path to the page. Addresses are made up of the *protocol* , the *domain name*, plus the specific *page path* within the domain:

- *Protocol*: the method used to transmit the data for that page on the web, it is usually *http (hyper text transfer protocol)* in an address, the protocol is followed by *://*

- *Domain name*: the name of the web site. domains divided Word wide Web sites into categories based on the nature of their owner, and they form part of a site's address, or **uniform resource locator(URL),**which is the address of an internet file.
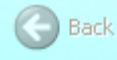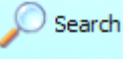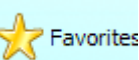
  Common top level domain are:
  - ❖   **.com- for commercial enterprises.**
  - ❖   **.org – for nonprofit organization.**
  - ❖   **.net – for networks.**
  - ❖   **.edu- for educational institutes.**
  - ❖   **.gov- for governmental organizations.**
  - ❖   **.mil – for military services.**
  - ❖   **.int – for organizations established by international treaty.**

- *Page path*: the domain name is followed by a / and the path to the specific page. a web site can be made up of a complex hierarchy of folders and files.

Anatomy of a URL			
Type of Protocol	*Domain name*	*Page path*	*File name*
http://	www.lib.berkeley.edu/	Teachinglib/guides/internet	Findinfo.html
http://	www.microsoft.com/	Windows/	Default.asp
http;//	www.yahoo.com		

2. *Standard button* : Provide options for navigating backward and forward, stopping and refreshing a page, and displaying explorer bar tools.

Function	mean	button
Back buttons allow you to quickly go to previous page.	*Back*	
Forward buttons allow you to quickly go to next page	*Forward*	
Stop button used to stop loading the page.	*Stop*	
Refresh button used to reload the current page.	*Refresh*	
The home button takes you directly to your home page.	*Home*	
The search tool allows you to search in various different ways.	*Search*	
Internet explorer favorites function allow you to save and organize a larger collection of pages so that you can get to them easily.	*Favorites*	
History tool allows you to return to pages you displayed up to a specified number of days ago.	*History*	
Outlook express default tool for receiving and composing e-mail.	*Outlook express*	
Internet explorer allow you to print web pages.	*Print*	

3. *Links Bar*: Provides quick access to a list of web pages.

4. *Statues Bar*: Provides information about the current statues of the current page and your internet connection.

5. *Explorer Bar*: Displays when you activate the search, favorites, or history function.

Searching

The search tool allows you to search in various different ways:

- *Fined a web page.* the most common type of search ,allows you to type a word or phrase to fined a web page.
- *Fined a passion's address.* allows you to search for a mailing address or e- mail address for person.
- *Fined a business.* Allow you to search for an address for a business.
- *Previous searches.* allow you to select from previous searches.
- *Fined a map.* generate a map of a location and directions to that location.
- *Look up a word.* allow you to look u information in an online encyclopedia, dictionary, or thesaurus.
- *Fined a picture.* Allow you to search for pictures on the internet.

Internet explorer 's favorites function allows you to save and organize a larger collection of pages so that you can get to them easily.

- *Adding favorites*: you can add the current page to favorites from the favorites menu, the favorites tool, or the page's context menu. when you add a page to favorite's, internet explorer prompts you for a name and where to place the favorite in the favorites hierarchy.
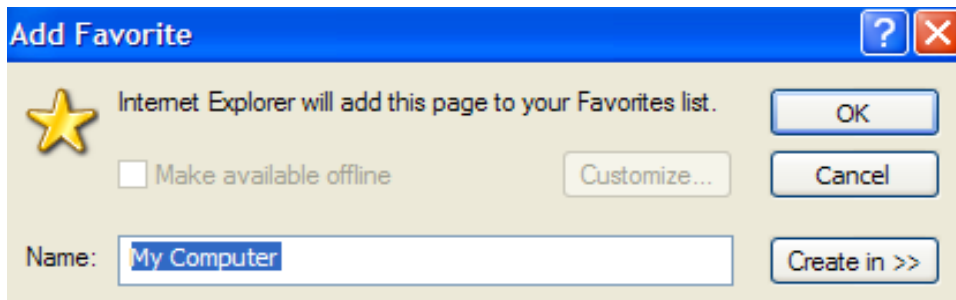

- *Organizing favorites*: a simple way to change how favorites are organized is to click the favorite and drag it to a new location in either the favorites menu or the favorites tool. you can also use the organize favorites dialog box. To display the organize favorites dialog box, click organize favorites in the favorites menu or click organize on the favorites tool. from the organize favorites dialog box ,you can rearrange items, create folders, rename items, and delete items.
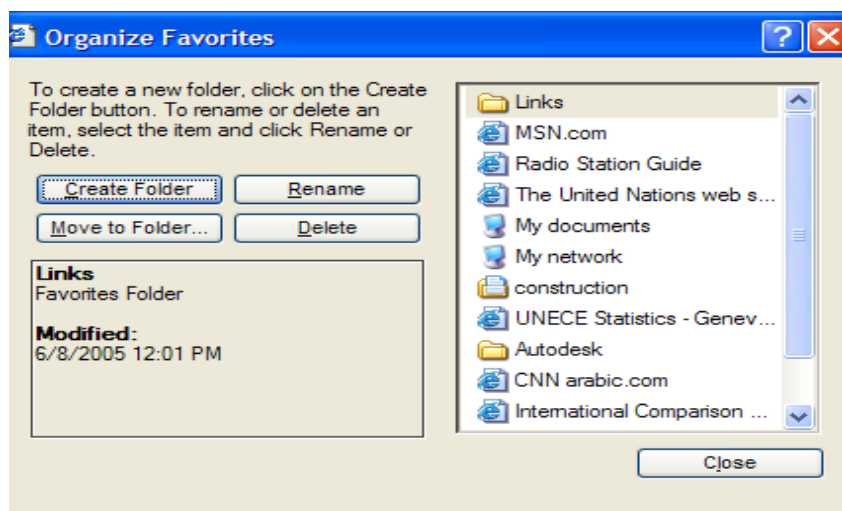
E-mail (Electronic mail): permit you to send and receive mail. Also provide access to discussion groups. Is a vital way to communicate with coworkers, customers, suppliers, anyone who is on the internet. You can send them notes at any time without worrying about voice mail or hold time.
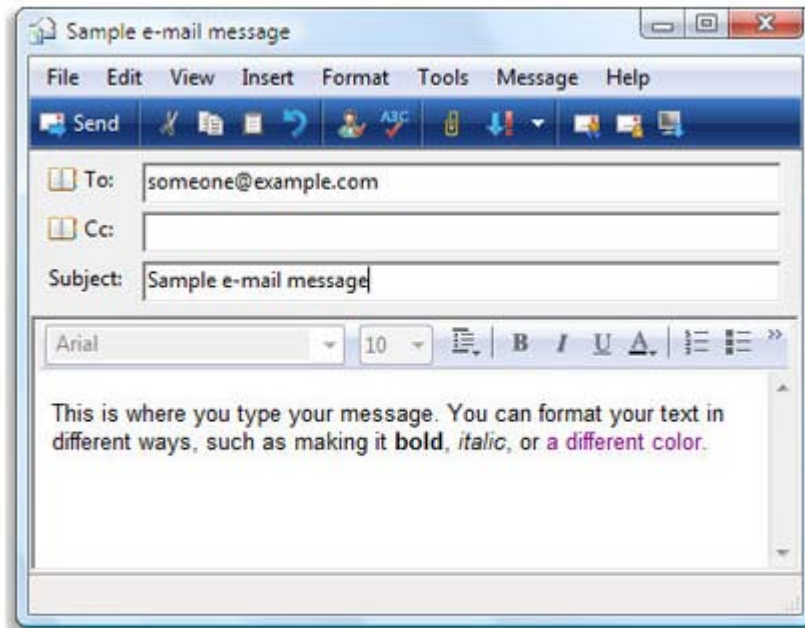
Sample e–mail message

The inbox is one mail list like all mail lists, the inbox is made up of multiple columns that can include information such as the sender, the message title, and whether the message has an attachment. You can control the width of each column and also which columns display.

To send and reply to the message, click either the reply or reply all button. Reply sends your reply only to the person who sent it. reply all sends your reply to anyone who received the original message. A new message window opens with the current message displayed. You can then type tour response before sending it.

To send a message to someone else who didn't receive it, click the forward button. a new message window opens with the message and any attachments listed. you specify the recipient, then add any notes before sending the message.

The fields at the top of the new message window are used to address the message and tell recipients what the message is about. you can type e-mail address manually, or click the field label to display the address book and select recipients from there.

To: the to field contains the e-mail addresses of the message's main recipients.

Cc: the Cc (carbon copy) field contains the e- mail addresses of additional recipients. as with paper memos, you Cc a person who might be interested in the information but is not being addressed directly.

Bcc: the Bcc field (blinded carbon copy) allows you to send a copy of the message to some one without the other recipients knowing about it.

Subject: in the subject field type the subject of the e-mail .this is what displays in your recipients inboxes.
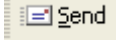
Formatting a Message

After addressing the message, you begin typing the text of the message. for e- mail messages, you have two choices of format ,rich text and plain text.

Rich text is like a WordPad file and allows you to incorporate different fonts, formatting ,and colors .plain text is like a notpad file. It uses a single, mono spaced font and does not allow any formatting other than line returns.

Adding attachment to Messages

You use the attachment function to attach a file to your message. To add an attachment, click the attach button on the toolbar. Navigate to the file, then click attach. You can also open a folder on your desktop, and then drag a file from the folder to the new message window.

Sending Messages

To send the message, click the send button . The message is places in the outbox folder until it has been sent, at witch point it is placed in the sent items folder. Items remain in the sent items folder until you delete them.

Creating a Contact

The information about a contact id divided into the following tabs:

Name: the person's name and e- mail address.

Home: the person's home address and telephone, plus the address of his personal website.

Business: the person's business address and telephone, plus the address of his business website.

Personal: information about the person's spouse, children, gender, birthday, and anniversary.

Other: additional free text notes about the person, plus the groups in which he is member.

Net Meeting: information about how the person can participate in online conferences using internet explorer net meeting tool.

Digital ID: information about online security certificates relating to this person.

Fill out the information you want, then click ok to create the contact.