Information and Communication Center

Next to Kimahama or Opposite to Golden Rose Hotel
PO Box 13143, Arusha, Tanzania, East Africa
Mobile Phones: +255 75 5646470, +255 78 7665050
Emails: lembu@infocomcenter.com
Website: www.infocomcenter.com

# INTRODUCTION TO INTERNET AND Electronic MAILS (e-mails)

V5.5

***An Effective Roadmap to Internet Knowledge Base***

Prepared by:
*Lemburis Kivuyo*
*Consultant*

***Dec 2009***

## The owner of this manual used a lot of time and money to compile it

- **If you find this manual helpful please donate**
- **If you will need the assignments and final examination to be marked to receive a basic certification please donate**

## Donation account

- **Please write to obtain an account information Email: lembu@kivuyo.com**

## Other manuals are:

1. **Advanced internet & emails management**
2. **Introduction to micro computers**
3. **PC Construction and management**
    a. **Introduction to computers, customer needs analysis, 10 steps to construct a PC , troubleshooting, OS installation and configuration and information security**
4. **Computerised accounting**
5. **Webdesign and hosting**
6. **Information security**
7. **MS Office Applications**
    a. **MS Word, MS Excel, MS Access, MS Publisher, MS PowerPoint, MS Outlook,**

**Please visit www.kivuyo.com or www.infocomcenter.com for more details**

## Lesson #1
## 1.0 Introduction

# Internet Evolution

The World Wide Web was originally developed in 1990 at CERN, the European Laboratory for Particle Physics. The original idea came from a young computer scientist, Tim Berners-Lee. It's now managed by The World Wide Web Consortium.

The **W3 Consortium**, funded by a large number of corporate members, including AT&T, Adobe Systems, Inc., Microsoft Corporation and Sun Microsystems, Inc., promotes the growth of the Web by developing technical specifications and reference software made freely available to everyone.

**What is Internet?**
Internet comes from two words Inter – Networks,
It means that connecting various networks of computers throughout the globe in the form of web net

**Two types** of networks are Local Area Network (LAN) and Wide Area Network (WAN). We have also other types of wide area networks like Intranet and Extranets

Definition:

Internet is the set of networked computers at various localities of the world that are connected using the *TCP/IP* protocols

These computers are all together webbed in the system called World Wide Web or in short www. There are also other networks apart from www which constitute to the internet

# World Wide Web (www)

Think of the World Wide Web as a vast collection of electronic files stored on millions of computers all around the world. **Hypertext** links these files together. **Uniform Resource Locators** or **URLs** are the addresses used to locate the files. The information contained in a URL gives you the ability to jump from one web page to another with just a click of your mouse. When you type a URL into your browser or click on a hypertext link, your browser sends a request to a remote computer, called a **web server**, to download one or more files. Every


URL is unique and identifies one specific file.

What does a typical URL look like? Here are a few examples:

**http://www.infocomcenter.com**
The home page for InfoCom Center which cab be retrieved using hypertext transfer protocol method (http) .

**ftp:// infocomcenter.com**
The home page for InfoCom Center which cab be retrieved using file transfer protocol method (ftp) .

The first part of a URL (before the two slashes) tells you the type of resource or method of access at that address. For example:

- http - a hypertext document or directory
- ftp – Files Transfer Protocol

The second part is typically the address of the computer where the data or service is located. Additional parts may specify the name of a file, the port to connect to, or the text to search for in a database.

***Assignment for lesson #1 ……***

1. What do you know about w3 consortium?
2. What is Internet?
3. Explain the function of the following URL parts
4. http://www.domainname.com

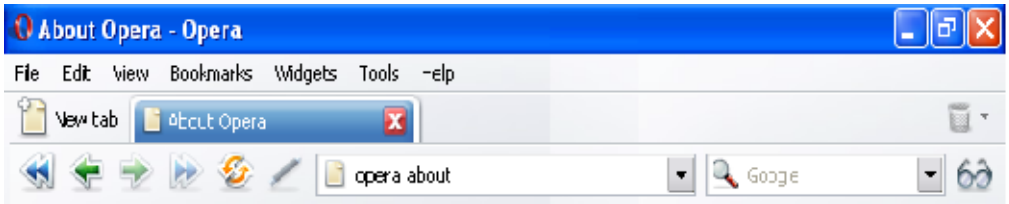
**Lesson #2 The Explorer Toolbars**

# Web browser

A web browser is the software program you use to access the **World Wide Web**, the graphical portion of the Internet. The first browser, called NCSA Mosaic, was developed at the National Center for Supercomputing Applications in the early 1990s. The easy-to-use point-and-click interface helped popularize the Web, although few could then imagine the explosive growth that would soon occur.

## The Top Three

### Opera

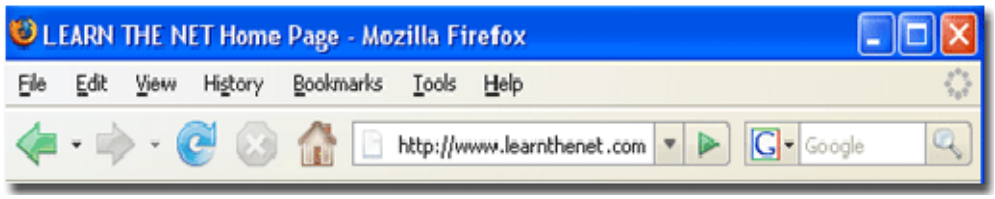



The gold award leading browser according to Top Ten Reviews Website www.toptenreviews.com

### Internet Explorer


The silver award leading browser according to Top Ten Reviews Website www.toptenreviews.com

### FireFox



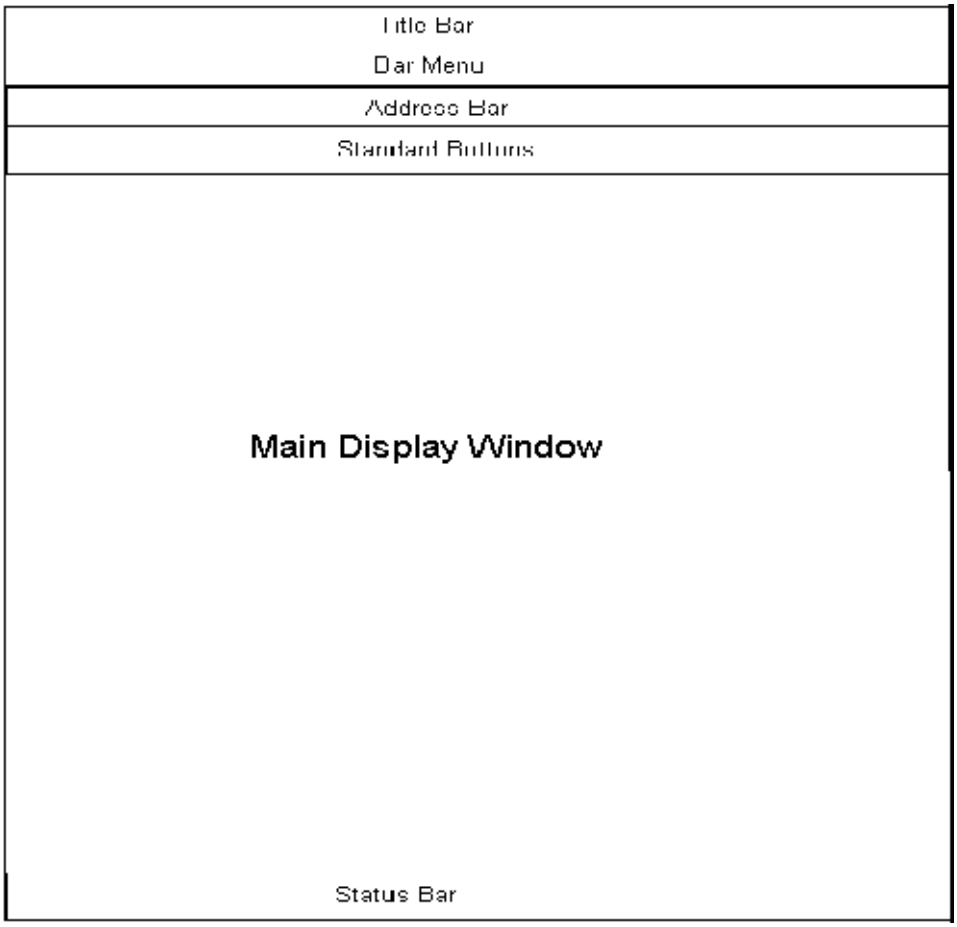

The bronze award leading browser according to Top Ten Reviews Website
www.toptenreviews.com
Firefox, a more recent entry, was released in November 2004; version 2.0, with enhanced security and other new features was released in October 2006 and has been updated periodically.

Since the three browsers above have more similarities than differences, we'll primarily cover one of this browser which is Internet Explorer.

For the most up-to-date information about each browser and a complete tutorial, check the online handbook under the **Help** menu or go to the websites of the respective software companies.

## Browser Anatomy

At least all internet browsers have in common the following parts**:**



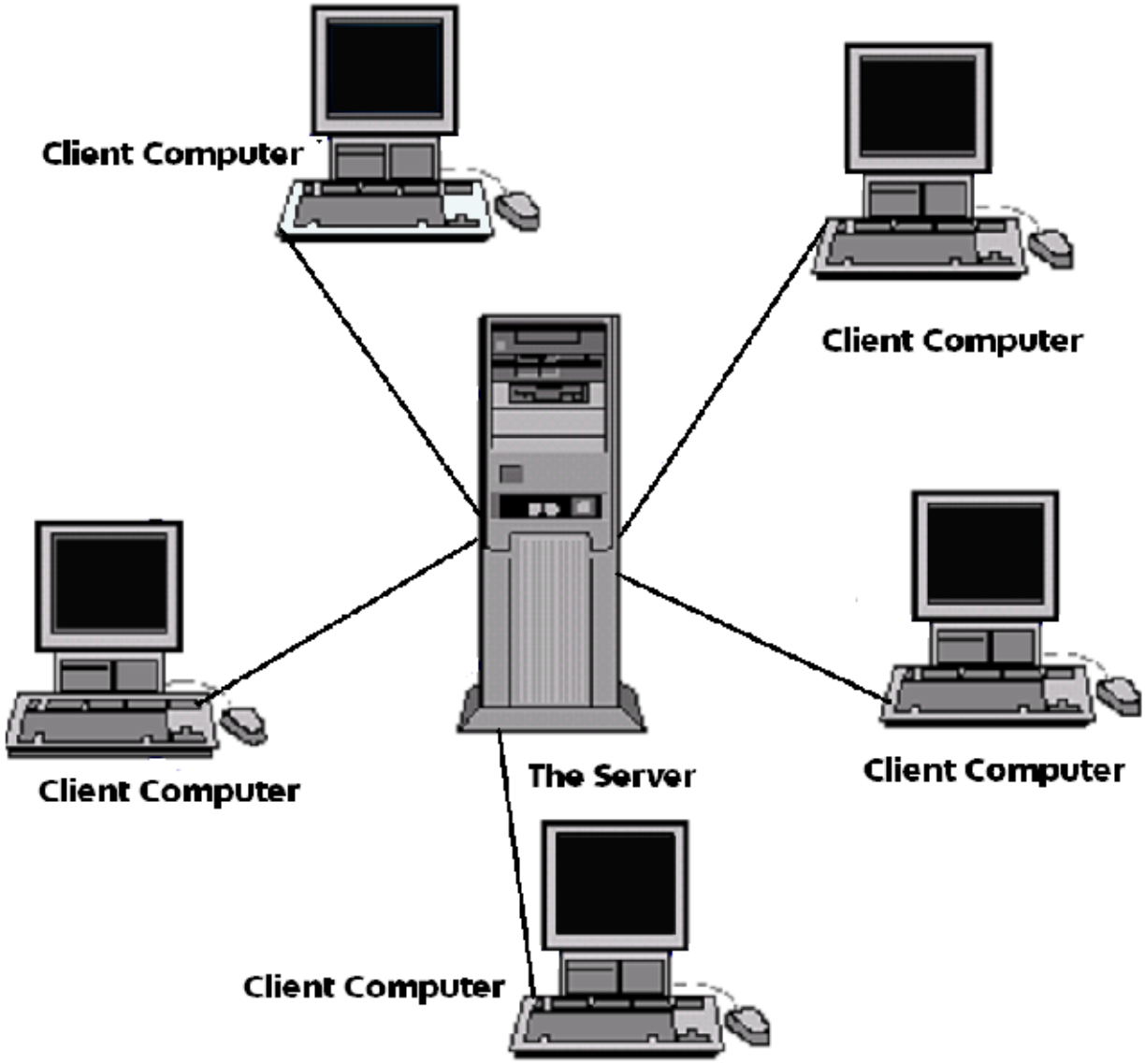

| | | |
|---|---|---|
| 1. Title bar<br>2. Bar Menu | 3. Standard buttons<br>4. Address Bar | 5. Main Display Window<br>6. Status Bar |

## How Internet Works

Learn how LAN and WAN Works

Local Area Network

The computers within a building or an office communicate through a server or a switch hub. The hub or server store the necessary resources required for communication. The computers in the network are called client computer or workstation.




When you're online, your computer, known as a **client**, requests information from a remote computer, known as a **server**. To do this, you click on a link. This instructs the server to send you the information you requested. Think of all the clicking you do as you surf the Web. Although it may seem insignificant, to some people, your clickstream has great value.

Most websites, including Learn the Net, store data about visitors to the site. For instance, we know what site you came from, which pages you visited, how long you stayed on the site, which files you downloaded, and many other related bits of information about your activities. If you register with a website, the site can identify who

you are each time you visit. (But even if you didn't register, it's still possible to discover who you are by matching records from your **Internet Service Provider** or **ISP**.)

All this information is stored in **log files** that the site operator can analyze. The information is typically used to improve the website and deliver personalized and more relevant content. For instance, we know that many Learn the Net visitors read articles about e-mail, so we try to publish more information about this subject. Understanding readers' preferences also helps publishers attract advertisers of interest to its audience. While web publishers only have user data from their own sites, your ISP has a complete record of every click you make online. In the wrong hands, this click stream data can pose a serious threat to your privacy.

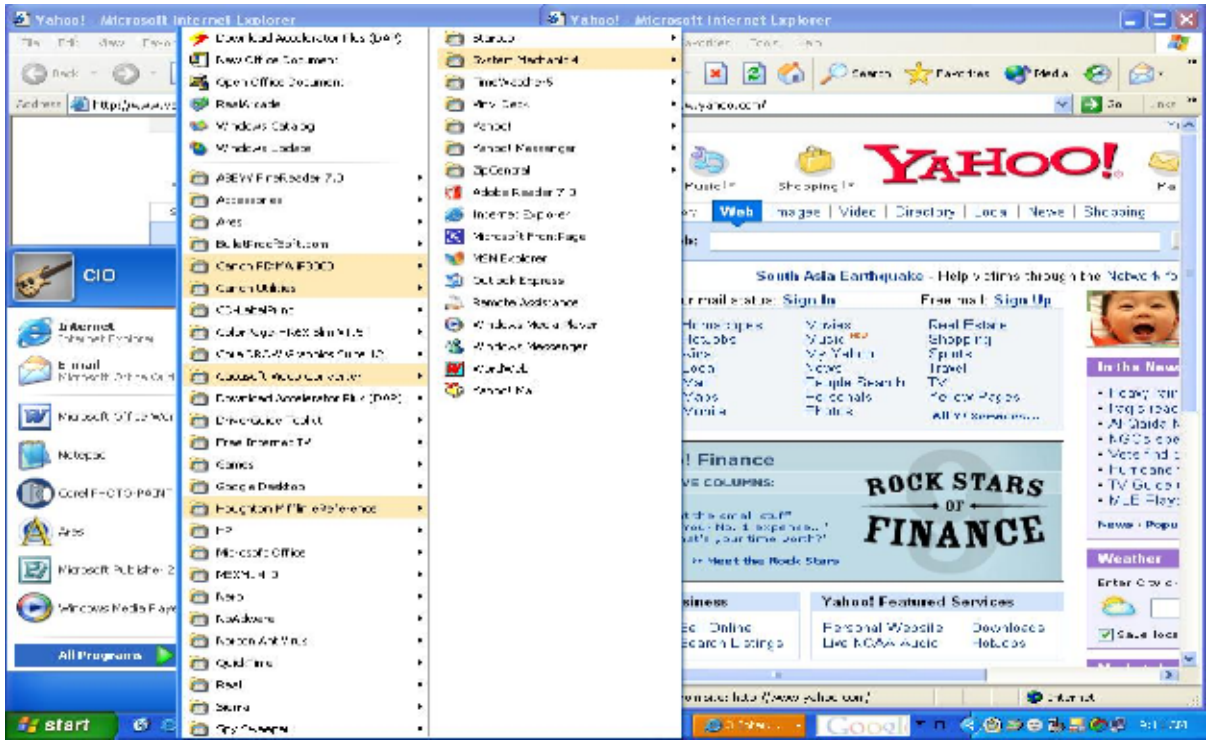
---

**What is Internet Explorer?**

Internet Explorer is the Microsoft Web Browsing program. It helps the user to connect to Web sites. Surf the Websites using hypertext links to search, view, learn, play games, audio, video, movies and or download files and program from the Internet to his/her own computer.

The versions of ie are expressed by digit and decimals where left of decimal denote major change of the browser and the right part of the decimal denote minor changes.
Internet Explorer 4.0 released with Windows 98
Internet Explorer 5.0
Internet Explorer 5.5 released with Windows 2000
Internet Explorer 6.0 released with Windows XP
Internet Explorer 7.0 released with Windows Vista
Internet Explorer 8.0 released with Windows 7

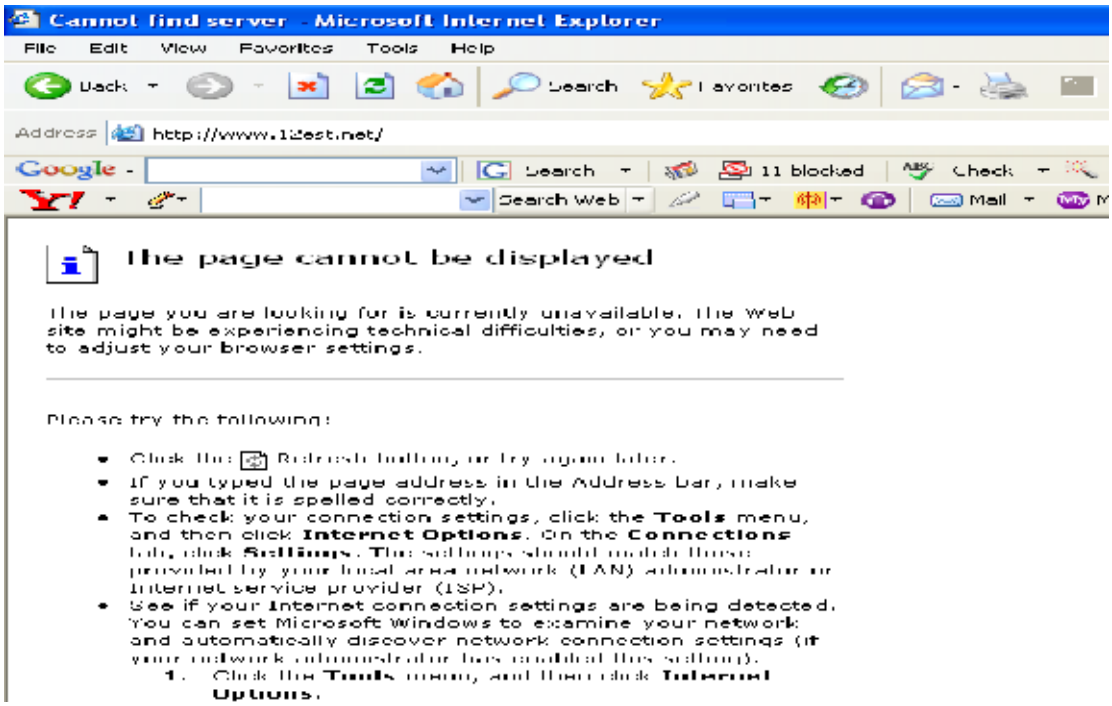
## Launching Internet Explorer




Internet Explorer can be launched directly from the computer's desktop, quick launch or from Windows Start menu (pinned program area or all programs)

Reasons why pages cannot be displayed for sometime?

If the there is no network or the website is encountering problems or there is URL typing error, then the page display will be shown as illustrated below



Using the Start Menu

Click start button from the left of the task bar. The Start menu will appear.

Place the mouse pointer on All Programs. A Submenu will appear to the right.

Click on Internet Explorer. Internet Explorer will open.

Or click internet from pinned program are

**Using a Shortcut**

- First, locate the Internet Explorer shortcut.
  This is a blue, graphically styled "e" with Internet Explorer written beneath it.
- Position the mouse over the "e" and double-click.
- The Internet Explorer window will appear.

**The Explorer Window**

- As you start Internet Explorer, its main browser window opens. It offers a selection of different toolbars as shown below.

**Title Bar:**

- It shows the title of current Webpage. It also tells you whether you are connected to Internet or working offline.

**Menu Bar:**
- It shows the main menu that gives you access to all Explorer's features.

**3. Standard buttons :**
- This toolbar contains all the main features you need to navigate around the Web.

**Address Bar:**
- This is where you type the addresses of Web sites that you want to visit.

**Link Bar:**
- This toolbar provides a selection of links to Microsoft related Web sites.

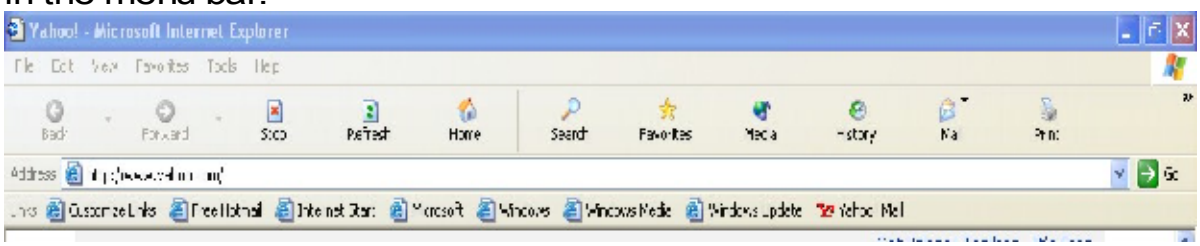
**Main Browsing window:**
- This area is where the Web sites that you visit will be displayed.

**Go button:**
- After typing the address of Web sites, clicking on this button will request the page to be displayed.

**Status Bar:**
- This bar has information relating to the activity being carried out. For example, "Done" indicates that a requested Web page has been transferred to your Web Browser, or if you click on a hyperlink the URL (Uniform Resource Locator) of that link will be displayed.

**Connectivity icon:**
When you are working online this icon is displayed.
- Scroll Up or Down Arrow: Click on these buttons to move up or down the current Web pages.

You can use Internet Explorer by using only the features of the Standard buttons toolbar. This toolbar comprises several graphically styled buttons. The buttons are, in fact, shortcuts to features that will help you find your way around the Web quickly. Once you have learnt what each of these symbols means you can save a lot of time instead of looking the features in the menu bar.



The Standard Toolbar

1. **Back**: Takes you to the previous page you were on.
2. **Forward**: Clicking on this button will display the page on screen on which you were working before using the Back button.
3. **Stop**: Stops downloading a page from the Internet.
4. **Refresh**: Refreshes the current page to show the latest version.
5. **Home:** Loads a default home page for internet explorer.
6. **Search**: Opens the Search panel in the Explorer window. This gives you access to features that helps you connect to Search Engine.
7. **Favourites**: Opens the Favourites Panel in the Explorer window, which allows you to creating, access, and managing your favourite site on the web. Basically with favourite button you can add and or organize your favourites websites
8. **History**: Opens the history panel to the left in the Explorer window. This provides a list of Web sites that you have previously visited when using Explore and by clicking one you can automatically connect to it.
9. **Mail**: Provides a menu of options related to e-mail. These include reading mails, sending new e-mail message, sending links, sending pages & reading news.
10. **Print**: Prints a curent page.
11. **Edit**: Allows you to edit the code of the current Web page, either in text format or using a Web page editor such as FrontPage. Save any changes on your hard disk but they will not affect the Web page itself.

***Assignment for Lesson #2 ……***

1. What do you know about web browsers?
2. Mention the top three web browsers and their owners
3. List the most five functional similarities of web browsers
4. Draw web browser and briefly described the important parts
5. Differentiate between WAN and LAN
6. Differentiate between Server and Client
7. Mention the most recent version of Internet Explorer
8. What is the main function of the main windows in a web browser?
9. List any five commands found in the Standard Toolbar

## Lesson #3 Search Engines.

### *What is the search engine?*

➔ This is an online program that help the user to search information like websites, images, video, audio, emails etc in the internet using keywords set by information owners

➔ A software program that searches a database and gathers and reports information that contains or is related to specified terms (keywords).

➔ A website whose primary function is providing a search engine for gathering and reporting information available on the Internet or a portion of the Internet.

➔ It uses keywords posted onto the relevant search engine

### Types of search engines:

1. **General Search Engines** -- This is a collection of general-interest search engines, directories, meta search engines and child-safe search tools. eg. Google, yahoo, MSN, AltaVista, infoseek etc

2. **Specific Search engines**

    a. These engines searches specialized things like:

- Information about specific country like UK or Japan only etc.
- Prices Search Engine
- Video search engine
- images
- Audio
- Software etc

### Popular search engines

**Examples of popular search engines are:**

**Google**

Needs no introduction. Index of 3 billion. Google Rules! Google has become a standard world engine for its sensitive capability to retrieve the exactly result related to your keyword while at the same filtering the unwanted result that may confuse the client. Google grab automatic links from newly uploaded website making it possible to find anything you need in the net. Further more unlike other search engine, Google is limited with ads and if the appear, they are few and relevant to the information you are searching for.

**Yahoo Search**

Yahoo is the second largest world search engine after Google. Its popularity lies on free email usage all over the world. There is a recent bargaining from Microsoft to buy the company at around 46bn USD of which no agreement reached yet.

**AltaVista**
*Was once the best, went through a deep portal slump, and is back bigger and better into the Top 4 indexes. Now owned by Yahoo.*

**Ask Jeeves**
Ask Jeeves lets you type a question in plain English and get back easy-to-understand answers.

**Inktomi**
Used by MSN, Looksmart and Hotbot. Now owned by Yahoo.

**HotBot**
Advanced search capabilities available.

**Lycos**
Advanced search capabilities available.

**Teoma.com**
New search engine with a clean interface

**Excite**
Uses GoTo.com

**Wisenut.com**
New search engine owned by LookSmart

**FastSearch**
True to its name.

**iWon.com**
Search and win!

**MSN Search**
A search engine backed by Microsoft, powered by Inktomi, LookSmart and DirectHit

**AOL Search**
Backed by AOL, powered by ODP and Inktomi

Mamma search engine

www.mamma.com

To search anything from the internet write a keyword that explain what do you really want.
A Keyword is a word, phrase or sentences that identify the information you are looking for among many other information. The longer the keyword the precise and fewer results you get. Even sometime longer keywords yield zero results. It is advised therefore to change keywords several times from longer one to shorter one until the results you are looking for are displayed.

**Example:** Computer prices will search all information which includes either computer prices, prices or computer.
“Computer prices” will only search for computer prices

***Assignment for lesson #3 ……***

1. What is the search engine?
2. Mention types of search engines
3. List any five popular search engines

## Lesson #4 Navigating through the Web

Navigating the web is just another term of exploring or surfing the internet. Visiting websites of choice for various needs, some can be; studying, downloading information or software, buying or selling, doing quotations, chatting, reading and sending emails, attending lessons, forums or discussions, attending surveys, reading newspapers, or books, watching movies or music, listening music or speeches, playing games, doing reference for researches or various studies etc.

### Starting from the Address Bar

In order to surf the internet effectively one should first understand about website addresses.

The following is a brief description of website addresses, please follow the lesson attentively.

### Understanding Website Address

A web address (sometimes called a URL, or Uniform Resource Locator) typically is composed of four parts:

1. A protocol name (a protocol is a set of rules and standards that enable computers to exchange information)
2. The location of the site
3. The name of the organization that maintains the site
4. A suffix that identifies the kind of organization it is (such as .com for a commercial organization)

For example, the address http://www.infocomcenter.com/ provides the following information:

| | |
|---|---|
| http:// | This Web server uses Hypertext Transfer Protocol (HTTP). |
| www | This site is on the World Wide Web. |
| infocomcenter | The Web server is at infocomcenter. |
| com | This is a commercial institution. |

### Types of website by Extensions

| | |
|---|---|
| .com | Widely used for commercial companies; eg. www.infocomcenter.com |
| .net | Widely used for network related institution; eg www.webstar5.net |
| .org | Widely used for non profit organizations; eg. www.wvi.org |

| | |
|---|---|
| .edu | Used for academic institutions; eg. www.stclements.edu |
| .gov | Used for governments institutions; eg. www.usa.gov |
| .go.tz | Used for governments institutions with specific country<br>Examples are: http://www.tanzania.go.tz for Tanzania government institutions |
| .co.tz | Used for profit making institutions with specific country<br>Examples are: http://www.ttcl.co.tz for Tanzania Telecommunication Company Limited |
| .or.tz | Used for non profit organizations with country specific extension<br>Examples: www.wocha.or.tz |
| .sc.tz | Used for school institutions nursery, primary and secondary with country specific extension; Examples: N/A |
| .mil.tz | Used for military institutions with country specific extension; Examples: N/A |
| .ne.tz | Used for network related institutions with country specific extension; eg. N/A |
| .ac.tz | Used for tertiary academic institutions like colleges and universities with country specific extension; Examples are: http://www.esis.ac.tz |

The extension are emerging every day to reflect the new industry needs

**Typing URLs (Uniform Resource Locators)**

Click on the Address bar

The URL that is currently in the Address bar will be selected.

2. Type the URL of the Web page you want to visit. The first URL will disappear and the URL you are typing will be displayed.

3. Press the Go button when you have finished typing the URL. The Web page will appear in the browser windows.

Using Auto Complete/Drop lists to enter a URL

If you've typed Web addresses previously in the Address bar, Internet Explorer will attempt to guess which Web address you want. In this case the address will automatically spell out and you have to press 'ENTER' command. The list of related addresses will also drop out. In this case this is called drop lists addresses.

## *Assignment for lesson #4*

1. List other three word used for web navigation
2. Describe the important parts of the URL
3. Mention 10 web extensions and their types

## Lesson #5 Storing Website Information

*There are three ways to store website information as follows:*

1. Save as normal file or document
2. Use Copy command after selecting
3. Use download command (if applicable)

***Save as normal file or document***

Go to file menu, select save as command then select your preferred destination. Remember to create a new folder and name according the information contained in your website

Note: Some websites are protected from Save us command, hence you may end up with the response message 'errors, the websites cannot be saved'

***Use copy command***

This command is used after selecting the information or image which you want to copy

Steps:

- Select the desired information or image using the mouse
- Right click it and select copy command
- Go to the relevant application and select paste command by right clicking the area you want to put the information or image
- If you want to copy an image either select as shown above or right click direct the image you want to copy and select copy command
- Or right click an image and select save picture as command, follow onscreen instruction as save as command

Note: Some websites are protected from copying command, hence you may end up with the response message 'sorry. copy is not allowed in this website'

***Downloading files from the internet***

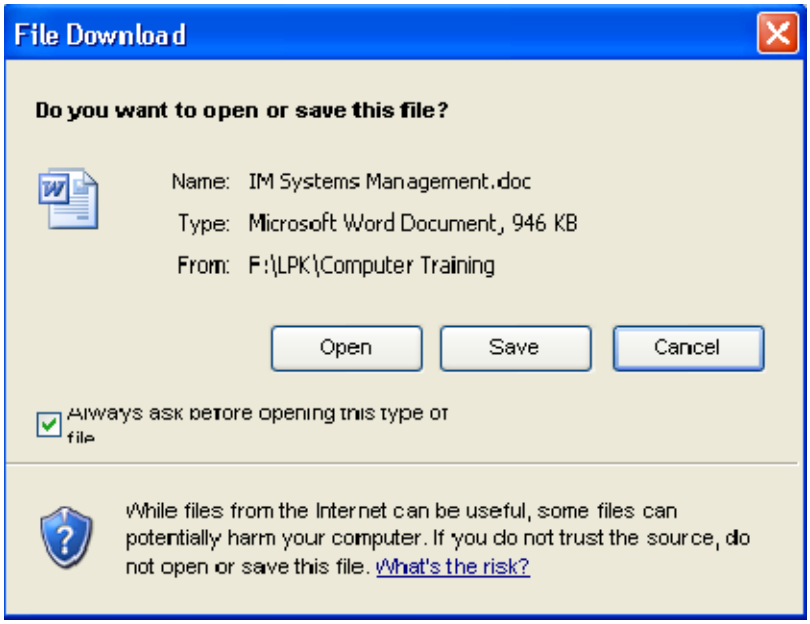
There are two options

Go to the website with downloadable file and:

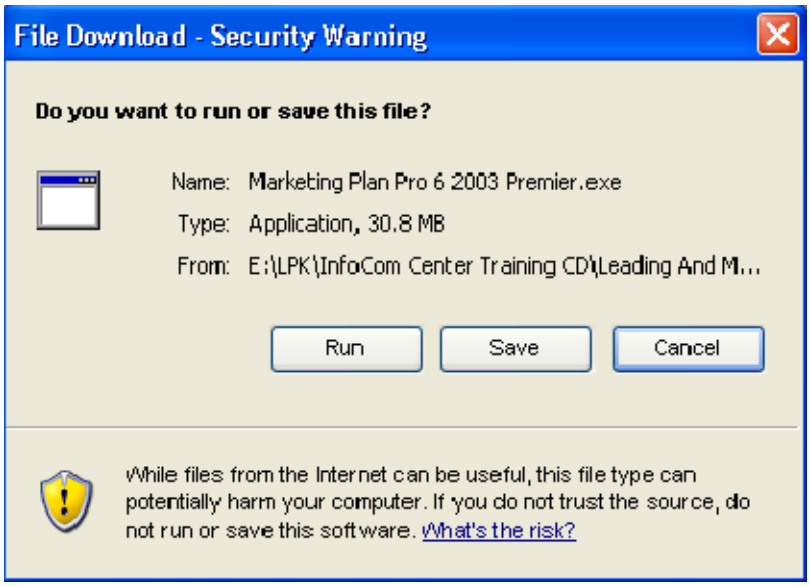
1. Select download link and click it to download (it may contain the word download or other instructive words). Sometime the file to be downloaded is located in the different location which may enquire you to click several links before reaching the file.
2. Right click the downloadable file and select "save target as"

In both option above the guiding wizard dialogue box will appear, follow the onscreen instructions

For both option, the following pop up dialogue box will appear:




Use open command if you want to read the file once and discard, alternatively use the save command and select or create the folder in the computer or removable drive to save permanently your file for future use otherwise use cancel command to ignore the download option.




Use run command if you want to install the application direct from the internet and discard the installation file, alternatively use the save command and select or create the folder in the computer or removable drive to save permanently your application file for future use otherwise use cancel command to ignore the download option.

## Printing Web information

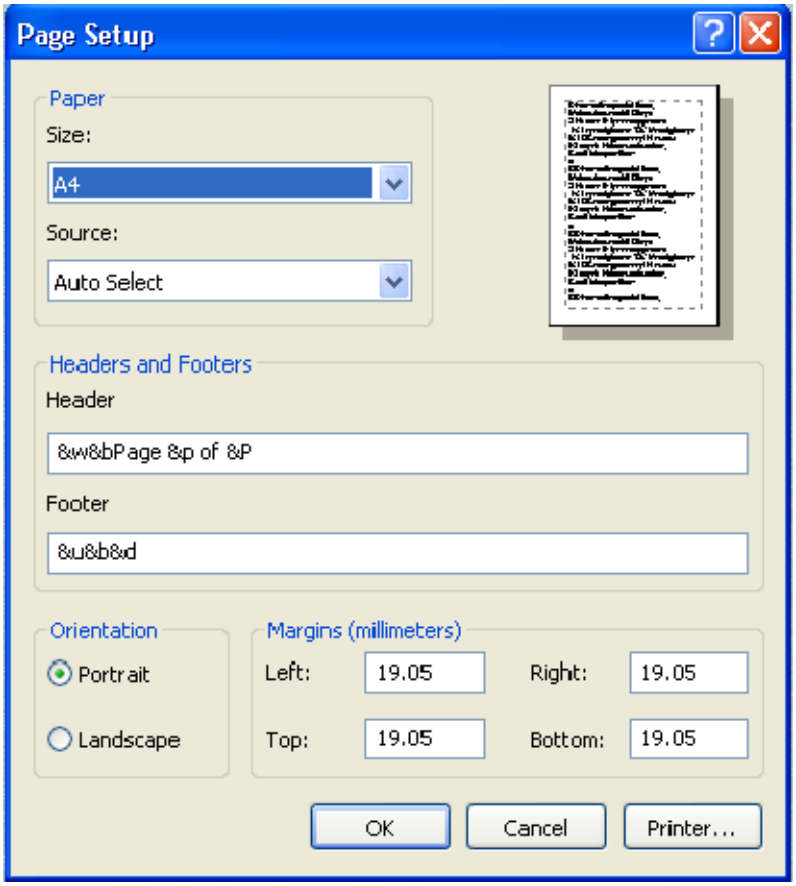
Three steps are necessary for any computing printing.
These are:

1. Page setup
2. Print preview
3. Printing

*Page Setup*

We normally use page setup to set paper size, header and footers (optional), orientation and margins E.g. If you want to print a web document in an A4 paper, when in page setup select

Paper size 'A4'
- Paper source 'auto feeder'
- Header 'fill the appropriate information'
- Footer 'fill the appropriate information'
- Paper orientation 'select either portrait or landscape'
- Paper margins 'set left, right, top and bottom paper margins'

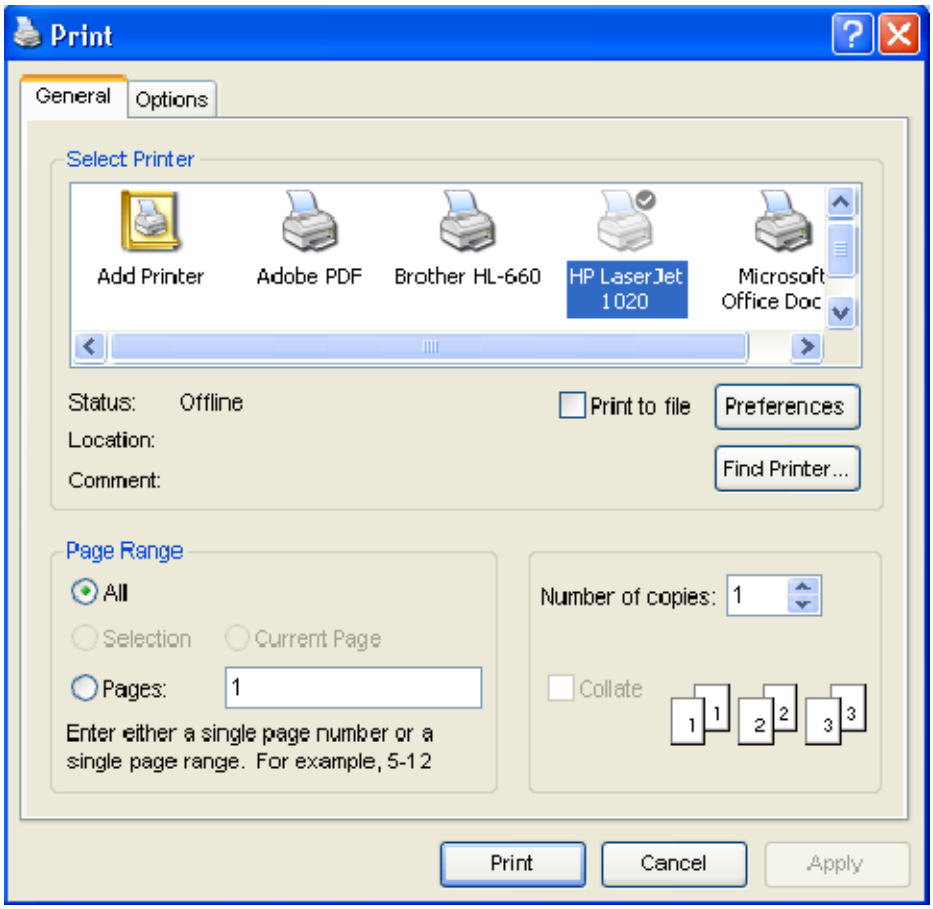


*Print preview*

- We preview documents to be printed in order to see if:
- The whole document match with the selected settings in page setup
- The document match with printer settings

*Printing a document*

- In printing dialogue box:
- Select printer to use from a varieties of printers (this depend on the quantity of installed printers in your computer)
- Set printer preference
- Set number of copies you want to print
- Select all pages if you want to print all or type the page number you want to print in the space provided below eg. 9 or 1, 2, 6-13 or 1-10 etc




## *Assignment for lesson 5……*

1. Describe important methods to save web information
2. Describe important methods to download files in the internet
3. *What is the function of*
    a. *Print setup*
    b. *Print preview*
    c. *Printing a document*

## Lesson #6 Electronic Mails

### Course Contents

1. Introduction
2. Opening and closing the program
3. Composing messages
4. Formatting messages
5. Spell checking messages
6. Attaching and downloading attachments (files)
7. Sending and receiving messages
8. Saving messages
9. Printing messages

### Introduction:

Email is an abbreviation of Electronic mail, which means the communication of information (text, graphics and or attachment) through the networked computers ie. through the internet

*Understanding Emails Managers*

### There are two types of email managers

1. Internet based (Online programs or webmails)
2. Local Based (ie Within your computer)

### Internet based

Internet based email managers are programs that manage emails online or in the internet; example hotmail, google mail and yahoo mail. Online mails management is also known as webmails.

### Local Based

Local based email management is the management of emails within the local computer; email messages can be composed locally just like writing using word. The messages can be downloaded from the internet and saved in the local computer. The emails can also be uploaded to the internet leaving the copy in the computer

Examples are; Eudora Express, Microsoft Outlook and Outlook Express

Versions of Microsoft Outlook are expressed in years like Microsoft Outlook 97, Microsoft Outlook 2000, Microsoft Outlook 2002, Microsoft Office Outlook 2003 and Microsoft Office Outlook 2007

While those of Outlook Express are expressed in numeral like Outlook Express 5, Outlook Express 6 and Outlook Express 7

## Advantages and Disadvantages of each type

## Internet Based Emails

Advantages

1. You can receive, read, compose and share your emails in any part of the globe even without travelling with your computer. Just go to the internet café or any internet connected computer and start your online service (ie webmail like yahoo, gmail, hotmail etc)
2. Emails messages are more secure than if you decide to manage locally because email services providers like web hosting companies uses highly qualified technicians and high-tech equipment to maintain the servers, and protect information against computer hackers, viruses, spyware and online terrorists.

Disadvantages

1. Email cannot be accessed if there is no internet services
2. They are much slower than the local based emails

### Local Based Emails

Advantages

3. Email can be accessed even if there is no internet services and hence easier to make reference for old emails.
4. They are much faster than the internet based emails
5. Emails messages can be stored and transferred using removable media

Disadvantages

6. You cannot receive, read, compose and share your emails in any part of the globe apart from your place where the local computer is located (except if you are using online packages that can retain online copies). But due to remote management programs, it is easier to access your office computer while travelling

7. Emails messages are not secure than online one because most local users cannot afford in budget and high tech to protect information against computer hackers, viruses, spyware and information terrorists.

For the sake of this guide, we will limit ourselves to Google Mail and Outlook Express mails

# Introduction to E-mail

• E-mail allows you to communicate with people all over the world, for free!

• This handout will help you sign up for a Gmail account and learn how to send, receive, and manage your e-mail messages.

**First, some general information about e-mail addresses:**

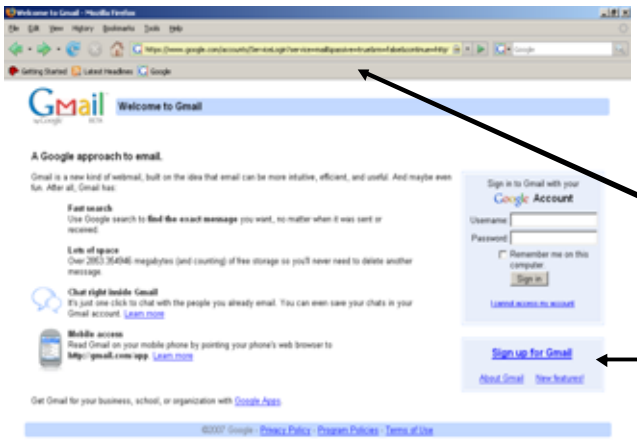
• E-mail addresses are composed of two parts connected by the "at" symbol (@): **him@yahoo.com**

• There are no spaces in an e-mail address.

• You may use a combination of letters and numbers in your user name.

• E-mail addresses are usually typed in all lower case letters.

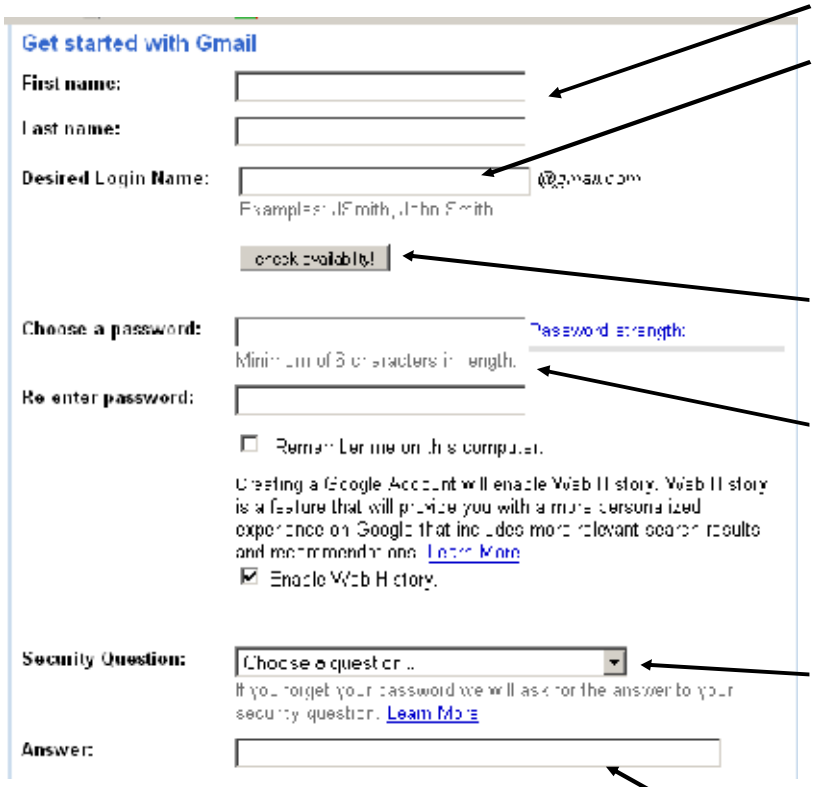
Your username @ Your e-mail provider




## How to sign up for a Gmail Account:

1. Go to www.gmail.com

2. Click on "Sign Up for Gmail"




3. Enter your first and last name.

4. Choose a login name.

- This will be the 1st part of e-mail address.
- Choose something simple, that is easy to remember and spell.
- Use letters, numbers, or punctuation marks.

5. Click "check availability!"

- If this login name is not available, choose from the suggested list, or type a new one.

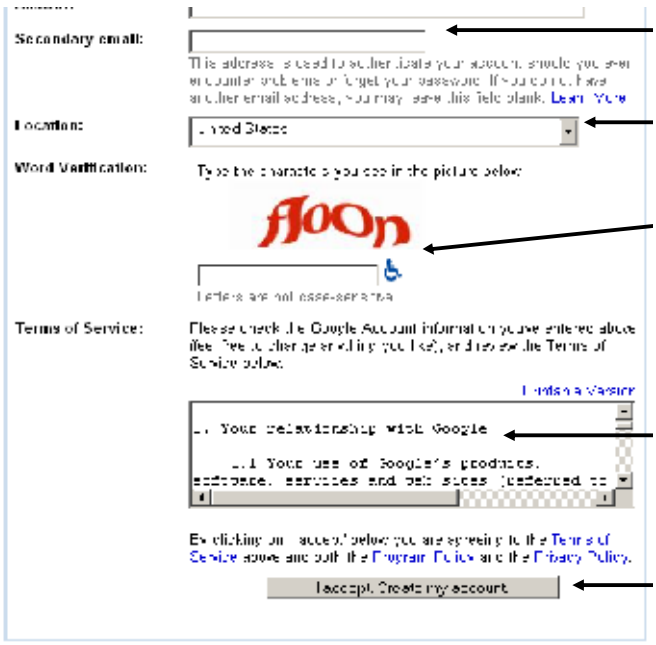
6. Choose a password.

- Choose something you can remember, but is not easy for others to guess.
- Use letters *and* numbers or special characters (ex. Pet$52name).

7. Choose a security question from the drop-down menu.

- If you forget your password, Gmail will ask you this question. Don't forget your answer!

8. Type your answer to the security question.




9. Leave "secondary email" blank.

10. Location: United States

11. Type the scrambled word in the box.

- This is a security feature to protect Gmail from programs that automatically sign up for email accounts.
- For example, here you would type **floon**.

12. Read the Terms of Service.

13. Click "I accept. Create my account."

Congratulations! You have signed up for an e-mail account!

Your e-mail address is "*your_login_name*@gmail.com"

Write it here: _____@gmail.com

# How to use your Gmail account:

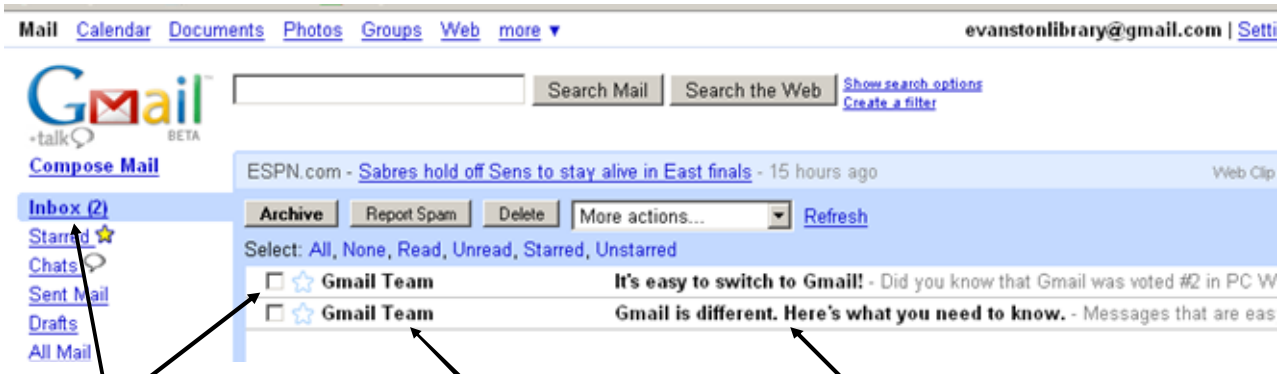

1. Go to www.gmail.com
2. Enter your username and password.

•Your password will show up as **asterisks** This is a security feature.

•**Do not** click "Remember me on this computer" if you are using a public computer (like at the library).

3. Click "Sign in"

(If you forget your username or password, click "I cannot access my account.")




Your mail
(new messages will be in bold)

Sender's name

Subject of the message

# How to read your messages:

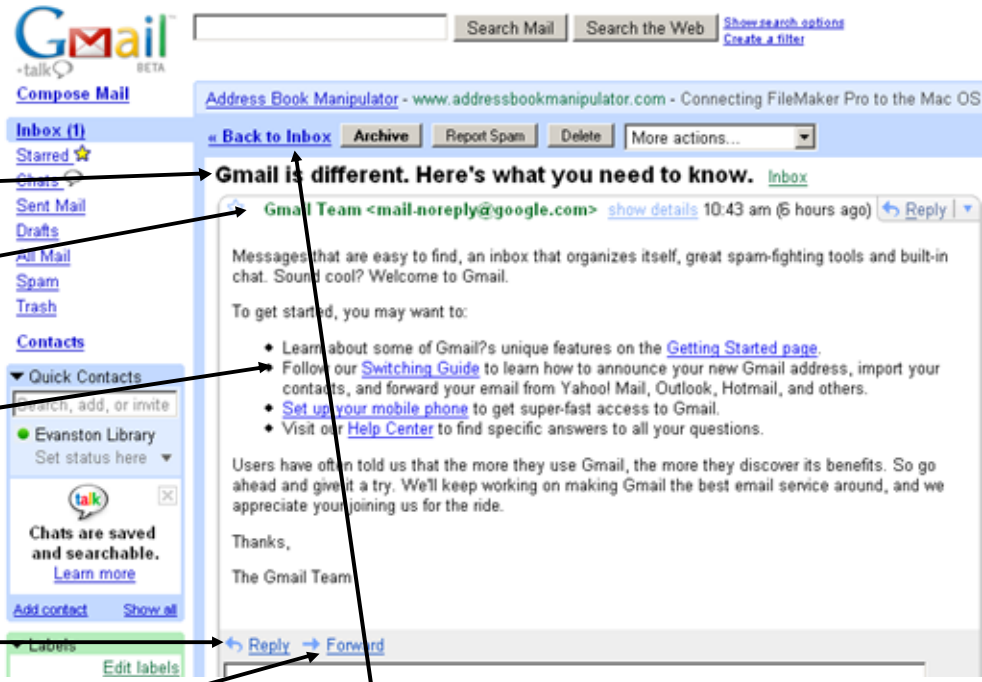
1. Click on the name of the sender or the subject of the message.

2. You will see:

Message subject

Sender's name and email address.

Body of the message.




3. After you have read the message, you can:

- reply to it
- forward it to another person
- or leave it as is.

4. Once you are finished, click "Inbox" or "Back to Inbox" to see the rest of your messages.

## How to send a new message:

1. Click "Compose Mail."

2. Enter the recipient's email address.

• type the *whole* address (ex. johndoe24@yahoo.com)

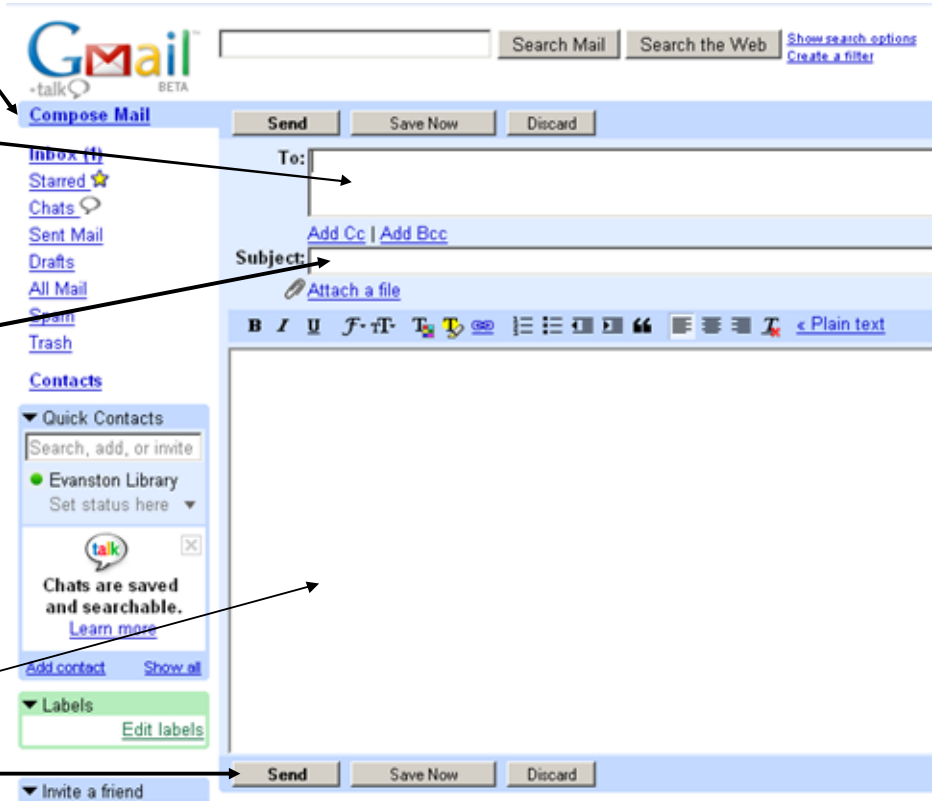
3. Enter a subject for the message.

• The subject should be short, but descriptive.

• If the subject is too generic (ex. "hi" or "how are you?"), the recipient may think it is junk mail ("spam") and ignore it.

4. Type your message.

5. Click "Send."




Slide 7

# How to Open an Attachment:

Pictures, reports, resumes, etc. are often sent as "attachments." This means they are not written in the body of the email message, but are separate files that must be opened to be viewed or read.

Attachments are identified by a small paperclip icon next to the email message's information.

The attachment will appear after the body of the message.
The file extension (here: *.doc*) tells you what kind of document it is (*.doc* = Word document; *.jpg* or *.gif* = picture; etc.).

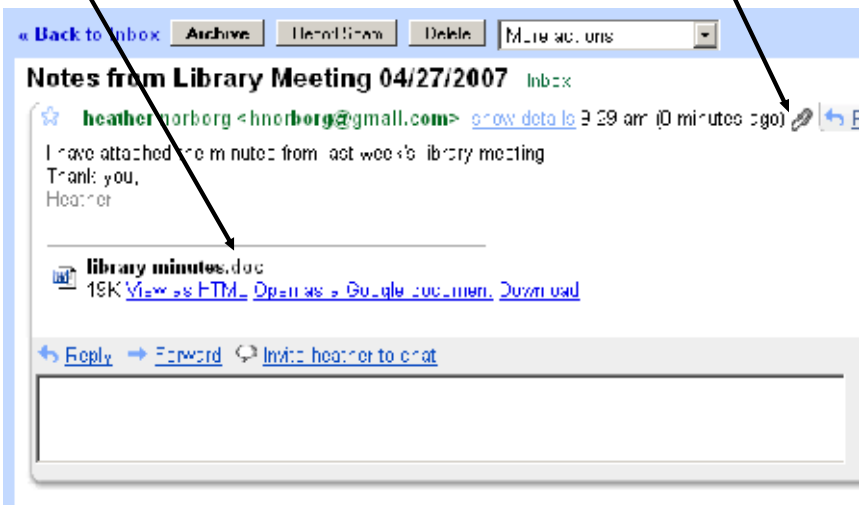
**To open the attachment:**

Click on:

"View as HTML" just to look at it in your Internet Browser.

or

"Download" to save it to your computer.




**Warning:**

Viruses are often sent as email attachments. Gmail will scan the attachment for viruses, but…

**Do not** open **any** attachments with a *.exe* file extension or if you do not know the sender or are not expecting the attachment. It is better to be safe than sorry!

# How to send an attachment:

1. Click "Compose Mail."

2. Enter the email address and subject and click "Attach file."

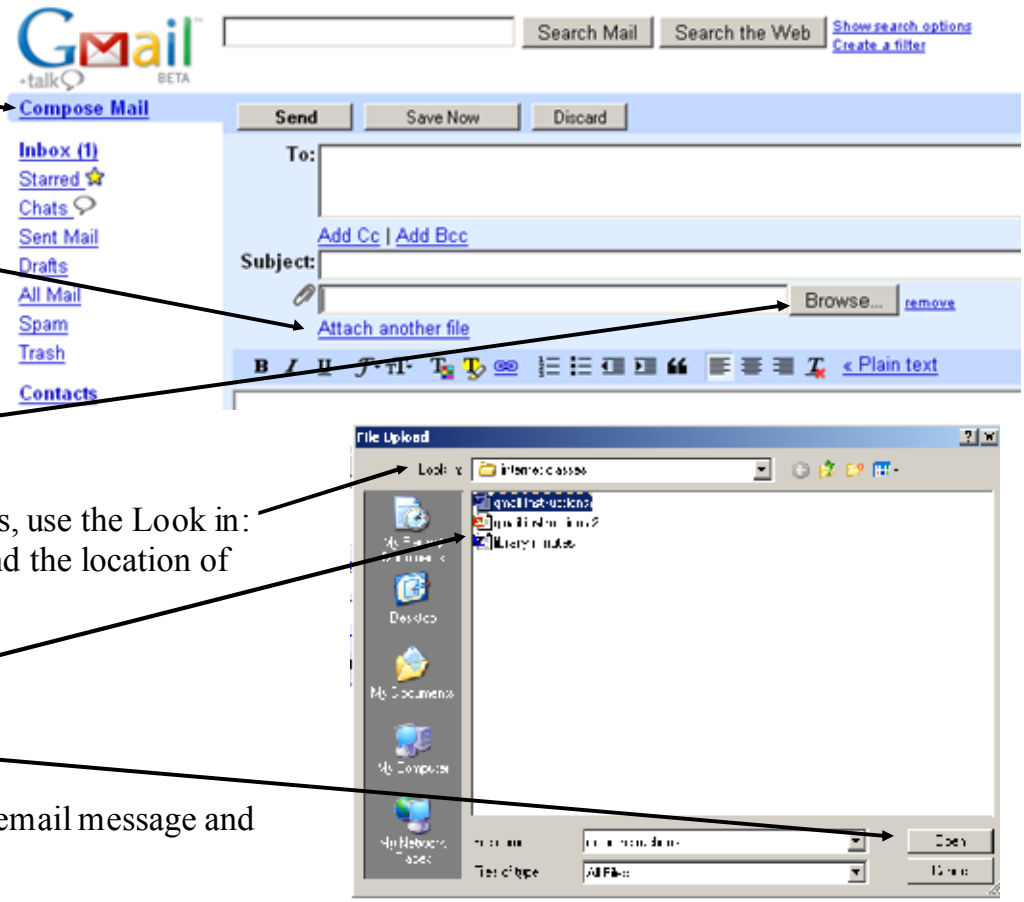
3. Click "Browse" to find your file.

4. In the box that opens, use the Look in: drop-down menu to find the location of your file.

5. Select the file.

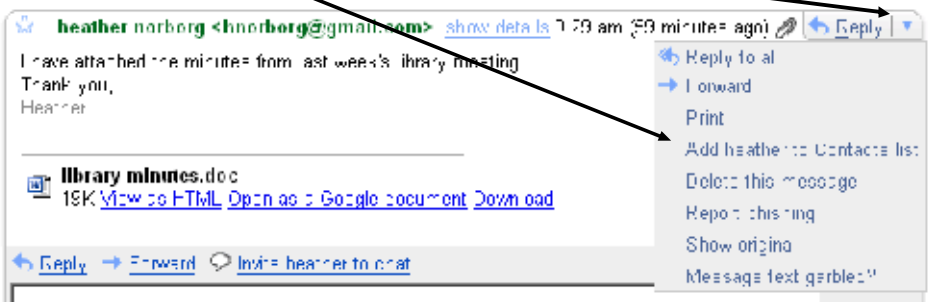
6. Click "Open."

7. Finish writing your email message and send it.



## More Gmail tips:

1. Search Mail 
   - Use this box to search for names, words, or phrases within your email messages.
   - It will show you all the messages you have sent and received with those keywords anywhere in the message.
2. Contacts
   - To add an email address to your Contacts list, open a message from that person.
   - Click the drop-down menu next to Reply.
   - Click "Add *sender's name* to Contacts list"




Remember: *always* **Sign Out** of your email when you are finished! 
This is especially important when you are using a public computer (like at the library).

## Local based emails

### Understanding Outlook Express

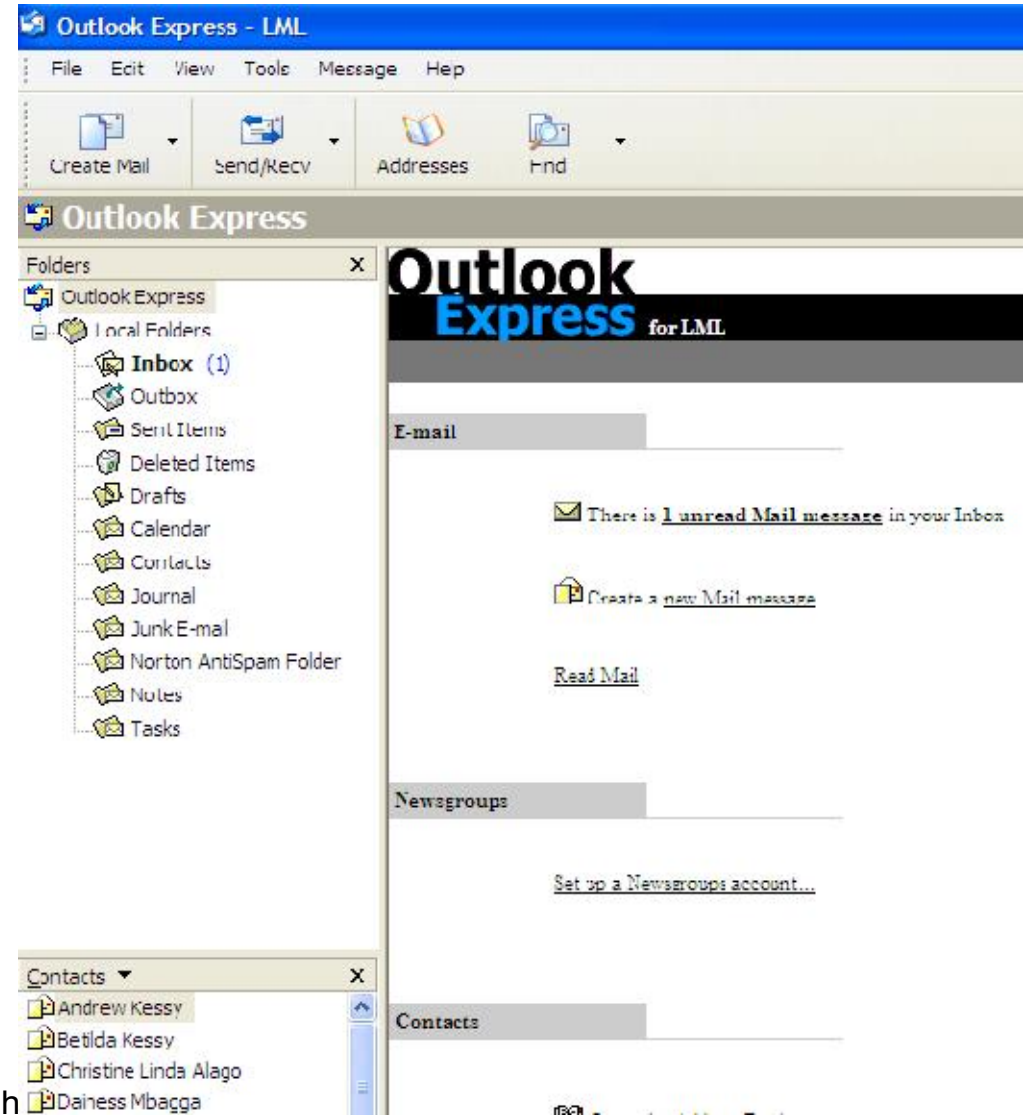
Microsoft Outlook Express puts the world of online communication on your desktop. Whether you want to exchange e-mail with colleagues and friends or join newsgroups to trade ideas and information, the tools you need are here.

With an Internet connection and Outlook Express, you can exchange e-mail messages with anyone on the Internet and join any number of newsgroups.

The Internet Connection Wizard helps you connect to one or more e-mail or news servers. You will need the following information from your Internet service provider (ISP) or local area network (LAN) administrator:

- To add an e-mail account, you need your account name and password, and the names of your incoming and outgoing e-mail servers.
- To add a newsgroup, you need the name of the news server you want to connect to and, if required, your account name and password.

The following topics tell you how to start receiving and sending e-mail, in addition to how to view and join newsgroups. After you get started, you'll find there are many ways to tailor Outlook Express to your needs. Look in Help Contents for ideas.




h

**Opening and Closing the program:** Go to the Start menu then click Email in the pined program area or open all programs and click outlook express shortcut

## *Assignment for lesson #6*

1. What do you know a bout email
2. Mention and describe two types of email managers
3. What are the advantages and disadvantages of each type
4. What are the main parts of an email address and meaning
5. What is the basic information needed to register an email address?
6. What is the basic information needed to login to an email address?
7. Describe the basic features (functions) of the email manager

## Lesson 7: Basic Outlook Express setup

To add an e-mail account

You will need the following information from your Internet service provider (ISP) or local area network (LAN) administrator:

1. For e-mail accounts, you'll need to know the type of e-mail server you use (POP3, IMAP, or HTTP), your account name and password, the name of the incoming e-mail server and, for POP3 and IMAP, the name of an outgoing e-mail server.
2. On the Tools menu, click Accounts.
3. In the Internet Accounts dialog box, click Add.
4. Select either Mail or News to open the Internet Connection Wizard, and then follow the instructions to establish a connection with an e-mail or news server.

Note

Each user can create multiple e-mail or newsgroup accounts by repeating the procedure above for each account.

To switch between e-mail and news reading

In the Folders list, click the Inbox folder to go to your e-mail, or click a news server name or specific newsgroup to visit newsgroups.

-or-

Click Outlook Express at the top of the Folders list to open the Outlook Express pane where you can click a link for the task you want.

Setting up multiple identities

If there is more than one person in your house using the same computer for e-mail, each person can have a separate mailbox in Outlook Express. This means that each person can have separate messages, contacts, and personal settings. This is made possible through the creation of multiple identities. Once the identities are created, you can switch among them without having to shut down your computer or lose your Internet connection.

The following topics provide more information:

1. Add a new identity
2. Delete an identity
3. Switch to a different identity
4. Change the current identity's settings
5. To add a new identity

On the File menu, point to Identities, and then click Add New Identity.

1. Type the name of the new user.
2. If you want to include a password for this identity, select the **Require a password** option, and then enter a password.

   Outlook Express asks you if you want to log on as the new user. If you answer yes, you will be prompted for information about your Internet connection. If you answer no, the current user remains logged on.

To delete an identity

1. On the **File** menu, point to **Identities**, and then click **Manage Identities**.
2. Select a user, and then click **Remove**.

Notes

- You cannot delete the current identity.
- When you delete an identity, the corresponding settings are deleted, but the data are not deleted.

To switch to a different identity

1. On the **File** menu, click **Switch Identity**.
2. Select the user you want to switch to.

To change the current identity's settings

1. On the **File** menu, point to **Identities**, and then click **Manage Identities**.
2. Change any of the settings.
   - To change your identity name or password, select your identity name, and then click **Properties**.
   - To change the identity that opens on startup, select an identity from the drop-down list. (If the check box is cleared, you will be prompted for the identity you want each time you open an identity-aware program.)
   - To change the identity that you want all programs (identity-aware or not) to use when performing automatic processes, select an identity from the bottom drop-down list.

## Customizing the Outlook Express window

There are a number of ways to arrange the Outlook Express window to suit your working style:

1. Change the display of the preview pane
2. Change the Outlook Express Folders list, status bar, or toolbars
3. Customize the toolbar

4. Change the columns displayed in the message list
5. Change the font used to display messages

To change the display of the preview pane

The preview pane lets you view message contents without opening the message in another window. To preview a message, click its title once. To open it in its own window, double-click the title.

You can position the preview pane either below the message list or beside it; you can choose to display or hide the message header; or you can hide the preview pane entirely.

1. On the **View** menu, click **Layout**.
2. In the **Preview Pane** area, select the options you want and then click **OK**.

Note

- To resize the preview pane and the message list, point to the divider between them until you see a double arrow, and then drag the divider up or down.

To change the Outlook Express folder list, status bar, or toolbars

- To hide or display the Folders list, Contacts list, Outlook bar, status bar, or toolbars, on the **View** menu, click **Layout**, and then select the options you want.
- To display subfolders in the Folders list, double-click the plus sign (**+**) to the left of each of the main items in the Folders list (Local Folders, your e-mail server, news servers, and so on). All of the subfolders appear beneath their main folder or server, and the plus sign becomes a minus sign.

  If you click the main folder name instead of its plus sign, the subfolders display in the main Outlook Express window, rather than beneath the folder or server in the Folders list.
- To display the Outlook Express start-up window, which contains links to primary Outlook Express tasks, as well as a Tip of the Day, click **Outlook Express** at the top of the Folders list.

To customize the toolbar

1. If you are in the main window, on the **View** menu, click **Layout**, and then click **Customize Toolbar**.

   If you are in a message window, on the **View** menu, point to **Toolbars**, and then click **Customize**.
2. To modify the toolbar text, select an item from the **Text Options** list.
3. To modify the icon size, select an item from the **Icon Options** list.
4. To add or remove buttons, click the button name in the **Available toolbar buttons** list, and then click **Add** or **Remove**.

To change the order in which buttons appear, click the button in the **Current toolbar buttons** list, and then click **Move Up** or **Move Down**.

To change the columns displayed in the message list

1. On the **View** menu, click **Columns**.
2. To add a column, select the check box next to the column name, or select the column name and click **Show**.

   To remove a column, clear the check box next to the column name, or select the column name and click **Hide**.

   To change the order in which columns appear, select a column name, and then click **Move Up** or **Move Down**.

To change the font used to display messages

1. On the **Tools** menu, click **Options**, and then click the **Read** tab.
2. Click **Fonts**, and then change the settings.

## Managing address book

The Address Book provides a convenient place to store contact information for easy retrieval by programs such as Microsoft Outlook Express. It also features access to Internet directory services, which you can use to look up people and businesses on the Internet. You'll find that the following features help you organize all your contact information into the most usable form for you.

### Store important information about the people and groups who are important to you

With your Address Book, you have a place to store e-mail addresses, home and work addresses, phone and fax numbers, digital IDs, conferencing information, instant messaging addresses, and personal information such as birthdays or anniversaries. You can also store individual and business Internet addresses, and link directly to them from your Address Book. For extra information that doesn't fit in these categories, there's a generous section for notes.

### Find people and businesses by using Internet directory services

Directory services are powerful search tools that enable you to look up names and addresses on the Internet. The Address Book supports Lightweight Directory Access Protocol (LDAP) for using Internet directory services.

### Create groups of contacts for mailing lists

You can create groups of contacts to make it easy to send e-mail to a set of people, such as business associates, relatives, or friends. Any time you want to send e-mail to everyone in the group, just use the group name instead of entering each contact individually. Creating groups is also a good way to organize a large Address Book.

### Share your Address Book with other users

By creating an identity for every person who uses the Address Book, each user can organize contacts into his own folder. In addition, each user can put contacts into a Shared Contacts folder so that other identities can use them.

**Import names from your other address books**

Moving forward with Outlook Express doesn't mean leaving your old address book information behind. You can import your personal address books from numerous popular e-mail programs including Microsoft Exchange, Eudora Light and Eudora Pro, Netscape Communicator, Microsoft Internet Mail for Windows 3.1, and any program that exports text files with comma-separated values (CSV).

You can also use your address book files with either Microsoft Exchange or any other program that imports files in CSV format.

**Send and receive business cards**

Business cards are the new way to send contact information electronically. When you create a business card in the Address Book, your contact information is stored in vCard format, so it can be exchanged between different programs (such as e-mail, address books, and personal planners), and between different digital devices (such as desktop computers, laptops or portable computers, personal digital assistants, and telephony equipment).

**Print all or part of your Address Book and take it with you**

Now you can print your Address Book to add to your personal planner. With three page styles to choose from, you can print all contact information, only business information, or only phone numbers, for any or all contacts.

To open the Address Book

- To open the Address Book from Outlook Express, click **Addresses** on the toolbar, or on the **Tools** menu, select **Address Book**.
- To open the Address Book from within a message window, click the **To**, **Cc**, or **Bcc** icon.

Note

- To use the Address Book directory services from the Windows **Start** menu, click **Start**, click **Search**, and then click the option for finding people.

## Adding contacts to your Address Book

There are several ways to add e-mail addresses and other contact information to your Address Book:

Add names directly from e-mail messages

Import an address book from another program

Type names and contact information directly in to your Address Book

Add people and businesses you find on the Internet

Import a business card (vCard)

To add names directly from e-mail messages to your Address Book

You can set up Outlook Express so that when you reply to a message, the people you reply to are automatically added to your Address Book. In addition, any time you send or receive a message in Outlook Express, you can add the recipient's or sender's name to your Address Book.

To add all reply recipients to your Address Book

1. In Outlook Express, on the **Tools** menu, click **Options**.
2. On the **Send** tab, click **Automatically put people I reply to in my Address Book**.

To add an individual name to your Address Book from Outlook Express

- In a message you are viewing or replying to, right-click the person's name, and then click **Add to Address Book**.
- In the message list of your Inbox or other mail folder, right-click a message, and then click **Add Sender to Address Book**

To import an address book from another program

You can import address book contacts from other Windows Address Book files (.wab), as well as from Netscape Communicator, Microsoft Exchange Personal Address Book, or any text (.csv) file.

For Windows Address Book files:

1. In Address Book, on the **File** menu, point to **Import**, and then click **Address Book (WAB)**.
2. Locate and select the address book you want to import, and then click **Open**.

For all other address book formats:

1. In the Address Book, on the **File** menu, point to **Import**, and then click **Other Address Book**.
2. Click the address book or file type you want to import, and then click **Import**.

   If your address book is not listed, you can export it to either a text (.csv) file or an LDIF (LDAP Directory Interchange Format) file, and then import it using that file type.

To add a contact to your Address Book

1. On the Outlook Express toolbar, click **Tools**, and then click **Address Book**.
2. In the Address Book, select the folder to which you want to add a contact.

3. On the Address Book toolbar, click **New**, and then click **New Contact**.
4. On the **Name** tab, type at least the first and last name of the contact. This is the display name.

   A display name is required for each contact. If you enter a first, middle, or last name, it will automatically appear in the **Display** box. You can change the display name by typing in a different name or by selecting from the drop-down list. The drop-down list will contain variations of the first, middle, and last name, as well as anything you typed in the **Nickname** box or the **Company** box on the **Business** tab.
5. On each of the other tabs, add any information you would like to include.

Notes

- Be sure to include an e-mail address for your contact. While your Address Book can be used for many purposes, its most immediate benefit is in providing e-mail addresses when you are composing mail.
- If you include a contact's street address on the **Home** tab or the **Business** tab, you can click **View Map** located on each of these tabs to display a printable street map showing the contact's address.

To find people and businesses on the Internet

1. In the Address Book, click **Find People** on the toolbar.
2. From the **Look in** drop-down list, select the directory you want to search.
3. On the **People** tab, type the name or e-mail address of the person you want to look for, and then click **Find Now**.

   -or-

   On the **Advanced** tab, define the search criteria you want by filling in the top three boxes, and then click **Add**. Add all the search criteria you want, and then click **Find Now**. (To remove a search criterion you added, select the item you want to delete from the **Define Criteria** list, and then click **Remove**. Or, if you want to delete all criteria and start over, click **Clear All**.)

Notes

- Your search will be most efficient if you use **starts with** or **is**. The options for **contains**, **ends with**, or **sounds like** can make your search take much longer, possibly so long that the search fails. The more exact your search criteria, the faster the result.
- If your search is too broad, the number of matches might exceed the limits of the server, or your directory service settings might not be set up to handle all of the returned matches. You can change these directory service settings.

To import a business card

1. In the Address Book, on the **File** menu, point to **Import**, and then click **Business Card (vCard)**.
2. Locate the business card file on your computer or a network drive, select it, and then click **Open**.

Note

- When the business card is added to your Address Book, a dialog box appears where you can modify or add to the contact information as necessary.
- Once the contact's street address is entered on the **Business** tab, you can click the tab's **View Map** button to display a map pinpointing the address. When you click **View Maps**, Expedia Maps opens in your browser with a printable street map showing the contact's address

To change contact information

- In the Address Book list, locate and double-click the name you want, and then change the information as needed. Click the tabs to access different information sections.

Note

- To delete a contact, select the contact name in the Address Book list, and then click **Delete** on the toolbar. If the contact is a member of a group, the name will also be removed from the group.

To create a group of contacts

You can create a single group name (or *alias*) to use when sending a message to several contacts at once. Simply create a group name and add individual contacts to the group. Then, just type the group name in the **To** box when you send e-mail.

1. In the Address Book, select the folder in which you want to create a group. Click **New** on the toolbar, and then click **New Group**.
2. The **Properties** dialog box opens. In the **Group Name** box, type the name of the group.
3. There are several ways to add people to the group:
    - To add a person from your Address Book list, click **Select Members**, and then click a name from the Address Book list.
    - To add a person directly to the group without adding the name to your Address Book, type the person's name and e-mail address in the lower half of the **Properties** dialog box, and then click **Add**.
    - To add a person to both the group and your Address Book, click **New Contact** and fill in the appropriate information.

- To use a directory service, click **Select Members**, and then click **Find**. Select a directory service from the drop-down list at the end of the text box.
  After finding and selecting an address, it is automatically added to your Address Book.

4. Repeat for each addition until your group is defined.

Note

- To view a list of your groups separately from the Address Book listings, in the Address Book, on the **View** menu, make sure that **Folders and Groups** is selected.
- You can create multiple groups, and contacts can belong to more than one group.

To add a contact to an existing group

1. In the Address Book list, double-click the group you want. The group's **Properties** dialog box opens.
2. You can add people to the group in several ways —and in some cases you can add them to your Address Book as well.
   - To add a person from your Address Book list, click **Select Members**, and then click a name from the Address Book list. Click **Select**, and then click **OK**.
   - To use a directory service (use the drop-down list at the end of the text box to see directories you have added to Outlook Express), click **Select Members**, and then click **Find**. Select a directory service to search, enter your search criteria, and when you find the person, click **Select**, and then click **OK**.
     This person's name and e-mail address is added to your Address Book.
   - To add a person directly to the group without adding the name to your Address Book, type the person's name and e-mail address in the boxes provided in the lower half of the dialog box, and then click **Add**.
   - To add a person to both the group and your Address Book, click **New Contact**, fill in the appropriate information, and click **OK**.

To create a business card

The easiest way to exchange contact information with people over the Internet is by attaching a business card to e-mail messages. A business card is your contact information from the Address Book in vCard format. The vCard format can be used with a wide variety of digital devices and operating systems.

You must have your contact information in your Address Book before you can create a business card.

1. In the Address Book, create an entry for yourself, and then select your name from the Address Book list.
2. On the **File** menu, point to **Export,** and then click **Business Card (vCard)**.
3. Select a location in which to store the file, and then click **Save**.

Note

- To add your business card to an e-mail message, on the **Insert** menu, click **My Business Card**.

To import an address book from another program

You can import address book contacts from other Windows Address Book files (.wab), as well as from Netscape Communicator, Microsoft Exchange Personal Address Book, or any text (.csv) file.

For Windows Address Book files:

1. In Address Book, on the **File** menu, point to **Import**, and then click **Address Book (WAB)**.
2. Locate and select the address book you want to import, and then click **Open**.

For all other address book formats:

1. In the Address Book, on the **File** menu, point to **Import**, and then click **Other Address Book**.
2. Click the address book or file type you want to import, and then click **Import**.

   If your address book is not listed, you can export it to either a text (.csv) file or an LDIF (LDAP Directory Interchange Format) file, and then import it using that file type.

To export your Address Book contacts to other programs

You can export your Address Book contacts to other Windows Address Book (.wab) files, as well as to Microsoft Exchange Personal Address Book, or any text (.csv) file.

To export your Address Book files to another Windows Address Book:

1. In Address Book, on the **File** menu, point to **Export**, and then click **Address Book (WAB)**.
2. Locate and select the Windows Address Book file you want to export to, and then click **Open**.

For all other address book formats:

1. In the Address Book, on the **File** menu, point to **Export**, and then click **Other Address Book**.
2. Click the address book or file type you want to export to, and then click **Export**.

## *Assignment for lesson 7*

1. What are the steps needed to install an email account to outlook express?
2. What is address book?
3. Create five contacts groups and enter five contacts in each group
    1. Friends,
    2. Business,
    3. Family members,
    4. Customers,
    5. Suppliers
4. What are the steps to send and receive business cards
5. How to print all or part of your address book?
6. How to import and export e cards?

### Lesson #8 Dealing with email messages

1. Import messages from other e-mail programs
2. Create new message
3. Formatting message text
    a. Use HTML formatting
    b. Change the font, style, or size of text
    c. Format a paragraph
    d. Create a numbered or bulleted list
4. Using stationary
5. Inserting an item into an e-mail message
    a. Add a signature to outgoing messages
    b. Insert a file into a message
    c. Insert a business card into all messages
    d. Include a sound in a message
    e. Insert a picture into a message
    f. Insert a hyperlink or HTML page into a message
6. Read your messages
    a. Managing e-mail messages with rules

When you have large volumes of incoming e-mail, Outlook Express can help you 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, and do much more.

    b. The following topics provide more information:
    c. Create a rule for e-mail messages
    d. Change a rule
    e. Apply a rule to downloaded messages
7. Dealing Instant Messaging (IM)
    a. Sending IM
    b. Managing online IM
    c. Storing IM information

To import messages from other e-mail programs

Using the Outlook Express Import Wizard, you can easily import e-mail messages from a variety of popular Internet e-mail programs such as Netscape Communicator and Eudora, as well as from Microsoft Exchange and Microsoft Outlook.

1. On the **File** menu, point to **Import**, and then click **Messages**.
2. Select the e-mail program you want to import messages from, and then click **Next**.
3. Verify the location of your messages, and then click **Next**.
4. Choose **All folders** to import all the messages, and then click **Next**. You can also choose **Selected Folders** to import messages from one or more folders.
5. Click **Finish**.

Note

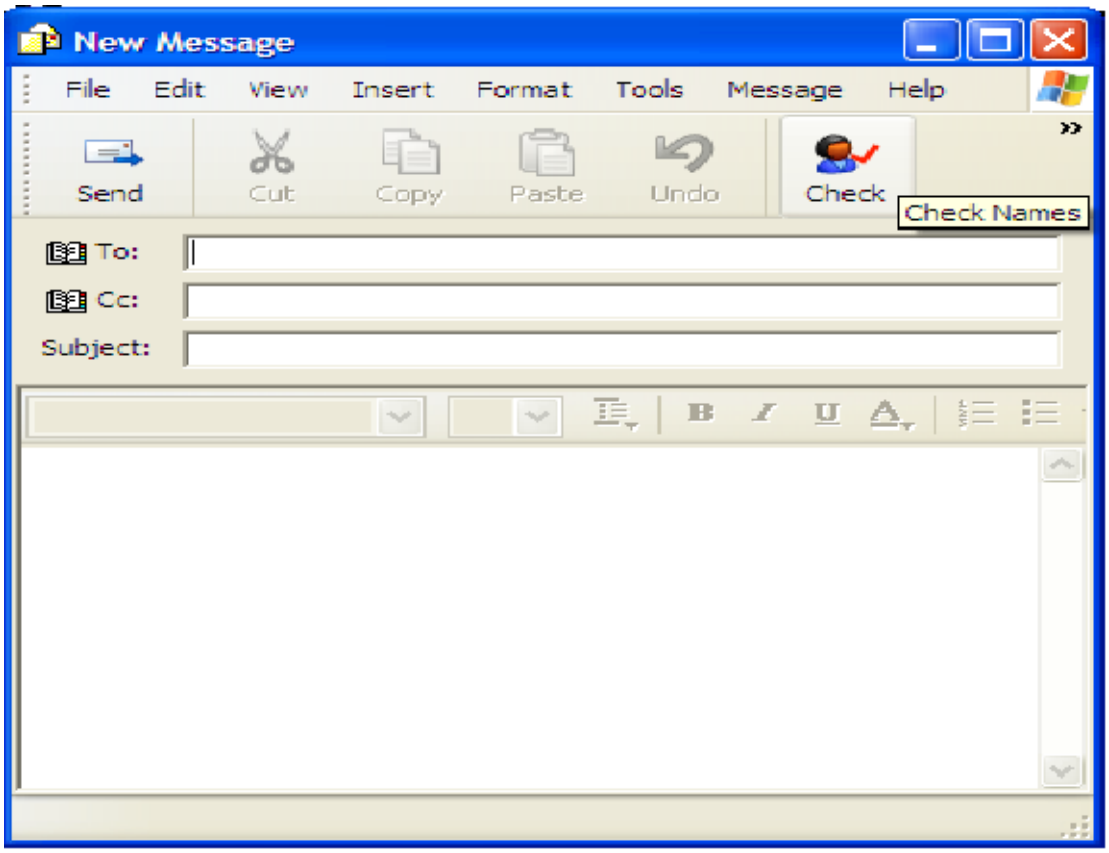
- If you are unsure which e-mail program and version you want to import messages from, start the e-mail program. On the **Help** menu, select **About** and check the information.

**Composing messages:**

Click Create Mail or go to file menu then select new followed by Mail Message

The New Mail Message Workspace Components

1. To:
2. cc:
3. Subject:
4. Message area




**To:** This is an area to write or paste your recipient email address
Email address are normally written in small cases without spaces
Multiple addresses are separated by coma followed by one space

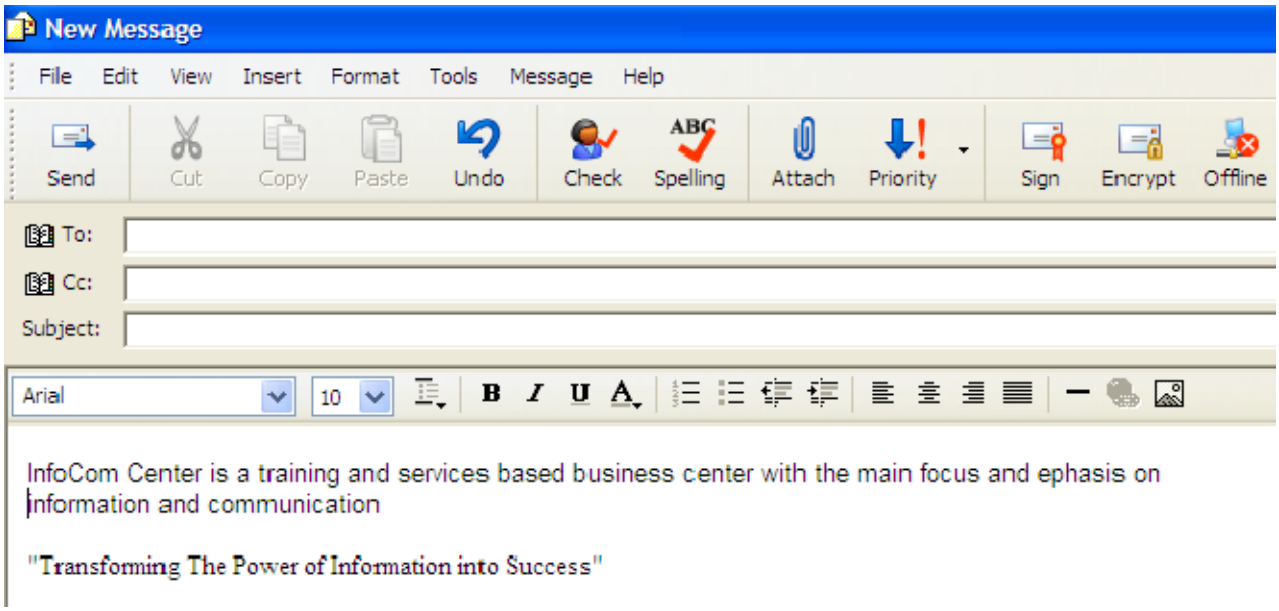
The Same Applied to: Cc and Bcc Options

**Cc:** is an abbreviation of Carbon Copy
This an option used to send copies to others recipients apart from the targeted who are send through 'to' command.

**Bcc:** is an abbreviation of Blind Carbon Copy
This is an option used to send hidden copies that the other recipients will not be aware of

**Subject:** This is a place where you can put or paste the summary of your message. The subject message is recommended to be in Title Cases, CAPITAL CASE imply brutal language in many readers view

**The Messages:** This is a place where you can write or paste your message; you can also spell check and format your message as you want




**Formatting the message:** There are 16 formatting commands to use Paragraph style, bold, italic, underline, font colour, numbering, bulleting, left indent, right indent, left alignment, centre alignment, right alignment, justify, insert horizontal line, insert hyperlink and insert picture.

To use the option above select the text or paragraph and click the command, for inserting line and picture put the cursor to the place you want to insert the item

**Spell Checking**

It is recommended to spell check your message even if it looks like correctly spelled. If it is correctly spelled, it will show you a 'The spell check is complete' pop up message

To spell check go to the tool menu then select spelling command or click direct from the standard toolbar

**Attaching documents:**

To attach a document go to insert menu then select file attachment command or click direct the worn attach from standard tool bar. The dialogue box will pop up, follow onscreen instruction ie go to the folder where your file is located then open it then click attach

**Delete an attachment**

To delete an attachment just click it and strike the delete button in the key board or right click it and select remove command or click delete from the standard butons

**Inserting photos**

To insert a picture or photos select the place where you want to put the picture then go to insert menu and click picture or click direct to the formatting bar and click the picture insert icon at the right of the bar. Follow again steps like those of attaching files.

## *Assignment for lesson 8 ……*

1. What is IM?
2. How to send IM?
3. How to store IM Information to your computer?
4. How to access stored information for your IM?

## Lesson #9: Sending and Receiving messages

### Sending messages

After completing the steps of writing addresses, subject and message, formatting, spelling attaching and inserting files then you will need now to send your message.

*Procedures*

1. Countercheck again the correctness of your recipient email addresses, because wrong addresses normally cause the message undelivered

2. If you are OK with addresses then go to file menu then and click send command or in the standard toolbar click the send command in the left

**NB:** When the send command is clicked the message is first sent to the outbox and the new message editor will disappear

*Sending and Receiving messages*

When the send command is clicked in the new message editor the message is not sent direct to the recipient addresses, but rather it is placed in the outbox folder.

If you email program is configured to send automatically then the message will be sent immediately after being placed in outbox. But if it is manually configured then you will be supposed to do the following:

*Click*

1. *Send And Receive All*
   Outlook Express will send first all messages in the outbox then it will receive all messages from the server and save it in the inbox
2. *Send All*
   Outlook Express will send all messages in the outbox only
3. *Receive All*
   Outlook Express will receive all messages from the server and save it in the inbox only

*Saving messages*
To save a message just go to file menu then click:

1. Save (will save message in a draft folder)
2. Save As (will save message in other folder as you will choose, just like saving document in MS Word)

*Reading Messages*

- All received messages will be save by default in the **Inbox** folder,
- To quick read the message, it will be displayed in the small window below the message list area.
- To read the message just double click it.

- Normally a read message window will be opened.
- You can save the received message in other folders just follow instructions like those of saving messages in MS word

## Finding Message

Go to edit menu and click find or click find from standard toolbar,

In order to find a message you have to know a little bit about the message like:

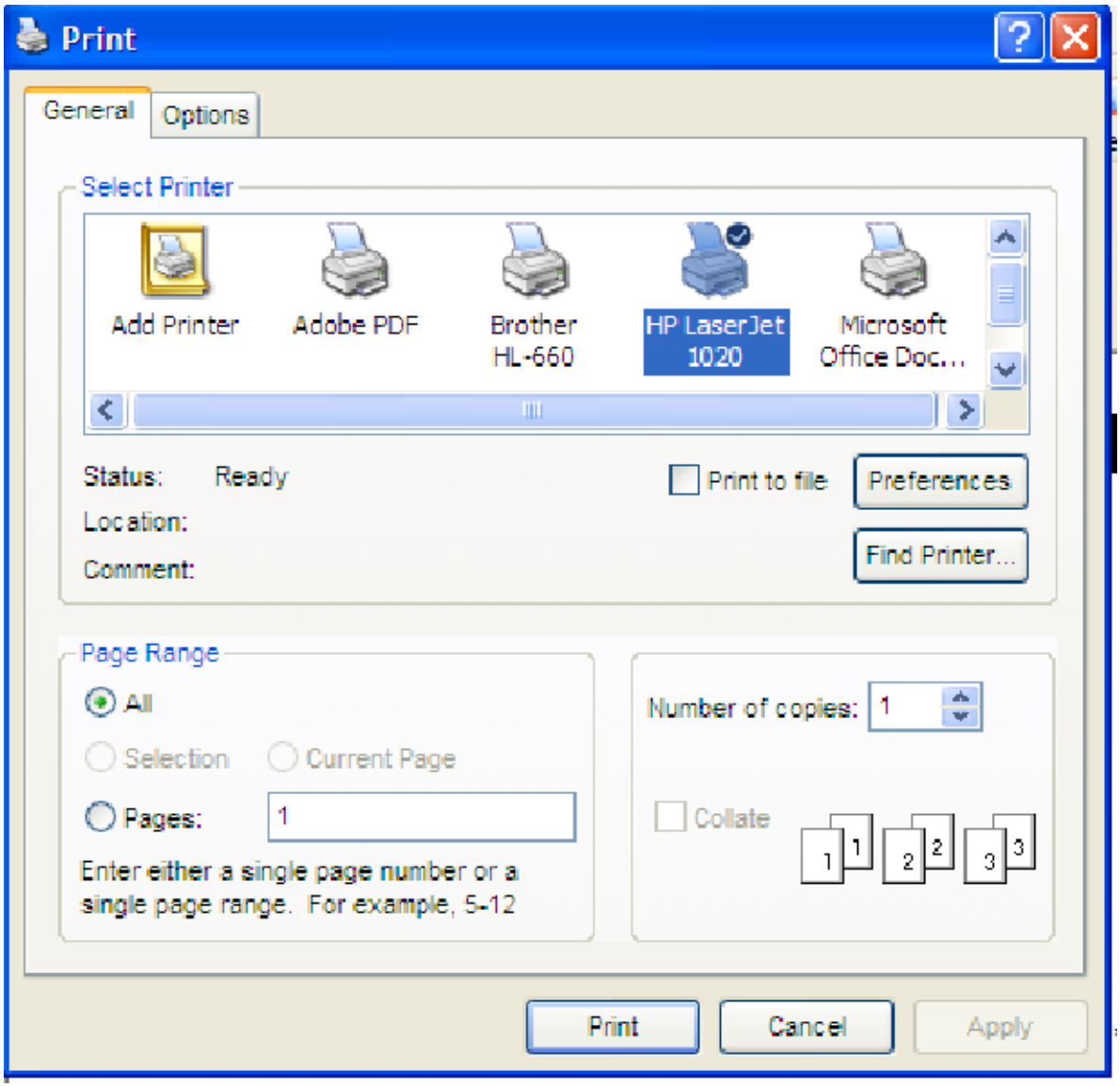
1. Location
2. Sender Address
3. Recipient Address
4. Any Subject words
5. Any Message text
6. Date received before
7. Date received after

If you are through with the above option then click find now
You have an option to stop the finding process, just click stop button

## Printing Email Messages

You should be first in the read mail window.

- To go to read mail window, select the email message you want to print and then double click it, in the read mail windows,
- Go to file menu select Print command
- The dialogue box will appear




You have three basic options to do before printing your document

1. Select the printer from printer list by click the correct printer driver
2. Go to printer preference and set all required printer settings
3. Set page range to print,
   a. If you want to print all select all
   b. If you want to print only one, ranges or multiple pages select pages and in the space provided input number according to the pages you want to print eg 1, 3, 5-12 etc

1. Resent the letter written in Q3 assignment 6 with your CV attachment. Address the letter to the managing Director. Use infocom@habari.co.tz
2. Receive the document and read the attachment
3. Delete the attachment after reading

## *Assignment for lesson #9……..*

Mention basic procedure to send a message
*What is the function of these commands?*

1. *Send all*
2. *Receive all*
3. *Send and receive all*

# *Appendix 1. Glossary*

**Internet Concepts:**

- **Transmission Control Protocol/Internet Protocol (TCP/IP)**
- A set of networking protocols widely used on the Internet that provides communications across interconnected networks of computers with diverse hardware architectures and various operating systems. TCP/IP includes standards for how computers communicate and conventions for connecting networks and routing traffic.
- **Internet Protocol (IP)**
- A routable protocol in the TCP/IP protocol suite that is responsible for IP addressing, routing, and the fragmentation and reassembly of IP packets.
- **Protocol**
- A set of rules and conventions for sending information over a network. These rules govern the content, format, timing, sequencing, and error control of messages exchanged among network devices.
- **Packet**
- An Open Systems Interconnection (OSI) network layer transmission unit that consists of binary information representing both data and a header containing an identification number, source and destination addresses, and error-control data.
- **UDP**
- While UDP stands for User Datagram Protocol
- **Datagram**
- One packet, or unit, of information that includes relevant delivery information, such as the destination address, that is sent through a packet-switching network.
- The connection is often through coaxial cable (coax), the same sort of stuff that's used for TV antenna signals, but it doesn't have to be. Network connections can be made by radio, infra-red light, carrier pigeon, you name it. Nowadays it's more common to see UTP (unshielded twisted pair) wiring, which is "star shaped" from a central hub out to each system; and the hubs talk with each other over fiber-optic cable.
- A network connection is shared by every computer on the same Local Area Net (LAN). They can all hear each other; imagine a bunch of people standing in a small room together.

- Only one network host (computer) on a LAN can talk at a time and be understood, unless the arrangement is something like UTP, where the hub can route traffic just between the interested parties.

- A networked computer talks by sending a packet of data (a series of bits/bytes) addressed to either one other computer, (normal TCP/IP) or to everyone on the LAN who's listening (often UDP/IP).

- Everyone on the LAN takes turns talking. On coax, if two computers start to talk at the same time, there's a protocol for deciding who gets to talk when. You can imagine a bunch of people in a discussion group, except most of the time they're talking to just one other person and the rest of the people aren't listening (until their name is called). On UTP, any pair of people can whisper to each other without bothering others in the room who are doing the same thing.

Hardware addresses:

- Every networked computer has at least one LAN interface (card) that contains a world-wide unique hardware address set by the manufacturer (48 bits = 6 bytes long). They look like this: 080009352D52.

- You can think of hardware addresses as being like the numbers on the wires that leave the local phone company to go to your home telephone. You don't usually deal with them, but they are necessary to route your calls.

- Hardware addresses are assigned to manufacturers in blocks of numbers at a time.

- A network interface's hardware (station) address is only known to the other computers on the local network.

- Two computers talking on a local network actually address each other by hardware address.

Gateways:

- Local networks are connected by gateways, which are either general-purpose or dedicated computers that are connected to two or more different LANs or WANs (wide area networks). They know which data packets should be forwarded from one network to another. Imagine two groups of people in two adjacent rooms, with one person at the common door who passes messages between the rooms. Separate conversations can take place in each room at the same time, but messages can also be relayed between the rooms.

IP addresses:

- Every LAN interface is assigned a world-wide unique IP address (32 bits = 4 bytes). You can think of this address as the interface's "phone number". IP addresses look like this: 15.1.50.9.

- IP addresses are assigned to companies as blocks of subnet addresses. For example, HP owns net 15, and also some parts of net 192 such as 192.6.40.

- Since a computer can have more than one LAN interface, it can have more than one IP address (phone number) -- just like your house.

Hostnames and routes:

- We associate "hostnames" with IP addresses, just like we associate human or business names with phone numbers. (See below about domain names.)

- Since a computer can have more than one LAN interface and IP address, it can have more than one hostname, just like people can be addressed in different ways, depending on their roles and relationships. However, each LAN interface does not necessarily have a different name, because that could be confusing.

- When a client computer connects to a server computer, it looks up the server's domain name in a directory through a nameserver (see below) to find the server computer's IP address, and then figures out a route to that address by using routing services on the same system or on other systems, including a gateway.

- A simple form of a route is: "To reach any machine not on the local net, go through the gateway at 15.1.50.1." The client addresses a data packet to that gateway (using the gateway's hardware address). The gateway in turn figures out how to send the packet one step closer to the intended destination on a different LAN.

- When a connection request (data packet) reaches a gateway on the same LAN as the target server, the gateway talks to the server using the server's hardware address, since it knows that number. (If it doesn't, it can use ARP (address resolution protocol) to find out, kind of like a waiter in a restaurant announcing, "phone call for Mr. Liu.")

Port Numbers:

- Once a client computer reaches (connects to) a server over the network, it needs a way to tell the server which service (server program) it wants to talk with. It does this by specifying a port number (at least in TCP/IP). You can think of port numbers as telephone extensions. Every call to a server system reaches an "operator" who asks for an extension number to put the call through.

- On a server, when each server program starts running, it attaches to one or more port numbers and receives traffic on those ports.

- On a client, when a service is needed, the client program looks up the standard port number for the service before connecting to the server system. It's also possible for a human talking with the client system to specify the port number to use for a given connection. For example, you can "telnet" to a server's email or HTTP port and do useful things, since those services speak ASCII (not binary).

- Obviously there is a lot of agreement in the world about standard port numbers, or clients would never be able to find their servers! But in fact any server computer can attach any server programs it likes to any port numbers.

Protocols:

- Just like in real life, a computer protocol is a formal description of how to talk to (or interact with) someone else.

- TCP/IP stands for "transmission control protocol / internet protocol". Along with other protocols, it describes the way that virtual connections are made over networks, including hardware addresses, IP addresses, hostnames, etc.

- Once a connection is made between a client and a server, how they talk with each other is described by a service protocol. For example, FTP (file transfer protocol) is a simple language for asking a server to get and send back to the client all the bytes in a specified file.

- As you can see, to carry on a conversation, a whole stack of protocols happens at the same time. It's just like if you make a phone call to a business. There's a protocol you don't know about (because you can ignore it) that says how to build and wire up telephones. There's a higher level protocol (that you do know) about how to dial phone numbers. And once you get through, there is an even higher level protocol for how you might make a reservation or leave a message for someone.

- When you call someone on the phone, you're talking to a human (or to an answering machine that will be heard by a human). Humans are pretty flexible and interactive, so you don't have to be real precise about protocols. But computer services are not so smart, so you must know and obey the protocols to talk with them.

Domain Names:

- Domains are a way of dividing up the world of computers so each one can have a unique name (that includes its location in the network) that's easy for people to use because it's made of words, not numbers.

- Each domain can contain (know about) subdomains or individual computers.

- A computer's full domain name starts with its hostname and ends with its top level domain. For example: "ajs.fc.hp.com" is a computer ("ajs", named for its owner) that lives in Fort Collins, Colorado ("fc") on an HP computer network ("hp"), which is a kind of commercial network ("com").

- You can think of domain names as being like postal addresses -- name, apartment, street, city, state, country. (Though most people don't realize it, the ZIP code is actually just another way to get to the name, apartment, and street parts, or sometimes just to the name, while ignoring the city, state, and country

parts. In exchange for making you deal with a few numbers, the post office can deliver your mail a lot faster and more accurately.)

- Just like there are lots of different kinds of mail addresses, there are lots of different kinds of domain addresses. They're all of the form of words separated by dots, but the meanings of the first words in the name depend on which domain they're in, that is, which words appear later in the domain name.

- Just like you can have both a street address and a post office box, a computer can be in different domains at the same time, although for various reasons this isn't very common.

Nameservers:

- Every domain or subdomain has at least one computer running a "nameserver" program, on a "well known port number", that can do name lookup. For example, if a client program on a computer named "jlk.co.edu" wants to talk with a service on server machine "ajs.fc.com", the steps work like this:

    - The client program on jlk.co.edu tells the computer system (jlk) it wants to make the connection.

    - jlk looks at "ajs.fc.com". Since it doesn't know anything about this address, it asks a world-wide top-level nameserver (at a known address) for the address of "ajs.fc.com". It gets the IP address of a nameserver for "com".

    - jlk asks the "com" server if it knows "ajs.fc.com". jlk gets an IP address for the nameserver for the "fc.com" subdomain.

    - jlk asks the "fc.com" server if it knows "ajs.fc.com". jlk gets an IP address for that system.

    - Now jlk connects to ajs by its IP address.

- Suppose the client on jlk was a mailer (mail program) that wanted to send email to a person named "ajs" on the computer named "ajs". It would connect to the mail server's port (normally port 25), and say that it had mail for "ajs@ajs.fc.com". Note that while jlk might talk to a number of different systems in order to send the email, the letter itself would go directly to the destination system (across some patchwork of internet segments and gateways).

- If the client was trying to send mail to "ajs@fc.hp.com", a computer named hpfcla.fc.hp.com might "take the call." It would say, "I know how to reach ajs@fc.hp.com" (who's really on ajs@ajs.fc.hp.com). hpfcla would accept the letter from jlk, then connect with ajs.fc.hp.com and forward it. This is especially common when the source system can't talk directly to the destination system because it's behind a "firewall", as described later.

Client/Server Concepts:

- A client computer initiates a service request. A server computer waits to reply, kind of like a person who waits to answer the phone so you can make airline reservations.

- A client program can be directed by a human being (at a screen, keyboard, and mouse), or it can run automatically.

- A server is a program that knows a protocol for communication (see below), but often doesn't know much about networking -- it just exchanges bytes of information with the client, a back-and-forth conversation that might be human-readable ASCII, or binary code; kind of like when you call someone to make a reservation, and they don't know how the phone system works, just how to use the telephone to talk with you.

- It's entirely possible for the client and server programs to be on the same computer, as well as on two different computers connected by a network. The client/server model blurs the boundaries between computers, to where "the network IS the computer."

- Once a virtual connection is established between a client and server, the two systems are peers, but the client/server asymmetry usually continues through the protocol; just like when you're done dialing someone, it doesn't matter much who placed the call, you can talk to each other as equals, though quite often the caller and the callee have very different roles. (With phone calls the caller usually pays for any long distance charges, but there's usually no equivalent in network connections.)

Mark-up Languages:

- A computer file is a series of bytes, usually in a code like ASCII that represents text (letters and digits), like English text.

- When the text is simply lines of words, and each line ends with an ASCII "newline" character, we call that "flat ASCII".

- A long time ago people realized that computers could be used to do document and book preparation. They are great at storing and manipulating text, and with printers they can print that text on paper.

- "Flat ASCII" text is pretty flat-looking. Documents and books have lots of fancy features like layout, pagination, different fonts, chapter headings, drawings, etc. So people developed what are called "mark-up languages." These are ways of writing text intermingled with various formatting control commands that affect how the text is displayed or printed. For example, I might do something \fIlike this\fR to make some words appear in italics and the words after them return to normal (Roman) font.

Viewing and editing:

- Once you have a document that is marked up in some way, you can view it two different ways. You can edit it as flat ASCII and hand-modify the formatting control commands, or you can view or print the document "pretty printed" so you can see what the control commands do.

- Nowadays most mark-up languages are supported by WYSIWYG ("what you see is what you get" or "whizzywig") editors that let you edit the document in a form similar to how it will look when it's displayed or printed by the reader. You never need to see the control codes, but you have to know a language for talking with the editor about fancy features!

- Often a WYSIWYG editor will let you "view the source" of the document so you can see the complicated control language.

- Computers don't have to stop with pretty-printed words. It's possible for them to display pictures and symbols mixed with the words. Some of the symbols or words can even be made active, so when you "click on them" with a mouse, something happens.

Hyperlinks:

- One useful action is called a "hyperlink". This is a way of changing the display to show you a different document, or a different place in the current document. Pictures and words can both be made into hyperlinks. Text that is marked up to include hyperlinks is called "hypertext". Here's an example that shows you the control codes:

  <A HREF="#URL">Click here</A> to page-align the following table of contents.

  <a name="URL">First entry</a>...

  This means, turn "Click here" into a hyperlink with a hidden reference of "#URL", and if I click on it, move me down to the next paragraph (after the "<P>"), at "First entry...", which has a hidden name of "URL".

- The "language" called HTML (hypertext mark-up language) is the common basis of the World Wide Web. Millions of HTML documents are stored on millions of networked computers. The example above is a simple little bit of HTML.

- Currently, most people who write HTML documents edit flat ASCII forms of the documents, and then view them with a Web browser to see how they look formatted. This is kind of like writing software and then compiling it and running it to see how it works.

What's a URL?

- A Universal Resource Locator is a fancy name for a line of text that uniquely specifies a resource world-wide. A resource is usually, but not necessarily, a computer file.

- A URL starts with the name of a server or service; for example:

  ftp:
  http:

  The first service is FTP, the file transfer protocol you read about earlier. The second service is HTTP, "hypertext transfer protocol". It's a simple way to ask HTTP servers for HTML documents!

  (By convention, the FTP server always listens on port 21 on a server system, while the HTTP server lives on port 80.)

- Normally the resource (text or image file) you want to access (view) is not on your own system, so the next piece of the URL is the domain name of the system where it lives; for example:

  http://ajs.fc.hp.com

- The exact form of the URL depends on the type of service! For HTTP, the next piece is a path to the file, usually relative to the "home directory" for the HTTP server; for example:

  http://ajs.fc.hp.com/images/Megan.gif

  This means to return an image (graphics interchange language) file that lives in the HTTP home location under images/Megan.gif.

- Finally, HTTP understands that after this part of the URL there can be a wide range of other symbols that aren't a file path name, but which carry information about the service request; such as the ticker symbol for a stock whose price to look up and return.

- One of the cool things about URLs is that you don't have to keep local copies of documents. They only live at the source (on the source system), and any time you need to see them, you retrieve (download) a copy of the latest version -- assuming the server system is awake and you can reach it! In the past, people shared around many copies of on-line documents, and they developed elaborate schemes to try to ensure the latest copies were always distributed to all users.

- But you should know that most web browsers "cache" local copies of files for a while. If you visit a website (URL) and return to it, often the return is pretty fast because a temporary local copy of the file is used. The only reason you need to know this is so it doesn't surprise you, and so you know what the "reload" button does for you.

Bitmapped Graphics:

- Once upon a time, to talk with a computer you had to press or flip switches and watch lights. ("Once upon a time" tells you this is a fairy tale and real life was much more complicated, but anyway...)

- Later people figured out how to build mechanical "teletypes" that were like typewriters, except the computer listened to your key presses and typed a reply to you on paper.

- Later still, people figured out how to have computers display text and simple symbols on CRTs (cathode ray tubes, like TV sets but not exactly the same).

- And even later, people figured out that computers didn't have to just display lines of text on these display screens. They could address individual bits on the screen to draw pictures, do all sorts of different sizes and fonts of text, etc. They could even put up "windows" that each acted like a separate physical display.

- Along with bitmapped displays came new and different kinds of input devices than keyboards, such as mice and trackballs. With these "pointing devices" it was possible to "point and click" on a screen, choosing actions from "menus" instead of having to type "commands" to get things done.

- Guess what! A hyperlink, in a hypertext document, displayed "pretty printed" on a screen, is a kind of "menu item"! The person who creates the document can easily "program" the "menu" without having to write any software (unless you count the mark-up language itself).

Putting it All Together:

- In the early 1990s all this technology -- client/server, internet, domain names, mark-up languages, and graphical displays -- began to come together. People were starting to store lots of documents, marked up in various ways for pretty-printing, on networked computers, and running application programs that used windowed, graphical (bitmapped) displays and point-and-click interfaces.

- Some people at CERN in Switzerland put together a markup language (HTML) with computer networking (client/server) and a new kind of server and protocol (HTTP), and with some new window-oriented, graphical, point-and-click software on the client side (a browser), to create the beginnings of the World Wide Web. Things really got going around 1993.

- The Web grew like wildfire! Within just a few years, millions of documents had been created or converted to HTML and made available through HTTP servers. A variety of different web browsers (client-side programs) like Mosaic and Netscape were created and improved.

- So what exactly is the World Wide Web? It doesn't really exist! It's "just" a collection of networked computers, internet connections, services and servers with lots of marked-up documents and pictures to share, and client-side browsers with which to view them. But when you put them all together, it's magic! The Web seems to have tangible substance.

- What's a "homepage"? It's just an HTML document that is brought up by default when you connect to a particular server for HTTP. Often there are lots of

homepages available through one server, say, one for each user on the computer. You specify which one (whose homepage) you want, as part of the URL; for example: http://udltools.fc.hp.com/~ajs is a way of retrieving the homepage for user "ajs" from the HTTP server on "udltools". Homepages are usually starting places for following hyperlinks to details about a person or organization.

- Suppose someone emails you a URL. "Check out this cool website/homepage." What can you do?
    - You can cut and paste the URL (on your local graphical, window-smart display, using a mouse) into a data entry form provided by the web browser, say, Netscape, on your display screen.
    - Netscape figures out from the URL that the protocol is HTTP; then as a client program, it asks the local computer to connect it to the domain name (computer) specified in the URL.
    - Along the way, if necessary, the client system looks up the IP address of the server computer from nameservers (and you get an error if that computer can't be reached).
    - After reaching the server system, the client system asks for the HTTP server by port number.
    - Then it tells the HTTP server program the rest of the gibberish in the URL.
    - Some time later the server responds with an HTML document (or with an error). This document is shipped back over the net to your web browser, and the connection is broken. (HTTP is "stateless", that is, it doesn't maintain a long-term relationship between the client and server. Each time the client needs something from the server, it makes a new, independent request. However, often times the new request includes saved information based on the previous request, such as form filled out by the user.)
    - The client-side web browser (Netscape) "pretty prints" this HTML document and displays it on the screen for you.
- All of this takes place in just a few seconds. How long, depends on how busy are the network(s) between your client system and the server system, how busy are the two systems themselves, and how much data is to be transferred. (A picture might be worth a thousand words, but it's often worth a hundred thousand bytes.)

Going Even Further:

- Much of the time a website's URL is of the common form:

http://www.whatever.com

and when people talk about the website, they leave off the "http://" part, or even all but the "whatever" part. Bear in mind that this is rather like giving a phone number without the area code.

- Many computer networks are behind "firewalls". This means the computers in the organization can talk to each other and can connect to computers outside the firewall, but outside computers can't make inbound connections. This is why, for example, you can't reach some of the URLs I quoted above, from outside of HP.

- Remember that automatic programs, not just people running programs, can be network clients. What happens when you write a "robot" that follows all the links it can, throughout the Web, and remembers in a database the URLs and titles and documents it's seen? You get a "web search engine", like the ones at:

  http://www.altavista.digital.com
  http://searcher.fc.hp.com/arachnophilia (HP-internal)

  You can tell these servers some words, and they locate all the web pages they know about that contain those words. Then they create (very fast, while you wait) a new, customized web page (HTML document) that includes hyperlinks to the other web pages that contain the words you wanted to find. Click! Off you go!

- Most web browsers also have a way for you to record favorite URLs and their document titles, as "bookmarks" or "hotlists".

- Remember that there is a protocol for every networked service... And there are lots of different kinds of computer services in common use. Guess what -- most web browsers know lots of protocols! They can not only talk HTTP/HTML, they can also talk FTP (bring back and display files for you), send and receive email, and read and post netnews. That is, they can be clients for a lot of different servers, presenting them all to you, the user, through a common style of graphical display.

- The three most common types of computer services, which people get confused, are these:

  1. Electronic mail (email), exchanged using SMTP (simple mail transfer protocol) or other protocols. This is good for point-to-point communications, and for "broadcasting" using "mailing lists" or "mail reflectors" to lists of people. To send someone email, you need their email address, which is usually of this form:

     username@domain

     Conversations by email are slower and less interruptive than by telephone, but can be more precise, more easily shared widely, more

easily saved and reused, etc. Email combines features of both paper mail and telephones.

2. Netnews (formerly called Usenet), exchanged using NNTP (network news transfer protocol) or other protocols. This is like a public bulletin board where anyone passing by can read what's on the board, tack up their own sheet of paper, and even send email to people who posted other notices. To achieve some sanity, old notices are automatically "taken down" (removed by the computer); discussions are grouped into "newsgroups" and then into "threads" (common titles or subjects) within each newsgroup.

   Newsgroups are great for widely sharing information, especially if it is periodic in nature, like a newsletter, or is well-suited for group discussion and debate. However, people often forget that all they see locally is a COPY of the bulletin board, with whatever "sheets of paper" have been copied and posted locally (to their system, or to a local news server system). There are delays, postings can get out of order, etc.

3. Web pages -- usually HTML documents. This medium is rather like a highly interactive encyclopedia where anyone with access to a networked computer can add their own pages (and they are NOT alphabetized). It's great for finding information when you need it, but it's not so great for discussions or for knowing when new material arrives. People forget this and often share information by web pages that would be better shared by netnews.

- What is "link rot"? That's when a hyperlink (in one HTML document) points to a computer or document that is moved, deleted, or no longer accessible. The link looks fine, but when you click on it you get an error. One of the sad truths about an anarchy like the World Wide Web is that link rot is common and unavoidable. This is one reason that in many cases it's better to search for a resource (using a web search engine) when you need it, than to record the URL.

- What's "web surfing"? This means following hyperlinks, either from a search, or through a series of linked pages, or even at random, in the course of learning something, or just having fun. Kind of like flipping TV channels -- but less random!

# *Appendix 2. Website Access Errors*

### Understanding website access errors

As you surf the Net, you will undoubtedly find that at times you can't access certain websites. Why, you make wonder? **Error messages** attempt to explain the reason for that and other problems. Unfortunately, these cryptic messages baffle most people. We've deciphered the most common ones:

**400 - Bad Request**

**Problem:** There's something wrong with the address you entered. You may not be authorized to access the web page, or maybe it no longer exists.

**Solution:** Check the address carefully, especially if the address is long. Make sure that the slashes are correct (they should be forward slashes) and that all the names are properly spelled. Web addresses are case sensitive, so check that the names are capitalized in your entry as they are in the original reference to the website.

**401 - Unauthorized**

**Problem:** You can't access a website because you're not on the guest list, your password is invalid or you have entered your password incorrectly.

**Solution:** If you think you have authorization, try typing your password again. Remember that passwords are case sensitive.

**403 - Forbidden**

**Problem:** Essentially the same as a 401.

**Solution:** Try entering your password again or move on to another site.

**404 - Not Found**

**Problem:** Either the web page no longer exists on the server or it is nowhere to be found.

**Solution:** Check the address carefully and try entering it again. You might also see if the site has a search engine. If so, use it to hunt for the document. (It's not uncommon for pages to change their addresses when a website is redesigned.) To get to the home page of the site, delete everything after the domain name and hit the Enter or Return key. For example, if the address is:
**http://www.learnthenet.com/english/html/email.htm**
remove **English/html/email.htm**.

**503 - Service unavailable**

**Problem:** Your Internet service provider (ISP) or your Internet connection may be down.

**Solution:** Take a stretch, wait a few minutes and try again. If you still have no luck, phone your ISP or system administrator.

**Bad file request**

**Problem:** Your web browser may not be able to decipher the online form you want to access. There may also be a technical error in the form.

**Solution:** Consider sending a message to the site's webmaster, providing any technical information you can, such as the browser and version you use.

**Connection refused by host**

**Problem:** You don't have permission to access the page or your password is incorrect.

**Solution:** Try retyping your password if you think you should have access.

**Failed DNS lookup**

**Problem:** DNS stands for the Domain Name System, which is the system that looks up the name of a website, finds a corresponding number (similar to a phone number), then directs your request to the appropriate web server on the Internet. When the lookup fails, the host server can't be located.

**Solution:** Try clicking on the Reload or Refresh button on your browser toolbar. If this doesn't work, check the address and enter it again. If all else fails, try again later.

**File contains no data**

**Problem:** The site has no web pages on it.

**Solution:** Check the address and enter it again. If you get the same error message, try again later.

**Host unavailable**

**Problem:** The web server is down.

**Solution:** Try clicking on the Reload or Refresh button. If this doesn't work, try again later.

**Host unknown**

**Problem:** The web server is down, the site may have moved, or you've been disconnected from the Net.

**Solution:** Try clicking on the Reload or Refresh button and check to see that you are still online. If this fails, try using a search engine to find the site. It may have a new address.

**Network connection refused by the server**

**Problem:** The web server is busy.

**Solution:** Try again in a while.

**Unable to locate host**

**Problem:** The web server is down or you've been disconnected from the Net.

**Solution:** Try clicking on the Reload or Refresh button and check to see that you are still online.

**Unable to locate server**

**Problem:** The web server is out-of-business or you may have entered the address incorrectly.

**Solution:** Check the address and try typing it again.

Most of us believe that our online activities are private and anonymous. In reality, everything thing you do online--whether it's searching for information, reading a news article, shopping for a gift or downloading music--is recorded. As you move through cyberspace you leave a trail of data in your path. This trail, often referred to as a **clickstream**, contains a revealing record of your online activity.

# *Appendix 3. Assignments*

## *Assignment for lesson #1*

1. What is Internet?
2. Mention the program used to access computers in the internet?
3. Open the following websites using address area
    a. www.tzads.com
    b. www.cnn.com
    c. www.google.com
    d. www.yahoo.com
    e. www.3bora.co.tz
    f. www.esis.ac.tz
    g. www.infocomcenter.com
    h. www.necta.go.tz
    i. www.tanzania.go.tz
    j. www.facebook.com

4. Add the above sites in the favourite folder or location

5. Delete www.3bora.com from the favourite location

## *Assignment for Lesson #2*

1) List all basic buttons you have learnt so far in lesson #2
2) What is different between:-
    a) Back and forward button
    b) Stop and refresh button
    c) Search and search engine?
3) What button is used to send and read emails in internet explorer?
*4)* Send the last website to **infocom@habari.co.tz**

## *Assignment for lesson #3*

1. Search the following with and without quotes:
    1. Africa political Stability
    2. Arsenal players
    3. tips on preventing HIV/AIDS infections or spread
    4. Current Common Wealth Scholarships

## *Assignment for lesson #4*

1. What does URL represent?
2. Mention three ways you can connect your computer to the internet
3. Explain the type of the following website extensions
    a. com
    b. net
    c. org
    d. edu
    e. gov
    f. go.tz
    g. .co.tz
    h. .or.tz
    i. .sc.tz
    j. .mil.tz
    k. .ne.tz
    l. .ac.tz
4. Go to the following websites:
    a. Harvard university
    b. Dell computer
    c. TTCL
    d. VODACOM
    e. ITV
    f. naomba
    g. IBM
    h. Compaq
    i. World Vision International
    j. Tanzania Official Website

**Assignment for lesson #5**

1. Mention three ways of saving internet information
2. Go to www.google.com and select image then search for uk flag, then copy it to the new folder named international flags in C:\ directory

## *Assignment for lesson 6*

1. Describe three necessary setup steps required before printing a web document

## *Assignment for lesson #7*

1. What is Email
2. Describe types of email managers
3. What is Microsoft Outlook
4. Compare the above with Outlook Express
5. Where can you quickly open the Two of above email managers

## *Assignment for lesson 8*

1. Differentiate between internet based or webmails and locally based emails programs
2. Differentiate between Microsoft Outlook and Outlook Express
3. Write and application letter requesting position of sales manager with InfoCom Center. Address the letter to the managing Director. Use infocom@habari.co.tz

## *Assignment for lesson #9*

Send the messages and receive them in your own email account

## *Assignment for lesson #10*

1. Print the email message
    a. Follow the steps to print an email message
        i. Set the printer at A4 paper size
        ii. Select the printer type of your interest
        iii. Set grey printing in printer preference
        iv. Print current page

# *Appendix 4. Tests*

## Introduction to internet and emails

Tests for Lesson 1-4

Answer all questions

Duration: 30mins

1. What is Internet?
2. What is Internet Explorer?
3. List all internet explorer basic buttons
4. Send www.google.com website to **infocom@habari.co.tz**
5. Search the following:
    1. Tanzania ministry of agriculture budget overview
    2. Simple ways to learn Internet online
    3. How to write a business proposal?
6. What does URL represent?
7. Mention three ways of internet connection
8. Explain the meaning of the following website extensions
    1. com
    2. net
    3. org
    4. edu
    5. co.tz
    6. co.uk
    7. gov
    8. go.tz
9. Go to the following websites:
    1. University of dare s salaam
    2. TTCL
    3. CELTEL
    4. CNN business
    5. Africa tours guide centers
    6. World Vision International
    7. Federal Government Official Website

Introduction to Internet and emails – test for lesson 5-9
Answer all questions

Duration: 30 Mins

1. Mention three ways of saving internet information
2. Go to www.yahoo.com and select image then search for Philippines flag, then copy it to the new folder named international flags in C\:\ directory

3. Mention features available in page setup while printing web information
4. What is Outlook Express?
5. What is Microsoft Outlook?
6. What do you understand by webmails managers?
7. What do you understand by Local Computer Based email managers?
8. Describe the advantage and disadvantage of each type in 6&7
9. Print the webpage as follows
    1. Set the printer at A4 paper size
    2. Select your printer
    3. Set grey printing at printer preference
    4. Print all pages

# *Appendix 5. Final Examination*

Introduction to internet and emails

*Final Examination*

This paper carries 50% of all final results toward Internet and emails performance and achievement

Answer all questions

Duration: 60mins

10. What is Internet?
11. Mention the windows program used to browse the internet
12. Send www.google.com website to **infocom.center@yahoo.com**
13. Search the following:
    1. Israel flag image
    2. Free online Internet training
    3. how to download files in the internet
    4. How to send e-cards
    5. Free auction centers

14. Mention three ways of internet connection
15. Explain the meaning of the following website extensions
    1. com
    2. net
    3. org
    4. edu
    5. co.tz
    6. gov
    7. go.tz

16. Mention three ways of saving internet information
17. What is the advantage of web mail over local mail managers
18. What is the advantage of local mail managers over web mail
19. Mention three basic printing procedures for website information