ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION

STUDY MATERIAL – 11
TOPIC – NETWORKING

SUBJECT: COMPUTER APPLICATION   **CLASS: XII**
                                                     DATE: 01.08.2020

Basic Requirement for Connecting to The Internet

❑ A computer

❑ A modem and telephone line (if you are using dial up access)
A data line of some sort (if you are not using dial up access)

❑ An Internet browser (software) and software to connect you to the ISP

❑ An account with an Internet Service Provider (ISP) Souvenirs

Internet Service Provider (ISP)

❑ An internet service provider usually provides customers with access to the internet.

❑ A typical ISP facility basically includes routers, servers, storage devices and other communication and networking equipment.

❑ The backbone of a present-day ISP consists of Gigabit Ethernet Technology and ATM switches.

❑ It has an access side and an internet connection side.

❑ Between these two, is a core network or switch that interconnects the two sides and provides connection to other equipment like it DNS servers, email service etc.

SOME IMPORTANT SERVICES PROVIDED BY THE INTERNET

❖ World Wide Web(www)

❑ The World Wide Web (WWW) is a network of online content that is formatted in HTML and accessed via HTTP.

❑ The term refers to all the interlinked HTML pages that can be accessed over the Internet.

❑ The World Wide Web is most often referred to simply as "the Web."

❑ The WWW has a unique combination of flexibility, portability and user-friendly features that distinguish it from other services provided by the Internet.

❑ The main reason for its popularity is the use of a concept called hypertext.

❑ Hypertext is a new way of information storage and retrieval, which enables authors to structure information in novel ways.

❑ An effectively designed hypertext document can help users rapidly locate the desired type of information from the vast amount of information on the Internet.

❑ The WWW uses the client-server model, and an Internet protocol called hypertext transport protocol (HTTP) for interaction between the computers on the Internet.

❑ Any computer on the Internet, which uses the HTTP protocol is called a Web server and any computer, which can access that server is called a Web client.

❖ Electronic Mail(Email)

❑ Email is a service which allows us to send the message in electronic mode over the internet. It offers an efficient, inexpensive and real time mean of distributing information among people.

❑

➢ E-Mail Address

Each user of email is assigned a unique name for his email account. This name is known as E-mail address. Different users can send and receive messages according to the e-mail address.
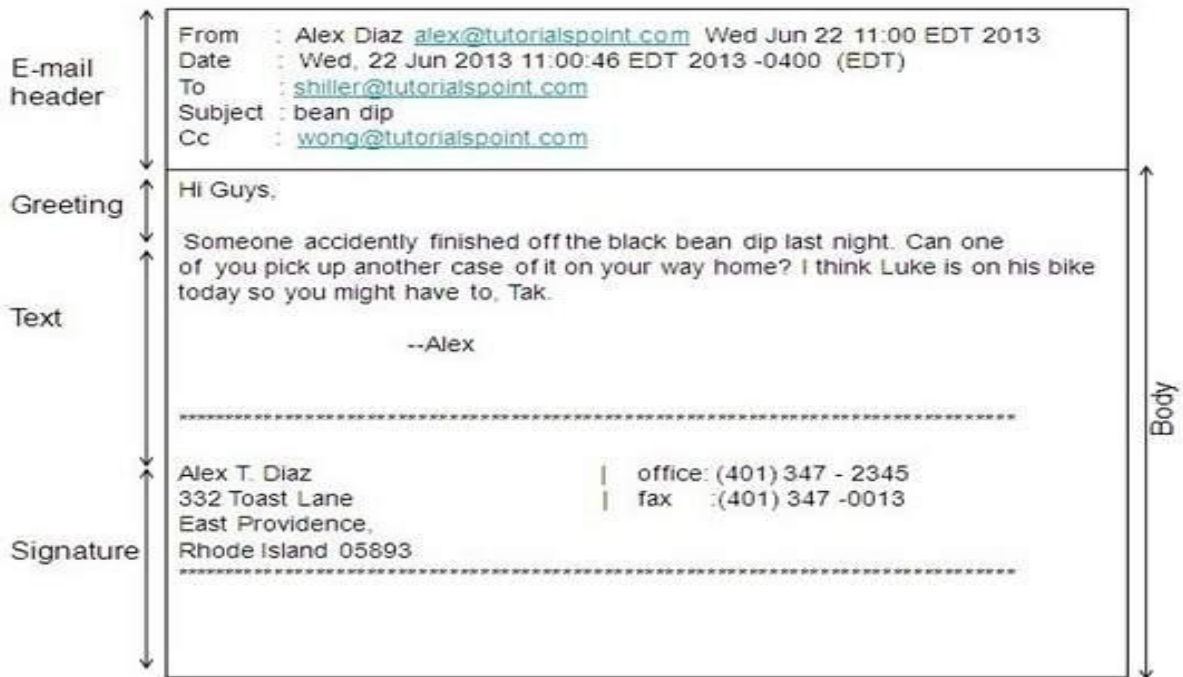
E-mail is generally of the form username@domainname. For example, career@orion.com is an e-mail address

where career is username and orion.com is domain name.

✓ The username and the domain name are separated by @ (at) symbol.

✓ E-mail addresses are not case sensitive.

✓ Spaces are not allowed in e-mail address.

➢ **E-mail Message Components:**

E-mail message comprises of different components: E-mail Header, Greeting, Text, and Signature. These components are described in the following diagram:

➢ E-mail Header

The first five lines of an E-mail message is called E-mail header. The header part comprises of following fields:

✓ **From -** The From field indicates the sender's address i.e. who sent the e-mail.

✓ **Date -** The Date field indicates the date when the e-mail was sent.

✓ **To -** The To field indicates the recipient's address i.e. to whom the e-mail is sent.

✓ **Subject -** The Subject field indicates the purpose of e-mail. It should be precise and to the point.

✓ **CC -** CC stands for Carbon copy. It includes those recipient addresses whom we want to keep informed but not exactly the intended recipient.

✓ **BCC -** BCC stands for Blind Carbon Copy. It is used when we do not want one or more of the recipients to know that someone else was copied on the message.

Protocol used with email:

- **SMTP –** Simple Mail Transfer Protocol – defines the transport mechanism for sending email messages over the internet.

- **POP3 –** Post Office Protocol, version – 3 - helps to download a mail from the mail server to the user computer.

- **IMAP –** Internet Mail Access Protocol – Create folders and store messages at the mail server for viewing them later.

- **MIME –** Multipurpose Internet Mail Extension. – Provides a way to insert picture, audio & video along with the text message in an email.

Advantages

E-mail has proved to be powerful and reliable medium of communication. Here are the benefits of E-mail:

❑ **Reliable -** Many of the mail systems notify the sender if e-mail message was undeliverable.

❑ **Convenience -** There is no requirement of stationary and stamps. One does not have to go to post office. But all these things are not required for sending or receiving an mail.

❑ **Speed -** E-mail is very fast. However, the speed also depends upon the underlying network.

- ❑ **Inexpensive -** The cost of sending e-mail is very low.

- ❑ **Printable -** It is easy to obtain a hardcopy of an e-mail. Also an electronic copy of an e-mail can also be saved for records.

- ❑ **Global -** E-mail can be sent and received by a person sitting across the globe.

- ❑ **Generality -** It is also possible to send graphics, programs and sounds with an e-mail.

➢ **Disadvantages**

Apart from several benefits of E-mail, there also exist some disadvantages as discussed below:

- ❑ **Forgery -** E-mail doesn't prevent from forgery, that is, someone impersonating the sender, since sender is usually not authenticated in any way.

- ❑ **Overload -** Convenience of E-mail may result in a flood of mail.

- ❑ **Misdirection -** It is possible that you may send e-mail to an unintended recipient.

- ❑ **Junk -** Junk emails are undesirable and inappropriate emails. Junk emails are sometimes referred to as spam.

❖ Web Browser:

❑ A web browser is a software program that allows a user to locate, access, and display web pages.

❑ In common usage, a web browser is usually shortened to "browser."

❑ Web browsers are used primarily for displaying and accessing websites on the internet, as well as other content created using languages such as Hypertext Markup Language (HTML) and Extensible Markup Language (XML).

❑ Browsers translate web pages and websites delivered using Hypertext Transfer Protocol (HTTP) into human-readable content.

❑ They also have the ability to display other protocols and prefixes, such as secure HTTP (HTTPS), File Transfer Protocol (FTP), email handling (mailto:), and files (file:).

❑ In addition, most browsers also support external plug-ins required to display active content, such as in-page video, audio and game content.

❑ Some popular web browsers include, Internet Explorer, Google Chrome, Mozilla Firefox, Opera.

❖ Search Engine :

❑ Search Engine refers to a huge database of internet resources such as web pages, newsgroups, programs, images etc. It helps to locate information on World Wide Web.

❑ User can search for any information by passing query in form of keywords or phrase. It then searches for relevant information in its database and return to the user.

➢ Search Engine Components:

Generally there are three basic components of a search engine as listed below:

❑ Web crawler

It is also known as spider or bots. It is a software component that traverses the web to gather information.

❑ Database

All the information on the web is stored in database. It consists of huge web resources.

❑ Search Interfaces

This component is an interface between user and the database. It helps the user to search through the database.

Search Engine	Description
Google	It was originally called **BackRub.** It is the most popular search engine globally.
Bing	It was launched in 2009 by **Microsoft.** It is the latest web-based search engine that also delivers Yahoo's results.
Alexa	It is subsidiary of Amazon and used for providing website traffic information.

❖ Social Networking:

➢ Introduction:

- ✓ Social Networking refers to grouping of individuals and organizations together via some medium, in order to share thoughts, interests, and activities.

- ✓ There are several web based social network services are available such as *facebook, twitter, LinkedIn, Google+* etc. which offer easy to use and interactive interface to connect with people within the country and overseas as well.

- ✓ There are also several mobile based social networking services such as Whatsapp, hike, Line etc.

➢ Advantages:

- ✓ **Online Marketing -** Website like facebook allows us to create a page for specific product, community or firm and promoting over the web.

- ✓ **Online Jobs -** Website like linkedin allows us to create connection with professionals and helps to find the suitable job based on one's specific skills set.

- ✓ **Online News -** On social networking sites, people also post daily news which helps us to keep us updated.

- ✓ **Chatting -** Social networking allows us to keep in contact with friends and family. We can communicate with them via messages.

- ✓ **Share Picture, Audio and video -** One can share picture, audio and video using social networking sites.

➢ **Disadvantages:**

- ✓ **Disclosing Personal Information -** A user can disclose too much personal information that can be misused on such a network.

- ✓ **Emotional Abuse -** A social networking site can be used occasionally to emotionally abuse other individuals. Such actions are referred to as trolling.

- ✓ **Invasion of privacy -** These sites often contain a great deal of data that can be difficult to obtain using traditional means. Unauthorised use of this data can lead to invasion of privacy.

***

PRITHWISH DE