Web Hosting:

- To place the contents or web site on the internet.
- To host the web site you have to own a piece of space in cyberspace.
- Web hosting empowers you and anyone with a computer and internet connection to own a piece of cyberspace.
- In your space you can have news, bulletins, documents, data files (your web site) and your own post office (mail server) to accept mail.
- To get this space you either have to own a piece of the physical internet with a network connection to the internet backbone and computer(s) operating as server(s) offering access to your files and post office, for people on the internet to view your web site or send and receive email with you.
- There are many web hosting companies to offer an environment where people could have their piece of cyberspace on the internet 24/7 without the great cost.
- Web hosting companies developed a model where they could split up areas on the servers connected to the backbone and rent this space, cutting the costs across many people sharing the server and backbone connection to the internet.
- In a web hosting environment, you are offered a web site to place your files, data, documents and bulletins for people to access with their web browser and an email server for you to send and receive email messages.
- To obtain space in a web hosting environment you become a member and agree to terms and conditions of renting the space - just as if you were to rent a house or commercial premises for your business.
- Once you agree and become a member, you are given an access code, a key, to your piece of cyberspace. This key, in the form of a login and password, allows you to connect to the web hosting server and up-load (transfer to) your web site so it can be accessed on the internet.

In a web-hosting environment, your area is defined as disk space and network transfer.

- Disk space is measured in Megabytes(MB) or GB. Megabyte roughly means 1,024,000 characters and GB means 1,024 million characters

- Network Transfer is also measured in MB or GB which determines how much data can be downloaded (transferred to) by people accessing your web site.

The core components in a web-hosting environment are:

- **Web Server:**

The web server is a relatively simple piece of software that accepts requests over HTTP (Hypertext Transfer Protocol) and delivers HTML pages and Image files.

- **FTP Server**

FTP is the means of which a web master can transfer files to and from the server. To put your HTML and image files on a server you will generally use FTP to upload (transfer to) your files to the server running the web server.

- **Mail Server**

The mail server consists of two parts POP (Post Office Protocol) and SMTP (Simple Mail Transfer Protocol). POP is where email is received into your mailbox and SMTP is what is used to send and receive email between mail servers.

- **Database Server**

If you are using server side scripting on your web server (you use something like Microsoft Internet Information Server) then instead of providing 'static' data only on web pages you can provide data from a database allowing your users to search and view the data in different and dynamic way. Also, a Database server is used to gather data from visitors to your site; orders, feedback, discussions and the like.

- Each one of the above components is software programs running on servers in the web - hosting environment. You can interact with each of these with special software programs you use on your computer. The main ones being:

Web Browser

When viewing the web you use a web browser like Internet Explorer. Many web hosting companies provide a 'Control Panel' to administer your web host account, which you use with your web browser. Most allow you to configure most aspects of your account using a simple web browser.

Web site/page editor

Today many web servers allow editing of WebPages over HTTP (hypertext transfer protocol) based on Microsoft FrontPage technology. These special editors allow you to essentially look at your web site as if you were using a web browser and edit the pages directly as you see them using WYSWYG (What you see is what you get) technology. Most web hosting environments support this, and if you are starting out, make sure it is available.

FTP Client

This is a very simple piece of software that allows you to view the server folders and files in your web host account as if they were files and folders on your own computer. You can then drag and drop files between you computer and your web host account.

Email Client

If you are on the internet you would already be using an email client to send and receive your email. The most common are Outlook Express, Eudora and Web based mail clients like Hotmail.

Database Administration Client

The most common databases used with web servers are Microsoft SQL Server (available only on Windows) and MySQL (commonly found on Linux and UNIX but also available on Windows). SQL Server comes with its own administration client where you can view your databases, edit them, backup data and do all the administration functions you need. MySQL has an active online community where there is a range of administration clients available.

While choosing a web host, You need to define what it is you require: how

much space you need and what features and facilities you need.

Web Hosting Services

There are essentially five types of service that these companies provide:

- A non virtual web site
- A sub domain
- A virtual web server (Full virtual)
- A fake virtual web server (Partial virtual or IP-less)
- A dedicated web server.

A Non virtual web site:

It is a web site set up without using your own domain: your web site appears to be part of the web host's site. Your company's URL will start with the web-hosting company's domain name, and end with you company name. For instance, if your company named "ABC Ltd" is hosted in http://www.bighost.com/, then your URL might end up like: http://www.bighost.com/abcltd/

A Sub domain

Some web-hosting companies can create sub domains for you, so you appear to have your own domain. For instance, you might have: http://abcltd.bighost.com/

A Virtual Web Server

In order to set up a virtual web host, you need to get your own domain name. Your URL will be now http://www.abcltd.com/. To the outside world it will appear that you have your own web server. In fact the web-hosting company may have hundreds, or even thousands of different domain names, all pointing to the host's computers and each owned by a different company.

The idea behind doing, this is fairly simple - When you apply for a domain name, you tell the registration authority where your domain will reside (name servers used by your hosting company for routing information). Your domain name is then added to the Internet's name server system, so that when someone on the

Internet wants to go to your -web site, the messages are routed to the correct name servers.

The web-hosting company sets up its Computers to recognize your domain name, and it "maps" your domain name to a particular IP number, which identifies a host computer containing your web documents. So now the hosting company's name servers know which IP number identifies the computer that contains your web site, and the Internet's name servers identify the computers that Web browsers on it refer to when trying to track down a domain.

A Fake Virutal Server.

While in the case of a virtual server the web URL has to be assigned its own IP number, multiple fake virtual web servers can be assigned to a single IP number. So a large of different companies, using a variety of different domain names, may all be using the

same IP number. In other words, all the domain names - and, therefore, all the URLs - point to exactly same place.

A Dedicated Web Server

The last type of service that a web-hosting company will provide is the full web server service. You'll get not only your own domain name and IP but even your own computer. The web hosting company will set aside a computer for you, and you'll have dedicated use of that computer. This service is, of course much more expensive. You may want to use this service if your web site grows big enough and busy enough.

Role of Webmasters

Technology is sweeping over the world. This is the age of information. Information plays an important role in the promotion & development of any organization, as well as in efficiency of general people. Modern people are much busier and thus want to get the required information as soon as possible. Web technology is enormously powerful tools for development. One of the most pressing challenges is to harness this extraordinary force, spread it throughout the world, and make its benefits accessible and meaningful for all humanity basically the poor. Thus overall one can say that the web page allows or truly help to

explore various factors and aspects of organizations through the simple click of button.

- Webmaster is the person being responsible for managing the evolution and well-being of the web work, policies, as well as the more rationale HTML and other technical resources. It's ok for static webpage, but if we think about dynamic webpage it should be implementation-programming languages like PHP, ASP, CGI, and JS for develops the webpage. Supervise the design of the organization's Web and editing as well as designing the E- Bulletin. In addition, there is likely to be an interrelated effort to create a Web design, organization, and content for the corporation's intranet. The most challenging responsibility is that develop the international relation using the website. Web Master manages the computer server and technical programming aspects of a Web site as well as idea generation to develop Information & communication Technology (ICTs) to develop project as per as organization's needs.

Webmaster will be responsible for developing and maintaining your Web site. will be responsible for designing, planning, promoting and marketing the Web site.
The success or failure of the project will rest on his/her shoulders.
He/she is fully responsible to represent the organization to the entire world through the web.

It is not an easy job. He/she will need to:

- Design your pages.
- Upload them to your Web server.
- Submit them to the search engines.
- Monitor the progress of your keywords on the search engines.
- Update and modify your Web pages.
- Seek to enhance your site with the objective of reaching high rankings.
- If you have an e-commerce interest then there are financial considerations.

The webmaster deserves a great responsibility because without a webmaster:

- Any organizations would have no web site.
- The site's visitors would not be able to find online information about their work, their students, children, and their school system.

The points the webmaster must be conscious are:

Who is your customer?

- Your school, office, or class. They are relying on you to understand their audience, the message they want to convey, their content, and how to use the web effectively.
- Who is the MOST IMPORTANT customer?
- The site visitor, end user, web surfer, whatever term you like. He or she is the MOST IMPORTANT person to you, the webmaster. His or her needs should drive all decisions you make about your site's content, structure, navigation, design.

What do you do for your customers?

- Make the site visitor's quest for information as efficient, useful and enjoyable as possible.
- Ensure that you've presented the message that your school, office or class wants to convey as accurately, clearly and effectively as possible.

What kind of web site do your customers want?

- Simple: Resist the urge to experiment with large graphics, FLASH introductions, hidden navigation, frames, too much animation. Such technology can confuse users.
- Direct: Supply enough information on the home page so they know who is speaking to them and why.
- Easy to read: Use black text on white background as much as possible.
- Quick to download: Make sure graphics are small or optimized so pages load quickly.
- Up to date: Check content frequently. Delete anything no longer useful or that you can't maintain. Update other pages with accurate information
- Functional: Be sure that links work.

Web Publishing

Once your Web pages are ready for public access, you are ready to install them on a Web server.

There are many ways to install (sometimes called publish) a Web page on a Web server, but all require some crucial information that is specific to your particular Web server and your personal computer account on that server.

To make your pages visible to people, you must install your HTML files on a Web server.

Some commercial sites offer free Web space (usually 1OMB), where you can post your pages, for example Yahoo's Geocities, Netscape's NetCenter, and Xoom.com. You need only register at the site and be willing to have a commercial banner ad to appear in the browser window each time that someone visits your site.

If you! pay for your Web server access by subscribing to a commercial ISP, you can publish Web pages without the ads.

To install your pages on a server, you need to upload (copy) your files onto the server and make sure that they go to the right place on the server.

Six Steps to Publish a Web Page

1. Acquire access to a Web server. This must be done before you can do anything else. You need to know your userid and password for your personal account on the Web server.

2. You might be able to find your Web server's DNS address in online documentation for your computer account. Look for a Frequently Asked Questions document. is address might have either prefix: f tp:// or http://. These represent the two different protocols that Web servers might support. If you can’t find the DNS address in online documentation, visit the Help Desk computer account: they will be able to tell you the correct host name for your Web server.

Warning: You probably won't be able to guess the DNS address that you need. It might be the same www-address that appears in URL addresses for the server, or it might be something different. Chances are, it is something.

3. Find out the pathname that is needed when you upload files to the server. This step is very similar to Step 2. You may be able to find this information online, or you may need to ask the Help Desk staff.

4. Upload your Web files to the Web server. Do this using an FTP client or a Web page construction tool such as Cute FTP or Navigator's Composer. As long as you have the correct information from Steps 2 should be able to complete this step.

5. Find out the URL to use to view your home page. While working on Steps 2 and 3, ask about this URL. Anyone who knows the answer to the first two questions should be able to answer this one.

6. Fix any file protection codes that need fixing (with luck you won't need to do this). This step applies only if you've successfully completed Steps 1 through 5 and you still cannot view your home page on the Web server. If you visit and the browser displays an error message that says you are not authorized to view the page (it may say something about access permission), then you need to adjust some settings on the Web server that control which files can viewed by the public and which cannot. If you visit your page and the browser returns a 404-Not Found error message, then your Web page has not been correctly. To fix this problem, you'll need to repeat one of the earlier steps.

Uploading your pages

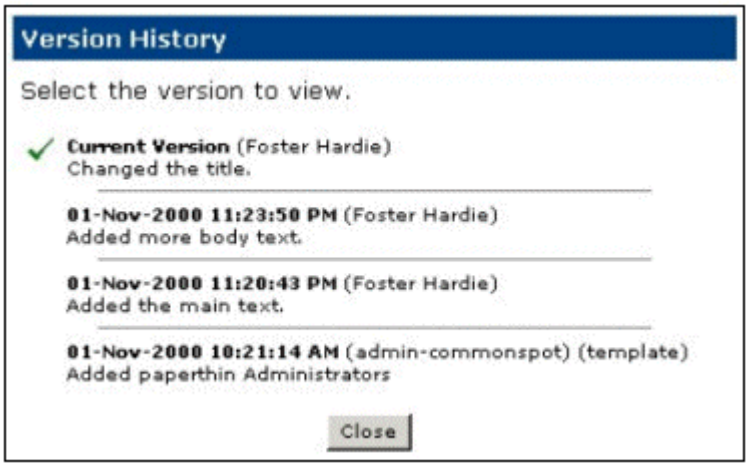
If you are using an HTML construction kit, check to see whether it has a publishing feature (conduct a search with the keyword "publish" in the online documentation). If it has one, you will be able to upload your pages using that. If you are not using a construction kit, you can upload files with either Netscape Communicator or Internet Explorer (see the tip box "How Do I Upload

Files with My Browser?" in section 8.7. You can also upload files with an FTP client (see Sections 8.7 and 9.9). In this section, the process of uploading your pages is illustrated by using Netscape Communicator's Composer (a simple HTML construction kit); other software will operate similarly.

Versioning

A week ago you published new information on your site, and the feedback about the page is not great. You decide you need to roll back to a prior version of the page. Common Spot makes it easy.

Version history tracks and displays a listing of past versions of a page, accompanied by a complete history of the page's evolution. Click on the desired version to return the page to its former state.



Example of Versioning

Version of the web-sites is like different editions of books.

Data Backups:

A backup is a copy of the information in a database, held in some physically separate location from your database. If the database becomes unavailable, perhaps because of damage to a disk drive, you can restore it from the backup. Depending on the nature of the damage, it is often possible to restore from backups all committed changes to the database up to the time it became unavailable.

If your database has become unusable, you have experienced a database failure.
Media failure : The database file and/or the transaction log become unusable. This may occur because the file system or the device storing the database file becomes unusable, or it may be because of file corruption.

For example:

- The disk drive holding the database file or the transaction log file becomes unusable.
- The database file or the transaction log file becomes corrupted. This can happen because of hardware problems or software problems.

Backups protect your data against media failure.

System failure: A system failure occurs when the computer or operating system goes down while there are partially completed transactions. This could occur when the computer is inappropriately turned off or rebooted, when another application causes the operating system to crash, or because of a power failure.

For example:

- The computer or operating system becomes temporarily unavailable while there are partially completed transactions, perhaps because of a power failure or operating system crash, or because the computer is inappropriately rebooted.

After a system failure occurs, the database server recovers automatically when you next start the database. The results of each transaction committed before the system error are intact. All changes by transactions that were not committed before the system failure are canceled.

Frequency of Data Backup:

Whenever Data Back comes into action, the question how frequently data back is carried out comes into mind. It is wise to perform the data backup very frequently. The more frequently it is done, the more less chance is there for the data loss in case of any failure.

Let’s take example:

Let’s suppose a system exists which carry out data backup everyday at 3 P.M. Now suppose a system failure occurs at 11:30 P.M. Now in this case, we will be losing all the data that has been updated between the times 3 P.M. to 11:30 P.M.

Now, in this same system, what if the data backup is carried in every hour? Of course unlike the previous case, this time the data processed between 11:00 P.M. to 11:30
P.M. will only be lost.

Note: The higher the frequency of the data backup, the higher the cost owing the system.

Data Recovery:
The process of retrieving the older database from the database server in the case of the database failure

Designing Web Page:

- Aim of the site
- The size of your page
- What should appear on the page
- Where each item should go on that page.

Understanding the aims of the site correctly

- Looking at a page as awhole and addressing the question of how big you should make the page.
- Knowing the elements that make up each page such as logos, headings links and passibly ads.
- Positioning the various elements within the page.

Understanding the site

- Who you except to visit the site
- How often you expect them to visit.
- What sort of information you think they would expect to find at your site
- What you want your site to do for your visitors.

Defining your site's content

- Actual content of the web site

Grouping and categorization

- Group together the ideas of what you want to cover.
- These group will form the primary navigation items of your site or the main menu
- Better organized and grouping

Creating a site map

- Sections and pages that are going to make up your site
- Site map look like family tree or folder list in windows explorer.
- It shold start with the home page for the site and all of the main categories at the top of the tree.

- If any of the categories contain sub categories or more than one page, these pages should appear as the children of the first.

Once created a site map you will know

- How many pages are on your site
- What information will appear on each page
- What links should appear on each page.

- Identify key elements for every page
- Page size (screen resolution)
- Fixed width versus liquid designs

Designing pages

- Sketching the placement of elements
- Navigation top, left, bottom, right

Structuring pages

- Single column layouts
- Two column layouts
- Three column layouts
- Sacrificial column

Text

- Adding white space helps make pages more attractive
- Careful alignment of text makes it easier to read
- Wide columns of text are hard to read
- Background images can make text hard to read
- Font must be carefully chosen.