6.1 INTRODUCTION

Internet plays a very crucial and important role in day-to-day life. It is not only limited for storehouse and accessing of information on any topic, but also its use for business purpose makes it more popular and indispensable till in everybody’s life. Only on click of a mouse you will be able to buy or sell products On-Line. The use of Internet in business application is highly influenced by how well interface is designed and managed. Keeping the scenario in mind, one can not ignore the importance of Planning, Designing, Deploying (Hosting) and managing information on the net.

The main purpose of a website is to deliver specific information to a target audience. The success of the website is measured in terms of the number of visitors to the site and the ease with which the visitors find the required information.

The target audience of the website also plays an important role. It may be purely for entertainment, educational, health, tour and travels; accordingly appropriate content has to gather and interface has to design. Before design the interface, it is essential to layout the information structure of the site.
6.2 OBJECTIVES

After going through this lesson, you would be able to:

- plan the structure of a web site
- identify the components of a website
- distinguish between different types of websites
- host a sample website into a free web hosting server
- maintain a website
- identify various publishing tools for hosting your website

6.3 WEBSITE PLANNING

It is the first most important part of building a website.

Before designing a website, it is necessary to do proper planning as in the case of building a house. If you start building your house without giving a thought of planning, the house may end up into an uncomfortable dwelling. Same way, for building a good website certain things should be taken care of.

The following “Things to consider” while planning a website:

- Purpose of website
- Target audience
- Website contents
- Blue print of a website
- Directory structure of the website
- Budgeting

6.3.1 Purpose of website

The initial stage of planning your website is to “Identity the Purpose of the Site”. It could be as follows:

- To educate people
• To entertain people
• To promote / sell a product
• To promote information on companies, products and sources, sports and games, Travel and tourism, medicines and health.

Having specific purpose is a necessary since it provides you with the guidelines on what should be put onto your site; what resources (Software, Hardware, and Manpower) are needs for the project etc.

6.3.2 Target Audience

The next step is to “Identify the Target Audience”, their knowledge, background, interests and needs, age, gender, geographic location etc. Determining, who the visitors are likely to be crucial in deciding not only the general appearance (look and feel) of the site, but also the technology that might be used to build the site.

If the website is likely to have visitors who access from home, it is necessary to designate the papers with the understanding that users will have probably slow modem connections.

On the other hand, if visitors are expected to be fans of music, rock band, then high-end technology such as Macromedia Flash, Animation with sound effects may be acceptable.

6.3.3 Website contents

Once the Purpose and Target Audience of the website are defined properly, organize the website contents. Put together any existing documents and pictures you want to work. For example, if it is a company website, you may want to assemble logos, company information, and product descriptions.

While doing website content information, the following steps to consider:

• Who will write or provide the text (contents). Some very basic contents might be:
Who you are
What you do
How to contact you
List of services and products
- Assemble photographs, logos
- Updating of text and other content to keep site fresh and content correct

6.3.4 Blue print of a website

Before designing your website, you may like to create blue print or sketch of your website as shown in figure below:

![Fig. 6.1]

This will give you complete Hierarchical Picture of the links among different pages in the web site.

6.3.5 Directory Structure of the website

Organizing your site carefully from the start can save your frustration and time later on. For better management of the site, it would be better to create a directory structure for your site, where the website contains all the files put under one directory. This may hold some sub-directories containing related items like you can have subdirectories of images or pictures, sound clippings. So breakdown your site into different categories and store concerned files inside. Developing a logical structure is an essential part of developing your website.
Example:

Here, www is the root folder of the web site. It holds an index.html - home page, resume.html, an image me.gif and two more sub-directories course1, course2.

The course1 and course2 sub-directories have their own structure of files. This is a sample structure:

- lectures sub-directory
- announce.html
- assign.html
- example.gif
- index.html
- syllabus.html

Fig. 6.2
6.4 WEB SITE DESIGN CONSIDERATION AND PRINCIPLES

Good Website Design

Frustration is a common experience among marketers trying to judge the quality of a web site design. Everyone wants to implement the best-looking web site, but opinions of what constitutes a great site vary.

Fortunately, what constitutes a good web site isn't based on opinion. It is based upon evidence.

Although the 'look and feel' of many well-conceived web sites may vary greatly, good web sites tend to share a number of characteristics. These characteristics provide the basis of the "Research-Based Web Design.

Good overview and deep understanding of the wide range of Web design issues that they may encounter while managing a web site. The guidelines provide marketers with standards that can be used to judge web designs. Marketers can request that the web designers and developers they work with follow relevant portions of the guidelines and can use the guidelines to set priorities.

The best Web site design for your Web site is the one you like best, but there are some things you will need to remember. Just because your Web site is pretty does not mean your readers will read it, or come back another day to read it again. Here are Web site design tips to help you help them to like your Web site.

- Use an Iterative Design Approach
- Provide Useful Content
- Ensure Visual Consistency
- Use Black Text on Plain, High-Contrast Backgrounds

Following are some basic principles about web site design which will help you to design an effective web site:

- Easy to read
- Easy to navigate
Easy to Find

Layout and design consistency

Quick download

Updated information and features that support all browsers

6.4.1 Easy to read

The most important rule in web design is that your web site should be easy to read. To make sure your website is easy to read, consider following things:

- Choose your text and background colors very carefully. Use dark colored text on a light colored background.

- Do not set your text size too small (hard to read) or too large, default text size for a webpage is 3. Text size ranges from 1 to 7.

- Keep the alignment of your main text to the left. Center aligned text is best used in headlines.

6.4.2 Easy to navigate

Your web site should be easy to navigate.

Things to consider:

- All of your Hyperlinks should be clear to visitors. Graphic images, such as buttons or tabs, should be clearly labeled and easy to read.

- Make your text links blue and underlined that is familiar to your visitor.

- Include a way to get back to the home page, on every page.

- Include Navigation tools on every page.
Sample Example of Navigation:

This page uses **left vertical navigation**

Navigation is at the heart of any good web design. The ability of visitors to get around site quickly and easily is extremely important. There are several basic styles of navigation. In general the styles are identified by position and orientation on a page.

Fig. 6.3

This page uses **top horizontal navigation**

They include:
- Top
- Left Side
- Right Side
- Bottom
- Horizontal
- Vertical
Top and side navigation are the most common. Right side navigation is extremely rare. Because it is so rare, it should be avoided because web visitors are not used to it.

Bottom navigation is used when pages are long. This eliminates the need for the page visitor having to scroll back to the top of a page to access a link.

On complicated sites navigation can be divided into primary and secondary categories.

Often navigation links are created using an effect called a “rollover”. This effect often appears as link changing shape and color. It is accomplished by having a primary image swapped for a secondary image when a mouse pointer passes over it.

### 6.4.3 Easy to find

Effective web sites can easily be found and accessed over the Internet. After building your website, to make sure your presence known to others, to make the sites availability over Internet, on searching through search engine, it is necessary to promote your site online. Websites are promoted online via search engines, for which, the site should be registered with several major search engines, banner advertising, electronic magazines and links from other websites.

### 6.4.4 Layout and Design Consistency

Your webpage layout and design should be consistent throughout the site, including colors, graphics, type faces and all other design elements. For Example: link colors throughout your website, font...
type, colors and background colors, alignment in the main text and the headings should remain same throughout your site.

6.4.5 Quick to download

While designing a website always think how long it will take to load. It is best to keep your download time as short as possible by:

- Minimizing the use of images
- Cut down the animated gifs
- Using compressed images

Updated information and features that supports all browsers

Always keep your web site content fresh and alive. Remove any outdated information and add new information as appropriate and update existing information regularly.

Make sure that the features the web site contains are supported by all browsers.

INTEXT QUESTION

1. Choose the correct answer:

   (a) The following “Things to consider” while planning a website:

   (i) Purpose of website  (ii) Target audience
   (iii) Website contents  (iv) All of these

   (b) The initial stage of planning your website is to:

   (i) Identify the target audience
   (ii) Identity the Purpose of the Site
   (iii) Budgeting   (iv) Prepare Blue Print

   (c) Which of following are the are web site design consideration and principles?

   (i) Easy to read  (ii)Easy to navigate
   (iii) Quick download  (iv) All of these
6.5 WEBSITE AND ITS COMPONENTS

A website is a collection of documents written in the HTML Language for an individual, a business or other organization. It is typically dedicated to some particular topic or purpose.

6.5.1 Category of website

Basically there are two categories of websites, they are:

- **Static website**
- **Dynamic website**

**Static Website**

A *static website* is one that has *content not expected to change frequently*. It is maintained by using some type of editor software such as:

- Text editors such as Notepad where the HTML is manipulated directly within the editor program.
- WYSIWYG (What You See IS What You Get) editors such as Microsoft FrontPage and Macromedia Dreamweaver, where, the site is edited using GUI interface and the underlying HTML is generated automatically by the editor software.

**Dynamic Website**

A *dynamic website* is one that may have *frequently changing information*.

Here, when the web server receives a request for a given page, the page is automatically generated by the software in direct response to the page request; this opening up many possibilities including for example: providing information in some way personalized to the requirements of the individual user or look and feel differently to different user.

There are large ranges of software systems, such as Active Server Pages (ASP), Java Server Pages (JSP), PHP programming language that are used to develop dynamic websites.
6.5.2 Types of websites

There are many different types of websites. Some of the most common ones are listed below:

**Commercial site:** The purpose of this type of website is to sell products or services. The Internet address often ends with .com. For Example: www.Amazon.com, www.ebay.com, www.yahoo.com

**Country codes:** Websites from other countries have a country code at the end. For Example: India is .in, Great Britain is .uk and Canada is .ca.

**Educational site:** to provide information about an educational establishment. The internet addresses ends in .edu or .ac. For Example: www.ignou.ac.in, www.nios.ac.in

**Download site:** strictly used for downloading electronic contents such as software, game or computer wallpaper. The Internet address often ends with .com For Example: www.download.com, www.downloadjunction.com

**Entertainment site:** The purpose of this type of website is to entertain and to provide amusement. The Internet address often ends with .com. For Example: http://www.image-entertainment.com, www.rhymesayers.com, www.entertainment.msn.com

**Government site:** The purpose of this type of website is to provide information produced by government agencies, offices, and departments. Usually, information provided by government websites is very reliable. The Internet address often ends with .gov. For Example: www.india.gov.in, www.indianrailways.gov.in.

**Information site:** It contains content that is intended merely to inform visitors, but not necessarily for commercial purpose. For Example: Free Internet Lexicon and Encyclopedia - www.wikipedia.com.

**Internet Service Provider:** The purpose of this type of website is to promote companies and services related to the Internet. The Internet address ends with .com. For Example: www.vsnl.com
Military: The purpose of this type of website is to provide information about the military. The Internet address ends in .mil.

Organizational: The purpose of this type of website is to advocate an individual’s opinion or a group’s point of view. The Internet address often ends with .org.

News: The purpose of this type of website is to provide information about current events. The Internet address often ends with .com. For Example: www.timesofindia.com, www.hindustantimes.com

6.5.3 Components of a website

Some of the basic components of any website are as follows:

Home Page and site-wide template design to ensure an attractive, functional and consistent appearance of your website.

Integrated site navigation to provide clear and consistent access to your site’s content.

Look and feel of your website, including colors, text and graphics, as well as the way it functions.

A Logo: A professional looking logo. It should be displayed in the left corner of each page of your website.

A site map: Providing a list of all pages on your site.

Website Search features allowing users to search your website for content relevant to their specific interests.

About page that includes:

- A complete description of you and / or your company
- Your website and / or company objectives
- Your name, address, phone numbers and e-mail addresses

Feedback: that facilitates the customers to ask some queries about your Products and Services.

A domain name: Your ‘address’ on the internet, what
people type into their browser to find you. You choose a word on phrase (Example:- mywebsite) and an extension (Example:- .com, .net, .edu), your domain name could be mywebsite.com.

**Web Hosting**: The physical place your website resides; includes the computer (called a server) as well as the connection to the Internet and the technology that makes as your website work.

**Copyright**: Displaying your copyright information at the bottom of each page. Your copyright might look like this: 

*Copyright @ Year CompanyName*

### 6.6 Addresses of Some Impressive Websites

- www.w3schools.com (Online Web Tutorials)
- www.wikipedia.com (The Free Encyclopedia)
- www.google.com (Search Engine)
- www.ebay.com (Business)
- www.download.com (Download Softwares)
- www.animationfaltary.com (Animation)
- www.timesofindia.com (News)
- www.espnstar.com (Sports)
- www.freeservers.com (Free Web Hosting)
- www.geocities.yahoo.com (Free Web Hosting)

### INTEXT QUESTION

2. Write True or False for the following:

   (a) A static website is one that may have frequently changing information.

   (b) www.yahoo.com is a commercial site.

   (c) A domain name is the address on the internet
6.7 WEB HOSTING

A web hosting service is a type of Internet hosting service that provides individuals, organizations and users with online systems for storing information, images, video, or any content accessible via the Web. Web hosts are companies that provide space on a server they own for use by their clients as well as providing Internet connectivity.

The amount of space your host provides you is called disk space and the number of times your site is accessed by you or users is called bandwidth.

6.7.1 Types of hosting

- Free web hosting service: is free, (sometimes) advertisement-supported web hosting, and is extremely limited when compared to paid hosting.

- Shared web hosting service: is paid, one's Web site is placed on the same server as several hundred other sites. These are somewhat restricted to what can be done.

- Dedicated web hosting service: is paid, the user gets his or her own Web server and gains full control over it (root access for Linux/administrator access for Windows); however, the user does not own the server.

- Colocation web hosting service: is paid, similar to the dedicated web hosting service, but the user owns the server; the hosting company provides physical space that the server takes up and takes care of the server. This is the most powerful and expensive type of the web hosting service.

6.7.2 Free web hosting service

A free web hosting service is a web hosting service that is free, usually advertisement-supported and of limited functionality. Free web hosts will either provide a subdomain (yourname.example.com) or a directory (www.example.com/~yourname). In contrast, paid web hosts will usually provide a domain like (www.yourname.com).
A few free web hosts have a basic package for free, and enhanced packages (with more features) for a cost. This allows users to try the service for an initial trial (see how it performs compared to other hosts), and then upgrade when (and if) needed.

Free hosting may be having the following limitations:

- Limitation on the size of each hosted file
- Very small bandwidth per month compared to paid hosting
- Do not allow certain file types (for example MP3, MPEG etc.)
- Compulsory placement of the Webhosts’ Banner or Popup ads into all web pages

Some free host may provide these extra features:

- A web based control panel
- File transfer via FTP
- Scripting languages: PHP, ASP
- Relational databases such as MySQL
- Free email accounts for the domain or subdomain hosted

**Name of some free web hosts:**

Geocities (geocities.yahoo.com), Netfirms (www.netfirms.com), Freeservers (www.freeservers.com), 50megs (50megs.com), Freewebs (www.freewebs.com), Tripod (www.tripod.com)

6.7.3 Paid Web Hosting Service

A **Paid web hosting service** is a web hosting service that is chargeable based on your acquiring space, functionalities you own and database used if any. It has some pros and cons that have been described below:

**Pros:**

- You can host your own domain. With paid hosting, you can brand your site with your own domain name (e.g. www.yourCompanyName.com) and add legitimacy to your content.
• Control. With paid hosting, you control every aspect of your site, including design and advertising content.

• Accountability and Portability: When you pay for hosting, you hold more leverage over your hosting company in the event of problems. Additionally, by retaining control of your source code and data, you can easily move your site to a new host.

Cons:

• Expense. Though you can get hosting plans as cheap as 500 per month, it’s still a cost that free hosting does not incur.

• Some assembly required. Though many paid hosts offer site builders as part of the package, it still requires more technical work.

• Maintenance. When you create a site yourself, you become responsible for the upkeep of your own code. In fact, you become responsible for just about everything involved with the site except for the server and connectivity.

So in summary, making the right choice between free hosting and paid hosting is heavily dependent on both you and your site.

6.7.4 Understanding of terms associated with Web Site Hosting

The terms associated with web hosting:

➢ File Storage Space

Usually hosting companies sell different packages centered around storage space. Storage space is specified in kilobytes (KB), megabytes (MB), or gigabytes (GB); a megabyte is 1000 kilobytes and a gigabyte is 1000 megabytes.

How much storage space do you need? Well, that depends on what you are planning to do with your website. If you have only a few pages of text and little to no graphics or
images, a 25 MB should be more than you will ever need. Most hosting packages start at 25 MB of storage space.

➢ **Bandwidth**

The number of times your site is accessed by you or users is called **bandwidth**. If you are expecting a lot of hits (millions of page views) to your site you will need to get the most bandwidth you can afford. For new web sites it may take a while to get up to a significant bandwidth.

➢ **E-Mail**

Most hosting plans include a significant number of e-mail accounts and unlimited e-mail-forwarding.

E-mail forwarding is when e-mail that is addressed to your website gets redirected to another e-mail address that you specify. Most plans include unlimited e-mail forwarding. An example of e-mail forwarding: for one of my websites mail addressed to sales.mylink@yahoo.co.in, mkt.mylink@yahoo.co.in, and webmaster.mylink@yahoo.co.in all get redirected to my mylink@gmail.com address.

➢ **Support**

For the companies that do not have 24 hour support, you will have to determine if their phone support hours meet your specific needs. If you plan on working on your web site during all hours of the day, make sure to choose a company with 24/7 phone support.

➢ **CGI**

Common Gateway Interface (CGI) is a program, also known as scripts, that can be run on a website to make the site more dynamic. CGI programs can be written in PHP, ASP, Python, countless other languages. It is best to select a hosting plan that allows CGI because you will undoubtedly run across an application or game that you want to modify or include on your site.
Server Operating System (OS)

For most basic websites you will not have worry about which OS your web hosting company is using. Most plans are running on either Unix or Linux. For some unique web site features, you may need a Windows based server.

Setup Fee

Some hosting companies charge a setup fee when your account is created. This is usually a one time fee and may be waived, in some cases, when you pre-pay for your service. Check the hosting company’s terms carefully to determine the details of their setup fee.

6.7.5 Organization providing Web Hosting Services are

There are many authorized Govt. and private web hosting service providers in India, few are:


6.8 DOMAIN REGISTRATION

A domain name is a way to identify and locate computers connected to the Internet.

When using the internet, you use a domain name when you type a web address, or URL. A web address would look something like this: http://www.example.com The domain name is “example.com.”

Some of the common top level domain names with their significance are:

.com is for commercial, for-profit people and organizations.

.edu is for 4-year, degree granting colleges/universities. (schools, libraries, and museums should register under country domains)

.ac for educational purpose

.in for country India
.net is for network infrastructure machines and organizations.

.org is for miscellaneous, usually non-profit, organizations. (for use by organizations and individuals that do not clearly fit in any of the above)

6.8.1 Why Register a Domain?

Domain names are registered for a variety of reasons. Some build a web site right away, or buy a name to build a site later, while others purchase domain names in order to protect a company name or trademark, and some register a domain name so they can have personalized email addresses.

6.8.2 Where to Get a Domain Name?

You get a domain name from a domain name registrar. Accredited Domain Registrars in India are:

Government registrars:

- gov.in, mil.in: National Informatics Centre (NIC) is the exclusive registrar for gov.in and mil.in domain names.
- ac.in, edu.in, res.in: ERNET is the exclusive registrar for ac.in(Academic), edu.in(Academic), and res.in (Indian Research Institute) domain names.

Few Private authorized registrar to register domain names:

- BiznetIndia Dot Com Private Limited
- Data Infosys Limited
- IndiaLinks Web Hosting Pvt Ltd
- Net4India Limited, dba Net4Domains
- PDR Domain Solutions Pvt. Ltd.
- Pioneer Online
- Rediff.com
- Sify Ltd.
- Silicon House
6.9 WEBSITE MAINTENANCE

Why do you need to maintain your site?

If your site is outdated you are losing a lot of potential customers!

Many people put their websites up on the Internet and then never update the pages again. When the date at the bottom of a web page says “Last updated 1999”, visitors leave the site thinking you might not even be in business anymore, or the information on your web site is no longer current. On many occasions their business may change address or telephone number, but these changes are not updated on their website. Nothing leaves a worse impression than going to a web site and finding errors, missing or broken links, and poor navigation. Studies show that almost all visitors will leave your site right away.

Another reason for website maintenance is to re-submit your site to search engines, since they tend to drop website listings for no apparent reason and your customers will have no way to find your business.

It is crucial that the content of your website be current, up to date and accurate.

6.10 PUBLISHING TOOLS

Publishing information on the WEB for public access is becoming more and more important. Tools You Will Need to Publish WEB Pages are:

<table>
<thead>
<tr>
<th>An HTML EDITOR</th>
<th>MS Frontpage Express will be quite sufficient; especially for beginners.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FP Express is a free software, which is distributed as a part of Internet Explorer 4.01. Those who do not have FP Express already installed on their PC’s can download the program here. Please note that FP Express requires Windows95 or Windows98. Any PC capable of running Win95 will work fine.</td>
</tr>
</tbody>
</table>
An Image Editor

If you will need to put images on your Web pages (most probably you will), we recommend you to download another free and popular image editor (LViewPro). Please note that you will have to learn a lot about this program before you start creating fancy graphics.

A Program to Transfer the Files Create to the WEB Server

The simplest way to make these sorts of transfers is using FTP (File Transfer Protocol). A Windows application, WS_FTP is a popular FTP Client which will help you in transferring files to-and-from UNIX hosts.

6.11 CREATING/MAINTAINING WEBSITE IN A FREE WEB HOSTING SERVER

There are many free web hosting servers available, let’s take a look into geocities server.

Follow the steps to create and maintain your website in geocities:

1. **Open the geocities site:** Type http://geocities.yahoo.com/ in browser address bar. This will lead to you to the geocities site.
2. **Use your yahoo! ID to log on the site**, if you do not have than **Sign-in** to create a yahoo ID. The Sign Up process take you to a page where you have to filled your details before successfully creation of your User Id in yahoo.

*After successful log in :

You can get web address bar where you can find your address on the Internet. You can jump to view your site on clicking View My Site.

**N.B:** By default yahoo users get some space in geocities server with the address www.geocities.com/yourYahooID, and default index page (home page) is created that can be customize later on.

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**Fig. 6.6**

**Fig. 6.7**

The Geocities Control Panel, where you can **create and update your page and manage** your website.
3. **Create and Update Website**
To create Website Geocities provide tools Yahoo!PageWizards, Yahoo!PageBuilder. For new users PageWizard is easy and quick, after answer a few questions it will create a great-looking web page. PageBuilder is an easy-to-use drag and drop web page editor.

Fig. 6.10

There are other tools also available like HTML editor and Text Editor to create web page.

Upload Files

If the web pages are already created before you can easily upload
File Manager

Maintain and modify files and subdirectories with this versatile tool. Access the Advanced Editor to edit and create HTML files. File manager does everything for you such as: creation of new, edit an existing, copy, rename, delete and upload files.

![File Manager Interface](image)

**Fig. 6.12**

**INTEXT QUESTION**

3. Write True or False for the following

(a) The amount of space your host provides you is called disk space.

(b) NIC is not a free web hosts.

(c) A domain name is a way to identify and locate computers connected to the Internet.

(d) CGI is known as Common Gateway Internet.

**6.12 WHAT YOU HAVE LEARNT**

In this lesson we discussed about the different steps of effective planning a website. While designing a website you have to keep in mind the purpose of the website, target audience, content and
budget. The website should be easy to read, easy to navigate and easy to find. In this lesson you have learnt about the components of a website and how to host a website also.

6.13 TERMINAL QUESTIONS

1. Explain the term Website Planning? What are the things to consider while planning a website?

2. Why website design is an important phase in website building process? What are the basic website design consideration and principles?

3. Explain static and dynamic website. Name the different type of websites. What are the basic components of any website?

4. Define Web Hosting? What are the types of hosting services?

5. Define the term Domain name? Why register a Domain? Who are the authorized domain registrar in India?

6.14 FEEDBACK TO INTEXT QUESTIONS

1. (a) (iv)
   (b) (i)
   (c) (iv)

2. (a) False
   (b) True
   (c) True

3. (a) True
   (b) True
   (c) True
   (d) False