Web Designing

In earlier days we have only standalone computers. It allow the single user environment. If two people want to exchange information then they had to physically carry the information from one place to other. This introduce the new scope of the computer to communicate with each other by means of computer network.

Computer network: It is an inter connection of two or more than two computer for the purpose of communication and sharing of the information

The two or more than two computers are inter connect by using of the communication path like copper wires, satellite , blue tooth , radio wave , fiber optics .

The every computer in the network is called the host. The each computer in the network is uniquely identified by Internet protocol address (IP address). It is very difficult to remember IP address since it is mapped to Domain Name System (DNS). The example for DNS is www.google.com . The DNS is the logical address it can be remembered very easily compared to numerical IP address. The DNS is entered in the address bar of web browser.

Web browser :It is a software application used to locate, retrieve and also display content on the World Wide Web, including Web pages, images, video and other files
The two most popular browsers are **Microsoft Internet Explorer** and **Firefox**. Other major browsers include **Google Chrome, Apple Safari and Opera**

Internet: It can be defined as networks of network that connected each other
Using the internet we can

* Get the information about different topic
* we can get demo version of software and games
* we can communicate with others
* we can send and receive the mail

Note: The internet and World Wide Web are not same. The WWW is the part of the internet.

Services of Internet: The Internet provide different services in that some of that are
a) E mail: It is a short form of Electronic mail. Using this we can compose, send and message to individual or to group it will have the format like username@ service-provider-name. The email message is no longer restricted to send the text information we can also send the voice messages, video clips, and other format of images. We can get email from the ISP (internet service Provider) or

While sending the message we will have the following 5 stages are there

Message sender: Here user can compose the letter
Internet mail address: Here we have to enter the address of the recipient person
Mail submission server: Here the address is converted into IP address

Routers: The composed message is send to the desired address

Destination mail servers: Here the message is stored until recipient delete that

Advantages:

1) we can send the message at any time
2) the message is in recipient's inbox within a short time
3) delivery of message can be conformed
4) we can send multiple copies of message
5) The incoming message can be saved
6) Easy to use : Sending of email frees us from the tedious task of managing the data for daily use
7) It is easy to prioritize : Due to having subject we can use only wanted message and we can ignore other
8) It is possible to send automated email
9) We can use the colorful graphics along with email
10) Now a day it can also be used as advertising tool by the company
11) Cheap service.
12) We can attach the other document
13) It provide the facility of data storage

Disadvantages:

1) Recipient is also the email user
2) Until we check our inbox it is not possible to identify that the we have any message or not
3) Spam : There will be chances of getting unwanted advertisement
4) Virus: These are self-replicated computer program created by computer professionals. There will be chances of getting(attacking of) the virus by using the email

b) Voicemail: We can send the voice message if both persons are in online instead of typing and sending them.

c) Remote login: Using telnet we can login to the remote computer system. We will get the feeling that we are working in our own system

d) Chat: Here we can send the text and voice messages simultaneously only if both persons are online OR the instantaneous communication between two person in on line

e) Bulletin Boards: It is text based dialup facility. The user can modify these information

OR a surface intended for the posting of public messages

For example, to advertise items wanted or for sale, announce events, or provide information. Bulletin boards are often made of a material such as cork to facilitate addition and removal of messages, or they can be placed on computer networks so people can leave and erase messages for other people to read and see.

f) Newsgroup: It is the place for online discussion of the topics of interest. Here the text message are present user can read this message and user can replay for that. A newsgroup is an Internet-based discussion about a particular topic.

g) Ecommerce: stands for electronic commerce , t is the process of trading the goods by using computer and telecommunication line

Definitions:

a) **World wide web**(WWW) : It is a system of interlinked hypertext document over the internet. The term *WWW* refers to the *World Wide Web* or simply the Web. The World Wide Web consists of all the public Web sites connected to the Internet

worldwide, including the client devices (such as computers and cell phones) that access Web content. The WWW is just one of many applications of the Internet and computer networks.

The World Web is based on these technologies:

HTML - Hypertext Markup Language

HTTP - Hypertext Transfer Protocol

Web servers and Web browsers

Researcher Tim Berners-Lee led the development of the original World Wide Web in the late 1980s and early 1990s. He helped build prototypes of the above Web technologies and coined the term "WWW." Web sites and Web browsing exploded in popularity during the mid-1990s.

b) **Web Page** : It is resource of information present on WWW and accessed by web browsers . Usually this information will be in HTML or XHTML format . The web pages are retrieved from local computer or from remote web server . We can view the output of webpage by using web browser

b) **Web site** : The collection of webpages present on world wide web. A web site is a set of related web pages served from a single web domain . The pages of a website can accessed by URL(Uniform Resource Locator) or simply called the web address

c) **Web browser** : It is a software using that we can view the web pages Example: Internet Explorer , Opera, Netscape , safari , Mozilla Firefox etc. The web browser is invented by the Tim Berners-Lee in 1990 . Using web browser or browser we can traverse information resource on WWW. An information resource is identified by URI (Uniform Resource Identifier)

d) **Domain Name** : It is a name that identifies a computer on internet. The Domain Naming System (DNS) is a hierarchical Distributed naming system for computers , services or any resources connected to the internet. The remembrance of IP address is very difficult compare to domain name . So the domain name is converted into IP address for the purpose of the locating the computer in the world wide

e) **Gopher** : It is a protocol that is used to search and retrieve the content from FTP sites

f) **HTML** : It is Hyper Text Markup Language which is used to create and to develop the web page.

g) **HTTP**: Hyper Text Transfer Protocol is a method used to transfer the information on WWW to web browser.

h) **TCP/IP** : Transmission Control Protocol and Internet Protocol. And is a rule that is used in internet communication.

i) **URL**: Uniform Resource Locator is used to identify the address of network retrieval document. It can also be called as **web address**. Example : www.google.com

j) **Search Engine**s : These are used to find the information stored on the computer system in the internet. Actually it is a software code designed to find text , image or document on www. Example : google.com , lycos.com , yahoo.com , bing.com , khoj.com etc.

k) **Surfing**: Collecting the information or viewing the information from different web pages . If the viewer obtain the same information from different web pages then we call it as surfing

l) **Markup language** : Is used to create the web page and host it . This page should be attractive. The example for markup language is HTML

HTML

Hyper Text Mark-up Language (HTML) is the building block for web pages. You will learn to use HTML to author an HTML page to display in a web browser.

You will need a text editor, such as Notepad and an Internet browser, such as Internet Explorer or Netscape. Open your text editor and type the following text:

```
<html>
<head>
<title>My First Webpage</title>
</head>
<body>
This is my first homepage. <b>This text is bold</b>
</body>
</html>
```

Save the file as **mypage.html**. Start your Internet browser. Select **Open** (or Open Page) in the **File** menu of your browser. A dialog box will appear. Select **Browse** (or Choose File) and locate the html file you just created - **mypage.html** - select it and click **Open**. Now you should see an address in the dialog box, for example **C:\MyDocuments\mypage.html**. Click **OK**, and the browser will display the page. To view how the page should look

Example Explained

What you just made is a skeleton html document. This is the minimum required information for a web document and all web documents should contain these basic components. The first tag in your html document is `<html>` this tag tells your browser that this is the start of an html document. The last tag in your document is `</html>`. This tag tells your browser that this is the end of the html document.
The text between the `<head>` tag and the `</head>` tag is header information. Header information is not displayed in the browser window.
The text between the `<title>` tags is the title of your document. The `<title>` tag is used to uniquely identify each document and is also displayed in the title bar of the browser window.
The text between the `<body>` tags is the text that will be displayed in your browser.
The text between the `<b>` and `</b>` tags will be displayed in a bold font.

HTM or HTML Extension?

When you save an HTML file, you can use either the .htm or the .html extension. The .htm extension comes from the past when some of the commonly used software only allowed three letter extensions. It is perfectly safe to use either .html or .htm, but be consistent. **mypage.htm** and mypage.html are treated as different files by the browser.

How to View HTML Source

A good way to learn HTML is to look at how other people have coded their html pages. To find out, simply click on the View option in your browsers toolbar and select Source or Page Source. This will open a window that shows you the actual

What are HTML tags?

- HTML tags are used to mark-up HTML elements
- HTML tags are surrounded by the two characters < and >
- The surrounding characters are called angle brackets
- HTML tags normally come in pairs like and
- The first tag in a pair is the start tag, the second tag is the end tag
- The text between the start and end tags is the element content
- HTML tags are not case sensitive, means the same as <B>

Logical vs. Physical Tags

In HTML there are both logical tags and physical tags. Logical tags are designed to describe (to the browser) the enclosed text's meaning. An example of a logical tag is the `<strong> </strong>` tag. By placing text in between these tags you are telling the browser that the text has some greater importance. By default all browsers make the text appear bold when in between the `<strong>` and `</strong>` tags.
Physical tags on the other hand provide specific instructions on how to display the text they enclose. Examples of physical tags include:

- `<b>`: Makes the text bold.
- `<big>`: Makes the text usually one size bigger than what's around it.
- `<i>`: Makes text italic.

Physical tags were invented to add style to HTML pages because style sheets were not around, though the original intention of HTML was to not have physical tags. Rather than use physical tags to style your HTML pages, you should use style sheets.

Nested Tags

The existence of one tag inside the other tag is called nested tag. You may have noticed in the example above, the `<body>` tag also contains other tags, like the `<b>` tag. When you enclose an element in with multiple tags, the last tag opened should be the first tag closed. For example:

```
<p><b>This is NOT the proper way to close nested tags.</p></b>
<p><b>This is the proper way to close nested tags.</b></p>
```

> **Note:** It doesn't matter which tag is first, but they must be closed in the proper order.

Tag Attributes

Tags can have attributes. Attributes can provide additional information about the HTML elements on your page. . Attributes appear inside the opening tag and their value is always inside quotationmarks. They look something like
<tag attribute="value">Margarine</tag>.
The `<tag>` tells the browser to do something, while the attribute tells the browser how to do it. For instance, if we add the bgcolor attribute, we can tell the browser that the background color of your page should be blue, like this: `<body bgcolor="blue">`.

Basic HTML Tags

The most important tags in HTML are tags that define headings, paragraphs and line breaks.

Basic HTML Tags Tag	Description
<html>	Defines an HTML document
<body>	Defines the document's body
<h1> to <h6>	Defines heading 1 to heading 6
<p>	Defines a paragraph
 	Inserts a single line break

<hr>	Defines a horizontal rule
<!-->	Defines a comment

Headings

Headings are defined with the <h1> to <h6> tags. <h1> defines the largest heading while <h6> defines the smallest.

<h1>This is a heading</h1>

<h2>This is a heading</h2>

<h3>This is a heading</h3>

<h4>This is a heading</h4>

<h5>This is a heading</h5>

<h6> This is a heading</h6>

HTML automatically adds an extra blank line before and after a heading. A useful heading attribute is align.

```
<h5 align="left">I can align headings </h5>
            <h5 align="center">This is a centered heading </h5>
             <h5 align="right">This is a heading aligned to the right </h5>
```

Paragraphs

Paragraphs are defined with the tag. Think of a paragraph as a block of text. You can use the align attribute with a paragraph tag as well.

```
<p align="left">This is a paragraph</p>
              <p align="center">this is another paragraph</p>
```

Important: You must indicate paragraphs with elements. A browser ignores any indentations or blank lines in the source text. Without elements, the document becomes one large paragraph. HTML automatically adds an extra blank line before and after a paragraph.

Line Breaks The <br> tag is used when you want to start a new line, but don't want to start a new paragraph. The <br> tag forces a line break wherever you place it. It is similar to single spacing in a document.

This Code	Would Display
This is a para graph with line breaks	This is a para graph with line breaks

The <br> tag has no closing tag.

Horizontal Rule

The <hr> element is used for horizontal rules that act as dividers between sections, like this:

The horizontal rule does not have a closing tag. It takes attributes such as align and width. For instance:

instance: **This Code**	**Would Display**
<hr width="50%" align="center">	———

Comments in HTML

The comment tag is used to insert a comment in the HTML source code. A comment can be placed anywhere in the document and the browser will ignore everything inside the brackets. You can use comments to write notes to yourself, or write a helpful message to someone looking at your source code.

code. **This Code**	**Would Display**
`<p> This html comment would <!-- This is a comment --> be displayed like this.</p>`	This HTML comment would be displayed like this.

Notice you don't see the text between the tags `<!--` and `-->`. If you look at the source code, you would see the comment. To view the source code for this page, in your browser window, select **View** and then select **Source**.

Note: You need an exclamation point after the opening bracket `<!--` but not before the closing bracket `-->`.

Other HTML Tags

As mentioned before, there are logical styles that describe what the text should be and physical styles which actually provide physical formatting. It is recommended to use the logical tags and use style sheets to style the text in those tags.

Logical Tag	**Description**
<abbr>	Defines an abbreviation
<acronym>	Defines an acronym
<address>	Defines an address element
<cite>	Defines a *citation*
<code>	Defines `computer code` text
<blockquote>	Defines a long quotation
<del>	Defines text
<dfn>	Defines a *definition* term
	Defines *emphasized* text
<ins>	Defines inserted text
<kbd>	Defines keyboard text
<pre>	Defines preformatted text
<q>	Defines a short quotation
<samp>	Defines sample computer code
	Defines **strong** text
<var>	Defines a *variable*

Tags Physical Tags	**Description**
<b>	Defines **bold** text
<big>	Defines big text
<i>	Defines *italic* text
<small>	Defines small text
<sup>	Defines superscripted text
<sub>	Defines subscripted text
<tt>	Defines teletype text
<u>	Deprecated. Use styles instead

HTML Backgrounds

Backgrounds

The <body> tag has two attributes where you can specify backgrounds. The background can be a color or an image.

Bgcolor

The bgcolor attribute specifies a background-color for an HTML page. The value of this attribute can be a hexadecimal number, an RGB value, or a color name:

```
<body bgcolor="#000000"> <body bgcolor="rgb(0,0,0)"> <body
bgcolor="black">
```

The lines above all set the background-color to black.

Background

The background attribute can also specify a background-image for an HTML page. The value of this attribute is the URL of the image you want to use. If the image is smaller than the browser window, the image will repeat itself until it fills the entire browser window.

```
<body background="clouds.gif"> <body
background="http://profdevtrain.austincc.edu/html/graphics/clouds.gif">
```

The URL can be relative (as in the first line above) or absolute (as in the second line above).

If you want to use a background image, you should keep in mind:

- Will the background image increase the loading time too much?
- Will the background image look good with other images on the page?
- Will the background image look good with the text colors on the page?
- Will the background image look good when it is repeated on the page

HTML Lists

HTML provides a simple way to show unordered lists (bullet lists) or ordered lists (numbered lists).

Unordered Lists

An unordered list is a list of items marked with bullets (typically small black circles). An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.

This Code	Would Display
  - Coffee - Milk 	• Coffee • Milk

Ordered Lists

An ordered list is also a list of items. The list items are marked with numbers. An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

This Code	Would Display
  - Coffee - Milk 	1. Coffee 2. Milk

Definition Lists

Definition lists consist of two parts: a **term** and a **description**. To mark up a definition list, you need three HTML elements; a container <dl>, a definition term <dt>, and a definition description <dd>.

This Code	Would Display

<dl> <dt>Cascading Style Sheets <dd>Style sheets are used to provide presentational suggestions for documents marked up in HTML. </dl>	Cascading Style Sheets Style sheets are used to provide presentational suggestions for documents marked up in HTML.

Inside a definition-list definition (the <dd> tag) you can put paragraphs, line breaks, images, links, other lists, etc

HTML Links

HTML uses the <a> anchor tag to create a link to another document or web page.

The Anchor Tag and the Href Attribute

An anchor can point to any resource on the Web: an HTML page, an image, a sound file, a movie, etc. The syntax of creating an anchor:

```
<a href="url">Text to be displayed</a>
```

The <a> tag is used to create an anchor to link from, the href attribute is used to tell the address of the document or page we are linking to, and the words between the open and close of the anchor tag will be displayed as a hyperlink.

This Code	Would Display
Visit ACC!	Visit ACC!

HTML Images

The Image Tag and the Src Attribute

The <img> tag is empty, which means that it contains attributes only and it has no closing tag. To display an image on a page, you need to use the src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display on your page. The syntax of defining an image

This Code	Would Display
<img src="graphics/chef.gif">	

Not only does the source attribute specify what image to use, but where the image is located. The above image, graphics/chef.gif, means that the browser will look for the image name **chef.gif** in a **graphics** folder in the same folder as the html document itself.

The Alt Attribute

The alt attribute is used to define an alternate text for an image. The value of the alt attribute is author-defined text:

```
<img src="graphics/chef.gif" alt="Smiling Happy Chef ">
```

The alt attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image. It is a

good practice to include the alt attribute for each image on a page, to improve the display and usefulness of your document for people who have text-only browsers or use screen readers.

Image Dimensions

When you have an image, the browser usually figures out how big the image is all by itself. If you put in the image dimensions in pixels however, the browser simply reserves a space for the image, then loads the rest of the page. Once the entire page is loads it can go back and fill in the images. Without dimensions, when it runs into an image, the browser has to pause loading the page, load the image, then continue loading the page. The chef image would then be:

```
<img src="graphics/chef.gif" width="130" height="101" alt="Smiling Happy Chef">
```

Table Tags Tag	Description
<table>	Defines a table
<th>	Defines a table header
<tr>	Defines a table row
<td>	Defines a table cell
<caption>	Defines a table caption
<colgroup>	Defines groups of table columns
<col>	Defines the attribute values for one or more columns in a table

Marquee tag: This tag is used to scroll the text information with the following syntax
<marquee>san</marquee>

This tag is used to move the text san from right to left we can also change the direction by using attribute direction as follows

<marquee direction=”right”>san</marquee>

Will move the text from left to right side. Similarly we can also specify the value of direction to up or to down.

Formatting tags

Font tag: Using this tag we can change the font face , color, size as shown below
santhosh Neelavar the output of the above code is displayed as given below

santhosh Neelavar

Font face: This attribute is normally used to change the font style. The name of the font has to identified as a value enclosed in double quote. If this attribute is not specified then default font is assumed
Font color: This attribute allow the user to change the color of the text being displayed
Font size: The size with which the data is to be displayed. The value ranges from 1 to 7 and default value is 3
Bold: To display the text inside of and as bold
san will gives **san**
Italic: To make the text italic the text should written inside of and
san will gives *san*
Underline: This tag is used to display the data with an underline as below
<u>san</u> will gives <u>san</u>
center: This tag is used to display the data in the center of the line