

CHAPTER 17

Web designing**OBJECTIVES**

- **Knowing a web page and web site**
- **Html structures.**
- **How html programs are used in creating web sites**
- **To understand the concept of hosting and maintaing websites**



17.1 Introduction

HTML is the “mother tongue” of your browser.

To make a long story short, HTML was invented in 1990 by a scientist called Tim Berners-Lee. The purpose was to make it easier for scientists at different universities to gain access to each other’s research documents. The project became a bigger success than Tim Berners-Lee had ever imagined. By inventing HTML he laid the foundation for the web as we know it today.

HTML is a language, which makes it possible to present information (e.g. scientific research) on the Internet. What you see when you view a page on the Internet is your browser’s interpretation of HTML. To see the HTML code of a page on the Internet, simply click “View” in the top menu of your browser and choose “Source”.

For the untrained eye, HTML code looks complicated but this tutorial will help you make sense of it all.

What can I use HTML for?

If you want to make websites, there is no way around HTML. Even if you’re using a program to create websites, such as Dreamweaver, a basic knowledge of HTML can make life a lot simpler and your website a lot better. The good news is that HTML is easy to learn and use. In just two lessons from now you will have learned how to make your first website.

HTML is used to make websites. It is as simple as that!

Okay, but what does H-T-M-L stand for?

HTML is an abbreviation of “HyperText Mark-up Language” - which is already more than you need to know at this stage. However, for the sake of good order, let us explain in greater detail.

- Hyper is the opposite of linear. In the good old days - when a mouse was something the cat chased - computer programs ran linearly: when the program had executed one action it went to the next line and after that, the next line and so on. But HTML is different - you can go wherever you want and whenever you want. For example, it is not necessary to visit MSN.com before you visit HTML.net.
- Text is self-explanatory.
- Mark-up is what you do with the text. You are marking up the text the same way you do in a text editing program with headings, bullets and bold text and so on.

Language is what HTML is. It uses many English words.

17.1.1 HTML Structure : An HTML document has a definite structure that must be specified to the browser. The HTML's beginning and end must be defined, as well as the document's HEAD (which contains information for the browser that does not appear in the browser's main window) and its BODY (which contains the text that will appear in the browser's main window). The use and order of tags that define the HTML structure are described below.

The body of the document contains all that can be seen when the user loads the page.

<code><html></code>	Marks the beginning of your HTML
<code><head></code>	Begins the heading section of an HTML document
<code><title> ... </title></code>	Gives an HTML document a title that appears on the browser menu bar, also will appear on search engines or bookmarks referencing your site (must appear between the <code><HEAD> ... </HEAD></code> tags; should be straight text, no tags)
<code></head></code>	Defines the end of the heading
<code><body></code>	Defines the body of an HTML document (text contained within the <code><BODY> ... </BODY></code> tags appears in the main browser window). Can be used with "BGCOLOR", "TEXT", "LINK", and "VLINK" attributes
<code></body></code>	
<code></html></code>	Defines the end of your HTML document

The html can be created using any text editor like notepad.

The file must be saved using the extension.html

In order to execute the html program use any web browser.

Web page with basic features



figure 17.1 www.pue.kar.nic.in

The official website of the pue consists of the basic layout of web page like image, web page links, web pages with headings, Bulletin Board, URL, with forms and tables. This is one of the example for web page designing.

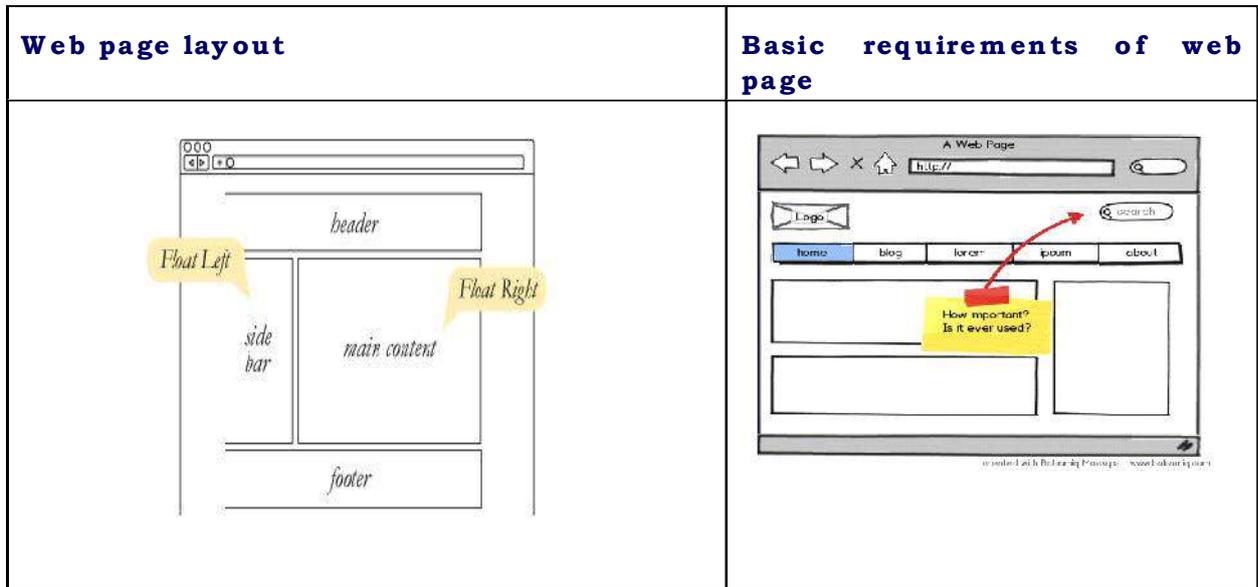


figure 17.2 Layout of HTML

Most of web pages contain the basic layouts such as address box to enter the domain name with forward and back navigating pages. Header of the web page, with or without sub heading, footer with the licence value, images etc. This chapter will highlight the commands used in advanced HTML with examples and samples are given.

17.2.1 Advanced HTML tags/commands

Text	Links	Images	Backgrounds	Others
Formatting Resizing Layout Listing	To local pages To pages at other sites To bookmarks	Inserting images (GIF and jpg) Adding a link to an image	Colors Images Fixed Image	Tables Frames Forms

17.2.2 TEXT Formatting

This text is bold

This text is italic

This is computer output

This is _{subscript} and ^{superscript}

HTML uses tags like `` and `<i>` for formatting output, like **bold** or *italic* text.

These HTML tags are called formatting tags there is a difference in the meaning of these tags:

`` or `<i>` defines bold or italic text only.

`` or `` means that you want the text to be rendered in a way that the user understands as "important". Today, all major browsers render strong as bold and em as italics. However, if a browser one day wants to make a text highlighted with the strong feature, it might be cursive for example and not bold!

17.2.3 Resizing TEXT

These are the tags for changing the font size.

```
<big>text</big>
```

increase the size by one

```
<small>text</small>
```

decrease the size by one

```
<h1>text</h1>
```

writes text in biggest heading

```
<h6>text</h6>
```

writes text in smallest heading

```
<font size="1">text</font>
```

writes text in smallest fontsize. (8 pt)

```
<font size="7">
text</font>
```

writes text in biggest fontsize (36 pt)

The `<small>` and `<big>` tags are special in that they can be repeated. If you want to increase the font size with a factor two, then you could do it like this:

```
<big><big>whatever</big></big>
```

17.2.4 Example for resizing text

```

<HTML>
  <HEAD>
    <TITLE>    MY BEST FILE    </TITLE>
  </HEAD>
<BODY BGCOLOR="RED" TEXT="YELLOW"
  <H1><CENTER> Watch the size of the text </CENTER></h1>
  <H2><CENTER> Watch the size of the text </CENTER></h2>
  <H3><CENTER> Watch the size of the text </CENTER></h3>
  <H4><CENTER> Watch the size of the text </CENTER></h4>
  <H5><CENTER> Watch the size of the text </CENTER></h5>
  <H6><CENTER> Watch the size of the text </CENTER></h6>

  <P>
    <FONT FACE="SIMSUN" SIZE="12" COLOR="GREEN">
      <CENTER> Bangalore is the garden city of India !! </CENTER>
    </FONT> <BR>
  </P>

  <P><FONTFACE="SIMSUN" SIZE="12">
    <CENTER>  Bangalore is known as bengaluru
  </FONT>
  </CENTER> <BR>
  </P>
  <OL>
    <LI> Moderate climate
    <LI> Well connected to various city
  </OL>
</BODY>
</HTML>

```



17.2.5 TEXT layout

These tags will let you control the layout.

HTML	EXPLANATION	RESULT	HTML
<code><p>text</p></code>	Adds a paragraph break after the text. (2 linebreaks).	Hello world- a linebreak does not insert a linebreak in HTML	Hello world - a linebreak does not insert a linebreak in HTML
<code><p align="left">text</p></code>	Left justify text in paragraph.	you will need	<code><p>you will need</p></code>
<code><p align="center">text</p></code>	Center text in paragraph.	to insert	<code><p align="right">to insert</p></code>
<code><p align="right">text</p></code>	Right justify text in paragraph.	special tags	<code><p align="left">special tags</p></code>
<code>text
</code>	Adds a single linebreak where the tag is.	that will insert linebreaks where you want it!	that will insert linebreaks where you want it! <code>
</code>
<code><nobr>text</nobr></code>	Turns off automatic linebreaks - even if text is wider than the window.	Another method is to write a sentence, that is long enough to force a linebreak.	Another method is of course to write a sentence, that is long enough to force a linebreak. <code>
</code> <code><nobr></code> This option can however be turned off <code><wbr></code> with the nobr tag, <code><wbr></code> unless a wbr is used to force it! <code></nobr></code>
<code>text<wbr></code>	Allows the browser to insert a linebreak at exactly this point - even if the text is within <code><nobr></code> tags.	This option can however be turned off with the nobr-tag, unless a wbr is used to force it!	

HTML	EXPLANATION	RESULT	HTML
<code><center>text</center></code>	Center text.	force it!	<code><center>You can center</center></code>
<code><div align="center">text</div></code>	Center text.	You can also center	And turn the center off <code><div align="center">And on!</div></code>
<code><div align="left">text</div></code>	Left justify text.	And turn the center off And on!	<code><div align="left">Go left!</div></code>
<code><div align="right">text</div></code>	Right justify text.	Go left! Go right!	<code><div align="right">Go Right!</div></code>

Note in particular the difference between the <p> and the <div> tags. The <div>tag allows you to justify content without being forced to add a double linebreak.

Also, note that these alignment tags are not limited to text. They work on text, images, applets or whatever it is that you insert on the page.

17.2.6 Number Listing

This page shows how to make different kinds of numbered lists. You have the following number options:

- **Plain numbers**
- **Capital Letters**
- **Small Letters**
- **Capital Roman Numbers**
- **Small Roman Numbers**

HTML-CODE	EXPLANATION / EXAMPLE
<pre> text text text </pre>	Makes a numbered list using the default number type: <ol style="list-style-type: none"> 1. text 2. text 3. text
<pre><ol start="5"></pre>	Starts a numbered list, first # being 5. <ol style="list-style-type: none"> 5. This is one line 6. This is another line 7. And this is the final line
<pre><ol type="A"></pre>	Starts a numbered list, using capital letters. <ol style="list-style-type: none"> A. This is one line B. This is another line C. And this is the final line
<pre><ol type="a"></pre>	Starts a numbered list, using small letters. <ol style="list-style-type: none"> a. This is one line b. This is another line c. And this is the final line
<pre><ol type="I"></pre>	Starts a numbered list, using capital roman numbers. <ol style="list-style-type: none"> I. This is one line II. This is another line III. And this is the final line
<pre><ol type="i"></pre>	Starts a numbered list, using small roman numbers. <ol style="list-style-type: none"> i. This is one line ii. This is another line iii. And this is the final line
<pre><ol type="1"> <ol type="I" start="7"></pre>	Starts a numbered list, using normal numbers. <ol style="list-style-type: none"> 1. This is one line 2. This is another line 3. And this is the final line
<pre><ol type="I" start="7"></pre>	An example of how type and start can be combined. <ol style="list-style-type: none"> VII. This is one line VIII. This is another line IX. And this is the final line

<h3>17.2.7 Links</h3>		
<p>Links The tags used to produce links are the <code><a></code> and <code></code>.</p> <p>The <code><a></code> tells where the link should start and the <code></code> indicates where the link ends.</p> <p>Everything between these two will work as a link.</p> <p>The target of the link is added to the <code><a></code> tag using the <code>href="http://www.whateverpage.com"</code> setting.</p> <p>The example below shows how to make the word here work as a link to yahoo.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <pre>Click here to go to yahoo.</pre> </div> <p>You simply:</p> <ul style="list-style-type: none"> • Specify the target in the <code></code>. • Then add the text that should work as a link. • Finally add an <code></code> tag to indicate where the link ends. <p>You can name bookmarks anything you like. Bookmarks are very useful on pages which are very long as they can be used to quickly go to another part of the page.</p>	<p>Page link using html tags Linking to anchors is very similar to normal links. Normal links always point to the top of a page. Anchors point to a place within a page.</p> <p>A # in front of a link location specifies that the link is pointing to an anchor on a page. (Anchor meaning a specific place in the middle of your page).</p> <p>To link to an anchor you need to:</p> <p>Create a link pointing to the anchor Create the anchor itself. An anchor is created using the <code><a></code> tag. If you want to create an anchor called chapter4, you simply add this line where you want the anchor to be:</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <pre></pre> </div> <p>After doing this, you can make a link to the anchor using the normal <code></code> Click <code></code>here< to read chapter 4.</p> <p>Note: When linking to an anchor on a # in front of the anchor. When you link to an anchor on a page, you enter <code></code>blabla<</p> <p>When you link to anchors on external pages, use the following syntax: <code></code></p>	<p>BOOKMARKS Bookmarks</p> <p>Bookmarks on a page are very easy to make as they also use the <code><a></code> tag. Instead of changing the href variable you use the name variable. For example:</p> <pre>The First Text In The Page</pre> <p>Will create a bookmark called top in the text which the tag surrounds. An image can also be contained in this tag. You can then link to this using a standard hyperlink: <code>Back To Top</code></p>

17.2.8 Inserting Images

Inserting Images	Resizing the images	Adding border to the images	Linking Images in html
<p>The tag used to insert an image is called <code>img</code>.</p> <p>Below you see an image called "rainbow.gif".</p>  <p>Here is the HTML code used to insert the image on this webpage:</p> <pre data-bbox="197 1014 328 1198"></pre> <p>If the image is stored in the same folder as the HTML page, you can leave out the domain reference (<code>http://www.echoecho.com/</code>) and simply insert the image with this code:</p> <pre data-bbox="197 1653 328 1749"></pre> <p>On the following pages we will discuss different ways to control.</p>	<p>You can change the size of an image using the width and height attributes.</p> <p>In general, it is not advisable to reduce image size using these settings, since the image will be transferred over the internet in its original size no matter what reduction is set for it. This will slow the loading of your webpage. This means, that if you have an image that is bigger in size than you want it to be on your page, you should reduce the size in a graphics program, rather than reducing the size on the webpage using the width and height attributes. On the contrary, sometimes, it can be wise to enlarge images using this technique.</p> <p>Below are two presentations of the exact same image - with different settings for width and height.</p>  <pre data-bbox="368 1350 635 1473"></pre>  <pre data-bbox="368 1753 635 1877"></pre>	<p>You can add a border to the image using the border setting shown in the example below:</p> <p>Note: Netscape browsers will only show the border if the image is a link.</p>  <pre data-bbox="676 857 938 987"></pre> <p>Adding a border to your image might help the visitor recognize that the image is a link. However, the net is filled with images that work as links and have no borders indicating it - so the average visitor is used to letting the mouse run over images to see if they are links.</p> <p>Still - if you have an image that is often mistaken you might consider adding a border to it - although you should probably consider changing the image entirely - since if it does not indicate by itself that it is a link then it isn't serving it's purpose.</p>	<p>If you want to make an image work as a link, the method is exactly the same as with texts.</p> <p>You simply place the <code><a href=</code> and the <code></code> tags on each side of the image.</p> <p>Below is the HTML code used to make the image work as a link to a page called <code>myfile.htm</code>:</p>  <pre data-bbox="970 857 1385 936"></pre> <p>If you haven't entered a border setting you will see a small border around the image after turning it into a link. To turn off this border, simply add <code>border="0"</code> to the <code></code> tag:</p> <pre data-bbox="979 1189 1378 1267"></pre> <p>Images that work as links can show a popup text when you place the mouse over it. This is done with the <code>alt</code> property in the <code></code> tag.</p> <p>For example:</p> <pre data-bbox="970 1525 1390 1563"></pre> 

17.2.9 Background

If you want to add a background image instead of a plain color there are some considerations you should make before doing so:

- Is the background image discrete enough to not take away the focus from what's written on it?
- Will the background image work with the text colors and link colors I set up for the page?
- Will the background image work with the other images I want to put on the page?
- How long will the page take to load my background image? Is it simply too big?
- Will the background image work when it is copied to fill the entire page? In all screen resolutions?

After answering these questions, if you still want to add the background image you will need to specify in the <body> tag which image should be used for the background.

```
<body background="drkrainbow.gif">
```

Note:

If the image you're using is smaller than the screen, the image will be replicated until it fills the entire screen.

If, say you wanted a striped background for your page, you wouldn't have to make a huge image for it. Basically you could just make an image that is two pixels high and one pixel wide. When inserted on the page the two dots will be copied to fill the page - thus making what looks like a full screen striped image.

When you choose to use a background image for the page it is always a good idea to specify a background color as well.

```
<body background="drkrainbow.gif"bgcolour="#333333">
```

The reason is that until the background image is loaded, the background color will be shown.

If there is too much difference between the background color and the background image, it will look disturbing once the browser shifts from the background color to the image.

Therefore it is a good idea to specify a background color that matches the colors of the image as close as possible.

You may have noticed that background images scroll with the page when you use the scroll bar.

17.2.10 Background color and fixed images

The background image will scroll when the user scrolls down the page, unless you have set it to be fixed:

```
<body  
background="drkcrainbow.gif" b g p r o p e r t i e s = " f i x e d " >
```

By adding the `bgproperties="fixed"` you force the browser to let the background be fixed even if the user is scrolling down the page.

Note: Fixed backgrounds are only supported by MSIE and do not work in Netscape browsers - instead they simply act as normal backgrounds.

As mentioned earlier in this section a limited use of colors can add more power to the few colors that are used.

The most important tool for adding colors to certain areas of the page rather than the entire background is tables.

17.2.11 Tables

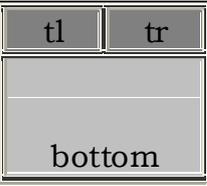
. The following properties can be added to the `<table>` tag:

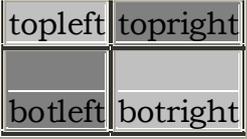
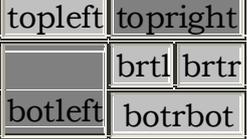
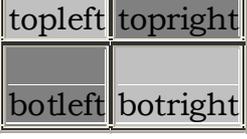
The following properties can be added to the <table> tag:		Rows/cell these settings can be added to both <tr> and <td> tags.	
Property	Description	PROPERTY	DESCRIPTION
align=left	left align table		aligns content to the left of cells
align=center	center table		aligns content to the right of cells
align=right	right align table		aligns content to the center of the cells
background=filename	image inserted behind the table	background=filename	sets a background image for the cells
bgcolor=#rrggb	background color	bgcolor=#rrggb	sets a background color for the cells
border=n	border thickness	bordercolor=#rrggb	sets color for the border of cells
bordercolor=#rrggb	border color	bordercolor=#rrggb	sets color for the border shadow of cells
bordercolordark=#rrggb	border shadow	bordercolordark=#rrggb	
cellpadding=n	distance between cell and content		aligns to the top of cells
cellspacing=n	space between cells		aligns to the middle of the cells
nowrap	protects against linebreaks, even though the content might be wider than the browser window.		aligns to the bottom of cells
frame=void, above, below, lhs, rhs, hside, vside, box	removes all outer borders shows border on top of table shows border on bottom of table shows border on left side of table shows border on right side of table shows border on both horizontal sides shows border on both vertical sides shows border on all sides of table	valign=top middle bottom	
valign=top	aligns content to	width=n n%	specify a minimum width for the cells in pixels specify a

PROPERTY	DESCRIPTION
colspan=n	number of columns a cell should span
nowrap	protects against linebreaks, even though the content of a cell might be wider than the browser window
rowspan=n	number of rows a cell should span

These settings are only valid for <td> tags. Note: Table properties are set for the entire table. If certain properties are set for single cells, they will have higher priority than the settings for the table as a whole. Note: Settings for columns (<td> tag) have higher priority than settings for rows (<tr> tag). Settings for cells (<tr> or <td> tags) have higher priority than settings for the table as a whole (<table> tag).

17.2.12 Frames

Frames	On this page you can see examples of different framesets.
	<pre><frameset rows="16%,84%"> <frame src="top.htm" name="top"> <frame src="bottom.htm" name="bottom"> </frameset></pre>
	<pre><frameset rows="16%,84%"> <frameset cols="50%,50%"> <frame src="tl.htm" name="tl"> <frame src="tr.htm" name="tr"> </frameset> <frame src="bottom.htm" name="bottom"> </frameset></pre>
	<pre><frameset rows="16%,84%"> <frame src="top.htm" name="top"> <frameset cols="50%,50%"> <frame src="left.htm" name="left"> <frame src="right.htm" name="right"> </frameset> </frameset></pre>

	<pre><frameset rows="50%,50%" cols="50%,50%"> <frame src="topleft.htm" name="topleft"> <frame src="topright.htm" name="topright"> <frame src="botleft.htm" name="botleft"> <frame src="botright.htm" name="botright"> </frameset></pre>
	<pre><frameset rows="50%,50%" cols="50%,50%"> <frame src="topleft.htm" name="topleft"> <frame src="topright.htm" name="topright"> <frame src="botleft.htm" name="botleft"> <frameset rows="50%,50%"> <frameset cols="50%,50%"> <frame src="btrl.htm" name="btrl"> <frame src="brtr.htm" name="brtr"> </frameset> <frame src="botrbot.htm" name="botrbot"> </frameset> </frameset></pre>
	<pre><frameset rows="50%,*" cols="320,*"> <frame src="topleft.htm" name="topleft"> <frame src="topright.htm" name="topright"> <frame src="botleft.htm" name="botleft"> <frame src="botright.htm" name="botright"> </frameset></pre>

17.2.13 Forms

These fields can be added to your forms:

- Ø Text field
- Ø Password field
- Ø Hidden field
- Ø Text area
- Ø Check box
- Ø Radio button
- Ø Drop-down menu
- Ø Submit button
- Ø Reset button
- Ø Image button

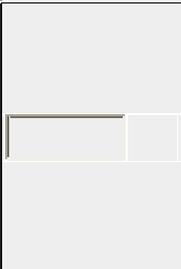
You can click on the field type to get a detailed explanation.

Finally, if you want to learn how to validate inputs to form fields (valid email address etc.)

Text fields are one line areas that allow the user to input text.

17.2.14 SETTINGS:

Below is a listing of valid settings for text fields:

HTML	EXPLANATION	EXAMPLE
text	One line text field	
size=	Characters shown.	
maxlength=	Max characters allowed.	
name=	Name of the field.	
value=	Initial value in the field.	
align=	Alignment of the field.	
tabindex=	Tab order of the field.	

The size option defines the width of the field. That is how many visible characters it can contain.

The maxlength option defines the maximum length of the field. That is how many characters can be entered in the field.

If you do not specify a maxlength, the visitor can easily enter more characters than are visible in the field at one time.

The name setting adds an internal name to the field so the program that handles the form can identify the fields.

The value setting defines what will appear in the box as the default value.

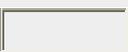
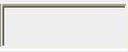
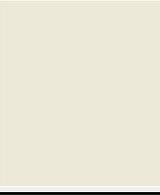
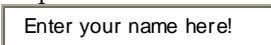
The align setting defines how the field is aligned.

Valid entries are: TOP, MIDDLE, BOTTOM, RIGHT, LEFT, TEXTTOP, BASELINE, ABSMIDDLE, ABSBOTTOM. The alignments are explained in the image section. You can learn about the different alignments .

The tabindex setting defines in which order the different fields should be activated when the visitor clicks the tab key.

AN EXAMPLE:				
	HTML	EXPLANATION	EXAMPLE	
<pre> <html> <head> <title>My Page</title> </head> <body> <form name="myform" action="http://www.mydom ain.com/myformhandler.cgi " method="POST"> <div align="center">

 <input type="text" size="25" value="Enter your name here!">

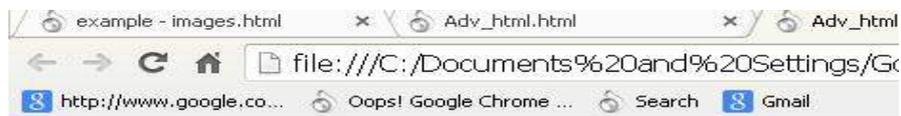
 </div> </form> </body> </html> </pre>	textarea rows= cols= name= wrap= off virtual physical	Text area - several lines Rows in the field. Columns in the field. Name of the field. Control linebreaks. Turns off linebreaks. Shows linebreaks, but sends text as entered. Inserts linebreaks when needed and even sends it.		
	text size= maxlength= name= value=	One line text field Characters shown. Max characters allowed. Name of the field. Initial value in the field.		
	password size= maxlength= name= value=	Password field. Characters shown. Characters allowed to enter. Name of the field. Initial value in the field.		
	checkbox name= value=	Choose one or more options Name of the field. Initial value in the field.		
	radio name= value=	Choose only one option Name of the field. Initial value in the field.		
	select name= size= multiple=	Drop-down menu Name of the field. Number of items in list. Allow multiple choice if yes.		
	option selected value=	Individual items in the menu. Make an item default. Value to send if selected.		
	hidden name= value=	Does not show on the form. Name of the field. Value to send.		
	reset name= value=	Button to reset all fields Name of the button. Text shown on the button.		
	submit name= value=	Button to submit the form Name of the button. Text shown on the button.		
	image name=	Image behaving as button Name of the image.		
	output 			

create an Html program using table

```

<!DOCTYPE html>
<html>
  <head>
    <style>
      td, th, table
      {
        border: 1px solid black;
      }
    </style>
  </head>
  <body>
    <table style="width:300px">
      <tr>
        <th>First Name</th>
        <th>Last Name</th>
        <th>Marks in HTML </th>
      </tr>
      <tr>
        <td>Santhosh</td>
        <td>Rajendran</td>
        <td>50</td>
      </tr>
      <tr>
        <td>Dheeraj</td>
        <td>Naik</td>
        <td>94</td>
      </tr>
      <tr>
        <td>John</td>
        <td>Matthew</td>
        <td>80</td>
      </tr>
    </table>
  </body>
</html>

```



First Name	Last Name	Marks in HTML
Santhosh	Rajendran	50
Dheeraj	Naik	94
John	Matthew	80

17.3.1 Web Hosting

Web Hosting is a means of hosting web-server application on a computer system through which electronic content on the Internet is readily available to any web-browser client.

Various types of web hosting services are available.

1. Free Hosting
2. Virtual or Shared Hosting
3. Dedicated Hosting
4. Collocation Hosting

1. Free Hosting: This type of hosting is available with many prominent sites that offer to host some web pages for no cost. Free is for fun. If you want to experiment with a site or put up a small, personal site for fun of it, a free package will suffice.

2. Virtual or Shared Hosting: This type of hosting is provided under one's own domain name, www.yuorname.com. With a hosting plan with a web hosting company, one can present oneself as a fully independent identity to his/her web audience.

Virtual Hosting is where one's web site domain is hosted on the web server of hosting company along with other web sites. One can access and update to the site and its files are carefully secured. Through a log on ID and password, one has 24 hour access to maintain one's site.

3. Dedicated Hosting: In this type of hosting, the company wishing to go online, rents an entire web server from the hosting company. This is suitable for companies hosting larger websites, maintaining others' sites or managing a big online mall etc. Dedicated is for large, high-traffic sites, or for those with special needs such as e-commerce or security. They are also good for those folks for whom money is no object.

4. Co-location Hosting: For those who do not fit the dedicated-server mold, hosting companies offer a similar, but less restrictive hosting, known as co-location hosting. In this type of hosting, the company actually owns the server on which its site is hosted. That is, the company owning the site rather than the web hosting company is responsible for all server administration. The web hosting company is only responsible for providing rack-space and the physical needs. This generally includes a high speed connection to the internet, a regulated power supply and a limited amount of hands on technical support, such as data backup or hardware upgrades.

Web 2.0

The arrival of Web 2.0 has added many new features to the web applications; it has revolutionized the information sharing, user-oriented design, interoperability on the internet. This has provided information sharing in a way that was never dreamed about few years ago.

The Internet based tools like RSS, social book marking, press release. Online marketing, blog's, forums etc made an everlasting impression on people's lives as it has crossed the hurdle of socio-economic barriers.

17.3.2 Domain Registration

Domain hosting services ensure optimal performance of your website irrespective of what platform it is built on. We support various programming languages such as PHP v5, Perl, Python and CGI, and we offer affordable web hosting services for personal websites, small business websites, as well as large enterprise portals.

Web hosting allows for users to have another company store and maintain your web site for you or your company. A web hosting company may or may not be needed depending upon what is available through your Internet Service Provider. Check with your Internet Service provider to see if they offer a comparable solution to other Web Hosting companies.

When setting up with a web hosting company, we recommend that you verify the below information with them before setting the page up.

- Domain Registration
- E-Mail forwarding
- Site Statistics
- Business Account
- Bandwidth Limitations
- Front Page Extensions
- CGI, Perl, and PHP Scripts

Figure 17.3 Domain rates in rupees

Setting up a domain

Users who want their

own unique domain or URL are required to know these details

1. Determining name
2. Think about the name
3. Getting an ISP and Web host
4. Domain Name Server (DNS)
5. Register
6. Why should I setup a domain name
7. What is a domain name alias or domain alias?

Domain Names From	.net	.com	.org	.biz	.in
From ₹ 149 (incl. GST)	329	639	339	229	229

17.4.1 Uploading html files: Some of the steps to be followed while uploading a HTML web page using uploading software

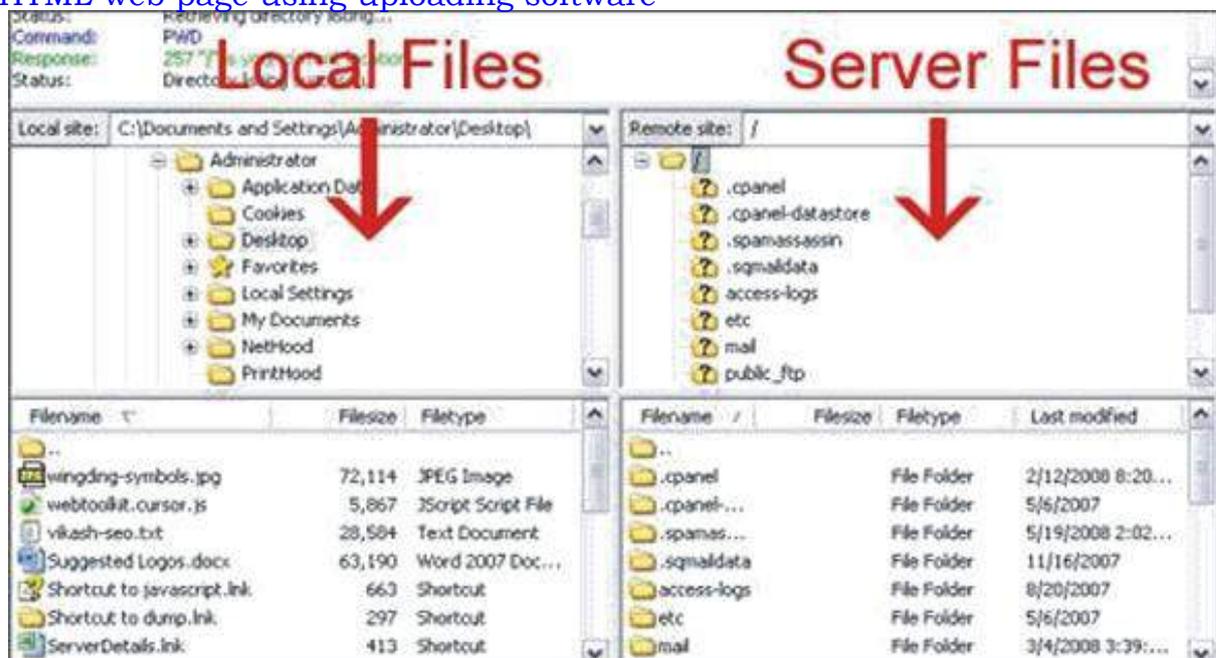
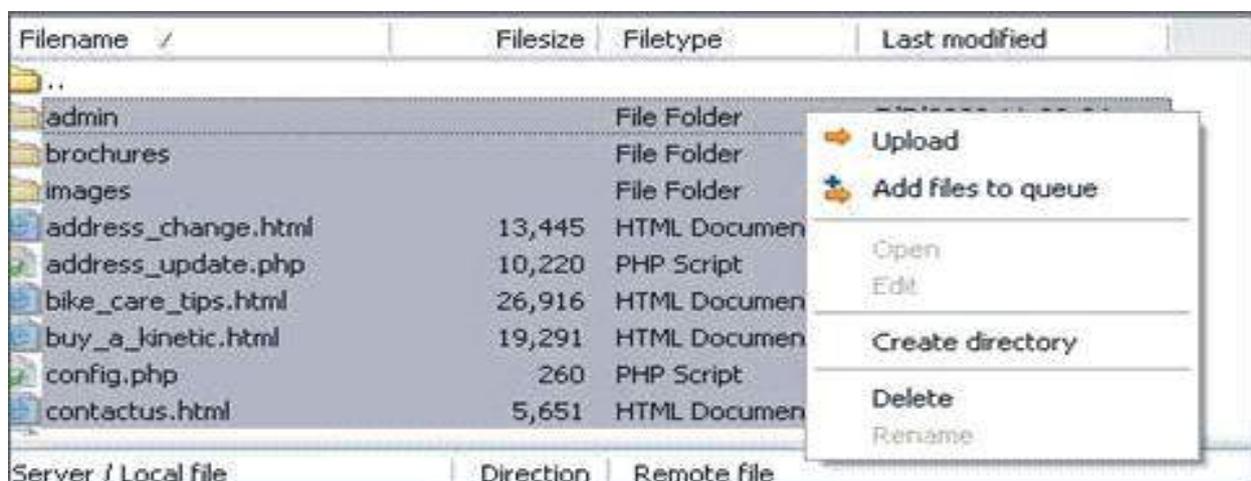


figure 17.4 showing the local and server files.



1. Open the FileZilla application and from the top menu, select File and click on Site Manager (ctrl + S).
2. In the Site Manager window, click on the New Site button. Enter the name of your site, like Signature Solutions.
3. Click in the text field for Host and your Host IP, like ftp.signature.co.in
4. Select Normal from the drop down for Logontype. (You can leave the field for Port empty and Servertype as it is)
5. In the User text field, enter the FTP Username.
6. In the Password text field, enter your FTP Password.

7. Now click on Connect button to establish a connection with your hosting server. If the connection is successful, you should see the status message in the status window as Directory listing successful. If the connection is not successful, the status window will show an error message as Could not connect to server. Check if you have entered the details correctly. If you are still unable to connect, contact your web hosting service provider for assistance.
8. After successfully connecting to the server, FileZilla will list all the files on your computer in the left window and the files on your server in the right window.
9. To upload files, browse to the destination directory on the server in the right window. Then, browse to the source directory in your computer in left window and select the directories and files that you want to upload to the server. Now right click in the selected area and select Upload.
10. You should be able to see the upload progress in the bottom window.
11. To download files, select the destination directory from the left window and the source directories & files from the right window, right-click on the the selection and select Download.
12. Files related to your website is kept under public_html, www or documents directory.
13. Always remember to Disconnect after you finish the upload or download. To disconnect, select Server from the top menu and click on Disconnect (ctrl + D).
14. To connect again, go to Site Manager (ctrl + S), select the account and click on the Connect button.

17.5.1 XML

XML is a eXtended Markup Language for documents containing structured information. Structured information contains both content (words, pictures, etc) and some indication of what role that content plays. Almost all documents have some structure.

XML is a text-based markup language that is fast becoming the standard for data interchange on the web. As with HTML, you identify data using tags (identifiers enclosed in angle brackets: <...>). Collectively, the tags are known as markup. But unlike HTML, XML tags identify the data rather than specify how to display it. Whereas an HTML tag says something like, "Display this data in bold font" (...), an XML tag acts like a field name in your program. It puts a label on a piece of data that identifies it (for example, <message>...</message>).

One big difference between XML and HTML is that an XML document is always constrained to be well formed. There are several rules that determine when a document is well formed, but one of the most important is that every tag has a

closing tag. So, in XML, the `</to>` tag is not optional. The `<to>` element is never terminated by any tag other than `</to>`

Note: Another important aspect of a well-formed document is that all tags are completely nested. So you can have `<message>..<to>..</to>..</message>`

17.5.1 DHTML (Dynamic HTML)

DHTML refers to web content that changes each time it is viewed. For example, the same URL could result in a different page depending on any number of parameters, such as:

1. Geographic location of the reader
2. Time of day
3. Previous pages viewed by the reader
4. Profile of the reader

DHTML refers to new HTML extensions that will enable a Web page to react to user input without sending requests to the web server.

17.6.1 Dynamic HTML

Dynamic HTML is a collective term for a combination of Hypertext Markup Language (HTML) tags and options that can make Web pages more animated and interactive than previous versions of HTML. Much of dynamic HTML is specified in HTML 4.0. Simple examples of dynamic HTML capabilities include having the color of a text heading change when a user passes a mouse over it and allowing a user to “drag and drop” an image to another place on a Web page. Dynamic HTML can allow Web documents to look and act like desktop applications or multimedia productions.

The Concepts and Features in Dynamic HTML

- An object-oriented view of a Web page and its elements
- Cascading style sheets and the layering of content
- Programming that can address all or most page elements
- Dynamic fonts

An Object-Oriented View of Page Elements

Each page element (division or section, heading, paragraph, image, list, and so forth) is viewed as an “object.” (Microsoft calls this the “Dynamic HTML Object Model.” Netscape calls it the “HTML Object Model.” W3C calls it the “Document Object Model.”) For example, each heading on a page can be named, given attributes of text style and color, and addressed by name in a small program or “script” included on the page. This heading or any other element on the page can be changed as the result of a specified event such a mouse passing over or

being clicked or a time elapsing. Or an image can be moved from one place to another by “dragging and dropping” the image object with the mouse. (These event possibilities can be viewed as the reaction capabilities of the element or object.) Any change takes place immediately (since all variations of all elements or objects have been sent as part of the same page from the Web server that sent the page). Thus, variations can be thought of as different properties of the object.

Not only can element variations change text wording or color, but everything contained within a heading object can be replaced with new content that includes different or additional HTML as well as different text. Microsoft calls this the “Text Range technology.”

Although JavaScript, Java applet, and ActiveX Web pages, dynamic HTML implies an increased amount of programming in Web pages since more elements of a page can be addressed by a program.

A feature called dynamic fonts Web page designers include font files containing specific font styles, sizes, and colors as part of a Web page and to have the fonts downloaded with the page. That is, the font choice no longer is dependent on what the user’s browser provides.

17.7.1 Web Scripting

The process of creating and embedding scripts in a web page is known as Web-Scripting. A script or a computer-script is a list of commands that are embedded in a web-page normally and are interpreted and executed by a certain program or scripting engine. Scripts may be written for a variety of purposes such as for automating processes on a local-computer or to generate web-pages on the web.

The programming languages in which scripts are written are called scripting languages. There are many scripting languages available today. Most common ones are VBScript, JavaScript, ASP, PHP, PERL, JSP etc.

Types of Scripts

Scripts are broadly of following two types:

1. Client-Side Scripts

Client-Side scripting enables interaction within a web page. The client-side scripts are downloaded at the client-end and then interpreted and executed by the browser. The client side scripting is browser dependent. That is, the client side browser must be scripting enabled in order to run scripts.

Client-side scripting is used when the client-side interaction is used. Some sample uses of client-side scripting may be

1. To get data from users screen or browser
2. Online games
3. Customizing the display of page in browser without reloading the page. Example rollover a hyperlink highlights that link without reloading the page.

Server-side scripts

Server-side scripting enables the completion or carrying out a task at the server end and then sending the result to the client end. In server side script, the server does all the work, so it doesn't matter which browser is being used at client end.

Server side scripting is used when the information is sent to a server to be processed at the server end. Some sample uses of server side scripting may be

1. Password protection
2. Browser customization
3. Form processing
4. Building and displaying pages created from a database.
5. Dynamically editing changing or adding content to a web page.

Some popular server side scripting languages are PHP (Hypertext Pre Processor),

Summary

>HTML structure

> HTML text,background, layout, numbering

> links

> Web hosting

> Domain reistration

> XML

>domain

>Web scripts

Review questions

One mark questions:

1. What is HTML?
2. What will be the extension of hypertext markup language file?
3. What is the use of web page?
4. What do you mean by domain?
5. What do you mean by hosting?
6. What is XML?
7. What is web scripting?
8. What is DHTML?

Two marks questions:

1. What are text files?
2. With the help of syntax include images in web page.
3. Write the steps for creating web page?
4. Write the opening and closing tags?
5. What is the use of netscape?

Three marks questions:

1. Explain the program to include tables in Web page.
2. What are steps used in creating Web Hosting?
3. How do you register an domain?
4. What is web scripting?
5. What is use of PHP files?
6. Give the features of XML?
7. Give the features of DHTML?
8. Write the differences of Client-side scripts?
9. Write the server-side scripting?
10. Create an web page for creating your college time table?
11. Create an Web page using forms?
12. What are advantages of web designing?
13. What are the advantages and disadvantages of www?
14. Write a note on URL?
