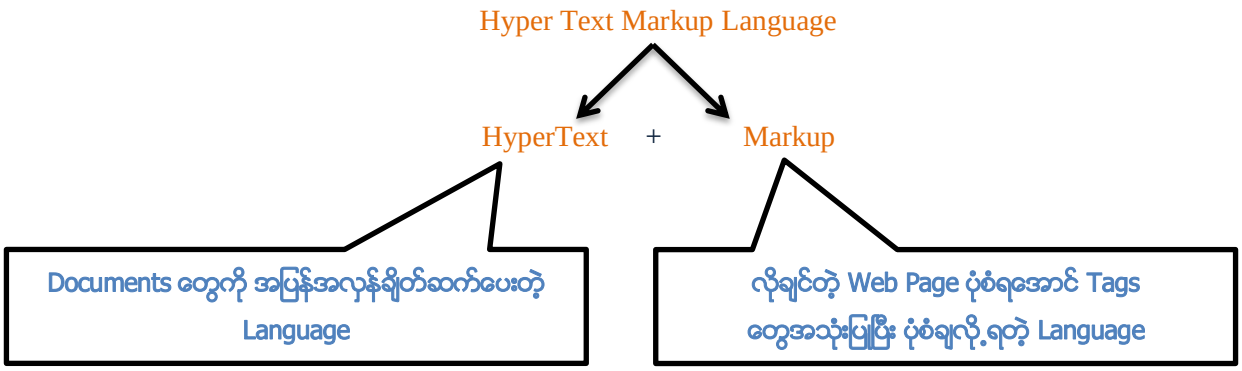
for Web Development

U Myo Zin

What is HTML?

HTML is a language for describing web pages.

1. HTML stands for Hyper Text Markup Language



2. HTML is not a programming language, it is a markup language
3. A markup language is a set of markup tags
4. HTML uses markup tags to describe web pages

HTML STRUCTURE

HTML documents are divided into two main section head and body.

```
<html>
    <head>
        <title>This is title</title>
    </head>
        <body>This is body</body>
</html>
```

HTML Tags

HTML markup tags are usually called HTML tags

- HTML tags are keywords surrounded by angle brackets like <html>
- HTML tags normally come in pairs like <html> and </html>
- The first tag in a pair is the start tag, the second tag is the end tag
- Start and end tags are also called opening tags and closing tags
- There are two types of HTML tags: paired and single.

Paired tags eg: <h tml></ h tml>
Single tags eg: <h r>

<html></html> ထိပ်ဆုံးအကျဆုံး အ ပြင်ဘက် အကျဆုံး Element တစ်ခုဖြစ်ပြီး .html (သို့) .htm

extension ရှိတဲ့ Webpage တိုင်းမှာ မပါမဖြစ်ပါဝင်ရမယ့် Essential Element ဖြစ်ပြီး ကျန်တဲ့ HTML Element လုံးဟာ သူ့ရဲ့အတွင်းမှာ ရှိရမှာဖြစ်ပါတယ်.. Browser က <html>... </html> Element ကို Codes တွေအတွင်း အ ဖွင့်နဲ့အပိတ်မှာ တွေ့တာနဲ့ ဒီ Document ဟာ HTML ဖိုင်အ ဖြစ်သတ်မှတ်ပြီး အ တွင်းက Elements တွေကို Browser ပေါ်မှာ ဘာသာပြန်ပေးပါတယ်

<head></head> HTML ဖိုင်တစ်ခုရဲ့ခေါင်းစီးပိုင်း ဖြစ်ပြီး Page နဲ့ဆိုင်တဲ့ Information တွေကို ဒီElement အတွင်းရေးရပါ တယ်

<title></title> HTML ဖိုင်တစ်ခုမှာ မတပ်မဖြစ် တပ်ရမယ့် ခေါင်းစီးပေါ်ဖို့အ တွက်အ လုပ်လုပ်ပေးတဲ့ Element

<body></body> HTML ဖိုင်တစ်ခုရဲ့ ကိုယ်ထည် ပိုင်းဖြစ်ပြီး Page ပေါ်မှာပြချင်တဲ့အရာတော်တော်များများကို ဒီ Element အတွင်း ရေးပါတယ်

Should tags be typed in Uppercase or Lowercase?

Most browsers might not care if you type your tags in upper, lower or mixed cases. <HTML>, <html> or <HtMl> will normally give the same result. However, the **correct** way is to type tags in lowercase. So get into the **habit of writing your tags in lowercase**.

.HTM or .HTML File Extension?

When you save an HTML file, you can use either the .htm or the .html file extension. There is no difference, it is entirely up to you.

HTML Headings

- Headings are defined with the <h1> to <h6> tags.
- <h1> defines the most important heading. <h6> defines the least important heading
- The six different HTML headings:**<h1> </h1>**
  <h2> </h2>
  <h3> </h3>
  <h4> </h4>
  <h5> </h5>
  <h6></h6>

Example ;

```
<html>
<body>
        <h1>This is heading 1</h1>
        <h2>This is heading 2</h2>
        <h3>This is heading 3</h3>
        <h4>This is heading 4</h4>
        <h5>This is heading 5</h5>
        <h6>This is heading 6</h6>
</body>
</html>
```

HTML
 or
 Tag

- The
 tag inserts a single line break.
- The
 tag is an empty tag which means that it has no end tag.

Example

```
<html>
    <body>
  To break<br />lines<br />in a<br />paragraph,<br />use the br element.
    </body>
</html>
```

HTML Paragraphs

- Paragraphs are defined with the <p> tag.
- Browsers automatically add an empty line before and after a paragraph.

Example

```
<html>
<head>
<title>Example</title>
</head>
<body>
<h1>About Notepad</h1>
<p>Notepad is a basic text editing program and it is most commonly used to view or edit
   text files. A text file is a file type typically identified by the .txt file name extension.</p>
<b> How do I change the font style and size?</b>
<p>Changes to the font style and size affect all the text in the document.<br/>
   Click the Format menu, and then click Font.<br/>
   Make your selections in the Font, Font style, and Size boxes.<br/>
   An example of how your font will look appears under Sample.<br/>
   When you are finished making font selections, click OK.<br></p>
</body>
</html>
```

HTML Text Formatting

HTML uses tags like <b> and <i> for formatting output, like bold or italic text.
These HTML tags are called formatting tags (look at the bottom of this page for a complete reference).

Tag	Description
<i>	Defines italic text
<b>	Defines bold text
<u>	Defines underlined text.
<big>	Defines big text
<small>	Defines small text
	Defines emphasized text

<sub>	Defines subscripted text
<sup>	Defines superscripted text
<tt>	Defines teletype text
<s> or <strike>	defines strikethrough text

Example

```
<html>
<body>
<b>This is bold</b> <br/>
<i>This is italic</i> <br/>
<u>This is underline</u> <br/>
<big>This is big text </big> <br/>
<small>This is small text </small> <br/>
<em>This is emphasized text  </em> <br/>
This is <sub>subscripted text </sub> <br/>
This is <sup> superscripted text </sup> <br/>
<tt>This is teletype text </tt> <br/>
<s>This is strikethrough text </s> <br/>
</body>
</html>
```

Paragraph Attributes:

Align alignment of paragraph text, possible values are Left, Right, Center, Justify

<p attributes= ... ></ p>

Example

```
<html>
<head>
<title>This is Homepage</title>
</head>
<body>
<h1 align=”center”>Welcome to My Homepage</h1>
<p align=”justify”>The  p element’s end tag is <i>officially optional </i>, but the HTML specification discourages leaving off the end tag in this instance. Leaving it off can cause problems in some circumstances or when using styles. In this book, all P elements are presented with end tags.
</p>
<h2 align=”right”>HTML</h2>
</body>
</html>
```

HTML tag

The tag is used to center-align text.

```
<center>This text is centered</center>
```

Example

```
<html>
<body>
<p>This is some text.</p>
<center>This text will be center-aligned.</center>
<p>This is some text.</p>
</body>
</html>
```

Example

```
<html>
<head>
<title>This is Homepage</title>
</head>
<body>
<center>
<h1 align=”center”>Welcome to My Homepage</h1>
<p align=”justify”>The  p element’s end tag is <i>officially optional </i>, but the HTML specification discourages leaving off the end tag in this instance. Leaving it off can cause problems in some circumstances or when using styles. In this book, all P elements are presented with end tags.
</p>
<h2 align=”right”>This is UL</h2>
<ul>
        <li>Coffee</li>
        <li>Tea</li>
        <li>Cola</li>
</ul>
</center>
</body>
</html>
```

HTML Fonts

The <font> tag specifies the font face, font size, and font color of text.
The <font> tag supports the following attributes:

Attribute	Value	Description
color	rgb(x,x,x) #xxxxxx colorname	Specifies the color of text
face	font_family	Specifies the font of text
size	Number	Specifies the size of text

Example

```
<html>
<body>

<p><font size="3" color="red">This is some text!</font></p>

<p><font size="2" color="blue">This is some text!</font></p>

<p><font face="verdana" color="green">This is some text!</font></p>

</body>
</html>
```

HTML <pre> Tag

The <pre> tag defines preformatted text.

Text in a <pre> element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks.

Example

```
<html>
<body>
        <pre>
                Text in a pre element
                is displayed in a fixed-width
                font, and it preserves
                both      spaces and
                line breaks
        </pre>
        <p>The pre element is often used to display computer code:</p>
        <pre>for i = 1 to 10
                    print i
                next i
        </pre>
</body>
</html>
```

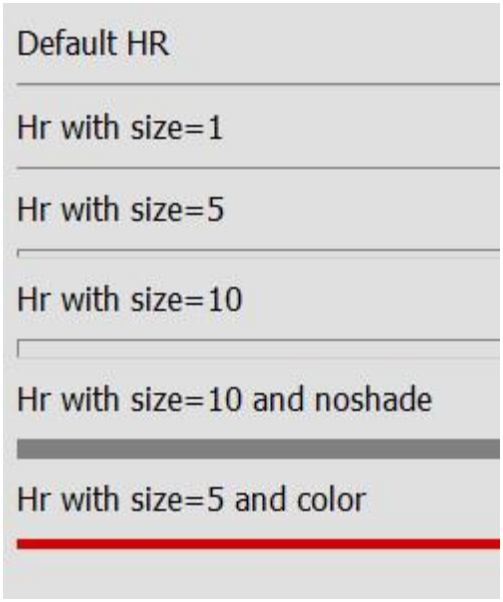
HTML <hr> Tag

- The <hr> tag creates a horizontal line in an HTML page.
- The <hr> element can be used to separate content in an HTML page.
- The <hr> tag has no end tag.
- The <hr> tag must be properly closed, like this: <hr />.

Example

```
<html>
<head>
<title>Example</title>
</head>
<body>
<h1>About Notepad</h1>
<p>Notepad is a basic text editing program and it is most commonly used to view or edit
text files. A text file is a file type typically identified by the .txt file name extension. </p>

<hr>

<h1> How do I change the font style and size?</h1>
<p>Changes to the font style and size affect all the text in the document.<br/>
Click the Format menu, and then click Font.<br/>
Make your selections in the Font, Font style, and Size boxes.<br/>
An example of how your font will look appears under Sample.<br/>
When you are finished making font selections, click OK.<br></p>
</body>
</html>
```

Hr Attribute



Example

```
<html>
<body >
Default HR
<hr>
Hr with size=1
<hr size=1>
```

Hr with size=5

<hr size=5>Hr with size=10

<hr size=10>

Hr with size=10 and noshade

<hr size=10 noshade>

Hr with size=5 and color

<hr size=5 color=#D60000>

</body>

</html>

HTML <body> bgcolor Attribute

- The bgcolor attribute of <body> tags
- The bgcolor attribute specifies the background color of a document.

```
<body bgcolor="color_name|hex_number|rgb_number">
```

Value	Description
color_name	Specifies the background color with a color name (like "red")
hex_number	Specifies the background color with a hex code (like "#ff0000")
rgb_number	Specifies the background color with an rgb code (like "rgb(255,0,0)")

Example

<html>

<head>

<title>Example</title>

</head>

<body bgcolor=silver>

Body BGCOLOR

</body>

</html>

The 16 Basic Colors:

Black	Gray	Silver	White
Yellow	Lime	Aqua	Fuchsia
Red	Green	Blue	Purple
Maroon	Olive	Navy	Teal

Marquee tags

The HTML <marquee> tag is used for scrolling piece of text or image displayed either horizontally across or vertically down your web site page depending on the settings.

```
<html>
<head><title>Example</title></head>
<body>
<marquee>I'm moving</marquee>
</body>
</html>
```

Attributes:

Attribute	Value	Description
behavior	scroll slid alternate	Defines the type of scrolling.
bgcolor	rgb(x,x,x) #xxxxxx colorname	Deprecated - Specifies the background color.
direction	up down left right	Defines the direction of scrolling the content.
height	pixels or %	Defines the height of marquee.
hspace	pixels	Specifies horizontal space around the marquee.
loop	number	Specifies how many times to loop. The default value is INFINITE, which means that the marquee loops endlessly.
scrolldelay	seconds	Defines how long to delay between each jump.
scrollamount	number	Defines how how far to jump.
width	pixels or %	Defines the width of marquee.
vspace	pixels	Specifies vertical space around the marquee.

Behavior

Scroll ----------→ `<marquee behavior="scroll">I'm moving</marquee>`

Slide ----------→ `<marquee behavior="slide">I'm moving</marquee>`

alternate ----------→ `<marquee behavior="alternate">I'm moving</marquee>`

bgcolor

bgcolor ----------→ `<marquee bgcolor="#009933" >I'm moving</marquee>`

direction

right ----------→ `<marquee direction="right" >I'm moving</marquee>`

up

down

left

Loop ----------→<marquee loop="1" >I'm moving</marquee>

scrolldelay----------→<marquee scrolldelay="1000">I'm moving</marquee>

scrollamount----------→<marquee scrollamount="10">I'm moving</marquee>

Example 1

<FONT SIZE="4" FACE="courier" COLOR=blue><MARQUEE WIDTH=100% BEHAVIOR=ALTERNATE BGColor=yellow>This is an example of an alternating marquee...</MARQUEE></FONT>

Example 2

<FONT SIZE="4" FACE="courier" COLOR=blue><MARQUEE WIDTH=100% BEHAVIOR=SLIDE BGColor=yellow>This is an example of a sliding marquee...</MARQUEE></FONT>

Example 3

<FONT SIZE="4" FACE="courier" COLOR=blue><MARQUEE WIDTH=100% BEHAVIOR=scroll BGColor=yellow>This is an example of a sliding marquee...</MARQUEE></FONT>

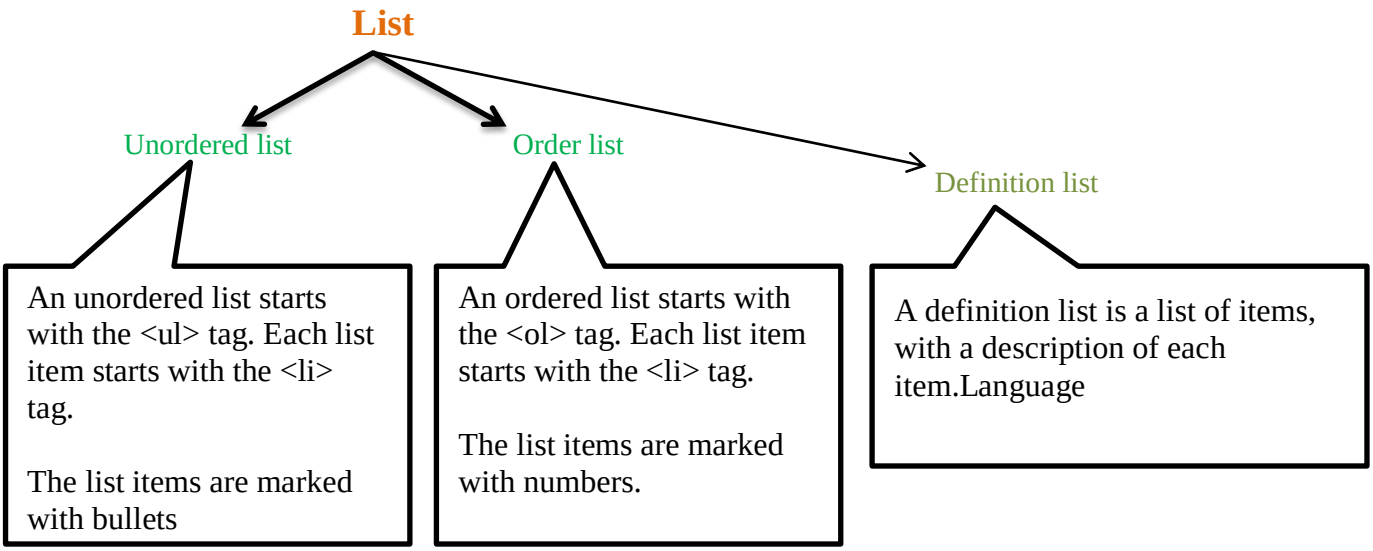
Example 4

<FONT SIZE="4" FACE="courier" COLOR=blue><MARQUEE BEHAVIOR=SCROLL HEIGHT=25 WIDTH=300 BGColor=yellow>This is an example of a scrolling marquee</MARQUEE></FONT>

Example 4

Preceeding text. <FONT SIZE="4" FACE="courier" COLOR=blue><MARQUEE WIDTH=100% BEHAVIOR=SCROLL HSPACE=15 VSPACE=25 BGColor=yellow>This is an example of a scrolling marquee</MARQUEE></FONT> Following text.

HTML Lists

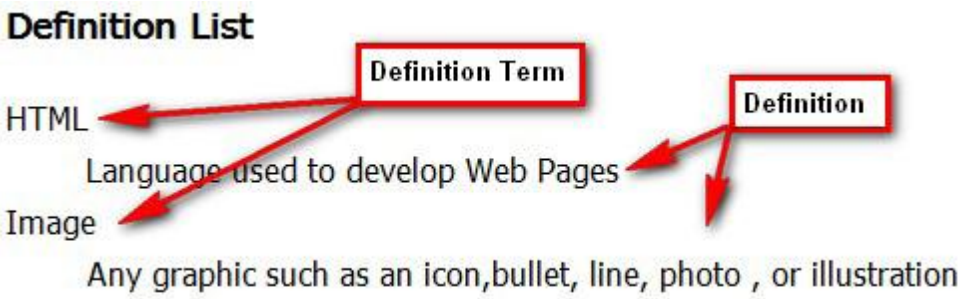


unordered list:

- List item
- List item
- List item

ordered list:

1. The first list item
2. The second list item
3. The third list item



Example (unordered list)

```
<html>
<head>
        <title>Example</title>
</head>
<body>
        <h3>Unorder List</h3>
        <ul>
                <li>Milk</li>
                <li>Toilet Paper</li>
                <li>Cereal</li>
                <li>Bread</li>
        </ul>
</body>
</html>
```

HTML Code:

```
<ul type="square">
<ul type="disc">
<ul type="circle">
```

Unordered List Types:

type="square"	type="disc"	type="circle"
▪ Milk ▪ Toilet Paper ▪ Cereal ▪ Bread	• Milk • Toilet Paper • Cereal • Bread	○ Milk ○ Toilet Paper ○ Cereal ○ Bread

Example (ordered list)

```
<html>
<head>
        <title>Example</title>
</head>
<body>
        <h3>Ordered List</h3>
          <ol>
                <li>Find a Job</li>
                <li>Get Money</li>
                <li>Move Out</li>
          </ol>
```

```
</body>
</html>
```

There are 4 other types of ordered lists.

```
<ol type="a">
<ol type="A">
<ol type="i">
<ol type="I">
```

Ordered List Types:

Lower-Case Letters	Upper-Case Letters	Lower-Case Numerals	Upper-Case Numerals
A. Find a Job	a. Find a Job	i. Find a Job	I. Find a Job
B. Get Money	b. Get Money	ii. Get Money	II. Get Money
C. Move Out	c. Move Out	iii. Move Out	III. Move Out

Definition list

- <dl> - defines the start of the list
- <dt> - definition term
- <dd> - defining definition

Example (Definition list)

```
<html>
<head><title>Example</title></head>
<body>
        <h3>Definition List</h3>
          <dl>
              <dt>HTML
                  <dd>Language used to develop Web Pages
             <dt>Image
                  <dd>Any graphic such as an icon,bullet, line, photo , or illustration
          </dl>
</body>
</html>
```

html music codes - html embed

HTML Code:

<embed src="beethoven.mp4"> </embed>

embed attributes

To customize the functionality of the embedded media player be sure to set the following attributes.

autostart - choose if the media file will start automatically

loop - sets the media file to repeat or not

volume - set the volume of the media file. The range is 0-100.

HTML Hyperlinks (Links)

A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.

When you move the cursor over a link in a Web page, the arrow will turn into a little hand.

Links are specified in HTML using the <a> tag.

The <a> tag can be used in two ways:

1. To create a link to another document, by using the href attribute
2. To create a bookmark inside a document, by using the name attribute

The HTML code for a link is simple. It looks like this:

Link text

welcome to my site

Attributes:

- href speficies a destination URL to load
- name specifies a lin k to a target with in the same HTML pa ge
- target specifies name of frame whether reference document should be load

HTML - Hypertext Reference (href)

The href attribute defines reference that the link refers to. Basically this is where the user will be taken if they wish to click this link.

Hypertext references can be Internal, Local, or Global.

- Internal - Links to anchors on the current page
- Local - Links to other pages within your domain
- Global - Links to other domains outside of your site

Internal - href="#anchorname"
Local - href="../pics/picturefile.jpg"
Global - href="http://www.tizag.com/"

HTML - Link Targets

The target attribute defines whether to open the page in a separate window, or to open the link in the current browser window.

HTML Code:

target=" _blank" Opens new page in a new browser window

_self" Loads the new page in current window

_parent" Loads new page into a frame that is superior to where the link lies

_top" Loads new page into the current browser window, cancelling all frames

The example below shows how you would link to ESPN.COM, a popular sports web site. The target attribute is added to allow the browser to open ESPN in a new window, so that the viewer can remain at our web site.

Here's the example.

ESPN.COM

HTML Download Link

The destination URL points to the file you want downloaded. In this case it is a Zip file called -----.zip.

Download Link

The PDF Download Link

Download Link

Path For Link

Path Path	ရှင်းလင်းချက်
./file.html OR file.html	နေရာတစ်ခုထဲမှာ အတူတူ သိမ်းရင် အဲလိုခေါ်လို့ရပါတယ်။ C:\example\index.html ကနေ C:\example\gallery.html ကိုခေါ်ရင်ပေါ့။ ./

	ကတော့ directory တူတူပဲလို့ ဆိုတာပါ။
./download/download.html OR download/download.html	ဒါကတော့ ကိုယ့် folder အောက်က folder ကို ထပ်ခေါ်တာပါ။
../file.html	သူကတော့ မတူတော့ဘူး။ folder ကို up လုပ်ပြီး ခေါ်တာပါ။ ဘယ်လိုမျိုးလဲဆိုရင်တော့ C:\example\download\index.html ကနေ C:\example\gallery.html ကိုခေါ်တာပေါ့။ download ဆိုတဲ့ folder အပေါ်တဆင့်က file ကိုခေါ်တာပေါ့။ နှစ်ဆင့် ခေါ်ချင်ရင်တော့ ../../file.html ပေါ့။ ../ ဆိုတာက folder directory ကို up လုပ်လိုက်တာပါ။
http://www.mysteryzillion.com	ဒါကတော့တခြား website တစ်ခုကို လှမ်းခေါ်တာပါ။
./download/file.zip OR download/file.zip	download ချဖို့အတွက် file တွေ image file တွေကိုလည်း တိုက်ရိုက်ခေါ်လို့ရပါတယ်။

Create HTML Email

Making an HTML email link on your page is quick and simple. **However**, you should know that when you place your email on your website, it is very easy for computer experts to run programs to harvest these types of emails for spamming. If you are going to put your email link on a public website, be sure that you have anti-spam software!

HTML Email Tag

There actually is not a separate HTML tag for creating an HTML email link. Instead you use a standard HTML anchor tag <a> and set the href property equal to the email adddress, rather than specifying a web URL. This is probably confusing and may take a little while to get used to.

HTML Code:

```
<a href= "mailto:abc@mail.com" >Email Example</a>
```

Email Link:

Example

```
<html>
    <body>
        <p>
            This is an email link:
```

```
        <a href="mailto:someone@example.com?Subject=Hello%20again">
            Send Mail</a>
        </p>
        <p>
            <b>Note:</b> Spaces between words should be replaced by %20 to ensure that the browser will display the text properly.
        </p>
</body>
</html>
```

HTML Images

In HTML, images are defined with the <img> tag.

The <img> tag is empty, which means that it contains attributes only, and 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.

```
<img src="url" >
```

HTML Images - The Alt Attribute

The required alt attribute specifies an alternate text for an image, if the image cannot be displayed.

The value of the alt attribute is an author-defined text:

```
<img src="---------.gif" alt="----------" />
```

HTML Images - Set Height and Width of an Image

The height and width attributes are used to specify the height and width of an image.

```
<img src="------------.jpg" alt="------------" width="304" height="228" />
```

HTML Images –BORDERS

- **Default border of 0:**

```
<IMG SRC="redball.gif" ALT="*">
```

- **Border="1":**

```
<IMG BORDER="1" SRC="redball.gif" ALT="*">
```

- **Border="5":**

```
<IMG BORDER="5" SRC="redball.gif" ALT="*">
```

- **Changing color of border**

```
<FONT COLOR="green"><IMG BORDER="5" SRC="redball.gif" ALT="TOC"></FONT>
```

HTML Images -FIXED BACKGROUND

```
<BODY BACKGROUND="bfly4.gif" BGPROPERTIES="fixed">
```

HEIGHT & WIDTH

- **Default:**
  Unaltered size of redball.gif is 14 x 16 (width x height)

```
<IMG SRC="redball.gif" ALT="*">
```

- **HEIGHT="32":**

```
<IMG SRC="redball.gif" HEIGHT="32" ALT="*">
```

- **WIDTH="28":**

```
<IMG SRC="redball.gif" WIDTH="28" ALT="*">
```

- **HEIGHT="16" WIDTH="28":**

```
<IMG SRC="redball.gif" HEIGHT="16" WIDTH="28" ALT="*">
```

Example

```
<html>
<body>
<h2>Norwegian Mountain Trip</h2>
<img border="0" src="/images/pulpit.jpg" alt="Pulpit rock" width="304" height="228" />
</body>
</html>
```

Attributes:

src	URL of image
width	width of image, in pixels
height	heigh t of image, in pixels
vspace	space between image and text to its above or below
hspace	space between image and text to it s left or right
align	alignment of image (absbottom, absmiddle, baseline, bottom, left, middle, right, top or texttop)
border	thickness of image border
alt	appear text when mouse over image

HSPACE

Example Code	Result of example code
Preceeding text<IMG SRC="redball.gif" ALT="*" HSPACE="20">following text.	Preceeding text  following text.
Example Code	**Result of example code**
Preceeding text<IMG SRC="redball.gif" ALT="*" HSPACE="40">following text.	Preceeding text  following text.

VSPACE

Example Code	Result of example code
First line of text. <IMG SRC="redball.gif" ALT="*" VSPACE="20"> 	First line of text.

Second line of text.	 Second line of text.
Example Code	**Result of example code**
First line of text. <IMG SRC="redball.gif" ALT="*" VSPACE="40"> Second line of text.	First line of text.  Second line of text.

Example

```
<html>
<body>
<p> This is paragraph 1, yes it is. I think this paragraph serves as a nice example to show how this image alignment works. <p>
<p>
<img src="sunset.gif" align="right">
The image will appear along the right hand side of the paragraph. As you can see this is very nice for adding a little eye candy that relates to the specified paragraph. If we were talking about beautiful tropical sunsets, this picture would be perfect. But we aren't talking about that, so it's rather a waste, isn't it?
</p>
<p> This is the third paragraph that appears below the paragraph with the image! </p>
</body>
</html>
```

Image Links

If you want to make an image work as a link, the method is exactly the same as with texts.

You simply place the <a href> and the tags on each side of the image.

Below is the HTML code used to make the image work as a link to a page called ------.htm:

```
<a href="-----.htm"><img src="---------.gif"></a>
```

```
<A HREF="http://www.google.com/---/-----"><IMG SRC="----------.gif"
  HEIGHT=33 WIDTH=82 ALT=" HTML"></A>
```

Example

```
<html>

<body>

<h2>HTML</h2>

<A HREF="http://www.htmlcodetutorial.com"><IMG SRC="---------.gif" border="0"

  HEIGHT=33 WIDTH=82 ALT=" www.htmlcodetutorial.com "></A>

</body>

</html>
```

Example

```
<html>

<body>

<a href="http://www.natural-environment.com/places/milford_sound.php"

target="_blank">

<img src =" f5-02.jpg"

  HEIGHT=33 WIDTH=82 ALT=" www.natural-environment.com " width="368"

height="247" border="2" style="border:2px solid black;"  />

</a>

</body>

</html>
```

HTML Tables

Tables are defined with the <table> tag.

A table is divided into rows (with the <tr> tag), and each row is divided into data cells (with the <td> tag). td stands for "table data," and holds the content of a data cell. A <td> tag can contain text, links, images, lists, forms, other tables, etc.

```
<table>
    <tr><th></th></tr>
    <tr><td></td></tr>
</table>
```

The <th> tag defines a header cell in an HTML table.
An HTML table has two kinds of cells:

- Header cells - contains header information (created with the <th> element)
- Standard cells - contains data (created with the <td> element)

The text in <th> elements are bold and centered by default.
The text in <td> elements are regular and left-aligned by default.

```
<html>
<head>
    <title>Example Table</title>
</head>
    <body>
        <table>
            <tr> <!-- Row-->
                <td> <!-- Column -->
                Row
                </td>
                <td>
                Row
                </td>
            </tr>
        </table>
</body>
</html>
```

Example

```
<html>
<body>
    <table border="1">
        <tr>
            <td>Row 1 Cell 1</td>
            <td>Row 1 Cell 2</td>
```

```
                </tr>
                <tr>
                        <td>Row 2 Cell 1</td>
                        <td>Row 2 Cell 2</td>
                </tr>
        </table>
</body>
</html>
```

HTML Table Headers

Header information in a table are defined with the <th> tag.
All major browsers display the text in the <th> element as bold and centered.

Example

```
<html>
<body>
<table border="1">
        <tr>
                <th>Month</th>
                <th>Savings</th>
        </tr>
        <tr>
                <td>January</td>
                <td>$100</td>
        </tr>
        <tr>
                <td>February</td>
                <td>$80</td>
        </tr>
</table>
</body>
</html>
```

Spanning Multiple Rows and Cells

Use rowspan to span multiple rows and colspan to span multiple columns.

```
<html>
<body>
        <table border="1">
                <tr>
                        <th>Column 1</th>
                        <th>Column 2</th>
                        <th>Column 3</th>
                </tr>
```

```
<tr><td rowspan="2">Row 1 Cell 1</td>
    <td>Row 1 Cell 2
    </td><td>Row 1 Cell 3</td>
</tr>
<tr>
    <td>Row 2 Cell 2</td>
    <td>Row 2 Cell 3</td>
</tr>
<tr>
    <td colspan="3">Row 3 Cell 1</td></tr>
</table>
</body>
</html>
```

Colspan and Rowspan:

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

Cell Padding and Spacing

With the cellpadding and cellspacing attributes you will be able to adjust the white space on your tables. Spacing defines the width of the border, while padding represents the distance between cell borders and the content within. Color has been added to the table to emphasize these attributes.

```
<table border="1" cellspacing="10"
 bgcolor="rgb(0,255,0)">
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
<tr><td>Row 1 Cell 1</td><td>Row 1 Cell 2</td></tr>
<tr><td>Row 2 Cell 1</td><td>Row 2 Cell 2</td></tr>
</table>
```

Cellspacing

Column 1	Column 2
Row 1 Cell 1	Row 1 Cell 2

Row 2 Cell 1	Row 2 Cell 2

And now we will change the cellpadding of the table and remove the cellspacing from the previous example.

```
<table border="1" cellpadding="10"
 bgcolor="rgb(0,255,0)">
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
<tr><td>Row 1 Cell 1</td><td>Row 1 Cell 2</td></tr>
<tr><td>Row 2 Cell 1</td><td>Row 2 Cell 2</td></tr>
</table>
```

Cell Pads:

Column 1	Column 2
Row 1 Cell 1	Row 1 Cell 2
Row 2 Cell 1	Row 2 Cell 2

<table> tag Attributes:

```
<table attributes= ... >
</table>
```

width	width of table, in pixels or percentage
height	heigh t of ta ble, in pixels or percen ta ge
cellspacing	s pa ce between cells , in pixels
cellpadding	s pa ce with in cells , in pixels
align	alignment of table(left, centre, right)
background	background image of table, give name or URL
bgcolor	background color of table
border	thickness of table border, in pixels
bordercolor	color of table border

<tr> tag Attributes:

<tr att r ibu tes= ... >

</tr>

Align	alignment of table row (left, centre, right, Justify)
bgcolor	background color of table row
bordercolor	color of table row border
valign	ver t ica l a lignmen t of ta ble row

<tr> tag Attributes:

<tr>

<td a t t r ibu tes= ... > text or ima ge </ td>

<td a t t r ibu tes= ... > text or ima ge </ td>

</tr>

Attributes:

width	width of table column, in pixels or percentage
height	h eigh t of ta ble column , in pixels or percen ta ge
align	alignment of table cell (left, centre, right, Justify)
valign	ver t ica l a lignmen t of column cell
background	background image of table column, give name or URL
bgcolor	background color of table column
bordercolor	color of border
rowspan	span a given number of rows
colspan	span a given number of columns

Example 1(CELLPADDING)

```
<TABLE BORDER="7" CELLPADDING="10">
        <TR>
                <TD>This is a TD cell</TD>
                <TD><PRE> </PRE></TD>
                <TH>This is a TH cell</TH>
        </TR>
        <TR>
                <TH VALIGN="TOP">Text aligned top</TH>
                <TH>Image in TH cell with default alignments ---></TH>
                <TH><IMG SRC="blylplne.gif" ALT="airplane"></TH>
        </TR>
        <TR>
```

```
        <TH VALIGN="BOTTOM">Text aligned bottom</TH>
        <TD><Image in TD cell with default alignments ---></TD>
        <TD><IMG SRC="blylplne.gif" ALT="airplane"></TD>
    </TR>
</TABLE>
```

This is a TD cell		This a TH cell
Text aligned top	**Image in TH cell with default alignments --->**	
Text aligned bottom	**Image in TD cell with default alignments --->**	

Example 2 (CELLSPACING)

```
<TABLE BORDER="7" CELLSPACING="10">
    <TR>
        <TD>This is a TD cell</TD>
        <TD><PRE> </PRE></TD>
        <TH>This is a TH cell</TH>
    </TR>
    <TR>
        <TH VALIGN="TOP">Text aligned top</TH>
        <TH>Image in TH cell with default alignments ---></TH>
        <TH><IMG SRC="blylplne.gif" ALT="airplane"></TH>
    </TR>
    <TR>
        <TH VALIGN="BOTTOM">Text aligned bottom</TH>
        <TD><Image in TD cell with default alignments ---></TD>
        <TD><IMG SRC="blylplne.gif" ALT="airplane"></TD>
    </TR>
</TABLE>
```

This a TD cell		This is a TH cell
Text aligned top	**Image in TH cell with default alignments --->**	
Text aligned bottom	**Image in TD cell with default alignments --->**	

Example 3; TWO COLUMNS: FIRST CELL WIDTH="50%"(CELL WIDTH)

```
<TABLE BORDER="7">
        <TR>
                <TH WIDTH="50%">This cell will expand to 50%
                    if the contents of the other cell will allow.</TH>
                <TH>The first cell will expand to 50%
                     if the contents of this cell will allow.</TH>
        </TR>
</TABLE>
```

This cell will expand to 50% if the contents of the other cell will allow.	The first cell will expand to 50% if the contents of this cell will allow.

Example 4 ; THREE COLUMNS: FIRST CELL WIDTH="50%"

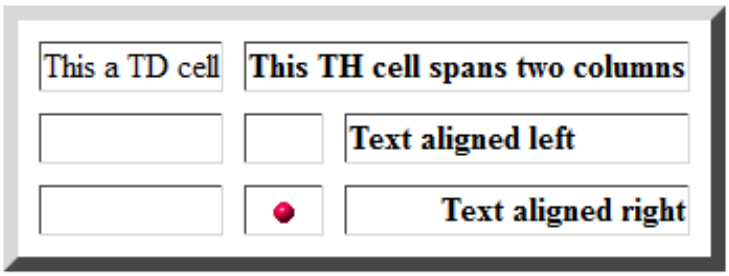
```
<TABLE BORDER="7">
        <TR>
                <TH WIDTH="50%">This cell will expand to 50%
                                if the contents of the other cells will allow.</TH>
                <TH>The first cell will expand to 50%
                    if the contents of the other cells will allow.</TH>
                <TH>The first cell will expand to 50%
                    if the contents of the other cells will allow.</TH>
        </TR>
</TABLE>
```

The first cell will expand to 50% if the contents of the other cells will allow.	The first cell will expand to 50% if the contents of the other cells will allow.	The first cell will expand to 50% if the contents of the other cells will allow.

Example 5 (COLSPAN)

```
<TABLE BORDER="7">
        <TR>
```

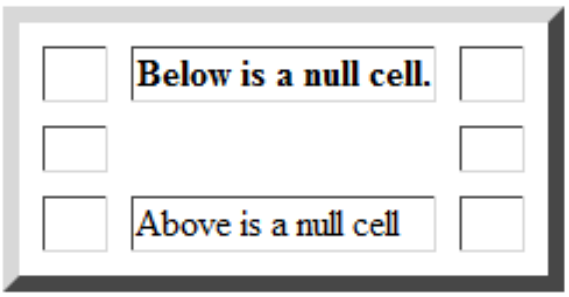
```
        <TD>This is a TD cell</TD>
        <TH COLSPAN="2">This TH cell spans two columns</TH>
    </TR>
    <TR>
        <TD><PRE> </PRE></TD>
        <TD><PRE> </PRE></TD>
        <TH ALIGN="LEFT">Text aligned left</TH>
    </TR>
    <TR>
        <TD><PRE> </PRE></TD>
        <TH><IMG SRC="redball.gif" ALT="*"></TH>
        <TH ALIGN="RIGHT">Text aligned right</TH>
    </TR>
</TABLE>
```



Example 6 (NULCELL)

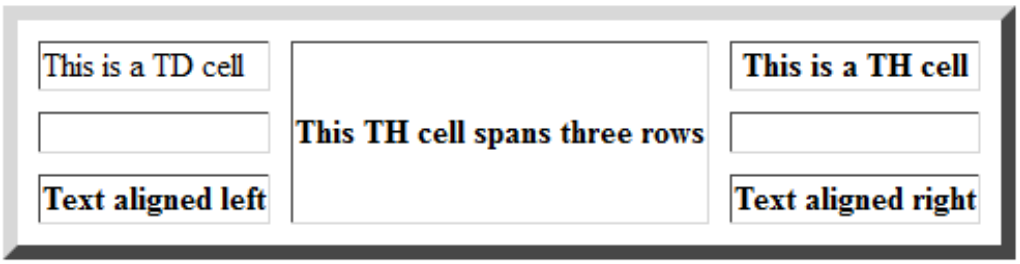
```
<TABLE BORDER="7">
    <TR>
        <TD><PRE> </PRE></TD>
        <TH>Below is a null cell.</TH>
        <TD><PRE> </PRE></TD>
    </TR>
    <TR>
        <TD><PRE> </PRE></TD>
        <TD></TD>
        <TD><PRE> </PRE></TD>
    </TR>
    <TR>
        <TD><PRE> </PRE></TD>
        <TH>Above is a null cell.</TH>
        <TD><PRE> </PRE></TD>
```

```
        </TR>
</TABLE>
```



Example 7 (ROWSPAN)

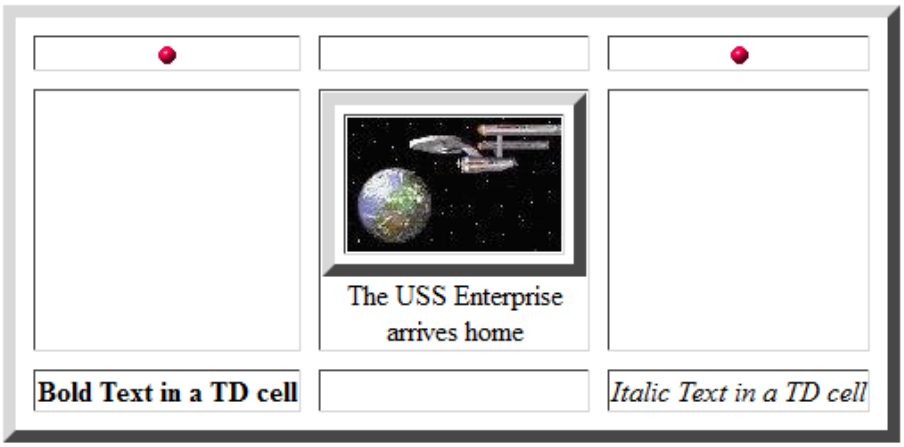
```
<TABLE BORDER="7">
        <TR>
                <TD>This is a TD cell</TD>
                <TH ROWSPAN="2">This TH cell spans three rows</TH>
                <TH>This is a TH cell</TH>
        </TR>
        <TR>
                <TD><PRE> </PRE></TD>
                <TD><PRE> </PRE></TD>
        </TR>
        <TR>
                <TH ALIGN="LEFT">Text aligned left</TH>
                <TH ALIGN="RIGHT">Text aligned right</TH>
        </TR>
</TABLE>
```



Example 8 (1x1 TABLE WITHIN A 3x3 TABLE)

```
<TABLE BORDER="7" CELLSPACING="10">
        <TR>
                <TH><IMG SRC="redball.gif" ALT="*"></TH>
                <TD><PRE> </PRE></TD>
```

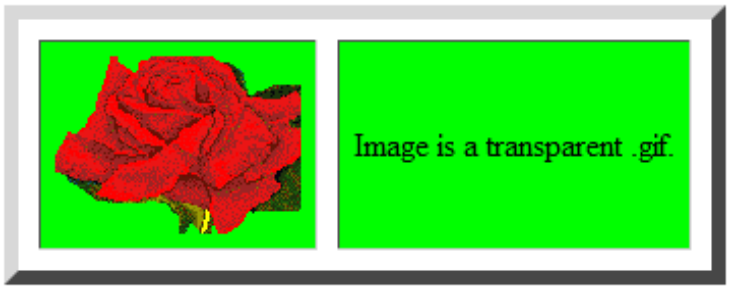
```
            <TH><IMG SRC="redball.gif" ALT="*"></TH>
        </TR>
        <TR>
            <TD><PRE> </PRE></TD>
            <TD>
                <TABLE BORDER="7" CELLSPACING="5">
                    <CAPTION ALIGN="BOTTOM">     The USS Enterprise arrives home
                    </CAPTION>
                        <TR>
                            <TD><IMG SRC="ee.jpg" ALT="Star Trek pic"></TD>
                        </TR>
                </TABLE>
            </TD>
            <TD><PRE> </PRE></TD>
        </TR>
        <TR>
            <TD ALIGN=:LEFT"><B>Bold Text in a TD cell</B></TD>
            <TD><BR></TD>
            <TD><I>Italic Text in a TD cell</I></TD>
        </TR>
</TABLE>
```



Example 9 (INTR TAG WITH IMAGE.)

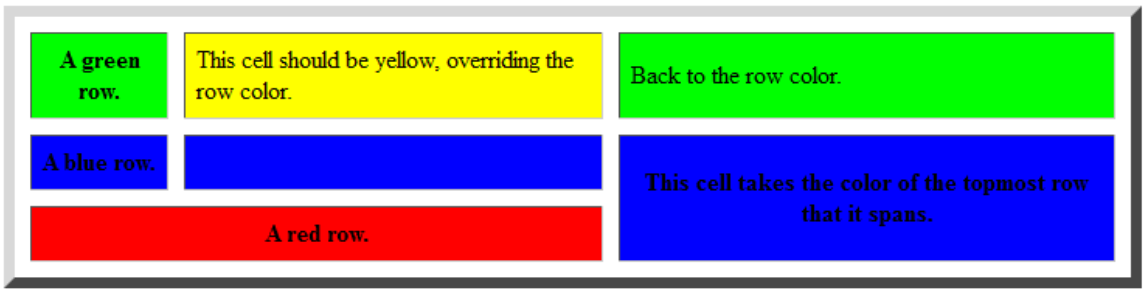
```
<TABLE BORDER="7" CELLPADDING="7" CELLSPACING="10">
        <TR BGCOLOR="#00FF00">
            <TD><IMG SRC="rrose.gif" ALT="rose"></TD>
            <TD>Image is a transparent .gif.</TD>
```

```
        </TR>
</TABLE>
```



Example 10 (INTR AND TD/H TAGS, COLSPAN AND ROWSPAN)

```
<TABLE BORDER="7" CELLPADDING="7" CELLSPACING="10">
        <TR BGCOLOR="#00FF00">
                <TD>A green row.</TD>
                <TD BGCOLOR="#FFFF00">This cell should be yellow, overriding the row color.</TD>
                <TD> Back to the row color.</TD>
        <TR BGCOLOR="#0000FF">
                <TD>A blue row.</TD>
                <TD><PRE> </PRE></TD>
                <TD ROWSPAN="2">This cell takes the color of the topmost row that it spans</TD>
        </TR>
        <TR BGCOLOR="#FF0000">
                <TD>A red row.</TD>
        </TR>
</TABLE>
```



Example 11 (IN TABLE AND TR TAGS)

```
<TABLE BGCOLOR="#FF0000" BORDER="7" CELLPADDING="7" CELLSPACING="10">
        <TR>
                <TD>The table has a red background</TD>
                <TD><PRE> </PRE></TD>
        </TR>
        <TR>
                <TD BGCOLOR="#0000FF">BGCOLOR in TD/H or TR overrides BGCOLOR in the
                        TABLE    tag.    </TD>
                <TD><PRE> </PRE></TD>
        </TR>
</TABLE>
```

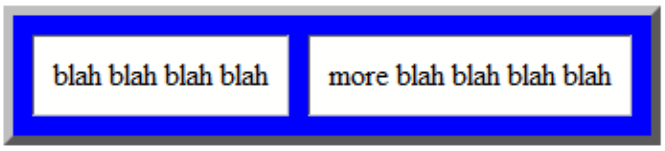
Example 12 (IN TABLE TAGS, 1x1 TABLE WITHIN A 1x1 TABLE, BORDERS=7 & 7)

```
<TABLE BORDER="7" CELLPADDING="10" CELLSPACING="10" BGCOLOR="#0000FF">
        <CAPTION ALIGN="BOTTOM">Butterfly</CAPTION>
        <TR>
                <TD>
                        <TABLE BORDER="7" CELLPADDING="10" CELLSPACING="10"
                        BGCOLOR=#FF0000>
                                <TR>
                                        <TD><IMG SRC="bfly.gif" ALT="butterfly"></TD>
                                </TR>
                        </TABLE>
                </TD>
        </TR>
</TABLE>
```

Butterfly

Example 13 (with an outer border)

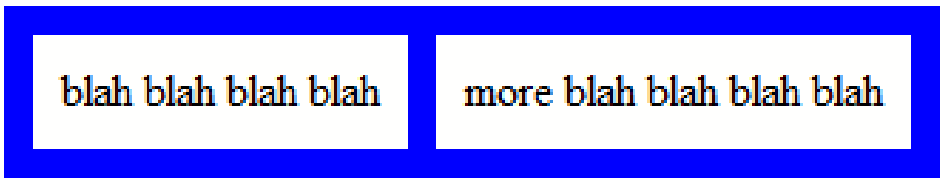
```
<TABLE BORDER="0" CELLPADDING="0" CELLSPACING="0" BGCOLOR="#0000FF">
        <TR>
                <TD>
                        <TABLE BORDER="5" CELLPADDING="10" CELLSPACING="10">
                                <TR>
                                        <TD BGCOLOR="#FFFFFE"> blah blah blah blah</TD><TD
                                                BGCOLOR="#FFFFFE">    more blah blah blah blah</TD>
                                </TR>
                        </TABLE>
                </TD>
        </TR>
</TABLE>
```



Example 14 (with no outer border)

```
<TABLE BORDER="0" CELLPADDING="0" CELLSPACING="0" BGCOLOR="#0000FF">
        <TR>
                <TD>
                        <TABLE BORDER="0" CELLPADDING="10" CELLSPACING="10">
                                <TR>
                                        <TD BGCOLOR="#FFFFFE"> blah blah blah blah</TD><TD
                                                BGCOLOR="#FFFFFE">more  blah blah blah blah</TD>
                                </TR>
                        </TABLE>
```

```
        </TD>
    </TR>
</TABLE>
```



Example 15 (TABLE COLORS WITH FONT COLORS)

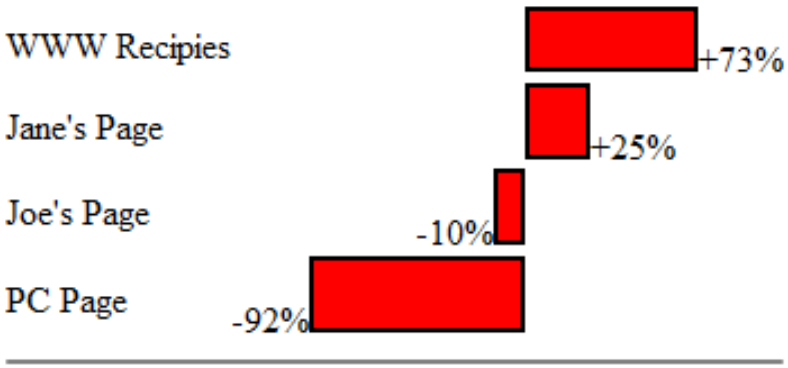
```
<TABLE BGCOLOR="#FF0000" BORDER="0" CELLPADDING="7" CELLSPACING="0">
    <TR>
        <TH BGCOLOR="#FF8000"><FONT COLOR=#804000" SIZE="6">
            H<BR>T<BR>M<BR>L<BR></FONT></TH>
        <TH BGCOLOR="#804000">
            <FONT COLOR=#FF8000" SIZE="5" FACE="ARIAL">
            Mountain Dragon<BR>Web Designs</FONT></TH>
        <TH BGCOLOR="#FF8000"><PRE> </PRE></TH>
    </TR>
</TABLE>
```

BAR GRAPH EXAMPLE

```
<table width=95% border=0 cellspacing=0 cellpadding=0>
    <tr>
        <td colspan=3><hr noshade></td>
    </tr>
    <tr>
        <td> </td>
        <th colspan=2>Web Page Hits 1996</th>
    </tr>
    <tr>
```

```
            <td colspan=3><hr noshade></td>
        </tr>
        <tr>
            <td nowrap>WWW Recipies</td>
            <td> </td>
            <td align=left nowrap><img border=2 src="reddot.gif" height=25 width=73>+73%</td>
        </tr>
        <tr>
            <td>Jane's Page</td>
            <td> </td>
            <td align=left><img border=2 src="reddot.gif" height=30 width=25>+25%</td>
        </tr>
        <tr>
            <td>Joe's Page</td>
            <td align=right>-10%<img border=2 src="reddot.gif" height=30 width=10></td>
            <td> </td>
        </tr>
        <tr>
            <td>PC Page</td>
            <td align=right>-92%<img border=2 src="reddot.gif" height=30 width=92></td>
            <td></td>
        </tr>
        <tr>
            <td colspan=3><hr noshade></td>
        </tr>
</table>
```

Web Page Hits 1996



HTML Frames

With frames, you can display more than one HTML document in the same browser window. Each HTML document is called a frame, and each frame is independent of the others.

The <frame> tag defines one particular window (frame) within a frameset.

The <frame> tag defines one particular window (frame) within a <frameset>.

Each <frame> in a <frameset> can have different attributes, such as border, scrolling, the ability to resize, etc.

In the example below we have a frameset with two columns.

The first column is set to 25% of the width of the browser window. The second column is set to 75% of the width of the browser window. The document "frame_a.htm" is put into the first column, and the document "frame_b.htm" is put into the second column:

```
<frameset cols="25%,75%">
    <frame src="frame_a.htm" />
    <frame src="frame_b.htm" />
</frameset>
```

The frameset column size can also be set in pixels (cols="200,500"), and one of the columns can be set to use the remaining space, with an asterisk (cols="25% ,*").

Tip: If a frame has visible borders, the user can resize it by dragging the border. To prevent a user from doing this, you can add noresize="noresize" to the <frame> tag.

Note: Add the <noframes> tag for browsers that do not support frames.

Important: You cannot use the <body></body> tags together with the <frameset></frameset> tags! However, if you add a <noframes> tag containing some text for browsers that do not support frames, you will have to enclose the text in <body></body> tags! See how it is done in the first example below.

Example(columns)

A simple three-framed page:

```
<html>
    <frameset cols="25%,*,25%">
        <frame src="frame_a.htm" />
        <frame src="frame_b.htm" />
        <frame src="frame_c.htm" />
    </frameset>
```

```
</html>
```

Example(Rows)

```
<html>
        <frameset rows="25%,50%,25%">
                <frame src="frame_a.htm" />
                <frame src="frame_b.htm" />
                 <frame src="frame_c.htm" />
        </frameset>
</html>
```

HTML <noframes> Tag

The <noframes> tag is a fallback tag for browsers that do not support frames. It can contain all the HTML elements that you can find inside the <body> element of a normal HTML page.

The <noframes> element can be used to link to a non-frameset version of the web site or to display a message to users that frames are required.

The <noframes> element goes inside the <frameset> element.

```
<html>
        <frameset cols="25%,50%,25%">
  <frame src="frame_a.htm" />
                        <frame src="frame_b.htm" />
                        <frame src="frame_c.htm" />
                <noframes>
                        <body>Sorry, your browser does not handle frames!</body>
                </noframes>
        </frameset>
</html>
```

Frames - A Generic Frame Page

Frames are most typically used to have a menu in one frame, and content in another frame. When someone clicks a link on the menu that web page is then opened on the content page. Here is a classic example of a basic "index" frameset with a menu on the left and content on the right.

HTML Code:

```
<html>
<head>
</head>
    <frameset cols="30%,*">
        <frame src="menu.html">
        <frame src="content.html">
    </frameset>
</html>
```

Frame Set:

Here's the example: Frame Index

- frameset - The parent tag that defines the characteristics of this frames page. Individual frames are defined inside it.
- frameset cols="#%, *"- Cols(columns) defines the width that each frame will have. In the above example we chose the menu (the 1st column) to be 30% of the total page and used a "*", which means the content (the 2nd column) will use the remaining width for itself.
- frame src="" -The location of the web page to load into the frame.

A good rule of thumb is to call the page which contains this frame information "index.html" because that is typically a site's main page.

Adding a Banner or Title Frame

Add a row to the top for a title and graphics with the code as follows:

HTML Code:

```
<html>
<head></head>
    <frameset rows="20%,*">
        <frame src="title.html">
    <frameset cols="30%,*">
        <frame src="menu.html">
        <frame src="content.html">
    </frameset>
</html>
```

frameset rows="#%, *"- rows defines the height that each frame will have. In the above example we chose the new title (the 1st row) to be 20% of the total page height and used a "*", which means that menu and content (which are the 2nd row) will use the remaining height.

FrameBorder and FrameSpacing

You probably noticed those ugly gray lines that appear between the frames. It is possible to remove these and manipulate the spacing between frames with frameborder and framespacing. These attributes appear within the frameset tag.

Note: Framespacing and border are the same attribute, but some browsers only recognize one or the other, so use both, with the same value, to be safe.

- frameborder="#" - A zero value shows no "window" border.
- border="#"- Modifies the border width, used by Netscape.
- framespacing="#" -Modifies the border width, used by Internet Explorer.
- Here's an example of the same frameset without the borders.

HTML Code:

```
<html><head></head>
<frameset border="0" frameborder="0" framespacing="0" rows="20%,*">
<frame src="title.html">
<frameset border="0" frameborder="0" framespacing="0" cols="30%,*">
<frame src="menu.html">
<frame src="content.html">
</frameset>
</html>
```

Frame Name and Frame Target

How nice would it be to make each menu link load into the content page? We do this by naming each frame and setting the correct base target inside menu.html.

HTML Code:

```
<html><head></head>
<frameset rows="20%,*">
<frame name="title" src="title.html">
<frameset cols="30%,*">
<frame name="menu" src="menu.html">
<name="content" src="content.html">
</frameset>
</html>
```

HTML Code:

```
<html>
    <head>
    <base target="content">
    </head>
    ...
</html>
```

Noresize and Scrolling

It's possible to further customize the <frame> tag using the noresize and scrolling="" attributes.

HTML Code:

```
<html>
<head></head>
    <frameset border="2" frameborder="1" framespacing="2" rows="20%,*">
        <frame src="title.html" noresize scrolling="no">
        <frameset border="4" frameborder="1" framespacing="4" cols="30%,*">
        <frame src="menu.html" scrolling="auto" noresize>
        <frame src="content.html" scrolling="yes" noresize>
    </frameset>
</html>
```

- noresize - Do not let the frames be resized by the visitor.
- scrolling="(yes/no)"- Allow scrolling or not inside a frame.

We set the scrolling for our content frame to yes to ensure our visitors will be able to scroll if the content goes off the screen. We also set the scrolling for our title banner to no, because it does not make sense to have a scrollbar appear in the title frame.

The HTML for the above frameset:

```
<html>
<head>
    <title>My Frames Page</title>
</head>
```

```
        <frameset cols="120,*">
                <frame src="menupage.htm" name="menu">
                        <frameset rows="*,50">
                                <frame src="welcomepage.htm" name="main">
                                <frame src="bottombanner.htm" name="bottom">
                        </frameset>
        </frameset>
</html>
```

FRAMES

```
<frameset attributes= ... >
        <frame attributes = ... >
        |
        <frame attributes = ... >
</ frameset>
```

Frameset Attributes:

border	border of frameset
bordercolor	color of border
rows	height of frameset
cols	width of frameset
frameborder	yes, no, 0, 1
framespacing	distance between frame

Frame Attributes:

border	border of frame
bordercolor	color of border
marginheight	h eight of frameset
marginwidth	width of frameset
frameborder	yes, no, 0, 1
framespacing	distance between frame
src	name or path of URL
name	name of frame
scrolling	scrollbar display or not

noresize cannot resize frame

HTML Forms

HTML forms are used to pass data to a server.

A form can contain input elements like text fields, checkboxes, radio -buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

The <form> tag is used to create an HTML form:

```
<form>
.
input elements
.
</form>
```

FORMS
Syntax:

```
<form attributes= ... >
</form>
```

Attributes:

name specifies a name

HTML <form> action Attribute

The required action attribute specifies where to send the form-data when a form is submitted.

Syntax

```
<form action="URL">
```

HTML <form> method Attribute

The method attribute specifies how to send form-data (the form-data is sent to the page specified in the action attribute).

The form-data can be sent as URL variables (with method="get") or as HTTP post (with method="post").

Notes on the "get" method:

- This method appends the form-data to the URL in name/value pairs
- This method is useful for form submissions where a user want to bookmark the result
- There is a limit to how much data you can place in a URL (varies between browsers), therefore, you cannot be sure that all of the form-data will be correctly transferred
- Never use the "get" method to pass sensitive information! (password or other sensitive information will be visible in the browser's address bar)

Notes on the "post" method:

- This method sends the form-data as an HTTP post transaction
- Form submissions with the "post" method cannot be bookmarked
- The "post" method is more robust and secure than "get", and "post" does not have size limitations

Syntax

```
<form method="get/post">
```

Form Attributes

<FORM> has two mandatory attributes: ACTION and METHOD

ACTION attribute:
Specifies the URL that will process the form data

METHOD attribute:
Specifies how the data is to be sent to the URL
Two methods: GET and POST

GET:
Data is appended to the ACTION URL

POST:
Data is sent as a message body from the browser to the server
Most common method used

HTML id Attribute

The id attribute specifies a unique id for an HTML element (the value must be unique within the HTML document).

The id attribute is most used to point to a style in a style sheet, and by JavaScript (via the HTML DOM) to manipulate the element with the specific id.

```
<element id="id">
```

Attribute Values

Value	Description
id	Specifies a unique id for the element. Naming rules: • Must begin with a letter A-Z or a-z • Can be followed by: letters (A-Za-z), digits (0-9), hyphens ("-"), and underscores ("_")

	• In HTML, all values are case-insensitive

HTML Forms - The Input Element

The most important form element is the input element.
The input element is used to select user information.
An input element can vary in many ways, depending on the type attribute. An input element can be of type text field, checkbox, password, radio button, submit button, and more.
The most used input types are described below.

HTML - The Type Attribute

To specify one type of input tag from another we set the type attribute to one of the following values.

- "text"
- "password"
- "checkbox"
- "radio"
- "submit"
- "reset"

HTML - Text Fields and Password Fields

You have seen many of these types of input forms throughout the internet.

HTML Code:

```
<input type="text" />
<input type="password" />
```

Text Fields and Passwords:

HTML - Checkboxes

Checkboxes allow the user to select multiple choices for a single question. A type of "check all that apply" question is best answered using a checkbox.

HTML Code:

```
<input type="checkbox" />
<input type="checkbox" /><input type="checkbox" />
```

Checkboxes:

HTML - Radios

Radios are best used in "multiple choice" type quizzes and questionaires. Where the user is only permitted to select one answer to a question.

HTML Code:

```
<input type="radio" />
<input type="radio" /><input type="radio" />
```

Radios:

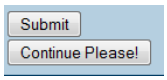
HTML - Submit Buttons

Setting an input type to "submit" specifies a very unique button. When pressed, the button activates the action of the form whatever that may be. Most often times this is some sort of server side scripting file or a javascript function.
Since we are creatting a submission button. We need to introduce a new attribute, the value attribute. Anyword(s) specified as the value will be displayed on our button. Often it is best to stick with "Submit" or "Continue". Boring, yet effective.

HTML Code:

```
<input type="submit" value="Submit" />
<input type="submit" value="Continue Please!" />
```

Submit Buttons:



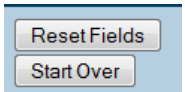
HTML - Reset Buttons

The final type of input is the reset button. Setting the type to reset will place a button within your form to reset each field when clicked. Users enjoy having a "start over" button such as the reset button in case they begin filling out the wrong information in a major way.

HTML Code:

```
<input type="reset" value="Reset Fields" />
<input type="reset" value="Start Over" />
```

Reset Buttons:



Text Fields

`<input type="text" />` defines a one-line input field that a user can enter text into:

```
<form>
First name: <input type="text" name="firstname" /><br />
Last name: <input type="text" name="lastname" />
</form>
```

How the HTML code above looks in a browser:

First name:

Last name:

Note: The form itself is not visible. Also note that the default width of a text field is 20 characters.

TEXT FIELDS

Syntax:

<input type= text attributes= ... >

Attributes:

name	name of text fields
size	size of text fields
value	initial value of text fields
maxlength	no. of characters that typed in textfields
disabled	cannot type in text fields

HTML - Text Field Size

We can control the size of the text area by specifying the size attribute. The example below provides 3 different sizes for your text fields. The default size is around 20 characters long.

HTML Code:

```
<input type="text" size="5" />
<input type="text" size="15" />
<input type="text" size="25" />
```

Text Fields:

Changing the size attribute changes the size of the display of the text field on our site.

HTML - Text Field Maxlength

Without specifying a maxlength attribute, the viewer is able to type as many characters as they wish into the text field (even if you specify a size). To limit the number of characters a user can type into your fields, always specify a maxlength, generally this should match the size of your field.

HTML Code:

```
<input type="text" size="5" maxlength="5" />
<input type="text" size="15" maxlength="15" />
<input type="text" size="25" maxlength="25" />
```

Maxlength Attribute:

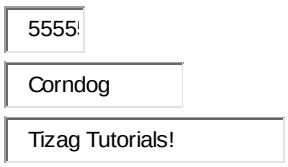
HTML - Text Field Value

Using the value attribute, we could pre-populate our text fields with some information. Later on as you develop your skills with a scripting language such as PHP, this will become more useful as you will be able to pre-populate text fields for returning users through the use of session variables.

HTML Code:

```
<input type="text" size="5" maxlength="5" value="55555" />
<input type="text" size="15" maxlength="15" value="Corndog" />
<input type="text" size="25" maxlength="25" value="Tizag Tutorials!" />
```

Text Field Values:



Password Field

<input type="password" /> defines a password field:

```
<form>
Password: <input type="password" name="pwd" />
</form>
```

How the HTML code above looks in a browser:

Password: 

Note: The characters in a password field are masked (shown as asterisks or circles).

Password Fields
Syntax:

```
<input type= password attributes= ... >
```

Attributes:

name	name of password fields
size	size of password fields
value	initial value of password fields

maxlength	no. of characters that typed in password fields
disabled	cannot type in password fields

HTML - Password Fields

HTML Code:

```
<input type="password" size="5" maxlength="5" />
<input type="password" size="15" maxlength="15" />
<input type="password" size="25" maxlength="25" />
```

Password Fields:

Example

Before we teach you how to make a complete form, let's start out with the basics of forms. Input fields are going to be the meat of your form's sandwich. The <input> has a few attributes that you should be aware of.

- type - Determines what kind of input field it will be. Possible choices are text, submit, and password.
- name - Assigns a name to the given field so that you may reference it later.
- size - Sets the horizontal width of the field. The unit of measurement is in blank spaces.
- maxlength - Dictates the maximum number of characters that can be entered.

HTML Code:

```
<form method="post" action="mailto:youremail@email.com">
Name: <input type="text" size="10" maxlength="40" name="name"> <br />
Password: <input type="password" size="10" maxlength="10" name="password">
</form>
```

Input Forms:

Name: 

Password: 

Bottom of Form

Do not use the password feature for security purposes. The data in the password field is not encrypted and is not secure in any way.

Radio Buttons

<input type="radio" /> defines a radio button. Radio buttons let a user select ONLY ONE of a limited number of choices:

```
<form>
<input type="radio" name="sex" value="male" /> Male<br />
<input type="radio" name="sex" value="female" /> Female
</form>
```

How the HTML code above looks in a browser:

Male

Female

Radio Buttons
Syntax:

<input type= radio attributes= ... > text ...

Attributes:

Name **name of radio button**

HTML - Radio Forms

HTML Code:

Italian: <input type="radio" name="food" />

Greek: <input type="radio" name="food" />

Chinese: <input type="radio" name="food" />

Radios:

Italian:

Greek:

Chinese:

By naming these three radios "food" they are identified as being related by the browser and we achieve this either or effect (only being able to make one selection).

We can further expand this idea and name two different sets of radios.

HTML Code:

Italian: <input type="radio" name="food" />

Greek: <input type="radio" name="food" />

Chinese: <input type="radio" name="food" />

Male: <input type="radio" name="gender" />

Female: <input type="radio" name="gender" />

Multiple Radios:

Italian:

Greek:

Chinese:

Male:

Female:

Here we have two sets of radio selections contained within the same form.

HTML - Radio Checked

By using the checked attribute, we can tell our form to automatically "check" a default radio.

HTML Code:

Italian: <input type="radio" name="food" checked="yes" />

Greek: <input type="radio" name="food" />

Chinese: <input type="radio" name="food" />

Default Italian:

Italian:

Greek:

Chinese:

HTML Code:

Italian: <input type="radio" name="food" />

Greek: <input type="radio" name="food" checked="yes" />

Chinese: <input type="radio" name="food" />

Default Greek:

Italian:

Greek:

Chinese:

HTML Code:

Italian: <input type="radio" name="food" />

Greek: <input type="radio" name="food" />

Chinese: <input type="radio" name="food" checked="yes" />

Default Chinese:

Italian:

Greek:

Chinese:

Checkboxes

<input type="checkbox" /> defines a checkbox. Checkboxes let a user select ONE or MORE options of a limited number of choices.

```
<form>
<input type="checkbox" name="vehicle" value="Bike" /> I have a bike<br />
<input type="checkbox" name="vehicle" value="Car" /> I have a car
</form>
```

How the HTML code above looks in a browser:

I have a bike

I have a car

Check Boxes
Syntax:

<input type= checkbox attributes= ... > text ...

Attributes:

name	name of checkbox

HTML - Checkbox Forms

HTML Code:

```
<p>Please select every sport that you play.</p>

Soccer: <input type="checkbox" name="sports" value="soccer"  /><br />

Football: <input type="checkbox" name="sports" value="football"  /><br />

Baseball: <input type="checkbox" name="sports" value="baseball"  /><br />

Basketball: <input type="checkbox" name="sports" value="basketball"  />
```

Checkboxes:

Please select every sport that you play.

Soccer: ☐

Football: ☐

Baseball: ☐

Basketball: ☐

Checkboxes are used for instances where a user may wish to select multiple options, a sort of check all that apply question.

HTML Checkboxes Selected

It is possible to precheck the input boxes for your viewers using the checked attribute. Simply set the checked attribute to yes or no.

HTML Code:

```
<p>Please select every sport that you play.</p>

Soccer: <input type="checkbox" checked="yes"
```

```
 name="sports" value="soccer" />

<br />

Football: <input type="checkbox"

name="sports" value="football" />

<br />

Baseball: <input type="checkbox"

name="sports" value="baseball" />

<br />

Basketball: <input type="checkbox" checked="yes"

name="sports" value="basketball" />
```

Checked Checkboxes:

Please select every sport that you play.

Soccer: ☑

Football: ☐

Baseball: ☐

Basketball: ☑

Submit Button

<input type="submit" /> defines a submit button.

A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. The file defined in the action attribute usually does something with the received input:

```
<form name="input" action="html_form_action.asp" method="get">
Username: <input type="text" name="user" />
<input type="submit" value="Submit" />
</form>
```

How the HTML code above looks in a browser:

Username: [ ]

If you type some characters in the text field above, and click the "Submit" button, the browser will send your input to a page called "html_form_action.asp". The page will show you the received input.

Submit Buttons

Syntax:

<input type= submit attributes= ... > text ...

Attributes:

name	name of button
value	value of button (Save)

Example

HTML Form Email

Now we will add the submit functionality to your form. Generally, the button should be the last item of your form and have its *name* attribute set to "Send" or "Submit". *Name* defines what the label of the button will be. Here is a list of important attributes of the submit:

In addition to adding the submit button, we must also add a destination for this information and specify how we want it to travel to that place. Adding the following attributes to your <form> will do just this.

- method - We will only be using the post functionality of method, which sends the data without displaying any of the information to the visitor.
- action - Specifies the URL to send the data to. We will be sending our information to a fake email address.

HTML Code:

<form method="post" action="mailto:youremail@email.com">

Name: <input type="text" size="10" maxlength="40" name="name">

Password: <input type="password" size="10"

maxlength="10" name="password">

<input type="submit" value="Send">

</form>

Email Forms:

Name:

Password:

Send

Simply change the email address to your own and you will have set up your first functional form!

Example

HTML Radio Buttons

Radio buttons are a popular form of interaction. You may have seen them on quizzes, questionnaires, and other web sites that give the user a multiple choice question. Below are a couple attributes you should know that relate to the radio button.

- value - specifies what will be sent if the user chooses this radio button. Only one value will be sent for a given group of radio buttons (see name for more information).
- name - defines which set of radio buttons that it is a part of. Below we have 2 groups: shade and size.

HTML Code:

```
<form method="post" action="mailto:youremail@email.com">

What kind of shirt are you wearing? <br />

Shade:

<input type="radio" name="shade" value="dark">Dark

<input type="radio" name="shade" value="light">Light <br />

Size:

<input type="radio" name="size" value="small">Small

<input type="radio" name="size" value="medium">Medium

<input type="radio" name="size" value="large">Large <br />

<input type="submit" value="Email Myself">

</form>
```

Radios:

What kind of shirt are you wearing?

Shade: Dark Light

Size: Small Medium Large

Email Myself

If you change the email address to your own and "Email Myself" then you should get an email with "shade=(choice) size=(choice)".

Example

HTML Check Boxes

Check boxes allow for multiple items to be selected for a certain group of choices. The check box's name and value attributes behave the same as a radio button.

HTML Code:

```
<form method="post" action="mailto:youremail@email.com">

Select your favorite cartoon characters.

<input type="checkbox" name="toon" value="Goofy">Goofy

<input type="checkbox" name="toon" value="Donald">Donald

<input type="checkbox" name="toon" value="Bugs">Bugs Bunny

<input type="checkbox" name="toon" value="Scoob">Scooby Doo

<input type="submit" value="Email Myself">

</form>
```

Check Boxes:

Select the 2 greatest toons.

- Goofy
- Donald
- Bugs Bunny
- Scooby Doo

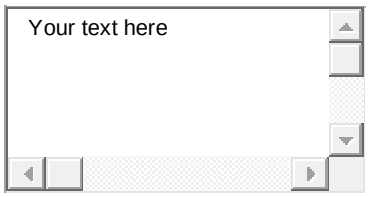
Email Myself

Text area

Text area is used as a text edit field where the user can enter comments that will be sent later to the server. The attributes that has to be specified of text area are <ROWS> and <COLUMNS>. Let's see an example:

```
<FORM ACTION="mailto:youremail@email.com" METHOD="get">
<TEXTAREA ROWS="5" COLS="10" NAME="textarea">
Your text here
</TEXTAREA>
</FORM>
```

Let's see the result:

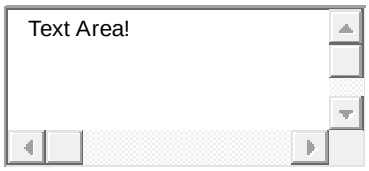


HTML - Textareas

HTML Code:

```
<textarea>Text Area!</textarea>
```

Default Textarea:



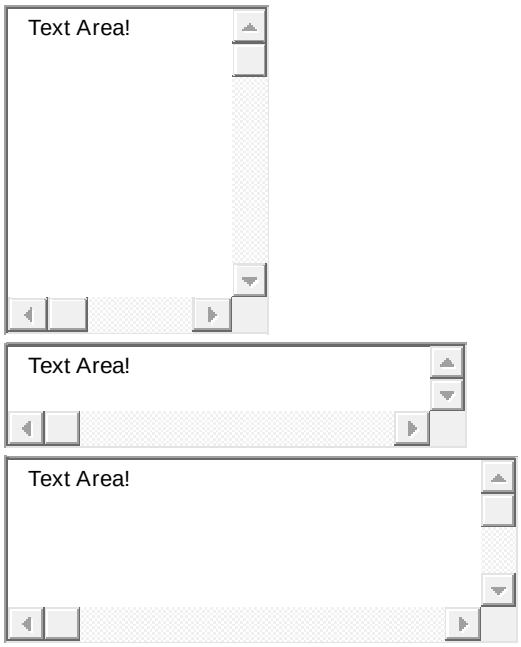
HTML - Text area Cols and Rows

Adjusting the size of the appearance of the text area requires two attributes, cols and rows. Use a numeric value for each attribute and the larger the value the larger the field will appear.

HTML Code:

```
<textarea cols="20" rows="10">Text Area!</textarea>

<textarea cols="40" rows="2">Text Area!</textarea>

<textarea cols="45" rows="5">Text Area!</textarea>
```

Bigger Text Areas:



A text area could take up an entire page if required.

HTML - Textarea Wrap

The wrap attribute refers to how the text reacts when it reaches the end of each row in the text field. Wrapping can be one of three settings:

- soft
- hard
- off

Soft forces the words to wrap once inside the text area but when the form is submitted, the words will no longer appear as such (Line breaks will not be added).

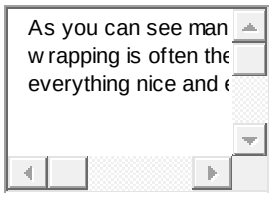
Hard wraps the words inside the text box and places line breaks at the end of each line so that when the form is submitted it appears exactly as it does in the text box.

Off sets a textarea to ignore all wrapping and places the text into one ongoing line.

HTML Code:

```
<textarea cols="20" rows="5" wrap="hard">

As you can see many times word wrapping is often the desired

look for your textareas. Since it makes everything nice and

easy to read.

</textarea>
```

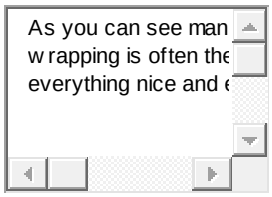
Text Area Wrapping:



HTML Code:

```
<textarea cols="20" rows="5" wrap="off">

As you can see many times word wrapping is often the desired

look for your textareas. Since it makes everything nice and

easy to read.

</textarea>
```

No Wrapping:



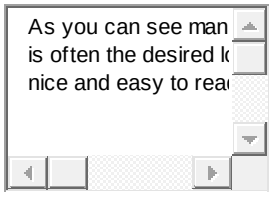
HTML - Textarea Readonly

Settting a yes or no value for the readonly attribute determines whether or not a viewer can manipulate the text inside the text field.

HTML Code:

```
<textarea cols="20" rows="5" wrap="hard" readonly="yes">

As you can see many times word wrapping is often the desired

look for your text areas. Since it makes everything nice and

easy to read.

</textarea>
```

Read Only Textareas:



Now you may not change the text inside the text area. However, you can still highlight or Ctrl-C and copy the texts.

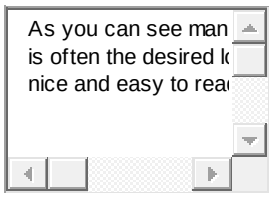
HTML - Disabled

As the readonly attribute disables text manipulation, we can take things one step further by setting the disabled attribute. This grays out the textarea altogether and inhibits any change in the text as well as text highlighting.

HTML Code:

```
<textarea cols="20" rows="5" wrap="hard" disabled="yes">

As you can see many times word wrapping is often the desired

look for your text areas. Since it makes everything nice and

easy to read.

</textarea>
```

Disabled Textareas:



Example

HTML Text Areas

Text areas serve as an input field for viewers to place their own comments onto. Forums and the like use text areas to post what you type onto their site using scripts. For this form, the text area is used as a way to write comments to somebody.

Rows and columns need to be specified as attributes to the <textarea> tag. Rows are roughly 12pixels high, the same as in word programs and the value of the columns reflects how many characters wide the text area will be. i.e. The example below shows a text area 5 rows tall and 20 characters wide. Another attribute to be aware of is the wrap. Wrap has 3 values.

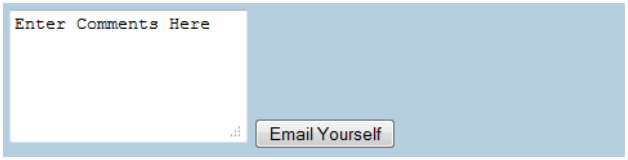
- wrap=
    - "off"
    - "virtual"
    - "physical"

Virtual means that the viewer will see the words wrapping as they type their comments, but when the page is submitted to you, the web host, the document sent will not have wrapping words.
Physical means that the text will appear both to you, the web host, and the viewer including any page breaks and additional spaces that may be inputed. The words come as they are.
Off of course, turns off word wrapping within the text area. One ongoing line.

HTML Code:

```
<form method="post" action="mailto:youremail@email.com">

<textarea rows="5" cols="20" wrap="physical" name="comments">
```

```
Enter Comments Here

</textarea>

<input type="submit" value="Email Yourself">

</form>
```



Drop down lists

HTML <select> Tag

The <select> tag is used to create a drop-down list.
The <option> tags inside the <select> element define the available options in the lis
The <select> element is a form control and is used to collect user input.

HTML <option> Tag

The <option> tag defines an option in a select list.
<option> elements go inside a <select> element.

```
<html>

<body>

<select>

  <option>Volvo</option>

  <option>Saab</option>

  <option>Mercedes</option>

  <option>Audi</option>

</select>

</body>

</html>
```

By default the first coded <option> will be displayed or selected as the default. We can change this using the selected attribute.

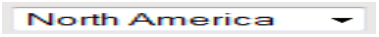
HTML Code:

```
<select>

<option>California -- CA</option>

<option>Colorado -- CO</option>

<option selected="yes">Conneticut -- CN</option>

</select>
```

Drop Down List:

To create a drop down list we will use SELECT tag followed by OPTION tags. The OPTION tags represents the available choices for the user. Let's see how to do it:

<FORM ACTION="mailto:youremail@email.com" METHOD="get">
Which continent you belong?
<SELECT NAME="continent">
<OPTION> Select continent **</OPTION>**
<OPTION> Asia **</OPTION>**
<OPTION> Africa **</OPTION>**
<OPTION> North America **</OPTION>**
<OPTION> South America **</OPTION>**
<OPTION> Antartica **</OPTION>**
<OPTION> Europe **</OPTION>**
<OPTION> Australia **</OPTION>**
</SELECT>
</FORM>
Let's see the result:

Which continent you belong? 

Example

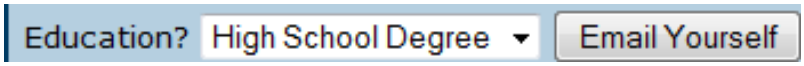
HTML Drop Down Lists

Drop down menues are created with the <select> and <option> tags. <select> is the list itself and each <option> is an available choice for the user.

HTML Code:

```
<form method="post" action="mailto:youremail@email.com">
College Degree?
<select name="degree">
<option>Choose One</option>
<option>Some High School</option>
<option>High School Degree</option>
<option>Some College</option>
<option>Bachelor's Degree</option>
<option>Doctorate</option>
<input type="submit" value="Email Yourself">
</select>
</form>
```

Drop Down Lists:



HTML - Selection Forms

We use the size attribute to break out from the single displayed drop down list.

HTML Code:

```
<select size="3">
<option>California -- CA</option>
<option>Colorado -- CO</option>
<option>Connecticut -- CN</option>
</select>
```

HTML - Selecting Multiples

We can further add to our selection forms by adding the multiple attribute. This allows the user to select more than one entry from your selection forms. Obviously this attribute does not work with the single drop down lists.

HTML Code:

```
<select multiple="yes" size="3">

<option>California -- CA</option>

<option>Colorado -- CO</option>

<option>Connecticut -- CN</option>

</select>
```

Upload forms

Use an upload form to allow users to upload pictures, movies, or even their own webpages. An upload form is another type of input form, simply set the type attribute to file.

HTML Code:

```
<input type="file" />
```

Example

```
<form method="post" action="file-upload-1.htm" name="submit" enctype="multipart/form-data">
        <input type="file" name="fileField"><br /><br />
        <input type="submit" name="submit" value="Submit">
</form>
```