UNIT I - HTML

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Web Pages

Web pages have many uses. Here are some important facts about why web pages are so useful.

- A cheap and easy way to spread information to a large audience.
- Another medium to market your business.
- Let the world know about you with a personal website!

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Introduction to HTML

- Web pages are written in HTML a simple scripting language.
- HTML is short for Hyper Text Markup Language.
 Hypertext is simply a piece of text that works as a link.
 Markup Language is a way of writing layout information within documents.
- Basically an HTML document is a plain text file that contains text and nothing else.
- When a browser opens an HTML file, the browser will look for HTML codes in the text and use them to change the layout, insert images, or create links to other pages.



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HTML Editors

- Since HTML documents are just text files they can be written in even the simplest text editor (Notepad).
- A more popular choice is to use a special HTML editor maybe even one that puts focus on the visual result rather than the codes a so-called WYSIWYG editor ("What You See Is What You Get").
- Some of the most popular HTML editors, such as FrontPage or Dreamweaver will let you create pages more or less as you write documents in Word or whatever text editor you're using.



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WHY LEARN HTML?

The most important benefits are:

- You can use tags the editor does not support. You can read the code of other people's pages, and "borrow" the cool effects.
- > You can do the work yourself, when the editor simply refuses to create the effects you want.
- You can write your HTML by hand with almost any available text editor, including notepad that comes as a standard program with Windows.

All you need to do is type in the code, then save the document, making sure to put an .html extension or an .htm extension to the file (for instance "mypage.html").

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History

- The first publicly available description of HTML was a document called "HTML Tags", first mentioned on the Internet by Berners-Lee in late 1991.
- November 24, 1995 HTML 2.0 was published as IETF RFC 1866.
- January 1997 HTML 3.2 was published as a W3C Recommendation.
- December 1997 HTML 4.0 was published as a W3C Recommendation.
- December 1999 HTML 4.01 was published as a W3C Recommendation.
- May 2000 ISO HTML based on HTML 4.01 Strict was published as an ISO/IEC international standard.
- January 2008 HTML5 was published as a Working Draft by the W3C.



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Tags

- Basically, a computer sees an "A" as simply an "A" whether it is bold, italic, big or small. To tell the browser that an "A" should be bold we need to put a markup in front of the A. Such a markup is called a Tag.
- All HTML tags are enclosed in < and >.
- Example: a piece of text as it appears on the screen.

This is an example of **bold** text.

• HTML: the HTML for the above example:

This is an example of bold text.

- As you can see, the start tag indicates that whatever follows should be written in bold. The corresponding end tag indicates that the browser should stop writing text in bold.
- Although some tags, known as *empty elements*, are unpaired, for example
 img>.

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Page Structure

• All normal webpages consist of a head and a body.

Head Body

- The head is used for text and tags that do not show directly on the page.
- The body is used for text and tags that are shown directly on the page.
- Finally, all webpages have an <html> tag at the beginning and the end, telling the browser where the document starts and where it stops.
- Example:
- <html>
- <head><!-- This section is for the title and technical info of the page. -->
- </head>
-

 -- This section is for all that you want to show on the page. -->
- </body>
- </html>

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Head Section

- The head section of the webpage includes all the stuff that does not show directly on the resulting page.
- The <title> and </title> tags encapsulate the title of your page. The
 title is what shows in the top of your browser window when the page is
 loaded.
- Another thing you will often see in the head section is metatags.
 Metatags are used for, among other things, to improve the rankings in search engines.
- Quite often the head section contains <u>javascript</u> which is a programming language for more complex HTML pages.
- Finally, more and more pages contain codes for cascading style sheets (CSS).CSS is a rather new technique for optimizing the layout of major websites.



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Body Section

- The body of the document contains all that can be seen when the user loads the page.
- you can learn in detail about all the different aspects of HTML, including:
- Text :Formatting, Resizing, Layout & Listing
- · Links: To local pages, To pages at other sites & To bookmarks
- Images: Inserting images (GIF and jpg) & Adding a link to an image
- Backgrounds: Colors & Images
- Tables
- Frames
- Forms



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HTML Page Format

```
<HTML>
<HEAD>
<! Insert only HEAD tags. This is a comment. >
<! Insert only HEAD tags. This is a comment. >
<TITLE> Welcome </TITLE>
</HEAD>
<BODY>
<! Insert only BODY tags. >
<H1> Hello World </H1>
<!-- Rest of page goes here.
    This is the multiple line comment. -->
</BODY>
</HTML>

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```

In the head section, always write a title: <title>The title of your page</title>. Notice how the title will be shown in the upper left corner of your browser: Mhat have you learned so far? - Lesson 5 | HTML Tutorial | HTML.net - Microsoft Internet Explorer 🔾 Back 🔻 🜔 - 💌 😰 🐔 🔎 Search 🦅 Favorites 🚱 🙈 🍇 🔯 🔻 🧾 🕸 🚜 Address & http://www.html.net/tutorials/html/lesson5.asp The title is especially important because it is used by search engines (such as Google) to index your website and is shown in the search results. Search Advanced Search "Lesson 5: What have you learned so far?" Tip: Try removing quotes from your search to get more results. What have you learned so far? - Lesson 5 | HTML Tutorial | HTML net Lesson 5: What have you learned so far? Always start with the basic template we made in the previous lesson:. <html> <head> <title> </htead> <head> <made in the previous lesson:. <html> <head> <title> </head> <bd> ... www.html.net/tutorials/html/lesson5.asp - 5k - Cached - Similar pages V.Mareeswari / AP / SITE / VIT University 14 July 2014

Words to know

Tag - Used to specify ("mark-up") regions of HTML documents for the web browser to interpret. Tags look like this: <tag>

Eg:

Element - A complete tag, having an opening <tag> and a closing </tag>.

Eg:

Attribute - Used to modify the value of the HTML element. Elements will often have multiple attributes.

Eg:



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```
Headings

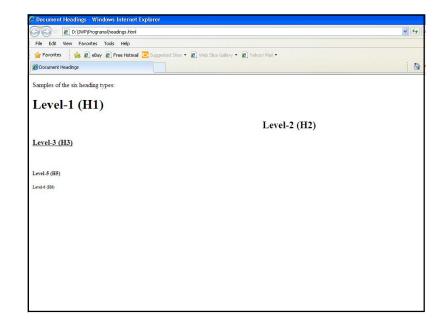
<H1 ...> text </H1> -- largest of the six
<H2 ...> text </H2>
<H3 ...> text </H3>
<H4 ...> text </H4>
<H5 ...> text </H5>
<H6 ...> text </H6> -- smallest of the six

ALIGN= "position" -- left (default), center or right

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```

```
Headings
<HTML>
<HEAD>
 <TITLE>Document Headings</TITLE>
</HEAD>
<BODY>
Samples of the six heading types:
<H1>Level-1 (H1)</H1>
<H2ALIGN="center">Level-2(H2)</H2>
<H3><U>Level-3 (H3)</U></H3>
<H4ALIGN="right">Level-4 (H4)</H4>
<H5>Level-5 (H5)</H5>
<H6>Level-6 (H6)</H6>
</BODY>
</HTML>
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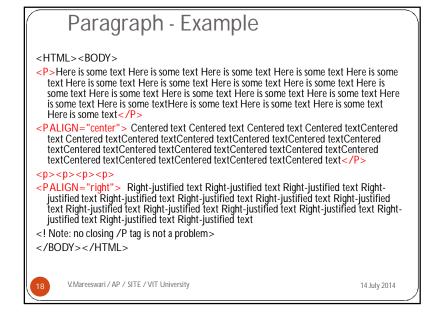
Paragraph

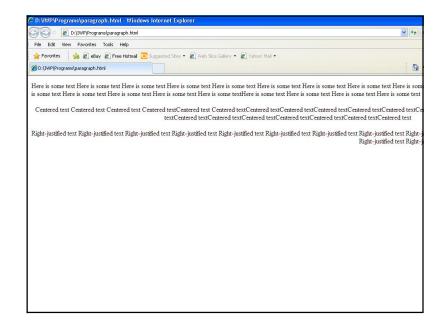
• The tag defines a paragraph. Using this tag places a blank line above and below the text of the paragraph.

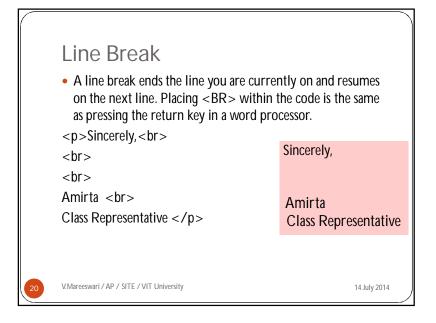
- Attributes:
 - ID=p1
 - NAME="Introduction"
 - ALIGN="position" (left, center, right)
- Fully-specified text uses <P> and </P>
- But </P> is optional.
- Multiple <P>'s do not create blank lines.
- Use
 for blank line.

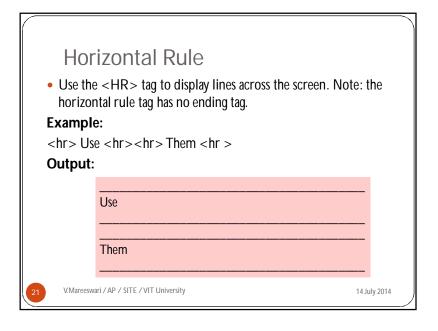
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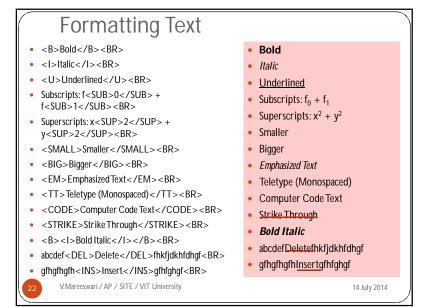
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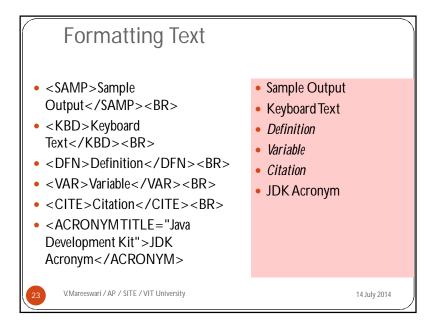










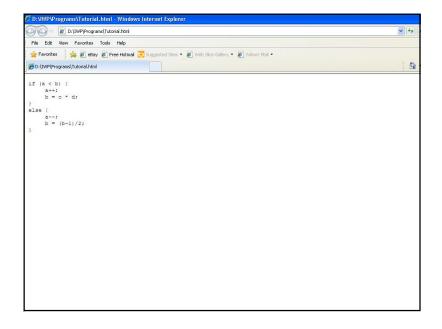


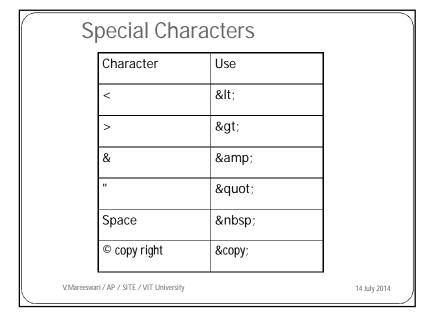
```
<PRE> Preformatted Text

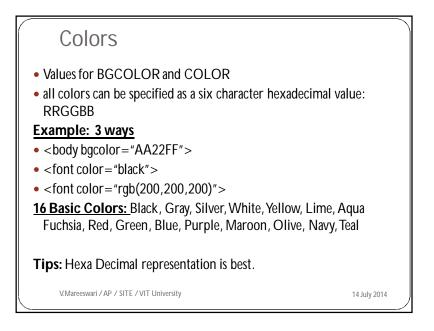
<PRE>
if (a < b) {
    a++;
    b = c * d;
}
else {
    a--;
    b = (b-1)/2;
}
</PRE>

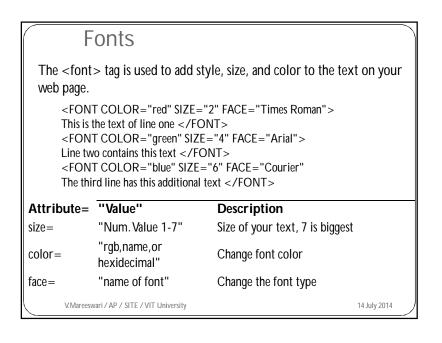
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```









<u>Image</u>

- In HTML, images are defined with the tag. It is empty, which means that it contains attributes only, and has no closing tag.
- The value of the src (source) attribute is the URL of the image you want to display.
- The *alt* attribute specifies alternate text to be displayed if for some reason the browser cannot find the image, or if a user has image files disabled.
- To define the height and width of the image, use the *height* and *width* attributes.
- Use the align attributes to place images within your body, tables, or sections.
-
- **Tips:** Jpeg images have an unlimited color wheel, and have a high compression rate downsizing your load times and saving hard drive space. Its best to use Jpegs for photo galleries, or artwork. Gif images are best used for banners, clip art, and buttons.



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Can I use several elements at the same time?

 You can easily use several elements at the same time as long as you avoid overlapping elements. This is best illustrated by an example:

Example:

- If you want to emphasise small text, it must be done like this:
 <small>Emphasised small text</small>
- And NOT like this:

<small>Emphasised small text</small>

 The difference is that in the first example, we closed the tag we first opened last. This way we avoid confusing both ourselves and the browser.



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Link

- Hypertext documents contain hypertext links, items that you can select to view another topic or document, often called the destination of the link.
- Use the <a> tags to define the start and ending of an anchor.
- □ Internal Links to anchors on the current page.
- □ Local Links to other pages within your site.
- □ Global Links to outside of your site.



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Anchor Attribute

- 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.
- The target attribute defines whether to open the page in a separate window, or to open the link in the current browser window.
- √ target="_blank" → Opens new page in a new browser window
- ✓ target="_ self" → Loads the new page in current window
- ✓ target="_parent" → Loads new page into a frame that is superior to where the link lies
- √ target="_top" → Loads new page into the current browser window, cancelling all frames
- < a href="htttp://www.mail.vit.ac.in" target="_blank"> VIT Email



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Send Mail

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Anchor Attribute

- The name attribute specifies the name of an anchor.
- Useful Tips Section
- Create a link to the "Useful Tips Section" inside the same document:
- Visit the Useful Tips Section
- Or, create a link to the "Useful Tips Section" from another page:
- Visit the Useful Tips Section
- Named anchors are often used to create "table of contents" at the beginning of a large document. Each chapter within the document is given a named anchor, and links to each of these anchors are put at the top of the document.



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Creating an email link is simple. If you want somebody to mail you about your site a good way to do it is place an email link with a subject already in place for them. A href="mailto:vmareeswari@vit.ac.in?subject=Feedback&body=Sweet site"> Email Link is simple. If you want somebody to mail you about your site a good way to do it is place an email link with a subject already in place for them.

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Folder Link

• With HTML, absolute pathnames begin with a slash (/) and are followed by a sequence of folders beginning with the highest level folder and proceeding to the folder that contains the file.

Unit I Material

Course Information

 Lab Material



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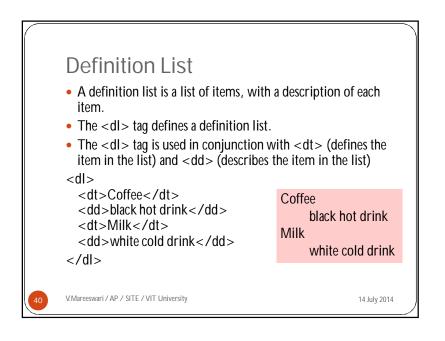


List There are 3 different types of lists. A tag starts an ordered list, for unordered lists, and <dl> for definition lists. Use the *type* and *start* attributes to fine tune your lists accordingly. - unordered list; *bullets* - ordered list; *numbers*<dl> - definition list; *dictionary*

```
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         Unordered (Bulleted) Lists
Create a bulleted list with the  tag. The bullet itself comes in three
flavors: squares, discs, and circles. The default bullet displayed by most
web browsers is the traditional full disc.
<ULTYPE="disc">
  <LI> One </LI>
                                 One
  <LI>Two</LI>
                                 Two
  <UL TYPE="circle">
                                     oThree
   < I I > Three < / I I >
                                     oFour
   <LI> Four </LI>
                                        □ Five
    <ULTYPE="square">
                                        □Six
     <LI> Five </LI>
     <LI> Six </LI>
    </UL>
```

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Ordered (Numbered) Lists Use the tag to begin an ordered list. Place the (list item) tag between your opening and closing tags to create list items <OLTYPE="1" START=6> Item one type="a"> Item two <OLTYPE="I" > Sublist item one Sublist item two 6. Item one <OLTYPE="i"> 7. Item two Sub-sublist item one Sublist item one Sub-sublist item two II. Sublist item two </0L> </0L> i. Sub-sublist item one </0L> ii. Sub-sublist item two V.Mareeswari / AP / SITE / VIT University 14 July 2014



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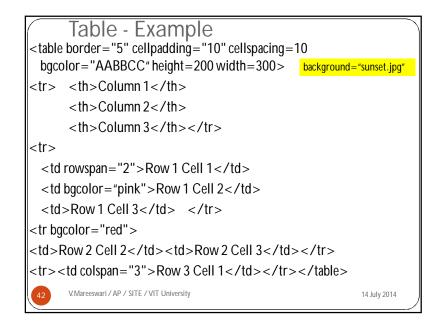
Table

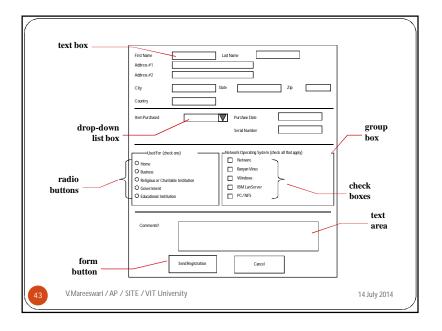
- The tag is used to begin a table.
- Within a table element are the (table rows) and (table columns) tags.
- A table cell is defined by and .
- The border attribute defines how wide the table's border will be.
- If you would like to place headers at the top of your columns, use the tag.
- Use rowspan to span multiple rows and colspan to span multiple columns.
- 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.

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Forms

- HTML forms are used to pass data to a server.
- A form can contain input elements like text fields, checkboxes, radiobuttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.
- <form method="post/get" action="inbox.html">
-input elements.....

</form>

- 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.

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Form - Input

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



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Form – Input

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

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

name="name">

It allows a user to simply input some text

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

name = "password" > < br > the browser hides the characters being typed; replacing them with stars

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

It will perform the form's set action

<input type="reset" value="Reset Form Values">

//form>

Reset buttons exist to reset the fields of your form.



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Form – Input - Radio Button

- Radios are types of input forms that allow a user to pick an either/or type of selection.
- 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.
- By using the checked attribute, we can tell our form to automatically "check" a
 default radio.

What kind of shirt are you wearing?

Shade:

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

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

llSize:

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

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

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

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Form – Input - Checkbox

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

Please select every sport that you play.

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

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

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



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Form – Input - TextArea

- Textareas retrieve "blog" type information from the user. Paragraphs, essays, or memos can by cut and pasted into textareas and submitted.
- Textareas have an opening and a closing tag, any words placed between them will appear inside your text area.
- 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.
- Setting a yes or no value for the readonly attribute determines whether or not a viewer can manipulate the text inside the text field.
- 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.



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- 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.
- Offsets a textarea to ignore all wrapping and places the text into one ongoing line.

<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>



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Form - Input - Select

- Drop down lists are the basic selection forms.
- By default the first coded <option>
 will be displayed or selected as the
 default. We can change this using the
 selected attribute.
- We use the size attribute to break out from the single displayed drop down list.
- 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.

<select>
<option>India</option>
<option>Sril anka</optio

- <option>SriLanka</option>
 <option>Pakistan</option>
 </select>
- <select multiple="yes" size=3>
 <option>India</option>
- <option>SriLanka
- <option selected="yes">Pakistan
 </option>
- <option>America</option>
- <option>Africa</option>
- </select>

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Frame

- Frames allow for multiple ".html" documents to be displayed inside.
- 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. of one browser window at a time.
 - **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.
- <frameset cols="30%, *">
- <frame src="menu.html"><frame src="content.html"></frameset>

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```
    framespacing="#" -Modifies the border width, used by Internet Explorer
    noresize - Do not let the frames be resized by the visitor.
    scrolling="(yes/no)" - Allow scrolling or not inside a frame.
    Frameborder = 0 - Frame Border is disabled.
    frameset framespacing=10 rows="20%,*">
    frame name="linktutorial" src="link.html" noresize scrolling="no">
    frame name="tabletutorial" src="table.html" scrolling="no" noresize >
    frame name="formtutorial" src="formelements.html" >
    /frameset>
    /frameset>
```

Body Tag

- The body tag serves as the element containing all the content for the website.
- **leftmargin** Sets a lefthand margin for your body element.
- topmargin Sets a margin along the top of your body element
- The **text** attribute sets the text color of all text contained within the body tags.
- We may also specify base colors for active ,visted and unvisted links.
-
<body bgcolor="yellow" text="red" topmargin=10 leftmargin=20 link="green" alink="black" vlink="blue" >



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Div Tag

- The <div> tag defines a division or a section in an HTML document.
- The <div> tag is used to group block-elements to format them with styles.
- The <div> element is very often used together with CSS, to layout a web page
- Attributes: id, width, height, title, style
- For the purpose of this example, we have included the style attribute in order to color our div tag in order to bring a stronger visualization for our viewers.
- When HTML first began, web creators only had two choices. A, table layout or frame. The div element provides a 3rd alternative, since a div can contain any/every other type of html element within its beginning and ending tag.

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```
<body>
<div style="color:#00FF00">
<h3>This is a header</h3>
This is a paragraph.
<h5>Content Articles</h5>
This paragraph would be your content
paragraph with all of your readable material. 
</div>
      <div id="menu" align="right" style="color:#FF0000">Links:<a
          href="">HOME</a> | <a href="">CONTACT</a> | <a
                             href="">ABOUT</a> |</div><br>
<div style="background: green">
<h5 > SEARCH LINKS < /h5 >
<a target="_blank" href="http://www.google.com">Google</a>
</div> </body>
               V.Mareeswari / AP / SITE / VIT University
```

Music and Video

Music is inserted onto a web page with the use of the embed tag.

- width the width of the media player.
- height the height of the media player
- hidden if this value is true then the media player will not be displayed. We recommend using this attribute only if you know that your visitors will not want the option to stop the music that is playing on your web page. (Values are true/false)
- <embed src="beethoven.mid" width="360" height="165" >
- 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.
- <embed src="beethoven.mid" autostart="false" loop="false"
 volume="60" >



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