

Static Web Page Development

Basic of HTML

Krishna

(Royal Techno Soft Pvt. Ltd)

Fundamentals of HTML

- ❑ HTML is stand for Hyper Text Markup Language.
 - ❑ HTML is a language which is used to create web pages.
 - ❑ HTML is a set of Tags.
 - ❑ It is set of tags and their attributes that defines different parts of web document and inform web browser how to display them.
-

HTML Tags

- ❑ Tags are enclosed within angle brackets (<>).
 <html>
 - ❑ No space is allowed between symbol and tags.
 <b ody> <bo dy> not valid
 - ❑ All tags must start with opening tag and closing tag <> </>
 - ❑ Tags are not case sensitive. <html> <HTML>
-

Structure of HTML

```
<HTML>
  <HEAD>
    <TITLE>           </TITLE>
  </HEAD>

  <BODY>

    -----
    Statements of body
    -----

  </BODY>
</HTML>
```

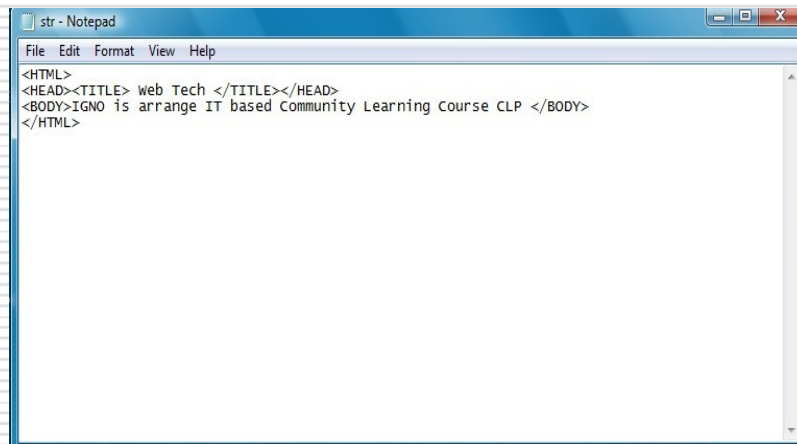
Tools Required for HTML

- ☐ Two basic tools that are required to develop and view the web page created using HTML.
 - ☐ Tools:
 - ☐ HTML Editor (text editor)
 - ☐ Web Browser
-

First HTML document

- ☐ Open your text editor like notepad, word pad.
 - ☐ Write your HTML code.
 - ☐ Save your HTML document with the .htm or .html extension.
 - ☐ Open saved file using any web browser.
-

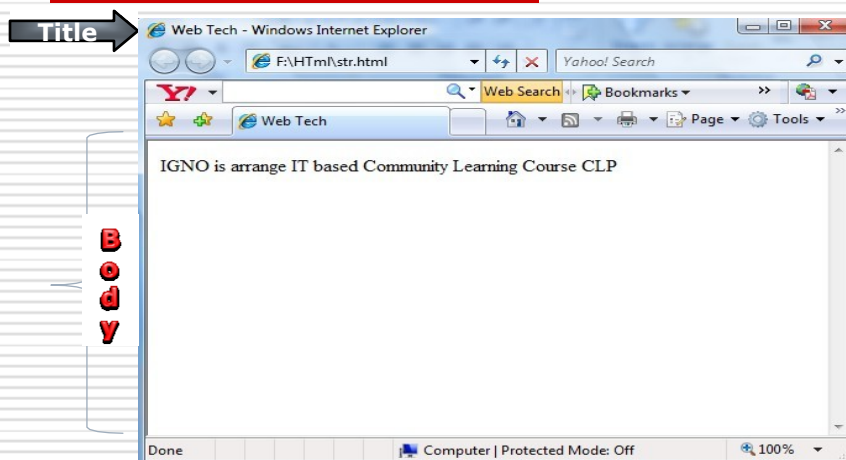
Code in Notepad



A screenshot of a Notepad window titled 'str - Notepad'. The menu bar includes File, Edit, Format, View, and Help. The text area contains the following HTML code:

```
<HTML>
<HEAD><TITLE> Web Tech </TITLE></HEAD>
<BODY>IGNO is arrange IT based Community Learning Course CLP </BODY>
</HTML>
```

Output of HTML file



Skeleton of HTML Document

- ❑ HTML document is start with `<html>` and end with `</html>`.
 - ❑ Document can be divided into two parts. Head and body.
 - ❑ `<head>` contain title, scripts and styles.
 - ❑ `<body>` contain different tags and contain of the page.
-

<HTML> Tag

Type	Container tag
Use	All of the document part is contained between this tag
Attributes	It does not have any Attributes

Container tag means it has closing tag `<HTML>` `</HTML>`

<HEAD> Tag

Type	Container tag
Use	Head contain title and script of the document.
Attributes	It does not have any Attributes

<head> <title> and <script> elements are found in </head>

<Title> Tag

Type	Container tag
Use	Head contain title and script of the document.
Attributes	It does not have any Attributes

<title> </title>

Heading Tag

Type	Container tag
Use	It is used for specifying the heading in document. <h1> to <h6>

Attributes

align	Its Used to specify the alignment of headline. Values are LEFT, RIGHT, CENTER and JUSTIFY.
-------	--

<h1> we can use this tag in both head and body tag </h1>

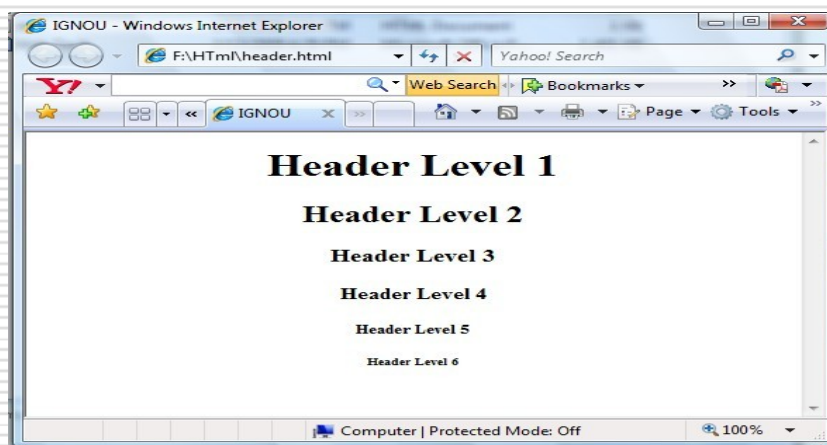
Heading Tag

<H1> </H1>	Largest Heading Font
<H2></H2>	Bigger than <H3>
<H3> </H3>	Bigger than <H4>
<H4></H4>	Bigger than <H5>
<H5></H5>	Bigger than <H6>
<H6></H6>	Smallest Heading Font

Example of HEAD tag

```
<html>
<head>
  <title> IGNOU </title>
</head>
<body>
  <center>
    <H1> Header Level 1 </H1>
    <H2> Header Level 2 </H2>
    <H3> Header Level 3 </H3>
    <H4> Header Level 4 </H4>
    <H5> Header Level5 </H5>
    <H6> Header Level 6 </H6>
  </center>
</body>
</html>
```

Output of HEAD Tag



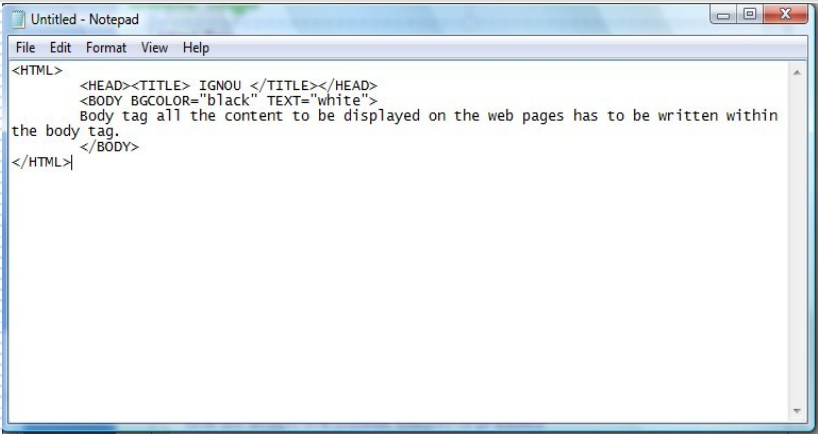
<BODY> Tag

Type	Container tag
Use	All the element that are in page is contained by body

Attributes

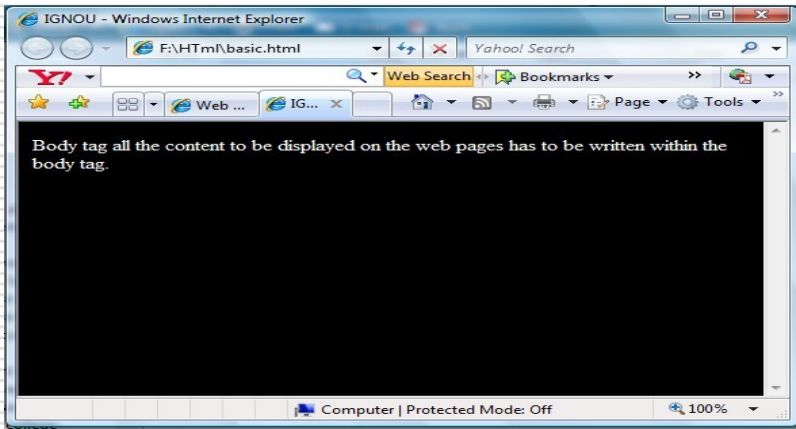
Background	Background image file address	=“URL”
BGcolor	Background color	=“color reference”
Text	Change text color	=“color reference”
Link	Hyperlink color	=“color reference”
VLink	Visited link color	=“color reference”

Example Body Tag

A screenshot of a Notepad window titled "Untitled - Notepad". The window contains the following HTML code:

```
<HTML>
  <HEAD><TITLE> IGNOU </TITLE></HEAD>
  <BODY BGCOLOR="black" TEXT="white">
    Body tag all the content to be displayed on the web pages has to be written within
    the body tag.
  </BODY>
</HTML>
```

Output



Text Styling

 	Boldfaces
<i> </i>	<i>Italic</i>
<u> </u>	<u>Underline text</u>
	Subscript text
	Superscript text
<big> </big>	Text is made larger than current size
<small> </small>	Text is made smaller than current size
	Logical form for strong emphasis

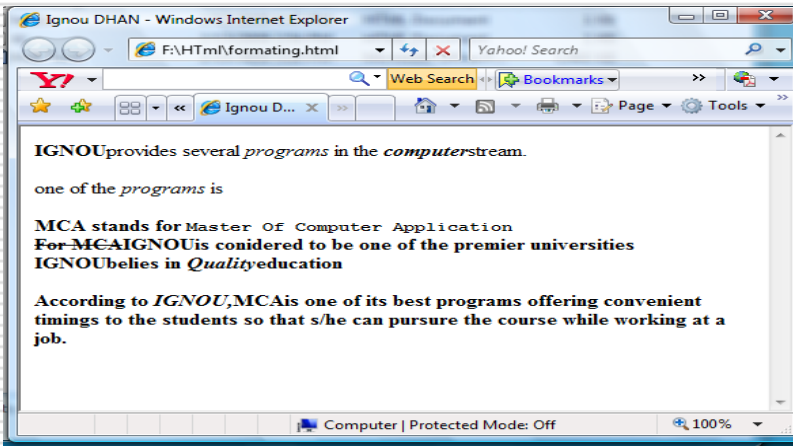
Text Styling

<p>	Create paragraph in document
<tt> </tt>	Text display like typewriter
<s></s> <strike></strike>	Character pass with strike through
 	Emphasizing the text
 </br>	Breaking the line
<hr> </hr>	Put horizontal line on the page
<noshade>	Preventing any shade effect
<cite><cite>	Same as italic

Example of Text Styling

```
<html>
  <head>
    <title> Ignou DHAN </title>
  </head>
  <body><b>IGNOU</b>provides several <i>programs </i>in the
    <b><i>computer</i></b>stream.
    <p> one of the <i> programs </i>is <b></b></p>
    <b>MCA </b>stands for
    <tt>Master Of Computer Application</tt>
    <br><s>For MCA</s><b>IGNOU</b>
    is considered to be one of the premier universities
    <br><strong>IGNOU</strong>belies in
    <strong><em>Quality</em></strong>education
    <br><p>According to <cite>IGNOU,</cite><b>MCA</b>is
    one of its best programs offering convenient timings to the students so
    that s/he can pursue the course while working at a job.</p>
  </body>
</html>
```

Output



The <!-- -> Tag (Comment Tag)

Type	Empty tag
Use	Web browser do not display text, which is written between this Tag.
Attribute	It does not have any attributes.

<!-- This tag is known as Comment Tag ->

<HR> Tag

| | |
|-------------------|--|
| Type | Empty tag |
| Use | It is used to draw horizontal line across the page. An image can be specified to customize the rule on web page. |
| Attributes | It has several Attributes. |

Empty tag means it has no closing tag <HR>

Attributes of HR

| | |
|----------------|---|
| src | It is used to specify the location of a custom image to be used instead of the default line. Image is used as normal URL. |
| align | Used to specify alignment of the Horizontal rule. Its values like LEFT, RIGHT, CENTER. |
| noshade | Used to denote that no shading is desired when the horizontal rule is rendered. |
| Size | Increase and decrease the thickness of line. It specified in pixels i.e size = 100. |
| width | Its specified the length of the line. Width = 30% |
| Color | Specify the color of the Horizontal line. |

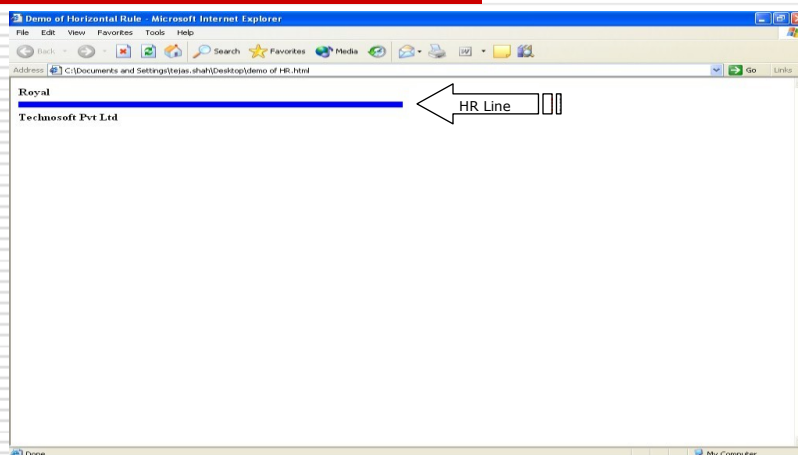
Example of HR Tag

```
<html>
  <head>
    <title> Demo of Horizontal Rule </title>
  </head>
  <body>

    Royal <HR align = "left" size="10" width=50%
    color="blue">Technosoft Pvt Ltd

  </body>
</html>
```

Output



<CENTRE> Tag

| | |
|------------|--|
| Type | Container Tag |
| Use | We can put any object at the center place. Objects like images, text, etc. |
| Attributes | It doesn't any attributes. |

<CENTRE> Objects or element between this is align to Center</CENTRE>

 Tag

| | |
|------|---|
| Type | Container Tag |
| Use | It is used to specify the size of the font being displayed. |

Attributes

| | |
|-------|--|
| Align | Used to specify where on the page the headline is to be displayed. |
| Size | Specified the size of the text. Default is 3. it can lies bet. 1 and 7 |
| face | Specified the font type |
| Color | Specified the color of the text |

 Tag

```
<HTML>
  <HEAD>
    <TITLE>Font Tag </TITLE>
  </HEAD>
  <BODY bgcolor = "#FFFFFF"> <center>
    Welcome to <font face=ARIAL size=6>
      INDIA</font><br>
    Welcome to <font face=KALYANI size=10
      color="red"></font><br>Welcome to
      <font face="ARIAL" size=6>INDIA</font><br>
  </BODY>
</HTML>
```

Note: Default is Times New Roman font with 12 pt black color.

Output



<MARQUEE> Tag

| | |
|------------|---|
| Type | Container Tag |
| Use | Used to scrolling text marquee. Marquee can be left or right align. |
| Attributes | It has several attributes. |

<MARQUEE> Write your text </MARQUEE>

Attributes of MARQUEE Tag

| | |
|-----------|--|
| align | It can be set to TOP, MIDDLE, and BOTTOM |
| behavior | It specify how text should behave.
It can be set to
Scroll: default, it start with right side and continuously run.
Slide: Start completely and off one side.
Alternate can also done L to R and R to L. |
| bgcolor | Specify the background color pf the marquee. |
| direction | Specify in which direction text should scroll.
Default is LEFT. It can set to RIGHT also. |

Attributes of MARQUEE Tag

| | |
|--------------------|--|
| Hight | Specify the height in pixels or as percentage. |
| Width | Specify the width in pixels or as percentage. |
| Hspace | Specifies left and right margins for the outside of the marquee in pixels. |
| Loop | Loop Specify how many times a marquee will loop when activated. |
| Scrolldelay | Specify no of millisecond between each successive draw. |
| Vspace | Specify the top and bottom margins for the outside of the marquee in pixels. |

<BLOCKQUOTE> Tag

| | |
|-------------|---|
| Type | Container Tag |
| Use | Used for displaying text which has margin at left side and right sides, used for extended quotations. |

Attributes

| | |
|---------------|---|
| nowrap | It is used to prevent the browser from automatically inserting line break.
You must therefore put line breaks (BR) whenever it is necessary. |
|---------------|---|

<DIV> Tag

| | |
|------|--|
| Type | Container Tag |
| Use | It is used for structure HTML documents into unique sections or divisions. |

Attributes

| | |
|-------|---|
| align | It is used to specify where on the page the heading is to be displayed.
Values are "Left", "Right", "Center", "Justify". Left is default |
|-------|---|

<DIV> Objects or element between this is align to Center</DIV>

<ADDRESS> Tag

| | |
|------|--|
| Type | Container Tag |
| Use | It is used to identify information such as author, address, signature etc. |

Attributes

| | |
|--------|---|
| Nowrap | It is used to prevent the browser from automatically inserting line breaks. You must put line breaks (BR) whenever it is necessary. |
|--------|---|

<Address> Nr. Memnagar Fire station, Vijay Cross Road. Ahd. </Address>

<PRE> Tag

| | |
|------|--|
| Type | Container Tag |
| Use | It is used to show elements as it is that are written in source file. Means no effect is applied when we used <PRE> |

Attributes

| | |
|--------|---|
| Nowrap | It is used to prevent the browser from automatically inserting line breaks. You must put line breaks (BR) whenever it is necessary. |
|--------|---|

<Address> Nr. Memnagar Fire station, Vijay Cross Road. Ahd. **</Address>**

The List Tag

- ❑ Lists are easy to read and understand.
- ❑ It is helpful to provide structural information, which is useful to draw attention of the user.
- ❑ HTML supports various types of lists.
 1. Order List (Numbered List)
 2. Unordered List (Bulleterd List)
 3. Definition List

Ordered List Tag

| | |
|------|---|
| Type | Container Tag |
| Use | An ordered list starts with and end With . tag is used for specified the List Item. tag display in numbered order. |

Attributes

| | |
|-------|--|
| type | Used to specify the type list to display beside the item. Its values are "1", "A", "a", "I" etc. default is 1. |
| start | It is used to reset the sequence number of the list. |

 Tag

| | |
|------|--|
| Type | Empty Tag |
| Use | Used to display the items of the list . |

Attributes

| | |
|-------|---|
| type | Used to specify the type of icon to display beside the item. Its values are "1", "A", "a", "I" etc. |
| value | It is used to reset the sequence number of the list. |

Some Listing Format for Order List

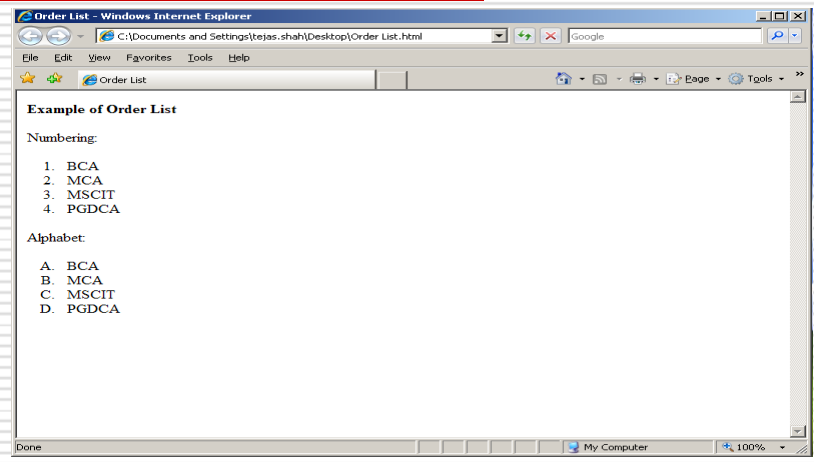
| Value | Numbering Style |
|-------|-------------------------|
| 1 | Arabic Number (Digits) |
| a | Lowercase Alphabet |
| A | Uppercase Alphabet |
| i | Lowercase Roman Numeral |
| I | Uppercase Roman Numeral |

`<OL type=„1“ start=„3“> List `

Ordered List

```
<html>
<head><title>Order List</title></head>
<body><b>Example of Order List</b><br><br>
  Numbering:<ol>
    <li>BCA
    <li>MCA
    <li>MSCIT
    <li>PGDCA
  </ol>
  Alphabet:<ol type="A">
    <li>BCA
    <li>MCA
    <li>MSCIT
    <li>PGDCA
  </ol>
</body>
</html>
```

Output



Unordered List Tag

| | |
|------|---|
| Type | Container Tag |
| Use | UL is known as bulleted list, in UL listing is in bullet form. Default value is solid disc. |

Attributes

| | |
|-------|---|
| type | Used to specify an unordered lists. ts values are "disc", "square and Circle". default value is disc. |
| start | It is used to reset the sequence number of the list. |

 Tag

| | |
|------|--|
| Type | Empty Tag |
| Use | Used to display the items of the list . |

Attributes

| | |
|------|---|
| type | Used to specify the type of icon to display beside the item. Its values are "disc", "square", "circle". |
|------|---|

```
<UL type=„square“ > List </UL>
```

Some Listing Format for Order List

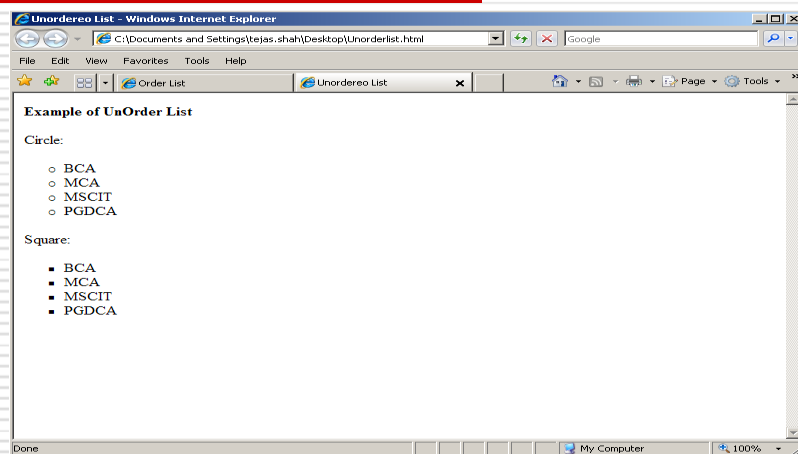
| Value | Numbering Style |
|--------|-----------------|
| Disc | Disc Bullet |
| Circle | Circle Bullet |
| Square | Square Bullet |

```
<UL type=„square“ > List </UL>
```


Unordered List

```
<html>
  <head><title>Unordereo List</title></head>
  <body><b>Example of UnOrder List</b><br><br>
    Circle:<ul type="circle">
      <li>BCA
      <li>MCA
      <li>MSCIT
      <li>PGDCA
    </ul>
    Square:<ul type="square">
      <li>BCA
      <li>MCA
      <li>MSCIT
      <li>PGDCA
    </ul>
  </body>
</html>
```

Output

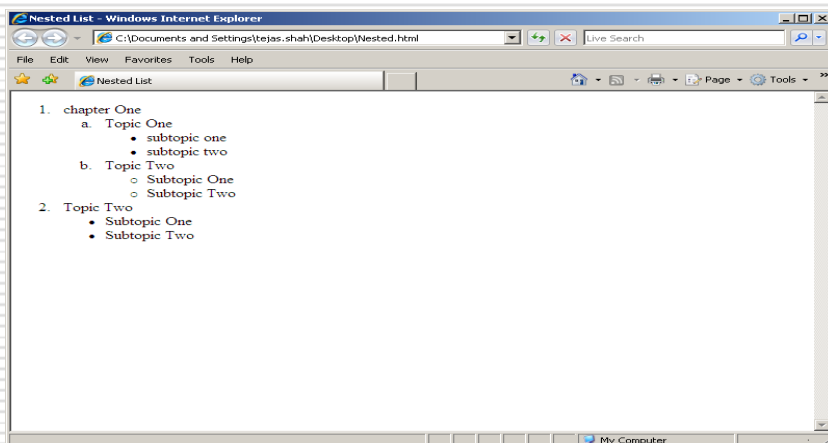


Nested List

- ❑ When Ordered list and unordered list are used together, it is known as **Nested List**.
- ❑

```
<html><head><title>Nested List</title></head>
<body><OL TYPE='1'><li>chapter One
  <ol type='a'><li> Topic One
    <ul type='disc'><li> subtopic one<li> subtopic two</ul>
    <li>Topic Two<ul type='circle'><li>Subtopic One
      <li>Subtopic Two
    </ul></li><li>Topic Two<ul type='disc'><li> Subtopic One
    <li> Subtopic Two
    </ul>
  </ol></ol>
</body>
</html>
```

Output



Definition List

- ❑ Definition list is used to develop glossary Lis.
- ❑ Definition list are starts with <DL> tag and ends with </DL> tag.
- ❑ <DT> tag and <DD>tag are defined inside the <DL> tag.
- ❑ We can say that DL means definition list and DT means definition term.

<DL> Tag and <DT> Tag

DL- Definition List

| | |
|------------|----------------------------------|
| Type | Empty Tag |
| Use | Used to define definition lists. |
| Attributes | It does not have any attribute. |

DT- Definition Term

| | |
|------------|----------------------------------|
| Type | Empty Tag |
| Use | Used to define definition Terms. |
| Attributes | It does not have any attribute. |

Definition List

```
<html>

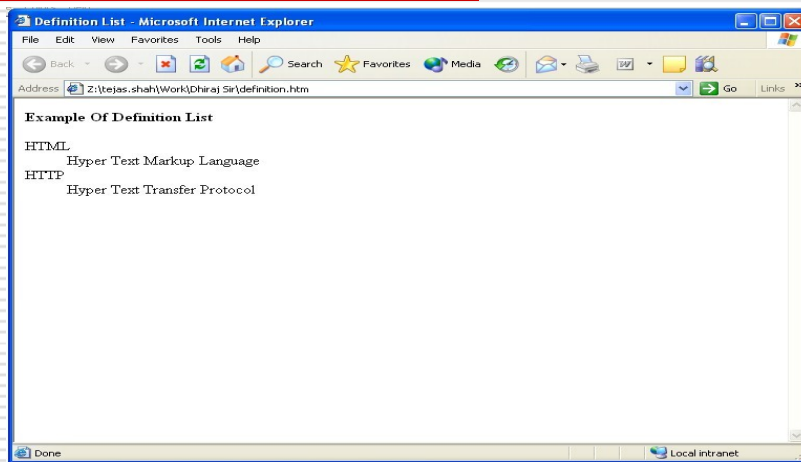
  <head><title>Definition List</title></head>

  <body>
    <b>Example Of Definition List</b>
    <dl>
      <dt>HTML
      <dd> Hyper Text Markup Language
      <dt>HTTP
      <dd>Hyper Text Transfer Protocol
    </dl>

  </body>

</html>
```

Output



Special HTML Characters

| Symbol | Keywords | Number | Description |
|--------|----------|---------|-----------------------------|
| | | | Blank Space |
| © | © | © | Copyright Sign |
| ® | ® | ® | Registered |
| ™ | ™ | ™ | Trademark |
| > | > | ‹ | Greater than |
| < | < | › | Less than |
| ≥ | ≥ | ≥ | Greater than or equal to |
| ≤ | ≤ | ≤ | Less than or equal to |
| ' | ‘ | ‘ | Left Single quotation mark |
| " | ’ | ’ | Right Single quotation mark |

Link Tag

- ❑ Link allow to link other HTML document or image to the HTML document.
- ❑ Link are used for navigating between many different web pages containing HTML documents and images.
- ❑ Arrow change the style and become hand that indicate that here is hyper link is used.
- ❑ When we click it open a web page or any html document in same window or different window..
- ❑ <A> tag is used for Generating Link.

<A> Tag

| | |
|-------------------|----------------------------------|
| Type | Empty Tag |
| Use | Used to define definition lists. |
| Attributes | It does not have any attribute. |

Attributes

| | |
|---------------|--|
| href | Specify path of the hyper text document. Value should be the source file name. |
| name | Used to name the link |
| target | Used to define target where linked page should be opened. |

Internal Links

- ❑ Internal link is link within the same web page. it can be absolute link path or relative link path.
- ❑ Complete web address is assigned in absolute link path
- ❑ Ex. www.google.com/img/int.html
- ❑ In relative link web page location is specified with current directory position such as HTML/relative.html.
- ❑ In Internal link, the link name followed by hash sign(#).

Internal Links

- ❑ <A> tag is used for anchor point name, which can be referred with a web page.
 - ❑ On clicking this anchor, it refers to a link and automatically scrolls the browser to the anchor's location.
 - ❑ Ex. and link to that name can be referred as Chapter3
-

External Links

- ❑ External link is a link that navigates to other HTML document
 - ❑ This link can be absolute link path.
 - ❑ Ex. Chapter-3
-

Use of mailto in <A> tag

- ❑ Link can be also be used to link to the email address.
 - ❑ In <A> tag, value of **href** attribute is set with mailto followed by email address.
 - ❑ When user clicks on the link, it will open user's email client application.
 - ❑ Its used to specify user where to send email, subject of email.
-

Assigning link to image

- ❑ Link can also be assigned to image by defining tag between <A> tag and .
 - ❑ Ex.

```
<html><head><title>Image as link</title></head>
<body>
  if u want to go to next chapter click on next button
  <A href=„chapter4.html“><IMG src=„Next.gif“>
</A>
</body>
</html>
```
-

Images in HTML

| | |
|------|--|
| Type | Container Tag |
| Use | Used to display image on the web page. |

Attributes

| | |
|--------|---|
| src | Specify the source of the image. |
| height | Specify the height of the image. Values can be given in pixels or percentage. E.g. height="50" |
| width | Used to specify the width of the image. Values can be given in pixels or percentage. E.g. width="50". |

Images in HTML

Attributes

| | |
|--------|--|
| alt | Used to specify the alternate text message, which should be displayed in absence of image. |
| border | Used to set the image border, values are to be given in pixel. E.g.="3". |
| hspace | Used to specify horizontal space between text and image. |
| vspace | Used to specify vertical space between text and image. |
| align | Used to specify the alignment of the image. Values are Top, Middle, Bottom, Left, Right. |

Image Map

- ❑ Image map allow to link different pages with single image.
 - ❑ Which is known as external image.
 - ❑ Hotspots are the areas defined within the image to provide links to multiple documents.
 - ❑ Image map can be implemented on the image by setting map name followed by hash symbol(#) in usemap attribute within tag.
-

Audio in HTML

- ❑ Adding audio in HTML document is costly in terms of the file size and download time.
 - ❑ There are different way to add sound files to HTML documents.
 - ❑ Most robust and easy way to add sound to HTML document is to use <OBJECT> tag.
 - ❑ We can add various sound file format like AU, AIFF, WAV, MIDI, etc to the HTML documents.
-

<OBJECT> Tag

| | |
|------|------------------------------------|
| Type | Container Tag |
| Use | Used to add sound to the web page. |

Attributes

| | |
|--------|--|
| Data | Source of the audio file |
| Type | Specify the type of the object file. E.g, type="audio/wav" |
| Border | Used to set the border , values are in pixel E.g, border="3" |

<OBJECT> Tag

Attributes

| | |
|--------|---|
| Hspace | Used to specify horizontal space. |
| Vspace | Used to specify vertical space. |
| Align | Used to specify the alignment.
Values are top, middle, bottom, left and right.
Default value is left. |

<BGSOUND> Tag

| | |
|------|------------------------------------|
| Type | Empty Tag |
| Use | Used to add sound to the web page. |

Attributes

| | |
|------|--|
| Src | Used to specify the path of the source of the audio file. |
| Loop | Used to specify whether the audio will be plays loop or not.
It has two value True and False. |

<BGSOUND> Tag

```
<HTML>
  <HEAD>
    <TITLE>Audio Demo</TITLE>
  </HEAD>
  <BODY>
    <BGSOUND src="song.mp3" loop="true">

    <!-- we can use also OBJECT tag instead of BGSOUND

    <OBJECT data="song.mp3" type="audio/wav"
      autoplay="true">
    </OBJECT>

  ->
  </BODY>
</Html>
```

Video in HTML

| | |
|------|------------------------------------|
| Type | Container Tag |
| Use | Used to add Video to the web page. |

Attributes

| | |
|--------|--|
| Data | Specify the Source of the Video file |
| Type | Specify the type of the object file. E.g, type="video/mpeg" |
| Border | Used to set the border , Values are in pixel E.g, border="3" |

Video in HTML

Attributes

| | |
|--------|---|
| Hspace | Used to specify horizontal space. |
| Vspace | Used to specify vertical space. |
| Align | Used to specify the alignment.
Values are top, middle, bottom, left and right.
Default value is left. |

Video in HTML

```
<HTML>
  <HEAD>
    <TITLE>Video Demo</TITLE>
  </HEAD>
  <BODY>

    <OBJECT data=„movie.dat“ type=„video\avi“
      autoplay=„true“>
    </OBJECT>

  </BODY>
</Html>
```

Summary

- ❑ HTML is a set of tags and their attributes that define different parts of web document and inform web browsers how to display them.
 - ❑ Web browser is the software which is used to view HTML document.
 - ❑ The web browser do not displays text, which is written between <!-- and > tag.
 - ❑ List is helpful to provide structural information, which is useful to draw attention of the user.
 - ❑ Unordered list is also known as Bulleted List.
 - ❑ Definition list is used to develop glossary list.
 - ❑ Links are used for navigating between many different web pages containing HTML documents and images.
 - ❑ Hotword, used to link with other web page.
 - ❑ Hotspot is a link assigned to some section of image and it will navigate to some other web page.
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