

Introduction to HTML

HTML stands for Hyper Text Markup Language.

A markup language is a set of markup tags.

HTML describes the structure of Web pages using markup.

HTML is a markup language for describing web documents (web pages). Each HTML tag describes different document content.

Hypertext is simply a piece of text that works as a link.

It is the most widely used language on Web to develop web pages.

HTML Tags

HTML tags are keywords (tag names) surrounded by angle brackets:

```
<tagname>content</tagname>
```

- HTML tags normally come in pairs like `<p>` and `</p>`
- The first tag in a pair is the start tag, the second tag is the end tag
- The end tag is written like the start tag, but with a slash before the tag name
- The start tag is often called the opening tag. The end tag is often called the closing tag

```
<!DOCTYPE HTML>  
<html>  
<head>  
<title>Page title</title>  
</head>  
<body>  
Visible Contents of a Web Page  
</body>  
</html>
```

Here The <!DOCTYPE> declaration helps the browser to display a web page correctly.

HTML Texts

- Text is used to display information in a website. Most of the information is displayed in text format in a website.
- In HTML, text can be formatted in much the same way that a typical word processor (such as Word) formats text.
- You can set bold text and italics. You can change the color of your text with HTML.
- You can change the alignment of your text (i.e. left, center, right, justified).
- You can change the font and font size.

FONT TAG ()

- The font tag is having three attributes called **size**, **color**, and **face** to customize your fonts.
- You can change one or all of the font attributes within one tag.

Example: To change Font Size

```
<!DOCTYPE html>  
  
<html>  
  
<head>  
  
<title>Setting Font Size</title>  
  
</head>  
  
<body>  
  
<font size="1">Font size="1"</font><br />  
  
</body>  
  
</html>
```

Setting Font Face

The range of accepted values is from 1(smallest) to 7(largest). The default size of a font is 3.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Font Face</title>
```

```
</head>
```

```
<body>
```

```
<font face="Times New Roman" size="5">Times New Roman</font><br />
```

```
</body>
```

```
</html>
```

Setting Font Color

You can set any font color you like using *color* attribute. You can specify the color that you want by either the color name or hexadecimal code for that color.

```
<!DOCTYPE html>
<html>
<head>
<title>Setting Font Color</title>
</head>
<body>
<font color="#FF00FF">This text is in pink</font><br />
<font color="red">This text is red</font>
</body>
</html>
```

Text Formatting Tags

| | |
|--|---|
| text | writes text as bold |
| <i>text</i> | writes text in italics |
| <u>text</u> | writes underlined text |
| <sub>text</sub> | lowers text and makes it smaller |
| <sup>text</sup> | lifts text and makes it smaller |
| <strike>text</strike> | strikes a line through the text |
| <pre>text</pre> | writes text exactly as it is, including spaces. |
| text | usually makes text italic |
| text | usually makes text bold |
| | |

Text Size

These are the tags for changing the font size.

| | |
|--|---|
| <big>text</big> | increase the size by one |
| <small>text</small> | decrease the size by one |
| <h1>text</h1> | writes text in biggest heading |
| <h6>text</h6> | writes text in smallest heading |
| text | writes text in smallest font size. (8 pt) |
| text | writes text in biggest font size (36 pt) |

Text Layout and Alignment

These tags will let you control the layout.

| HTML Tag | EXPLANATION |
|---|---|
| <code><p>text</p></code> | Adds a paragraph break after the text. (2 line breaks) |
| <code><p align="left">text</p></code> | Left justify text in paragraph. |
| <code><p align="center">text</p></code> | Center text in paragraph |
| <code><p align="right">text</p></code> | Right justify text in paragraph. |
| <code>text </code> | Adds a single line break where the tag is. |
| <code><nobr>text</nobr></code> | Turns off automatic line breaks - even if text is wider than the window |

| HTML Tag | EXPLANATION |
|---|---------------------|
| <code><center>text</center></code> | Center text. |
| <code><div align="center">text</div></code> | Center text. |
| <code><div align="left">text</div></code> | Left justify text. |
| <code><div align="right">text</div></code> | Right justify text. |

HTML List

HTML can have Unordered Lists, Ordered Lists, or Description Lists:

- **Unordered HTML Lists**

- An unordered list starts with the `` tag. Each list item starts with the `` tag. The list items will be marked with bullets (small black circles).

- Unordered List:

```
<ul>
```

```
<li>Keyboard</li>
```

```
<li>Mouse</li>
```

```
<li>Joystick</li>
```

```
</ul>
```

Type attributes : value can be disc, circle, square, none etc

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HTML List

Ordered HTML Lists

An ordered list starts with the `` tag. Each list item starts with the `` tag. The list items will be marked with numbers.

```
<ol>
```

```
<li>Keyboard</li>
```

```
<li>Mouse</li>
```

```
</ol>
```

Ordered HTML Lists - The Type Attribute

A type attribute can be added to an ordered list, to define the type of the marker:

`type="1"` : numbers (default) `type="A"` : uppercase letters `type="a"` : lowercase letters

`type="I"` : uppercase roman numbers `type="i"` : lowercase roman numbers

HTML List

HTML Description Lists

A description list is a list of terms, with a description of each term.

The `<dl>` tag defines a description list.

The `<dt>` tag defines the term (name), and the `<dd>` tag defines the data (description).

Description List:

```
<dl>
```

```
<dt>Keyboard</dt>
```

```
<dd>- A standard input device</dd>
```

```
<dt>Mouse</dt>
```

```
<dd>- A standard output device</dd>
```

```
</dl>
```

HTML List

Nested HTML Lists : List can be nested (lists inside lists).

Nested Lists:

```
<ul>
```

```
<li>Keyboard</li>
```

```
<li>Monitor
```

```
<ul>
```

```
<li>CRT</li>
```

```
<li>LCD</li>
```

```
</ul>
```

```
</li>
```

```
<li>Mouse</li>
```

```
</ul>
```

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HTML Images

** tag is used to insert image in a web page. The tag is empty, it contains attributes only, and does not have a closing tag.**

The src attribute defines the url (web address) of the image:

```

```

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HTML Images

The alt Attribute

The alt attribute specifies an alternate text for the image, if it cannot be displayed. The value of the alt attribute should describe the image in words:

Example ``

The alt attribute is required. A web page will not validate correctly without it.

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HTML Images

Image Size - Width and Height

You can use the style attribute to specify the width and height of an image.

The values are specified in pixels (use px after the value):

Example

```

```

Alternatively, you can use width and height attributes. The values are specified in pixels (without px after the value):

```
Example 
```

HTML Links-Hyperlinks

Links are used to link web resources in a web page.
HTML links are hyperlinks.

A hyperlink is an element, a text, or an image that you can click on, and jump to another document.

Syntax: In HTML, links are defined with the `<a>` tag:

```
<a href="url">link text</a>
```

Example: ` Go to Google `

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HTML Links-Hyperlinks

HTML Links - The target attribute

The target attribute specifies where to open the linked document.

This example will open the linked document in a new browser window or in a new tab:

Example `Google Search Engine`

HTML Links-Hyperlinks

HTML Links - Image as Link

It is common to use images as links:

Example

```
<a href="home.html " >  </a>
```

HTML IFRAME

You can define an inline frame with HTML tag `<iframe>`.
An iframe is used to display a web page within a web page.

The `<iframe>` tag defines a rectangular region within the document in which the browser can display a separate document, including scrollbars and borders.

The `src` attribute is used to specify the URL of the document that occupies the inline frame.

Syntax:

The syntax for adding an iframe is: `<iframe src="URL"></iframe>`

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HTML IFRAME

Iframe - Set Height and Width

Use the height and width attributes to specify the size.

The attribute values are specified in pixels by default, but they can also be in percent (like "80%").

Example

```
<iframe src="demo_iframe.htm" width="200" height="200">  
</iframe>
```

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HTML IFRAME

Iframe - Remove the Border

The frameborder attribute specifies whether or not to display a border around the iframe.

Set the attribute value to "0" to remove the border:

Example Iframe - Remove the Border

The frameborder attribute specifies whether or not to display a border around the iframe. Set the attribute value to "0" to remove the border:

Example `<iframe src="demo_iframe.htm" frameborder="0"></iframe>`

```
<iframe src="demo_iframe.htm" frameborder="0">
</iframe>
```


HTML IFRAME

Use iframe as a Target for a Link

An iframe can be used as the target frame for a link. The target attribute of the link must refer to the name attribute of the iframe:

Example

```
<iframe src="test1.htm" name="f1"></iframe>  
<p><a href="test2.htm" target="f1 ">Home</a></p>
```

HTML IFRAME

The <Iframe> Tag Attributes :

| Attribute | Description |
|-------------|--|
| src | This attribute is used to give the file name that should be loaded in the frame. |
| name | This attribute allows you to give a name to a frame. It is used to indicate which frame a document should be loaded into |
| frameborder | This attribute specifies whether or not the borders of that frame are shown. This can take values either 1 (yes) or 0 (no). |
| scrolling | This attribute controls the appearance of the scrollbars that appear on the frame. This takes values either "yes", "no" or "auto". |

HTML Background

- HTML Background is used to set background image or background color. Whether you want to add an image or a plain color as background you need to specify it in the `<body>` tag. Specify a background image for an HTML document: `<body background="url">`

Example:

```
<html>
<body background="pc.jpg">
<h1>Background Image</h1>
</body> </html>
```

Specify a background color for an HTML document: `<body bgcolor="#E6E6FA">` Example:

```
<html>
<body bgcolor="#E6E6FA">
<h1>Background Color</h1>
<p><a href="home.html">Home</a></p>
</body> </html>
```

HTML Tables

Tables are used on websites for two major purposes:

- ? Arranging information in a table.**
- ? Creating a page layout with the use of tables.**

Some other uses of Table in a website are:

Table is used to divide the page into different sections.

- ? Creating menus.**
- ? Adding interactive form fields.**
- ? Easy alignment of images that have been cut into smaller pieces.**

HTML Tables

The HTML tables are created using the <table> tag in which the <tr> tag is used to create table rows and <td> tag is used to create data cells.

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

HTML Tables

This will produce following result:

| | |
|-----------------|-----------------|
| Row 1, Column 1 | Row 1, Column 2 |
| Row 2, Column 1 | Row 2, Column 2 |

Here border is an attribute of <table> tag and it is used to put a border across all the cells. If you do not need a border then you can use border="0".

HTML Headings

Table Heading Table heading can be defined using <th> tag. This tag will be put to replace <td> tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use <th> element in any row.

Example

```
<html>
<body>
<table border="1">
<tr>
<th>Name</th><th>Salary</th>
</tr>
<tr><td>Ramesh Raman</td><td>5000</td>
</tr>
<tr>
<td>Shabbir Hussein</td><td>7000</td>
</tr>
</table></body></html>
```

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This will produce following result:

| Name | Salary |
|-----------------|---------------|
| Ramesh Raman | 5000 |
| Shabbir Hussein | 7000 |

Cellpadding and Cellspacing Attributes

There are two attributes called cellpadding and cellspacing which you will use to adjust the white space in your table cells. The cellspacing attribute defines the width of the border, while cellpadding represents the distance between cell borders and the content within a cell.

```
<html>
<body>
<table border="1" cellpadding="5" cellspacing="5">
<tr>
<th>Name</th><th>Salary</th>
</tr>
<tr>
<td>Ramesh Raman</td><td>5000</td>
</tr>
<tr>
<td>Shabbir Hussein</td><td>7000</td>
</tr></table></body></html>
```

This will produce following result

| Name | Salary |
|-----------------|---------------|
| Ramesh Raman | 5000 |
| Shabbir Hussein | 7000 |

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Colspan and Rowspan Attributes

You will use colspan attribute if you want to merge two or more columns into a single column. Similar way you will use rowspan if you want to merge two or more rows.

Example

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

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```
<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>
```

This will produce following result:

| 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 | | |

Tables Backgrounds

You can set table background using one of the following two ways:

? bgcolor attribute - You can set background color for whole table or just for one cell. **?** background attribute - You can set background image for whole table or just for one cell. You can also set border color also using bordercolor attribute.

Example

```
<table border="1" bordercolor="green" bgcolor="yellow">
```

Here is an example of using background attribute. Here we will use an image available in /images directory.

```
<table border="1" bordercolor="green" background="/images/test.png">
```

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Table Height and Width

You can set a table width and height using width and height attributes. You can specify table width or height in terms of pixels or in terms of percentage of available screen area. Example

```
<html>
<body>
<table border="1" width="400" height="150">
<tr>
<td>Row 1, Column 1</td><td>Row 1, Column 2</td>
</tr>
<tr>
<td>Row 2, Column 1</td><td>Row 2, Column 2</td>
</tr>
</table>
</body>
</html>
```

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HTML IFRAME

This will produce following result:

| | |
|-----------------|-----------------|
| Row 1, Column 1 | Row 1, Column 2 |
| Row 2, Column 1 | Row 2, Column 2 |

Table Caption

The caption tag will serve as a title for the table and it shows up at the top of the table.

Example:

```
<html>  
<body>  
<table border="1" width="100%">  
<caption>This is the caption</caption>  
<tr>  
<td>row 1, column 1</td><td>row 1, columnn 2</td>  
</tr>  
<tr>  
<td>row 2, column 1</td><td>row 2, columnn 2</td>  
</tr>  
</table></body></html>
```

Core IT Solution

HTML

This will produce following result:

This is the caption

| | |
|-----------------|------------------|
| row 1, column 1 | row 1, columnn 2 |
| row 2, column 1 | row 2, columnn 2 |

Nested Tables

You can use one table inside another table. Not only tables you can use almost all the tags inside table data tag <td>.

Example

Following is the example of using another table and other tags inside a table cell.

```
<html>
<body>
<table border="1" width="100%">
<tr>
<td>
  <table border="1" width="100%">
  <tr>
  <th>Name</th>
  <th>Salary</th>
  </tr>
```

Nested Tables

```
<tr>  
<td>Ramesh Raman</td>  
  <td>5000</td>  
</tr>  
<tr>  
<td>Shabbir Hussein</td>  
<td>7000</td>  
</tr>  
</table>  
</td>  
</tr>  
</table></body></html>
```

Core IT Solution

Nested Tables

```
<tr>  
<td>Ramesh Raman</td>  
  <td>5000</td>  
</tr>  
<tr>  
<td>Shabbir Hussein</td>  
  <td>7000</td>  
</tr>  
</table>  
</td>  
</tr>  
</table></body></html>
```

Core IT Solution

This will produce following result:

| Name | Salary |
|-----------------|--------|
| Ramesh Raman | 5000 |
| Shabbir Hussein | 7000 |

To play an audio file in HTML, use the **<audio>** tag. Audio tag is used to add sound and music in the html page. **<audio>** tag supports 3 types of audio files:

- mp3 - type audio/mpeg
- wav - type audio/wav
- ogg - type audio/ogg

Example

```
<audio controls>
```

```
  <source src="Tum_hi_ho.mp3" type="audio/mpeg">
```

```
  Your browser does not support the audio element.
```

```
</audio>
```

The **controls** attribute adds audio controls, like play, pause, and volume. Audio tag can also be used as:

```
<audio src="au.wav" controls></audio>
```

Inserting Audio in a Web Page

Attributes:

Autoplay:

Autoplay specifies that the audio will start playing as soon as it is ready. Value is autoplay.

Controls:

Controls specifies that audio controls should be displayed (such as a play/pause button etc)

Loop:

Loop specifies that the audio will start over again, every time it is finished.

Src: Specifies the URL of the audio file.

Muted: Specifies that the audio output should be muted.

Hidden: Specifies that the Control is hidden.

INSERT AUDIO IN A WEB PAGE

The audio can be included using <embed> tag for Netscape like browsers.

```
<EMBED SRC=".mp3" HIDDEN="true" AUTOSTART="true"  
LOOP="true" Height=145 width=160></EMBED>
```

- **Autostart** - sets whether the sound will start immediately after the web page is loaded. It can have the true or false value.
- **Loop** - The default value is FALSE which plays the file only once. Setting this to TRUE will play the sound continuously.
- **Volume** - can have any value from 1 to 100.
- **Hidden** - Specifies if the multimedia object should be shown on the page. A false value means no and true values means yes.
- **Src** - URL of the object to be embedded.
- **Width** - Width of the object in pixels
- **Height** - Height of the object in pixels

INSERT AUDIO IN A WEB PAGE

Using the Object Tag:

Apart from the non standard Embed tag, we can also use the <object> tag for embedding media into our web pages. But, it is not still effective for cross-browser functions. You can specify some parameters related to the document with the param tag.

Example

```
<object data="music.wav" type="audio/x-mplayer2" width="320" height="240">  
  <param name="src" value="music.wav">  
  <param name="autoplay" value="false">  
</object>
```

Type attribute specifies the application/media player type you are using.

Use the following type for your media player,

Windows Media Player : type="application/x-mplayer2".

Quicktime: type="video/quicktime".

RealPlayer: type="audio/x-pn-realaudio-plugin".

Using the Anchor Tag:

Another way to play audio as follows:

My favourite Song: Play

INSERTING VIDEO IN HTML PAGE

Before HTML5, there was no standard for showing videos on a web page.

The HTML5 <video> tag specifies a standard way to embed a video in a web page.

Internet Explorer 9+, Firefox, Opera, Chrome, and Safari support the <video> tag.

Note: Internet Explorer 8 and earlier versions, do not support the <video> tag.

To show a video in HTML, use the **<video>** tag:

Example:

```
<video width="320" height="240" controls>
```

```
<source src="movie.mp4" type="video/mp4">
```

Your browser does not support the video tag.

```
</video>
```

INSERTING VIDEO IN HTML PAGE

Attributes:

Autoplay - Specifies that the video will start playing as soon as it is ready.

Controls - Specifies that video controls should be displayed (such as a play/pause button etc).

Height - Sets the height of the video player.

Loop - Specifies that the video will start over again, every time it is finished.

Muted - Specifies that the audio output of the video should be muted.

Poster - Specifies an image to be shown while the video is downloading, or until the user hits the play button.

Src - Specifies the URL of the video file.

Width- Sets the width of the video player.

INSERTING VIDEO USING <a> Tag

Play video in new window

If you want to play video in a new window you can use <a> tag.

Example:

```
<html>  
  
<head>  
  
<title>HTML Video Tag Example</title>  
  
</head>  
  
<body>  
  
<center>  
  
<a href="DHOOM-3.mp4">Play</a>  
  
</center>  
  
</body>  
  
</html>
```

Video using Object Tag

We can also use the `<object>` tag for embedding media into our web pages. But, it is not still effective for cross-browser functions. You can specify some parameters related to the document with the `param` tag.

Example

```
<object data="DHOOM-3.mp4" type="video/mp4"  
  width="1200" height="800">  
<param name="src" value="DHOOM-3.mp4">  
<param name="autoplay" value="true">  
</object>
```

Type attribute specifies the type of file you are using.

INSERT ANIMATION IN A WEB PAGE

For inserting animation in html page embed and object tags are used.

Using embed tag:

```
<embed src="animation1.swf" width="1200px" height="500px">
```

Example:

```
<html>
```

```
<head>
```

```
<title>Animation Example </title>
```

```
</head>
```

```
<body>
```

```
<embed src="myinfocom.swf" width="1200px" height="500px">
```

```
</body>
```

```
</html>
```

INSERT ANIMATION USING OBJECT TAG

The <object> tag defines an embedded object within an HTML document.

You can use the <object> tag to embed animation into your HTML document.

```
<object type="application/x-shockwave-flash" data="myinfocom.swf" width="1250" height="150">  
  <param name="movie" value="myinfocom.swf" />  
  <param name="quality" value="high"/>  
</object>
```

Example:

```
<!DOCTYPE html>  
<html>  
  <head>  
    <title> Animation Example</title>  
  </head>  
  <body>  
    <object type="application/x-shockwave-flash" data="myinfocom.swf" width="1250" height="150">  
      <param name="movie" value="myinfocom.swf"/>  
      <param name="quality" value="high"/>  
    </object>  
  </body>  
</html>
```


Attributes of OBJECT TAG

border: Specifies the width of the border around an object.

data: Specifies the URL of the resource to be used by the object.

height: Specifies the height of the object.

hspace: Specifies the whitespace on left and right side of an object.

name: Specifies a name for the object.

type: Specifies the media type of data specified in the data attribute.

vspace: Specifies the whitespace on top and bottom of an object.

width: Specifies the width of the object.

INSERT ANIMATION IN A WEB PAGE

Another short way of writing <object> tag

```
<object width="400" height="400"  
  data="helloworld.swf" >  
</object>
```

The `<meta>` tag provides metadata about the HTML document. HTML allow you specify additional important information about a document in a variety of ways.

Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata. The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.

This tag is an empty element and so does not have a closing tag but it carries information within its attributes.

Adding Meta Tags to Your Documents

You can add metadata to your web pages by placing `<meta>` tags inside the header of the document which is represented by `<head>` and `</head>` tags. A meta tag can have following attributes in addition to core attributes:

META TAG ATTRIBUTES

| Attribute | Description |
|------------|--|
| Name | Name for the property. Can be anything. Examples include, keywords, description, author, revised, generator etc. |
| content | Specifies the property's value. |
| scheme | Specifies a scheme to interpret the property's value (as declared in the content attribute). |
| http-equiv | Used for http response message headers. For example http-equiv can be used to refresh the page or to set a cookie. Values include content-type, expires, refresh and set-cookie. |

You can use <meta> tag to specify important keywords related to the document and later these keywords are used by the search engines while indexing your webpage for searching purpose.

Example :

Following is an example where we are adding HTML, Meta Tags, Metadata as important keywords about the document.

```
<!DOCTYPE html>

<html>

<head>

<title>Meta Tags Example</title>

<meta name="keywords" content="College, Result, News" />

</head>

<body>

<p> HTML5</p>

</body>

</html>
```

Document Description

You can use <meta> tag to give a short description about the document. This again can be used by various search engines while indexing your webpage for searching purpose. The description are the phrases that will appear under every title in Google, Yahoo, Bing and other search engines. The search engines show the description you add to your meta tags so it's important to make a relevant description for every single page on your website.

Example

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Meta Tags Example</title>
```

```
<meta name="keywords" content="College, Result, News" />
```

```
<meta name="description" content="Nutan college is one of the prestigious college of bhopal." />
```

```
</head>
```

```
<body>
```

```
<p>HTML5!</p>
```

```
</body>
```

```
</html>
```

Document Revision Date

You can use <meta> tag to give information about when last time the document was updated.

This information can be used by various web browsers while refreshing your webpage.

Example

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Meta Tags Example</title>
```

```
<meta name="keywords" content="College, Result, News" />
```

```
<meta name="description" content="Nutan college is one of the prestigious college of bhopal." />
```

```
<meta name="revised" content="Nutan College, 3/7/2018" />
```

```
</head>
```

```
<body>
```

```
<p>Hello HTML5!</p>
```

```
</body>
```

```
</html>
```


Author of a web page

It is used to provide information about author.

Example

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Meta Tags Example</title>
```

```
<meta name="keywords" content="College, Result, News" />
```

```
<meta name="description" content="Nutan college is one of the prestigious  
college of bhopal." />
```

```
<meta name="author" content="Dhiraj Kushwah">
```

```
</head>
```

```
<body>
```

```
<p>Hello HTML5!</p>
```

```
</body>
```

```
</html>
```

Document Refreshing

A <meta> tag can be used to specify a duration after which your web page will keep refreshing automatically.

Example

If you want your page keep refreshing after every 5 seconds then use the following syntax.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Meta Tags Example</title>
```

```
<meta name="keywords" content="College, Result, News" />
```

```
<meta name="description" content="Nutan college is one of the prestigious college of bhopal." />
```

```
<meta name="revised" content="Nutan College, 3/7/2014" />
```

```
<meta http-equiv="refresh" content="5" />
```

```
</head>
```

```
<body>
```

```
<p>Hello HTML5!</p>
```

```
</body>
```

```
</html>
```

Page Redirection

You can use <meta> tag to redirect your page to any other webpage. You can also specify a duration if you want to redirect the page after a certain number of seconds.

Example

Following is an example of redirecting current page to another page after 5 seconds. If you want to redirect page immediately then do not specify *content* attribute.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Meta Tags Example</title>
```

```
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
```

```
<meta name = "description" content = "Learning about Meta Tags." /> <meta name =  
"revised" content = "Core IT Solution, 01/01/2019" /> <meta http-equiv = "refresh"  
content = "5; url = http://www.coreitsolution.co.in.com" />
```

```
</head>
```

```
<body>
```

```
<p>Example of Meta Tag</p>
```

```
</body>
```

```
</html>
```

Setting the viewport

It is used to setting the viewport to make your website look good on all devices.

Example

```
<!DOCTYPE html>
<html>
<head>
<title>Meta Tags Example</title>
<meta name = "keywords" content = "HTML, Meta Tags, Metadata" />
<meta name = "description" content = "Learning about Meta Tags." />
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<p>Example of Meta Tag</p>
</body>
</html>
```

HTML FORMS

HTML forms are used to collect user input. A form is simply an area that can contain form fields. Form fields are objects that allow the visitor to enter information - for example text boxes, dropdown lists, checkboxes radio buttons etc. For example during user registration you would like to collect information such as name, email address, mobile numbers etc. When the visitor clicks a submit button, the content of the form is usually sent to a program that runs on the server.

The HTML tag is used to create an HTML form and it has following syntax:

```
<form action="script url" method="GET/POST"
```

form elements like input, textarea etc.

```
</form>
```

When to Use GET

You can use GET (the default method):

If the form submission is passive (like a search engine query), and without sensitive information. When you use GET, the form data will be visible in the page address:

```
action_page.aspx?firstname=dhiraj&lastname=kushwah
```

Note: GET is best suited to short amounts of data. Size limitations are set in your browser.

When to Use POST?

You should use POST:

If the form is updating data, or includes sensitive information (password). POST offers better security because the submitted data is not visible in the page address.

FORM ATTRIBUTES

Apart from common attributes, following is a list of the most frequently used form attributes:

| Attribute | Description |
|---------------|--|
| action | Backend script ready to process your passed data. |
| method | Method to be used to upload data. The most frequently used are GET and POST methods. |
| target | Specify the target window or frame where the result of the script will be displayed. It takes values like <code>_blank</code> , <code>_self</code> , <code>_parent</code> etc. |

There are different types of form controls that you can use to collect data using HTML form:

- Text Input Controls
- Checkboxes Controls
- Radio Box Controls
- Select Box Controls
- File Select boxes
- Hidden Controls
- Clickable Buttons
- Submit and Reset Button

Text Input Controls

There are three types of text input used on forms:

- **Single-line text input controls** - This control is used for items that require only one line of user input, such as search boxes or names. They are created using HTML `<input>` tag.
- **Password input controls** - This is also a single-line text input but it masks the character as soon as a user enters it. They are also created using HTML `<input>` tag.
- **Multi-line text input controls** - This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML `<textarea>` tag.

Single-line text input controls

This control is used for items that require only one line of user input, such as search boxes or names. They are created using HTML `<input>` tag.

Example

Here is a basic example of a single-line text input used to take first name and last name:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head><title>Text Input Control</title>
```

```
</head>
```

```
<body>
```

```
<form>First name: <input type="text" name="first_name" /><br>
```

```
Last name: <input type="text" name="last_name" />
```

```
</form>
```

```
</body>
```

```
</html>
```

This will produce following result:



First name:

Last name:

Attributes of Text Input Control

Following is the list of attributes for <input> tag for creating text field.

| Attribute | Description |
|-----------|--|
| type | Indicates the type of input control and for text input control it will be set to text . |
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| value | This can be used to provide an initial value inside the control. |
| size | Allows to specify the width of the text-input control in terms of characters. |
| maxlength | Allows to specify the maximum number of characters a user can enter into the text box. |
| | |

Password Input Controls

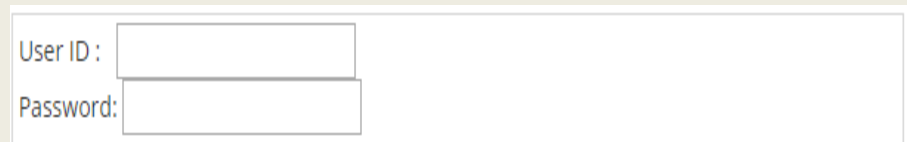
This is also a single-line text input but it masks the character as soon as a user enters it. They are also created using HTML `<input>` tag but type attribute is set to **password**.

Example

Here is a basic example of a single-line password input used to take user password:

```
<!DOCTYPE html>
<html>
<head><title>Password Input Control</title>
</head>
<body>
<form >User ID : <input type="text" name="user_id" /><br>
Password: <input type="password" name="password" />
</form>
</body>
</html>
```

This will produce following result:



User ID :

Password:

Attributes of Password Input Control

Following is the list of attributes for <input> tag for creating text field.

| Attribute | Description |
|-----------|--|
| type | Indicates the type of input control and for password input control it will be set to password . |
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| value | This can be used to provide an initial value inside the control. |
| size | Allows to specify the width of the text-input control in terms of characters. |
| maxlength | Allows to specify the maximum number of characters a user can enter into the text box. |
| | |

Multiple-Line Text Input Controls

This is used when the user is required to give details that may be longer than a single sentence. Multi-line input controls are created using HTML `<textarea>` tag.

Example

Here is a basic example of a multi-line text input used to take item description:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head><title>Multiple-Line Input Control</title>
```

```
</head>
```

```
<body>
```

```
<form>Description : <br />
```

```
<textarea rows="5" cols="50" name="description">Enter description here...</textarea>
```

```
</form>
```

```
</body>
```

```
</html>
```

This will produce following result:



The screenshot shows a web form with a label "Description :" in blue text. Below the label is a multi-line text input field with a light gray border and a light gray background. The input field contains the placeholder text "Enter description here...". The form is enclosed in a white box with a thin gray border.

Following is the list of attributes for `<input>` tag for creating text field.

| Attribute | Description |
|-----------|--|
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| rows | Indicates the number of rows of text area box. |
| cols | Indicates the number of columns of text area box |

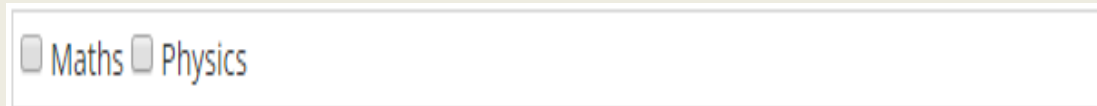
Checkbox Control

Checkboxes are used when more than one option is required to be selected. They are also created using HTML `<input>` tag but type attribute is set to **checkbox**.

Example

Here is an example HTML code for a form with two checkboxes:

```
<!DOCTYPE html>
<html>
<head><title>Checkbox Control</title>
</head>
<body>
<form>
<input type="checkbox" name="maths" value="m"> Maths
<input type="checkbox" name="physics" value="p"> Physics
</form>
</body>
</html>
```



Maths Physics

This will produce following result:

Attributes of Checkbox Control

Following is the list of attributes for `<input>` tag for creating text field.

| Attribute | Description |
|----------------------|--|
| <code>type</code> | Indicates the type of input control and for checkbox input control it will be set to checkbox . |
| <code>name</code> | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| <code>value</code> | The value that will be used if the checkbox is selected. |
| <code>checked</code> | Set to <i>checked</i> if you want to select it by default |
| | |

Radio Button Control

Radio buttons are used when out of many options, just one option is required to be selected. They are also created using HTML `<input>` tag but type attribute is set to **radio**.

Example

Here is example HTML code for a form with two radio buttons:

```
<!DOCTYPE html>

<html>

<head><title>Radio Box Control</title>

</head>

<body>

<form>

<input type="radio" name="subject" value="m"> Maths

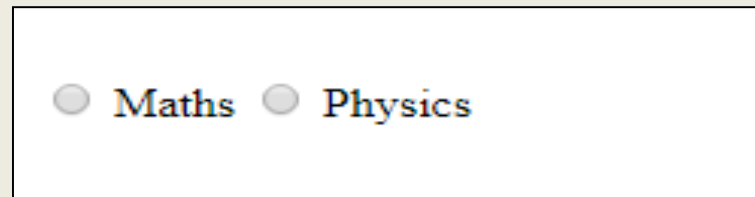
<input type="radio" name="subject" value="p"> Physics

</form>

</body>

</html>
```

This will produce following result:



Maths Physics

Attributes of Radio Button Control

| | |
|---------|--|
| type | Indicates the type of input control and for checkbox input control it will be set to radio. |
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| value | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| checked | Set to <i>checked</i> if you want to select it by default. |
| | |

Select Box Control

A select box, also called drop down box which provides option to list down various options in the form of drop down list, from where a user can select one or more options.

Example

Here is example HTML code for a form with one drop down box

```
<!DOCTYPE html>

<html>

<head><title>Select Box Control</title>

</head>

<body>

<form>

<select name="dropdown">

<option value="Maths" selected>Maths</option>

<option value="Physics">Physics</option>

</select>

</form>

</body>

</html>
```

This will produce following result:

A screenshot of a web browser showing a dropdown menu. The menu is open, and the word "Maths" is highlighted in blue. To the right of the text "Maths" is a small downward-pointing arrow icon. The dropdown menu is contained within a white rectangular box.

Attributes of Select Box Control

Following is the list of important attributes of <select> tag:

| | |
|----------|--|
| name | Used to give a name to the control which is sent to the server to be recognized and get the value. |
| size | This can be used to present a scrolling list box. |
| multiple | If set to "multiple" then allows a user to select multiple items from the menu. |

Following is the list of important attributes of <option> tag:

| Attribute | Description |
|-----------|--|
| value | The value that will be used if an option in the select box box is selected. |
| selected | Specifies that this option should be the initially selected value when the page loads. |

There are various ways in HTML to create clickable buttons. You can also create a clickable button using `<input>` tag by setting its type attribute to **button**. The type attribute can take the following values:

| Type | Description |
|--------|--|
| submit | This creates a button that automatically submits a form. |
| reset | This creates a button that automatically resets form controls to their initial values. |
| button | This creates a button that is used to trigger a client-side script when the user clicks that button. |
| image | This creates a clickable button but we can use an image as background of the button. |
| | |
| | |

Example

Here is example HTML code for a form with three types of buttons:

```
<!DOCTYPE html>  
  
<html>  
  
<head><title>File Upload Box</title>  
  
</head>  
  
<body>  
  
<form><input type="submit" name="submit" value="Submit" />  
  
<input type="reset" name="reset" value="Reset" />  
  
<input type="button" name="ok" value="OK" />  
  
</form>  
  
</body>  
  
</html>
```

This will produce following result:



Thank You