

What is HTML

HTML is an acronym which stands for **Hyper Text Markup Language** which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.

Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. **With the help of HTML only, we can create static web pages.**

simple example of HTML.

1. `<!DOCTYPE>`
2. `<html>`
3. `<head>`
4. `<title>Web page title</title>`
5. `</head>`
6. `<body>`
7. `<h1>Write Your First Heading</h1>`
8. `<p>Write Your First Paragraph.</p>`
9. `</body>`
10. `</html>`

Description of HTML Example

<!DOCTYPE>: It defines the document type or it instruct the browser about the version of HTML.

<html > :This tag informs the browser that it is an HTML document. Text between html tag describes the web document. It is a container for all other elements of HTML except <!DOCTYPE>

<head>: It should be the first element inside the <html> element, which contains the metadata(information about the document). It must be closed before the body tag opens.

<title>: As its name suggested, it is used to add title of that HTML page which appears at the top of the browser window. It must be placed inside the head tag and should close immediately. (Optional)

<body> : Text between body tag describes the body content of the page that is visible to the end user. This tag contains the main content of the HTML document.

<h1> : Text between <h1> tag describes the first level heading of the webpage.

<p> : Text between <p> tag describes the paragraph of the webpage.

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HTML Attribute

- HTML attributes are special words which provide additional information about the elements or attributes are the modifier of the HTML element.
- Each element or tag can have attributes, which defines the behaviour of that element.

Syntax

1. **<element attribute_name="value">content</element>**
-

Example

1. **<!DOCTYPE html>**
2. **<html>**
3. **<head>**
4. **</head>**
5. **<body>**
6. **<h1> This is Style attribute</h1>**
7. **<p style="height: 50px; color: blue">It will add style property in element</p>**
8. **<p style="color: red">It will change the color of content</p>**
9. **</body>**
10. **</html>**

HTML Elements

An HTML file is made of elements. These elements are responsible for creating web pages and define content in that webpage. An element in HTML usually consist of a start tag <tag name>, close tag </tag name> and content inserted between them.

Example

1. **<!DOCTYPE html>**

2. `<html>`
3. `<head>`
4. `<title>WebPage</title>`
5. `</head>`
6. `<body>`
7. `<h1>This is my first web page</h1>`
8. `<h2> How it looks?</h2>`
9. `<p>It looks Nice!!!!</p>`
10. `</body>`
11. `</html>`

Void element: All the elements in HTML do not require to have start tag and end tag, some elements does not have content and end tag such elements are known as Void elements or empty elements. **These elements are also called as unpaired tag.**

**Some Void elements are `
` (represents a line break) , `<hr>`(represents a horizontal line), etc.**

Nested HTML Elements: HTML can be nested, which means an element can contain another element.

Block-level and Inline HTML elements

For the default display and styling purpose in HTML, all the elements are divided into two categories:

- Block-level element
- Inline element

Block-level element:

- These are the elements, which structure main part of web page, by dividing a page into coherent blocks.
- A block-level element always start with new line and takes the full width of web page, from left to right.
- These elements can contain block-level as well as inline elements.

Following are the block-level elements in HTML.

`<address>`, `<article>`, `<aside>`, `<blockquote>`, `<canvas>`, `<dd>`, `<div>`, `<dl>`, `<dt>`, `<fieldset>`, `<figcaption>`, `<figure>`, `<footer>`, `<form>`, `<h1>-<h6>`, `<header>`, `<hr>`, ``, `<main>`, `<nav>`, `<noscript>`, ``, `<output>`, `<p>`, `<pre>`, `<section>`, `<table>`, `<tfoot>`, `` and `<video>`.

Example:

1. <!DOCTYPE html>
2. <html>
3. <head>
4. </head>
5. <body>
6. <div style="background-color: lightblue">This is first div</div>
7. <div style="background-color: lightgreen">This is second div</div>
8. <p style="background-color: pink">This is a block level element</p>
9. </body>
10. </html>

Inline elements:

- Inline elements are those elements, which differentiate the part of a given text and provide it a particular function.
- These elements does not start with new line and take width as per requirement.
- The Inline elements are mostly used with other elements.

<a>, <abbr>, <acronym>, , <bdo>, <big>,
, <button>, <cite>, <code>, <dfn>, , <i>, , <input>, <kbd>, <label>, <map>, <object>, <q>, <samp>, <script>, <select>, <small>, , , <sub>, <sup>, <textarea>, <time>, <tt>, <var>.

Example:

1. <!DOCTYPE html>
2. <html>
3. <head>
4. </head>
5. <body>
6. Click on link
7. this is inline element
8. <p>This will take width of text only</p>
9. </body>
10. </html>

Following is the list of the some main elements used in HTML:

Start tag	Content	End tag	Description
<h1> <h6>	These are headings of HTML	</h1>??.. </h6>	These elements are used to provide the head
<p>	This is the paragraph	</p>	This element is used to display a content in fo paragraph.

<div>	This is div section	</div>	This element is used to provide a section in w
 			This element is used to provide a line break.
<hr>			This element is used to provide a horizontal li (element)

HTML Formatting

HTML Formatting is a process of formatting text for better look and feel. HTML provides us ability to format text without using CSS. There are many formatting tags in HTML. These tags are used to make text bold, italicized, or underlined. There are almost 14 options available that how text appears in HTML and XHTML.

Element name	Description
	This is a physical tag, which is used to bold the text written between it.
	This is a logical tag, which tells the browser that the text is important.
<i>	This is a physical tag which is used to make text italic.
	This is a logical tag which is used to display content in italic.
<mark>	This tag is used to highlight text.
<u>	This tag is used to underline text written between it.
<tt>	This tag is used to appear a text in teletype. (not supported in HTML5)
<strike>	This tag is used to draw a strikethrough on a section of text. (Not supported in HTML5)
<sup>	It displays the content slightly above the normal line.
<sub>	It displays the content slightly below the normal line.
	This tag is used to display the deleted content.
<ins>	This tag displays the content which is added
<big>	This tag is used to increase the font size by one conventional unit.
<small>	This tag is used to decrease the font size by one unit from base font size.

Code Example for formatting tag here....

HTML Heading

A HTML heading or HTML h tag can be defined as a title or a subtitle which you want to display on the webpage. When you place the text within the heading tags `<h1>.....</h1>`, it is displayed on the browser in the bold format and size of the text depends on the number of heading.

There are six different HTML headings which are defined with the `<h1>` to `<h6>` tags, from highest level h1 (main heading) to the least level h6 (least important heading).

h1 is the largest heading tag and h6 is the smallest one. So h1 is used for most important heading and h6 is used for least important.

See this example:

1. `<h1>`Heading no. 1`</h1>`
2. `<h2>`Heading no. 2`</h2>`
3. `<h3>`Heading no. 3`</h3>`
4. `<h4>`Heading no. 4`</h4>`
5. `<h5>`Heading no. 5`</h5>`
6. `<h6>`Heading no. 6`</h6>`

HTML Paragraph

HTML paragraph or HTML p tag is used to define a paragraph in a webpage. Let's take a simple example to see how it work. It is a notable point that a browser itself add an empty line before and after a paragraph. An HTML `<p>` tag indicates starting of new paragraph.

See this example:

1. `<p>`This is first paragraph.`</p>`

Space inside HTML Paragraph

If you put a lot of spaces inside the HTML p tag, browser removes extra spaces and extra line while displaying the page. The browser counts number of spaces and lines as a single one.

1. `<p>`
2. I am
3. going to provide
4. you a tutorial on HTML
5. and hope that it will
6. be very beneficial for you.
7. `</p>`
8. `<p>`
9. Look, I put here a lot

10. of spaces but I know, Browser will ignore it.
11. `</p>`
12. `<p>`
13. You cannot determine the display of HTML`</p>`
14. `<p>`because resized windows may create different result.
15. `</p>`

How to Use `
` and `<hr>` tag with paragraph?

HTML Phrase tag

The HTML phrase tags are special purpose tags, which defines the structural meaning of a block of text or semantics of text. Following is the list of phrase tags, some of which we have already discussed in HTML formatting.

- Abbreviation tag : `<abbr>`
- Acronym tag: `<acronym>` (not supported in HTML5)
- Marked tag: `<mark>`
- Strong tag: ``
- Emphasized tag : ``
- Definition tag: `<dfn>`
- Quoting tag: `<blockquote>`
- Short quote tag : `<q>`
- Code tag: `<code>`

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    </head>
```

```
<body>
```

```
    <h2> Hypertext Markup language </h2>
```

```
    <p>An <abbr title = "Hypertext Markup language">HTML </abbr>language is used to create web pages.
```

```
    </p>
```

```
    </body>
```

```
</html>
```

- Keyboard tag: `<kbd>`

- Address tag: <address>

HTML Anchor

The **HTML anchor tag** defines a *hyperlink that links one page to another page*. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML a tag. and which links to destination page or URL.

href attribute of HTML anchor tag

The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page.

The syntax of HTML anchor tag is given below.

```
<a href = "....."> Link Text </a>
```

Example of HTML anchor tag.

1. `Click for Second Page`
-

Specify a location for Link using target attribute

If we want to open that link to another page then we can use target attribute of <a> tag. With the help of this link will be open in next page.

Example:

1. `<!DOCTYPE html>`
2. `<html>`
3. `<head>`
4. `<title></title>`
5. `</head>`
6. `<body>`
7. `<p>Click on this-link to go on home page of Kambok.</p>`
8. `</body>`
9. `</html>`

Let's see an example of HTML anchor tag.

1. `Click for Second Page`

Note:

- The **target** attribute can only use with href attribute in anchor tag.
 - If we will not use target attribute then link will open in same page.
-

Appearance of HTML anchor tag

An **unvisited link** is displayed underlined and blue.

A **visited link** displayed underlined and purple.

An **active link** is underlined and red.

HTML Image

HTML img tag is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

Let's see an example of HTML image.

1. `<h2>HTML Image Example</h2>`
2. ``

Attributes of HTML img tag

The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.

1) *src*

It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.

The location of image may be on the same directory or another server.

2) *alt*

The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

3) *width*

It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

4) height

It h3 the height of the image. The HTML height attribute also supports iframe, image and object elements. It is not recommended now. You should apply CSS in place of height attribute.

Use of height and width attribute with img tag

You have learnt about how to insert an image in your web page, now if we want to give some height and width to display image according to our requirement, then we can set it with height and width attributes of image.

Example:

1. ``

How to get image from another directory/folder?

To insert an image in your web, that image must be present in your same folder where you have put the HTML file. But if in some case image is available in some other directory then you can access the image like this:

1. ``

HTML Table

HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row.

We can create a table to display data in tabular form, using `<table>` element, with the help of `<tr>`, `<td>`, and `<th>` elements.

In Each table, table row is defined by `<tr>` tag, table header is defined by `<th>`, and table data is defined by `<td>` tag

HTML Table Tags

Tag	Description
<code><table></code>	It defines a table.
<code><tr></code>	It defines a row in a table.
<code><th></code>	It defines a header cell in a table.

<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

HTML Table Example

example of HTML table tag. Its output is shown above.

1. `<table>`
2. `<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>`
3. `<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>`
4. `<tr><td>James</td><td>William</td><td>80</td></tr>`
5. `<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>`
6. `<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>`
7. `</table>`

HTML Table with Border

There are two ways to specify border for HTML tables.

1. By border attribute of table in HTML
2. By border property in CSS

1) HTML Border attribute

You can use border attribute of table tag in HTML to specify border. But it is not recommended now.

1. `<table border="1">`
2. `<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>`
3. `<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>`
4. `<tr><td>James</td><td>William</td><td>80</td></tr>`
5. `<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>`

6. `<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>`
7. `</table>`

2) CSS Border property

It is now recommended to use border property of CSS to specify border in table.

1. `<style>`
2. `table, th, td {`
3. `border: 1px solid black;`
4. `}`
5. `</style>`

You can collapse all the borders in one border by border-collapse property. It will collapse the border into one.

1. `<style>`
2. `table, th, td {`
3. `border: 2px solid black;`
4. `border-collapse: collapse;`
5. `}`
6. `</style>`

HTML Table with cell padding

You can specify padding for table header and table data by two ways:

1. By cellpadding attribute of table in HTML
2. By padding property in CSS

The cellpadding attribute of HTML table tag is obsolete now. It is recommended to use CSS. So let's see the code of CSS.

1. `<style>`
2. `table, th, td {`
3. `border: 1px solid pink;`
4. `border-collapse: collapse;`
5. `}`
6. `th, td {`
7. `padding: 10px;`
8. `}`
9. `</style>`

HTML Table width:

We can specify the HTML table width using the **CSS width** property. It can be specify in pixels or percentage.

We can adjust our table width as per our requirement. Following is the example to display table with width.

1. table{
2. width: 100%;
3. }

Example:

```
<!DOCTYPE html>
<html>
<head>
  <title>table</title>
  <style>
    table{
      border-collapse: collapse;
      width: 100%;
    }
    th,td{
      border: 2px solid green;
      padding: 15px;
    }
  </style>
</head>
<body>
<table>
  <tr>
    <th>1 header</th>
    <th>1 header</th>
    <th>1 header</th>
  </tr>
  <tr>
    <td>1data</td>
    <td>1data</td>
    <td>1data</td>
  </tr>
  <tr>
    <td>2 data</td>
    <td>2 data</td>
    <td>2 data</td>
  </tr>
</tr>
```

```
<td>3 data</td>
<td>3 data</td>
<td>3 data</td>
</tr>
</table>
</body>
</html>
```

HTML Table with colspan

If you want to make a cell span more than one column, you can use the colspan attribute.

It will divide one cell/row into multiple columns, and the number of columns depend on the value of colspan attribute.

Let's see the example that span two columns.

```
<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 5px;
    text-align: left;
}
</style>
</head>
<body>
<table style="width:100%">
<tr>
<th>Name</th>
<th colspan="2">Mobile No.</th>
</tr>
<tr>
<td>Kambok kambok</td>
<td>7503520801</td>
<td>9555879135</td>
</tr>
</table>
</body>
</html>
```

HTML Table with rowspan

If you want to make a cell span more than one row, you can use the rowspan attribute.

It will divide a cell into multiple rows. The number of divided rows will depend on rowspan values.

```
<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 10px;
}
</style>
</head>
<body>
<table>
<tr><th>Name</th><td>Kambok omonivie</td></tr>
<tr><th rowspan="2">Mobile No.</th><td>7503520801</td></tr>
<tr><td>9555879135</td></tr>
</table>
</body>
</html>
```

HTML table with caption

HTML caption is displayed above the table. It must be used after table tag only.

```
<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 10px;
}
</style>
</head>
```

```

<body>
<table>
<caption>Student Records</caption>
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>
<tr><td>Vimal</td><td>Jaiswal</td><td>70</td></tr>
<tr><td>Mike</td><td>Warn</td><td>60</td></tr>
<tr><td>Shane</td><td>Warn</td><td>42</td></tr>
<tr><td>Jai</td><td>Malhotra</td><td>62</td></tr>
</table>
</body>
</html>

```

Styling HTML table even and odd cells

```

<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 10px;
}
table#alter tr:nth-child(even) {
    background-color: #eee;
}
table#alter tr:nth-child(odd) {
    background-color: #fff;
}
table#alter th {
    color: white;
    background-color: gray;
}
</style>
</head>

<body>
<table id="alter">
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>
<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>
<tr><td>James</td><td>William</td><td>80</td></tr>
<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>
<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>

```

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

HTML Lists

HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

1. Ordered List or Numbered List (ol)
2. Unordered List or Bulleted List (ul)
3. Description List or Definition List (dl)

HTML Ordered List or Numbered List

In the ordered HTML lists, all the list items are marked with numbers by default. It is known as numbered list also. The ordered list starts with `` tag and the list items start with `` tag.

1. ``
2. `Aries`
3. `Bingo`
4. `Leo`
5. `Oracle`
6. ``

HTML Unordered List or Bulleted List

In HTML Unordered list, all the list items are marked with bullets. It is also known as bulleted list also. The Unordered list starts with `` tag and list items start with the `` tag.

1. ``
2. `Aries`
3. `Bingo`
4. `Leo`
5. `Oracle`
6. ``

HTML Description List or Definition List

HTML Description list is also a list style which is supported by HTML and XHTML. It is also known as definition list where entries are listed like a dictionary or encyclopedia.

The definition list is very appropriate when you want to present glossary, list of terms or other name-value list.

The HTML definition list contains following three tags:

1. **<dl> tag** defines the start of the list.
2. **<dt> tag** defines a term.
3. **<dd> tag** defines the term definition (description).

```
<!DOCTYPE>
<html>
<body>
<dl>
  <dt>Scorpio</dt>
  <dd>-One of the 12 horoscope sign.</dd>
  <dt>Bingo</dt>
  <dd>-One of my evening snacks</dd>
  <dt>Leo</dt>
  <dd>-It is also an one of the 12 horoscope sign.</dd>
  <dt>Oracle</dt>
  <dd>-It is a multinational technology corporation.</dd>
</dl>
</body>
</html>
```

HTML Nested List

A list within another list is termed as nested list. If you want a bullet list inside a numbered list then such type of list will called as nested list.

```
<!DOCTYPE html>
<html>
<head>
  <title>Nested list</title>
</head>
<body>
  <p>List of Indian States with thier capital</p>
  <ol>
    <li>Delhi
      <ul>
        <li>NewDelhi</li>
      </ul>
    </li>
    <li>Haryana
      <ul>
        <li>Chandigarh</li>
      </ul>
    </li>
  </ol>
```

```
        </ul>
    </li>
    <li>Gujarat
        <ul>
            <li>Gandhinagar</li>
        </ul>
    </li>
    <li>Rajasthan
        <ul>
            <li>Jaipur</li>
        </ul>
    </li>
    <li>Maharashtra
        <ul>
            <li>Mumbai</li>
        </ul>
    </li>
    <li>Uttarpradesh
        <ul>
            <li>Lucknow</li> </ul>
    </li>
</ol>
</body>
</html>
```

HTML Form

An **HTML form** is a *section of a document* which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.

An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .

Why use HTML Form

HTML forms are required if you want to collect some data from of the site visitor.

For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.

HTML Form Syntax

1. `<form action="server url" method="get|post">`
 2. //input controls e.g. textfield, textarea, radiobutton, button
 3. `</form>`
-

HTML Form Tags

Let's see the list of HTML 5 form tags.

Tag	Description
<code><form></code>	It defines an HTML form to enter inputs by the used side.
<code><input></code>	It defines an input control.
<code><textarea></code>	It defines a multi-line input control.
<code><label></code>	It defines a label for an input element.
<code><fieldset></code>	It groups the related element in a form.
<code><legend></code>	It defines a caption for a <code><fieldset></code> element.
<code><select></code>	It defines a drop-down list.
<code><optgroup></code>	It defines a group of related options in a drop-down list.
<code><option></code>	It defines an option in a drop-down list.
<code><button></code>	It defines a clickable button.

HTML `<fieldset>` element:

```
<form>
  <fieldset>
    <legend>User Information:</legend>
    <label for="name">Enter name</label><br>
```

```
<input type="text" id="name" name="name"><br>
<label for="pass">Enter Password</label><br>
<input type="Password" id="pass" name="pass"><br>
<input type="submit" value="submit">
</fieldset>
</form>
```

HTML Form Example

```
<!DOCTYPE html>
<html>
<head>
<title>Form in HTML</title>
</head>
<body>
<h2>Registration form</h2>
<form>
<fieldset>
<legend>User personal information</legend>
<label>Enter your full name</label><br>
<input type="text" name="name"><br>
<label>Enter your email</label><br>
<input type="email" name="email"><br>
<label>Enter your password</label><br>
<input type="password" name="pass"><br>
<label>confirm your password</label><br>
<input type="password" name="pass"><br>
<br><label>Enter your gender</label><br>
<input type="radio" id="gender" name="gender" value="male"/>Male <br>
<input type="radio" id="gender" name="gender" value="female"/>Female <br/>
<input type="radio" id="gender" name="gender" value="others"/>others <br/>
<br>Enter your Address: <br>
<textarea></textarea><br>
<input type="submit" value="sign-up">
</fieldset>
</form>
</body>
</html>
```

HTML Form Example Inside Table

```
<form action="#">
<table>
<tr>
  <td class="tdLabel"><label for="register_name" class="label">Enter name:</label></td>
  <td><input type="text" name="name" value="" id="register_name" style="width:160px"/></td>
</tr>
<tr>
  <td class="tdLabel"><label for="register_password" class="label">Enter password:</label></td>
  <td><input type="password" name="password" id="register_password" style="width:160px"/></td>
</tr>
<tr>
  <td class="tdLabel"><label for="register_email" class="label">Enter Email:</label></td>
  <td>
<input type="email" name="email" value="" id="register_email" style="width:160px"/></td>
</tr>
<tr>
  <td class="tdLabel"><label for="register_gender" class="label">Enter Gender:</label></td>
  <td>
<input type="radio" name="gender" id="register_gendermale" value="male"/>
<label for="register_gendermale">male</label>
<input type="radio" name="gender" id="register_genderfemale" value="female"/>
<label for="register_genderfemale">female</label>
  </td>
</tr>
<tr>
  <td class="tdLabel"><label for="register_country" class="label">Select Country:</label></td>
  <td><select name="country" id="register_country" style="width:160px">
  <option value="india">india</option>
  <option value="pakistan">pakistan</option>
  <option value="nigeria">Nigeria</option>
  </td>
</tr>
```

```

    <option value="china">china</option>
    <option value="other">other</option>
</select>
</td>
</tr>
<tr>
    <td colspan="2"><div align="right"><input type="submit" id="register_0" value="register"/>
</div></td>
</tr>
</table>
</form>

```

Layout Examples

```

<!DOCTYPE html>
<html>
<head>
    <style>
        li{
            display: inline-block;
            padding: 10px;}
        a{
            color:#20b2aa;
        }
    </style>
</head>
<body>
    <!-- Header Section -->
    <table width="100%" style="border-collapse:collapse;">
        <tr>
            <td colspan="2" style="background-color:#1a1a1a; text-align: center;">
                <h3 style="font-size: 30px; color: #ff6a6a;">kambok Table-layout</h3>
            </td>

```

```
</tr>
<!-- Nav Section -->
<tr>
  <td colspan="2" style="background-color:#666666;">
    <ul>
      <li><a href="#">Home</a></li>
      <li><a href="#">Menu</a></li>
      <li><a href="#">About-us</a></li>
      <li><a href="#">Contact us</a></li>
    </ul>
  </td>
</tr>
<!-- Main Section -->
<tr>
  <td style="background-color:#e6e6fa; width:80%; height: 400px; text-align: center;">
    <p>Write your content Here</p>
  </td>
  <td style="background-color:#a7e6fb; height: 400px;">
    <p>This is your side bar</p>
  </td>
</tr>
<!-- Footer Section -->
<tr>
  <td colspan="2" style="background-color:#2e2e2e; text-align: center;">
    <p style="color:#f08080">©<strong>Copyright kambok.com</strong></p>
  </td>
</tr>
</table>
</body>
</html>
```

HTML Responsive

Responsive Web design

Responsive web design is used to make your web page look appropriate, good, and well placed on all devices (desktop, tablet, smartphone etc.)

Responsive web design uses HTML and CSS to resize, hide, shrink, enlarge, or move the content. It makes the content look good on any screen.

Set the viewport

Responsive Images

Images which can be scaled nicely to fit any browser size are known as responsive images.

How to make Image Responsive?

By using the width property

Set the CSS width property to 100% to make the image responsive and scale up and down.

Note: A problem with the above method (width: 100%) is that the image can be scaled up to be larger than its original size. So, it is better to use the max-width property instead.

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h2>Responsive Image</h2>
<p>When we set the CSS width property to 100%, it makes the image responsive. Resize the browser window to see the effect.</p>
( change image)
</body>
</html>
```

By using the max-width Property

This method is best and most used because it facilitates that the image will scale down if it has to, but never scale up to be larger than its original size.

```
<!DOCTYPE html>
<html>
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h2>Responsive Image</h2>
<p>"max-width:100%" makes the image responsive and also ensures that the image doesn't get bigger than its original size.</p>
<p>Resize the browser window to see the effect.</p>
 (Change the image)
</body>
</html>
```

Responsive Text-size

We can make the text size responsive by using the "vw" unit. It means viewport-width. By using this, we can make the text size to follow the browserwindow screen.

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>
<h1 style="font-size:10vw;">Here size is 10vw.</h1>
<p style="font-size:6vw;">Here size is 6vw.</p>
<p style="font-size:4vw;">Here size is 4vw.</p>
<p>Resize the browser window to see how the text size changes.</p>
</body>
</html>
```

HTML Entities

HTML character entities are used as a replacement of reserved characters in HTML. You can also replace characters that are not present on your keyboard by entities.

These characters are replaced because some characters are reserved in HTML.

How to use an entity:

You can use an entity in your HTML document by name or by a numerical character reference. Each entity starts with symbol ampersand (&) and ends with a semicolon (;).

Syntax:

1. &entity_name;
2. OR
3. &#entity_number;

Result	Description	Entity Name	Entity Number
	non-breaking space	 	160
<	less than	<	60
>	greater than	>	62
&	ampersand	&	38
"	double quotation mark	"	34
'	single quotation mark (apostrophe)	'	39
¢	cent	¢	162
£	pound	£	163
¥	yen	¥	165
€	Euro	€	8364
©	copyright	©	169
®	registered trademark	®	174

HTML Audio Tag

HTML audio tag is used to define sounds such as music and other audio clips. Currently there are three supported file format for HTML 5 audio tag.

1. mp3
2. wav
3. ogg

HTML5 supports <video> and <audio> controls.

HTML Audio Tag Example

Let's see the code to play mp3 file using HTML audio tag.

1. `<audio controls>`
2. `<source src="koyal.mp3" type="audio/mpeg">`
3. Your browser does not support the html audio tag.
4. `</audio>`

Attributes of HTML Audio Tag

There is given a list of HTML audio tag.

Attribute	Description
controls	It defines the audio controls which is displayed with play/pause buttons.
autoplay	It specifies that the audio will start playing as soon as it is ready.
loop	It specifies that the audio file will start over again, every time when it is completed.
muted	It is used to mute the audio output.
preload	It specifies the author view to upload audio file when the page loads.
src	It specifies the source URL of the audio file.

HTML Audio Tag Attribute Example

Here we are going to use controls, autoplay, loop and src attributes of HTML audio tag.

1. `<audio controls autoplay loop>`
2. `<source src="koyal.mp3" type="audio/mpeg"></audio>`

MIME Types for HTML Audio format

The available MIME type HTML audio tag is given below.

Audio Format	MIME Type
mp3	audio/mpeg
ogg	audio/ogg
wav	audio/wav

HTML Video Tag

HTML 5 supports <video> tag also. The HTML video tag is used for streaming video files such as a movie clip, song clip on the web page.

Currently, there are three video formats supported for HTML video tag:

1. mp4
2. webM
3. ogg
4. <video controls>
5. <source src="movie.mp4" type="video/mp4">
6. Your browser does not support the html video tag.
7. </video>

Attributes of HTML Video Tag

Let's see the list of HTML 5 video tag attributes.

Attribute	Description
controls	It defines the video controls which is displayed with play/pause buttons.
height	It is used to set the height of the video player.
width	It is used to set the width of the video player.
poster	It specifies the image which is displayed on the screen when the video is not played.
autoplay	It specifies that the video will start playing as soon as it is ready.
loop	It specifies that the video file will start over again, every time when it is completed.
muted	It is used to mute the video output.
preload	It specifies the author view to upload video file when the page loads.
src	It specifies the source URL of the video file.

HTML Video Tag Attribute Example

Let's see the example of video tag in HTML where are using height, width, autoplay, controls and loop attributes.

1. `<video width="320" height="240" controls autoplay loop>`
2. `<source src="movie.mp4" type="video/mp4">`
3. Your browser does not support the html video tag.
4. `</video>`

MIME Types for HTML Video format

The available MIME type HTML video tag is given below.

Video Format	MIME Type
mp4	video/mp4
ogg	video/ogg
webM	video/webM

Marquee HTML

The **Marquee HTML** tag is a non-standard HTML element which is used to scroll a image or text horizontally or vertically.

In simple words, you can say that it scrolls the image or text up, down, left or right automatically.

Marquee HTML

The **Marquee HTML** tag is a non-standard HTML element which is used to scroll a image or text horizontally or vertically.

In simple words, you can say that it scrolls the image or text up, down, left or right automatically.

Marquee tag was first introduced in early versions of Microsoft's Internet Explorer. It is compared with Netscape's blink element.

Marquee HTML Example

1. `<marquee>`This is an example of html marquee `</marquee>`

HTML Marquee Attributes

Marquee's element contains several attributes that are used to control and adjust the appearance of the marquee.

Attribute	Description
behavior	It facilitates user to set the behavior of the marquee to one of the three different types: scroll, slide and alternate.
direction	defines direction for scrolling content. It may be left, right, up and down.
width	defines width of marquee in pixels or %.
height	defines height of marquee in pixels or %.
hspace	defines horizontal space in pixels around the marquee.
vspace	defines vertical space in pixels around the marquee.
scrollDelay	defines scroll delay in seconds.
scrollAmount	defines scroll amount in number.
loop	defines loop for marquee content in number.
bgcolor	defines background color. It is now <i>deprecated</i> .

HTML Scroll Marquee

It is a by default property. It is used to scroll the text from right to left, and restarts at the right side of the marquee when it is reached to the end of left side. After the completion of loop text disappears.

1. `<marquee width="100%" behavior="scroll" bgcolor="pink">`
2. This is an example of a scroll marquee...
3. `</marquee>`

HTML Scroll Marquee

It is a by default property. It is used to scroll the text from right to left, and restarts at the right side of the marquee when it is reached to the end of left side. After the completion of loop text disappears.

1. `<marquee width="100%" behavior="scroll" bgcolor="pink">`
 2. This is an example of a scroll marquee...
 3. `</marquee>`
-

HTML Slide Marquee

In slide marquee, all the contents to be scrolled will slide the entire length of marquee but stops at the end to display the content permanently.

1. `<marquee width="100%" behavior="slide" bgcolor="pink">`
 2. This is an example of a slide marquee...
 3. `</marquee>`
-

HTML Alternate Marquee

It scrolls the text from right to left and goes back left to right.

1. `<marquee width="100%" behavior="alternate" bgcolor="pink">`
 2. This is an example of a alternate marquee...
 3. `</marquee>`
-

Direction in HTML marquee

This is used to change the direction of scrolling text. Let's take an example of marquee scrolling to the right. The direction can be left, right, up and down.

1. `<marquee width="100%" direction="right">`
 2. This is an example of a right direction marquee...
 3. `</marquee>`
-

Nested marquee example

1. `<marquee width="400px" height="100px" behavior="alternate" style="border:2px solid red">`
2. `<marquee behavior="alternate">`
3. Nested marquee...

4. `</marquee>`
5. `</marquee>`

HTML `<menu>` tag

HTML `<menu>` tag specifies a list or menu of commands that a user can perform or activate. It is used for creating context menu as well as lists menu.

A `<menu>` element can contain one or more `` or `<menuitem>` elements within it

Syntax

1. `<menu>`.....`<menu>`

```
<!DOCTYPE html>
<html>
<head>
<title>Menu Tag</title>
</head>
<body>
<h2>Example of Menu Tag</h2>
<menu>
    <li>Home</li>
    <li>Registration</li>
    <li>Contact-us</li>
    <li>About-us</li>
</menu>
</body>
</html>
```

HTML favicon

A **favicon** is a small file containing the one or more icons which are used to represent the website or a blog. It is also known as a tab icon, website icon, URL icon, or a bookmark icon.

This icon is actually displayed on the address bar, browser's tab, browser history, bookmark bar, etc. The image of a favicon is in **.ico** file format. There are various file formats, but **.ico** format is supported by all the browsers.

How to Create a Favicon

Following are the steps for creating the favicon:

How to insert the Favicon in HTML file

1. Following are the steps for inserting the **favicon.ico** image in the **HTML** file:

Open the HTML file. Then use the following syntax to insert the favicon in the HTML file.

1. `<link rel="shortcut icon" href="favicon.ico" type="image/x-icon">`

2. We have to use the above syntax in the tag of our html file. Then save the file.

3. Now. Open the HTML file in any browser. We can see the icon on the web page.

```
<html>
<head>
<link rel="shortcut icon" href="favicon.ico" type="image/x-icon">
</head>
<title>Example of favicon</title>
<body>
<br>
<br>
<p align="center">

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

Remember Example of Required Attribute in form..... sat 08082020:19:27

HTML <meta> tag

HTML <meta> tag is used to represent the metadata about the HTML document. It specifies page description, keywords, copyright, language, author of the documents, etc.

The metadata does not display on the webpage, but it is used by search engines, browsers and other web services which scan the site or webpage to know about the webpage.

The <meta> tag is placed within the <head> tag, and it can be used more than one times in a document.

Syntax:

1. `<meta charset="utf-8">`

Following are some specific syntaxes of meta tag which shows the different uses of meta Tag.

1. 1. `<meta charset="utf-8">`

It defines the character encoding. The value of charset is "utf-8" which means it will support to display any language.

1. 2. `<meta name="keywords" content="HTML, CSS, JavaScript, Section">`

It specifies the list of keyword which is used by search engines.

1. 3. `<meta name="description" content="kambok info tech">`

It defines the website description which is useful to provide relevant search performed by search engines.

1. 4. `<meta name="author" content="Kambok">`

It specifies the author of the page. It is useful to extract author information by Content management system automatically.

1. 5. `<meta name="refresh" content="50">`

It specifies to provide instruction to the browser to automatically refresh the content after every 50sec (or any given time).

1. 6. `<meta d="refresh" content="5; url=https://www.kambokpro.com">`

In the above example we have set a URL with content so it will automatically redirect to the given page after the provided time.

1. 7. `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

It specifies the viewport to control the page dimension and scaling so that our website looks good on all devices. If this tag is present, it indicates that this page is mobile device supported.

Example

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <meta charset="utf-8">
```

```
    <meta name="keywords" content="HTML, CSS, JavaScript, Section">
```

```
    <meta name="description" content="Free Online tutorials">
```

```
<meta name="author" content="kambok">
<meta http-equiv="refresh" content="5; url=https://www.kambok.com">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<h2>Example of Meta tag</h2>
<p>This example shows the use of meta tag within an HTML document</p>
</body>
</html>
```

HTML Space Code

There are multiple ways to insert spaces between the words or characters:

Using Spacebar

To add a space between the words, first we have to click where we want to add a space and then press space bar. The HTML document use only one space between the words. In simple words, if we press spacebar more than one time, then it will show only one space between the words on the browser as described in the following example:

```
<html>
<head>
<title> Example of space </title>
</head>
<body>
Kambok &nbsp; &nbsp; &nbsp; &nbsp; Info tech
</body>
</html>
```

HTML Date

The **date** is the value of the **type** attribute of an **<input>** element. It creates a calendar that allows a user to choose the date. The resulting value includes the **day**, **month**, and **year**.

Syntax

1. **<input type="Date">**

```
<!DOCTYPE html>
<html>
```

```
<head>
```

```
<title>
```

```
Example of Date Attribute
```

```
</title>
```

```
</head>
```

```
<body>
```

```
<form>
```

```
Employee Name: <input type="text" placeholder="Enter Your name" Required>
```

```
<br>
```

```
<br>
```

```
Date of Joining: <input type = "date">
```

```
<button type="submit" name="btn">Submit</button>
```

```
</form>
```

```
</body>
```

```
</html>
```

Example 2...

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title> Example of Date Attribute </title>
```

```
<script>
```

```
function viewdate() {
```

```
var x = document.getElementById("dob").value;
```

```
document.getElementById("demo").innerHTML = x;
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
Employee Name: <input type="text" placeholder="Your Good name"/>
```

```
<br>
```

```
<br>
```

```
Date of Joining:
```

```
<input type="date" id="dob">
<br>
<button onclick="viewdate()"> Submit
</button>
<br>
<h2 id="demo"> </h2>
</body>
</html>
```

HTML <label > Tag

The **<label>** tag is used to specify a label for an <input> element of a form. It adds a label to a form control such as text, email, password, textarea etc. It toggles the control when a user clicks on a text within the <label> element.

Syntax:

1. **<label>** form_content... **</label>**

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>
```

Example of Label tag

```
</title>
<style>
/* The following tag selector body use the font-family and background-color properties for body of a
page*/

body {
font-family: Calibri, Helvetica, sans-serif;
background-color: pink;
}
/* Following container class used padding for generate space around it, and also use a background-
color for specify the color lightblue as a background */
```

```
.container {
padding: 50px;
background-color: lightblue;
}
/* The following tag selector input use the different properties for the text filed. */
input[type=text] {
width: 100%;
padding: 15px;
margin: 5px 0 22px 0;
display: inline-block;
border: none;
background: #f1f1f1;
}
input[type=text]:focus {
background-color: orange;
outline: none;
}
div {
padding: 10px 0;
}
hr {
border: 1px solid #f1f1f1;
margin-bottom: 25px;
}
/* The following tag selector button uses the different properties for the Button. */
button {
background-color: #4CAF50;
color: white;
margin: 8px 0;
border: none;
cursor: pointer;
padding: 16px 20px;
width: 100%;
opacity: 0.9;
}
```

/* The following tag selector hover uses the opacity property for the Button which select button when you mouse over it. */

```
button:hover {
opacity: 1;
}
</style>
</head>
<body>
<form>
<div class="container">
<center> <h1> Registration Form</h1> </center>
<hr>
<label for="firstname">
Firstname
</label>
<input type="text" id="firstname" name="ftname" placeholder= "Firstname" size="15" required />
<label for="middlename">
Middlename:
</label>
<input type="text" id="middlename" name="mname" placeholder="Middlename" size="15"
required />
<label for="lastname">
Lastname:
</label>
<input type="text" id="lastname" name="ltname" placeholder="Lastname" size="15"required />
<div>
<label for="gender">
Gender :
</label>
<br>
<input type="radio" id="gender" value="Male" name="gender" checked > Male
<input type="radio" id="gender" value="Female" name="gender"> Female
<input type="radio" id="gender" value="Other" name="gender"> Other

</div>
<label for="Phone">
```

Phone:

```
</label>
```

```
<input type="text" name="country code" placeholder="Country Code" value="+234" size="2"/>
```

```
<input type="text" id="Phone" name="phone" placeholder="phone no." size="10"/ required>
```

```
<label for="email">
```

Email

```
</label>
```

```
<input type="text" id="email" placeholder="Enter Email" name="email" required>
```

```
<button type="submit" value="submit">Submit</button>
```

```
<button type="reset" value="submit">Reset</button>
```

```
</form>
```

```
</body>
```

```
</html>
```

HTML Reset Button

The **Reset** is the value of the **type** attribute of the **<Button>** element. It is used to reset the filled values of a form to its initial values.

Syntax

1. **<Button type="reset">**

```
<button type="reset" value="submit">Reset</button>
```

HTML Hide Element

You can hide an element by using the Boolean attribute **hidden** with the element. When you specify the hidden attribute in the HTML file, then the browser will not display that element, which is specified with this attribute.

Syntax

1. **<element or tag hidden>** Any statement or content **</element or tag>**

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>
```

First Example of Hidden attribute

```
</title>
</head>
<body>
<center>
<h1>Kambok Info tech</h1>
</center>
<p hidden> This paragraph should be hidden.
</p>
</body>
</html>
```

HTML Image Button

The **image buttons** in the HTML document can be created by using the **type** attribute of an **<input>** element. Image buttons also perform the same function as submit buttons, but the only difference between them is that you can keep the image of your choice as a button.

Syntax

1. `<input type="image" name="Name of image button" src="Path of the Image file? border="Specify Image Border " alt="text">`
`<input type="image" src="photos.png" name="submit" width="100" height="48" alt="submit"/>`