

Introduction to HTML

Starting Note

The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands **at times** of challenge and controversy.

Martin Luther King

HTML

- Hyper Text Markup Language
- Most widely used language on Web to develop web pages
- HTML was created by Berners-Lee in late 1991
- HTML 2.0 was the first standard HTML specification published in 1995.
- HTML 4.01 was a major version of HTML published in late 1999.
- Currently we are having HTML-5 version which is an extension to HTML 4.01, published in 2012.

Hyper Text Markup Language

- **Hypertext** refers to the way in which Web pages (HTML documents) are **linked** together. Thus, the link available on a webpage is called Hypertext.
Hypertext is text which contains links to other texts
- HTML is a **Markup Language** which means you use HTML to simply "mark-up" a text document with **tags** that tell a Web browser how to structure it to display.

Basic HTML Document

<pre><!DOCTYPE html> <html> <head> <title>This is document title</title> </head> <body> <h1>This is a heading</h1> <p>Document content goes here.....</p> </body> </html></pre>	Tag	Description
	<!DOCTYPE...>	This tag defines the document type and HTML version.
	<html>	This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.
	<head>	This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.
	<title>	The <title> tag is used inside the <head> tag to mention the document title.
	<body>	This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc.
	<h1>	This tag represents the heading.

HTML Tags

- tags are enclosed within angle braces <Tag Name>.
- most of the tags have their corresponding closing tags.
 - <html></html>
 - <body></body>
- HTML Document Structure

Document declaration tag

```
<html>
```

```
<head>
```

Document header related tags

```
</head>
```

```
<body>
```

Document body related tags

```
</body>
```

```
</html>
```

HTML - BASIC TAGS

- Heading Tags <h1>.....<h6>
- Paragraph Tag <p></p>
- Line Break Tag

 - This tag is an example of an empty element, where you do not need opening and closing tags, as there is nothing to go in between them.
- Centering Content <center> </center>
- Preserve Formatting <pre></pre>

HTML Element

- An element in HTML represents some kind of structure or semantics and generally consists of a start tag, content, and an end tag.

```
<p>
```

```
This is the content of the paragraph element.
```

```
</p>
```


HTML - ATTRIBUTES

- An attribute is used to define the characteristics of an HTML element and is placed inside the element's opening tag. All attributes are made up of two parts: a **name** and a **value**:
- The name is the property you want to set. For example, the paragraph element in the example carries an attribute whose name is **align**, which you can use to indicate the alignment of paragraph on the page.
- The value is what you want the value of the property to be set and always put within quotations.

- The below example shows three possible values of align attribute: **left**, **center** and **right**.

```
<!DOCTYPE html>
<html>
<head>
<title>Align Attribute Example</title>
</head>
<body>
<p align="left">This is left aligned</p>
<p align="center">This is center aligned</p>
<p align="right">This is right aligned</p>
</body>
</html>
```

HTML Formatting

- Bold ``
- Italic `<i></i>`
- `<u></u>`
- `<big></big>`
- `<small></small>`
- ``
- ``

HTML phrase tags

- ``
- `<mark>`
- ``
- `<blockquote>`
- Short quotations `<q>`
- `<code>`

HTML Images

- Images in Web page

```
<!DOCTYPE html>
<html>

  <head>
    <title>Using Image in Webpage</title>
  </head>

  <body>
    <p>Simple Image Insert</p>
    <img src = "/html/images/test.png" alt = "Test Image" />
  </body>

</html>
```

HTML Tables

- The HTML tables are created using the **<table>** tag in which the
 - **<tr>** tag is used to create table rows
 - **<td>** tag is used to create data cells. The elements under **<td>** are regular and left aligned by default.
- Table heading can be defined using **<th>** tag.
- Cell Padding
 - The distance between cell borders and the content within a cell.
- Cell Spacing
 - Space between table cells.

Exercise

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4  <title>Page Title</title>
5  </head>
6  <body>
7
8  <h1>This is a Heading</h1>
9  <p>This is a paragraph.</p>
10 
11 <table border = "1" cellpadding = "5" cellspacing = "5">
12   <tr>
13     <th>Name</th>
14     <th>Salary</th>
15   </tr>
16
17   <tr>
18     <td>Arif Hussain</td>
19     <td>5000</td>
20   </tr>
21
22   <tr>
23     <td>Shabbir Hussain</td>
24     <td>7000</td>
25   </tr>
26
27   </table>
28 </body>
29 </html>
```

Name	Salary
Arif Hussain	5000
Shabbir Hussain	7000

Rowspan Colspan?

Exercise (Rowspan)

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

<table>
  <tr>
    <th>Month</th>
    <th>Savings</th>
    <th>Savings for holiday!</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
    <td rowspan="2">$50</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
</table>

</body>
</html>
```

Month	Savings	Savings for holiday!
January	\$100	\$50
February	\$80	

Exercise (Colspan)

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

<table>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$80</td>
  </tr>
  <tr>
    <td colspan="2">Sum: $180</td>
  </tr>
</table>

</body>
</html>
```

Month	Savings
January	\$100
February	\$80
Sum: \$180	

Try including

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

HTML Lists

- **** – *An unordered list*. This will list items using plain bullets.
- **** – *An ordered list*. This will use different schemes of numbers to list your items.
- **<dl>** – *A definition list*. This arranges your items in the same way as they are arranged in a dictionary.

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

<h2>An unordered HTML list</h2>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

An unordered HTML list

- Coffee
- Tea
- Milk

Type Attributes

- `<ul type="circle">`
- `<ul type="square">`
- `<ul type="disk">`
- `<ol type="1">`
- `<ol type="I">`
- `<ol type="i">`
- `<ol type="A">`
- `<ol type="a">`

HTML Links

- A link is specified using HTML tag `<a>`.
- This tag is called **anchor tag** and anything between the opening `<a>` tag and the closing `` tag becomes part of the link.

HTML block

- The <div> tag
- Used for grouping of various HTML elements.
- HTML font

HTML Forms

- HTML Form is a document which stores information of a user on a web server using interactive controls.
- An HTML form contains different kind of information such as username, password, contact number, email id etc.
- The elements used in an HTML form are check box, input box, radio buttons, submit buttons etc. Using these elements, the information of a user is submitted on a web server.
- The **form** tag is used to create an HTML form.

Example

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

<form>
Username:<br>
<input type="text" name="username">
<br>
Email id:<br>
<input type="text" name="email_id">
<br><br>
<input type="submit" value="Submit">
</form>

</body>
</html>
```

Output :

Username:

Email id:

Submit