

HTML

HTML stands for **Hyper Text Markup Language**, which is the most widely used language on Web to develop web pages. **HTML** was created by Berners-Lee in late 1991. Current version is HTML-5.

- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content

HTML Documents

All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.

The HTML document itself begins with `<html>` and ends with `</html>`.

The visible part of the HTML document is between `<body>` and `</body>`.

HTML Document Structure

`<html>`

`<head>`

Document header related tags

```
</head>  
<body>  
    Document body related tags  
</body>  
</html>
```

Example

```
<!DOCTYPE html>  
<html>  
    <head>  
        <title>This is document title</title>  
    </head>  
    <body>  
        <h1>This is a heading</h1>  
        <p>Hello World!</p>  
    </body>  
</html>
```

HTML Elements

The HTML **element** is everything from the start tag to the end tag:

<tagname>Content goes here... </tagname>

Examples of some HTML elements:

<h1>My First Heading</h1>

<p>My first paragraph.</p>

HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

Example

```
<body text="red" bgcolor="yellow">
```

HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

<h1> defines the most important heading.

<h6> defines the least important heading:

Example

```
<h1>This is heading 1</h1>
```

```
<h2>This is heading 2</h2>
```

```
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
```

HTML Paragraphs

HTML paragraphs are defined with the `<p>` tag:

Example

```
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
```

HTML Formatting

```
<!DOCTYPE html>

<html>
<head>
<title>Nested Elements Example</title>
</head>
<body>
<h1>This is <i>italic</i> heading</h1>
<p>This is <u>underlined</u> paragraph</p>
<p>This is <b>underlined</b> paragraph</p>
```

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

HTML Links

HTML links are defined with the [tag:](#)

href Attribute

- The [tag defines a hyperlink.
The href attribute specifies the URL of the page the link goes to:](#)

```
<a href="https://www.facebook.com">This is a  
link</a>
```

HTML Images

HTML images are defined with the tag.

The source file (src), alternative text (alt), width, and height are provided as attributes:

```

```

HTML Styles

The HTML style attribute is used to add styles to an element, such as color, font, size, and more.

Setting the style of an HTML element, can be done with the style attribute.

The HTML style attribute has the following syntax:

```
<tagname style="property:value;">
```

The **property** is a CSS property. The **value** is a CSS value.

Example

```
<p>I am normal</p>
```

```
<p style="color:red;">I am red</p>
```

```
<p style="color:blue;">I am blue</p>
```

```
<p style="font-size:50px;">I am big</p>
```

```
<body style="background-color:powderblue;">
```

```
<h1 style="font-family:verdana;">This is a  
heading</h1>
```

```
<h1 style="text-align:center;">Centered  
Heading</h1>
```

Horizontal Lines

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Horizontal Line Example</title>
```

```
</head>

<body>

<p>This is paragraph one and should be on top</p>

<hr />

<p>This is paragraph two and should be at bottom</p>

<hr size="20" width="100%" color="red"/>

</body>

</html>
```

Superscript Text

```
<p>A <sup>2</sup>B</p>
```

Subscript Text

```
<p>H<sub>2</sub>O</p>
```

Unordered Lists

An unordered list is a collection of related items that have no special order or sequence. This list is created by using HTML

 tag. Each item in the list is marked with a bullet.

```
<!DOCTYPE html>
```

```
<html>
<head>
<title>HTML Unordered List</title>
</head>
<body>
<ul>
<li>Beetroot</li>
<li>Ginger</li>
<li>Potato</li>
<li>Radish</li>
</ul>
</body>
</html>
```

type Attribute

You can use type attribute for `` tag to specify the type of bullet you like. By default it is a disc. Following are the possible options:

```
<ul type="square">
<ul type="disc">
```

```
<ul type="circle">  
  
<ul type="square">  
  <li>Beetroot</li>  
  <li>Ginger</li>  
  <li>Potato</li>  
  <li>Radish</li>  
</ul>
```

Ordered Lists

If you are required to put your items in a numbered list instead of bulleted then HTML ordered list will be used. This list is created by using `` tag. The numbering starts at one and is incremented by one for each successive ordered list element tagged with ``.

```
<!DOCTYPE html>  
  
<html>  
  <head>  
    <title>HTML Ordered List</title>  
  </head>  
  <body>
```

```
<ol>  
<li>Beetroot</li>  
<li>Ginger</li>  
<li>Potato</li>  
<li>Radish</li>  
</ol>  
</body>  
</html>
```

type Attribute

You can use type attribute for `` tag to specify the type of numbering you like. By default it is a number. Following are the possible options:

`<ol type="1">` - Default-Case Numerals.

`<ol type="I">` - Upper-Case Numerals.

`<ol type="i">` - Lower-Case Numerals.

`<ol type="a">` - Lower-Case Letters.

`<ol type="A">` - Upper-Case Letters.

start Attribute

You can use start attribute for tag to specify the starting point of numbering you need. Following are the possible options:

<ol type="1" start="4"> - Numerals starts with 4.

<ol type="I" start="4"> - Numerals starts with IV.

<ol type="i" start="4"> - Numerals starts with iv.

<ol type="a" start="4"> - Letters starts with d.

<ol type="A" start="4"> - Letters starts with D.

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.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>  
<title>HTML Tables</title>  
</head>  
<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>
```

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 otherwise you can use <th> element in any row.

Div Tag

The HTML <div> tag is used to group the large section of HTML elements together.

```
<!DOCTYPE html>

<html>
<head>
<title>Align Attribute Example</title>
</head>
<body bgcolor="orange">
<div style="color:blue;background-color:yellow;border:3px solid green;">
    <h3>This is a heading</h3>
    <p>This is a paragraph.</p>
</div>
<br>
```

```
<div style="color:red;background-color:pink;">  
  <h3>This is a heading</h3>  
  <p>This is a paragraph.</p>  
</div>  
</body>  
</html>
```

Forms

HTML Forms are required when you want to collect some data from the site visitor. For example during user registration you would like to collect information such as name, email address, credit card, etc.

The HTML `<form>` 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>
```

HTML Form Controls

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.

Button Controls

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.
--------	--