

HTML

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for Web pages.
- With HTML you can create your own Website.
- HTML is easy to learn
- The `<!DOCTYPE html>` declaration defines that this document
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the HTML page
- The `<title>` element specifies a title for the HTML page
- The `<body>` element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

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>`

```
<!DOCTYPE html>
<html>
<body>
<h1> My First Heading</h1>
<p>My First Paragraph</p>
```

```
</body>
```

```
</html>
```

The <!DOCTYPE> Declaration

The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.

It must only appear once, at the top of the page (before any HTML tags).

The <!DOCTYPE> declaration is not case sensitive.

The <!DOCTYPE> declaration for HTML5 is:

```
<!DOCTYPE html>
```

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 headin
```

```
g 1 </h1>
```

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

```
-----
```

```
<h6>his is heading 6 </h6>
```

HTML Tags

HTML Paragraphs

HTML paragraphs are defined with the <p> tag:

Example

```
<p>This is a Paragraph</p>
```

```
<p>This is a another Paragraph</p>
```

HTML Horizontal Rules

The <hr> tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The <hr> element is used to separate content (or define a change) in an HTML page:

Example

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

```
<p>Text</p>
```

```
<hr>
```

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

```
<p>Text 1</p>
```

```
<hr>
```

HTML Line Breaks

The HTML
 element defines a line break.

Use
 if you want a line break (a new line) without starting a new paragraph:

Example

`<p>This is
a paragraph
with line breaks.</p>`

The HTML Style Attribute

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;">`

Background Color

Example

Set the background color for a page to powderblue:

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

`<h1>Heading</h1>`

`<p>Paragraph</p>`

Text Color

Example

`<h1 style="color:blue;">Heading</h1>`

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

Fonts

Example

`<h1 style="font-family:verdana;">Heading</h1>`

`<p style="font-family:courier;">Paragraph</p>`

Text Size

Example

```
<h1 style="font-size:300%;">Heading</h1>
```

```
<p style="font-size:160%;">Paragraph</p>
```

Text Alignment

Example

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

```
<p style="text-align:center;">Centered Paragraph</p>
```

HTML Formatting Elements

Formatting elements were designed to display special types of text:

- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

HTML Comment Tags

You can add comments to your HTML source by using the following syntax:

```
<!-- Write your comments here -->
```

HTML Images Syntax

The HTML `` tag is used to embed an image in a web page.

Images are not technically inserted into a web page; images are linked to web pages. The `` tag creates a holding space for the referenced image.

The `` tag is empty, it contains attributes only, and does not have a closing tag.

The `` tag has two required attributes:

- `src` - Specifies the path to the image
- `alt` - Specifies an alternate text for the image

Syntax

```

```

Image Size - Width and Height

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

Example

```

```

HTML Links

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

Example

```
<a href="https://www.w3schools.com">This is a link</a>
```

The href Attribute

The `<a>` tag defines a hyperlink. The `href` attribute specifies the URL of the page the link goes to:

Example

```
<a href="https://www.w3schools.com">Visit W3Schools</a>
```

HTML Lists

HTML lists allow web developers to group a set of related items in lists.

Unordered HTML List

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) by default:

Example

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

Value	Description
-------	-------------

disc	Sets the list item marker to a bullet (default)
------	---

circle	Sets the list item marker to a circle
--------	---------------------------------------

square	Sets the list item marker to a square
--------	---------------------------------------

none	The list items will not be marked
------	-----------------------------------

Example - Disc

```
<ul style="list-style-type:disc;">
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ul>
```

Ordered HTML List

An ordered list starts with the `` tag. Each list item starts with the `` tag.

The list items will be marked with numbers by default:

Example

```
<ol>
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ol>
```

The `type` attribute of the `` tag, defines the type of the list item marker:

Type	Description
------	-------------

type="1" The list items will be numbered with numbers (default)

type="A" The list items will be numbered with uppercase letters

type="a" The list items will be numbered with lowercase letters

type="I" The list items will be numbered with uppercase roman numbers

type="i" The list items will be numbered with lowercase roman numbers

Numbers:

```
<ol type="1">
```

```
    <li>Coffee</li>
```

```
    <li>Tea</li>
```

```
    <li>Milk</li>
```

```
</ol>
```

HTML Description Lists

HTML also supports description lists.

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

The `<dl>` tag defines the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describes each term:

Example

```
<dl>
```

```
    <dt>Coffee</dt>
```

```
        <dd>Black Hot drink</dd>
```

```
    <dt>Milk</dt>
```

```
<dd>White Cold Drink</dd>
```

```
</dl>
```

Define an HTML Table

The `<table>` tag defines an HTML table.

Each table row is defined with a `<tr>` tag. Each table header is defined with a `<th>` tag. Each table data/cell is defined with a `<td>` tag.

By default, the text in `<th>` elements are bold and centered.

By default, the text in `<td>` elements are regular and left-aligned.

Example

A simple HTML table:

```
<table style="width:100%">
```

```
<tr>
```

```
    <th>First Name</th>
```

```
    <th>Last Name</th>
```

```
    <th>Age</th>
```

```
</tr>
```

```
<tr>
```

```
    <th>Jill</th>
```

```
    <th>Smith</th>
```

```
    <th>50</th>
```

```
</tr>
```

```
<tr>
```

```
<th>Eve</th>

<th>Jackson</th>

<th>98</th>

</tr>

</table>
```

HTML Table - Add a Caption

To add a caption to a table, use the `<caption>` tag:

Example

```
<table style="width:100%">

<caption>Monthly Savings</caption>

<tr>

<th>Month</th>

<th>Savings</th>

</tr>

<tr>

<td>January</td>

<td>$100</td>

</tr>

<tr>

<td>February</td>

<td>$50</td>

</tr>

</table>
```

HTML Table - Cell that Span Many Columns

To make a cell span more than one column, use the **colspan** attribute:

Example

```
<table style="width:100%">

  <tr>

    <th>Name</th>

    <th colspan="2">Telephone</th>

  </tr>

  <tr>

    <td>Bill Gates</td>

    <td>9888878787</td>

    <td>9888878787</td>

  </tr>

</table>
```

To make a cell span more than one row, use the **rowspan** attribute:

Example

```
<table style="width:100%">

  <tr>

    <th>Name:</th>

    <td>BillGates</td>

  </tr>

  <tr>
```

```
<th rowspan="2">Telephone:</th>

<td>578787</td>

</tr>

<tr>

<td>567687</td>

</tr>

</table>
```

HTML form

The HTML `<form>` element is used to create an HTML form for user input:

```
<form>

  formelements

</form>
```

The `<form>` element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

Type	Description
<code><input type="text"></code>	Displays a single-line text input field
<code><input type="radio"></code>	Displays a radio button (for selecting one of many choices)
<code><input type="checkbox"></code>	Displays a checkbox (for selecting zero or more of many choices)
<code><input type="submit"></code>	Displays a submit button (for submitting the form)
<code><input type="button"></code>	Displays a clickable button

Text Fields

The `<input type="text">` defines a single-line input field for text input.

Example

A form with input fields for text:

```
<form>

    First Name:<br>

    <input type="text" name="fname"><br>

    Last Name:<br>

    <input type="text" name="lname"><br>

</form>
```

Radio Buttons

The `<input type="radio">` defines a radio button.

Radio buttons let a user select ONE of a limited number of choices.

Example

A form with radio buttons:

```
<form>

    <input type="radio" name="gender">Male

    <input type="radio" name="gender">Female

</form>
```

Checkboxes

The `<input type="checkbox">` defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Example

A form with checkboxes:

```
<form>

    <input type="checkbox" name="vehicle1" value="Bike">

    <input type="checkbox" name="vehicle2" value="Car">

    <input type="checkbox" name="vehicle3" value="Boat">

</form>
```

The Submit Button

The `<input type="submit">` defines a button for submitting the form data to a form-handler.

The form-handler is typically a file on the server with a script for processing input data.

The form-handler is specified in the form's **action** attribute.

Example

A form with a submit button:

```
<form>

    First Name:<br>

    <input type="text" name="fname"><br>

    Last Name:<br>
```

```
<input type="text" name="lname"><br>
<input type="submit" value="Submit">

</form>
```

HTML Video

To show a video in HTML, use the `<video>` element:

Example

```
<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
</video>
```

The HTML `<audio>` Element

To play an audio file in HTML, use the `<audio>` element:

Example

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

HTML Iframes

An HTML iframe is used to display a web page within a web page.

The HTML `<iframe>` tag

Syntax

```
<iframe src="url" title="description">
```

Iframe - Set Height and Width

Use the `height` and `width` attributes to specify the size of the iframe.

The height and width are specified in pixels by default:

Example

```
<iframe src="demo_iframe.htm" height="200" width="300" title="Iframe  
Example"></iframe>
```

Iframe - Remove the Border

By default, an iframe has a border around it.

To remove the border, add the `style` attribute and use the CSS `border` property:

Example

```
<iframe src="demo_iframe.htm" style="border:none;" title="Iframe Example"></iframe>
```