



HTML GUIDE BOOK

Web Development Course of Eckovation





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What is HTML?

HTML is the standard markup language for creating Web pages.

- HTML stands for Hyper Text Markup Language
- HTML describes the structure of Web pages using markup
- HTML elements are the building blocks of HTML pages
- HTML elements are represented by tags
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on
- Browsers do not display the HTML tags, but use them to render the content of the page

A Simple HTML Document

Example

```
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>My First Heading</h1>
<p>My first paragraph.</p>

</body>
</html>
```

- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph



HTML Tags

HTML tags are element names surrounded by angle brackets:

```
<tagname>content goes here...</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 **forward slash** inserted before the tag name

Tip: The start tag is also called the **opening tag**, and the end tag the **closing tag**.

Web Browsers

The purpose of a web browser (Chrome, IE, Firefox, Safari) is to read HTML documents and display them. The browser does not display the HTML tags, but uses them to determine how to display the document.



HTML Syntax Reference Sheet

Simple Text Formatting

These tags have not changed since HTML 4

Description	Example Syntax	Result
Bolded Text	<code>Bolded Text</code>	Bolded Text
Italicized Text	<code><i>Italicized Text</i></code>	<i>Italicized Text</i>
Deleted Text	<code>Deleted Text</code>	Deleted Text
Big Text	<code><big>Big Text</big></code>	Big Text
Small Text	<code><small>Small Text</small></code>	Small Text
Subscript	<code>H<sub>2</sub>O</code>	H ₂ O
Superscript	<code>3 x 10<sup>8</sup></code>	3 x 10 ⁸
HTML Ignore	<code><xmp>Text&#60;/xmp></code>	<code>Text</code>
Hyperlink	<code>Google</code>	Google
Email Hyperlink	<code>mail@mail.com</code>	mail@mail.com



CSS Text Formatting

These features *must* be used as arguments of the "style" argument of a "span" or "div" tag surrounding the text.

Attributes may be combined under style="" of the SPAN tag and separated by a semicolon as such:

```
<span style="attribute:value;attribute2:value">Text</span>
```

Description	Attribute Syntax	Result
Underlined Text	text-decoration:underline	<u>Underlined Text</u>
Font Color	color:red	Red Text
Aligned Text	text-align:left/right/center	Text will be aligned to the left, right, or center
Change the Font	font-family:fontname	Text will be in style "fontname"
Font Size	font-size:200%	2x Size Text



Self-closing Tags

Tags that, by definition, contain nothing between the opening and closing tags *must self-close* with a space and forward slash:

Images	<code></code>
Carriage Return	<code>
</code>
Horizontal Breaking Line	<code><hr /></code>

Useful Characters

This is a small list of characters that may be useful in the E-logs.

Note:All characters are of the format: (ampersand)(charname)(semicolon).

Description	Syntax	Result
Function Symbol	<code>&fnof;</code>	<i>f</i>
Greek Capital Letter	<code>&(Lettername);</code>	<code>&Delta;</code> <i>yields</i> Δ
Greek Lowercase Letter	<code>&(lettername);</code>	<code>&delta;</code> <i>yields</i> δ
Arrows	<code>&uarr;</code> , <code>&darr;</code> , <code>&larr;</code> , <code>&rarr;</code> , <code>&crarr;</code> , <code>&harr;</code>	↑, ↓, ←, →, ↻, ↔
For All Symbol	<code>&forall;</code>	∀
Partial Differential	<code>&part;</code>	∂
"There Exists" Symbol	<code>&exist;</code>	∃
Empty/Null Set	<code>&empty;</code>	∅
Nable Symbol	<code>&nabla;</code>	∇
"Element of" Symbol	<code>&isin;</code>	∈



"Not an Element of" Symbol	∉	∉
"Contains as Member" Symbol	∋	∋
Radical Sign	√	√
"Proportional To" Symbol	∝	∝
Infinity Symbol	∞	∞
Angle Symbol	∠	∠
Integral Symbol	∫	∫
"Therefore" Symbol	∴	∴
"Similar to" Symbol	∼	~
"Almost Equal to" Symbol	≈	≈
"Not Equal to" Symbol	≠	≠
"Equivalent to" Symbol	≡	≡
"Less-than or Equal to" Symbol	≤	≤
"Greater-than or Equal to" Symbol	≥	≥
"Vector Product" Symbol	⊗	⊗
"Perpendicular to" Symbol	⊥	⊥
"Much Greater Than" Symbol	»	»
"Much Less Than" Symbol	«	«
Degree Symbol	°	°
"Plus/Minus Error" Symbol	±	±
"Letter O with Slash" Symbol	Ø	Ø
No break space	 	



How to Create Lists

Unordered list:

uses `` and `` tags, and each list item must be inside `` and ``

Example:

```
<ul>
  <li>List item</li>
  <li>Second Item</li>
  <li>Third Item</li>
</ul>
```

Yields:

- List item
- Second Item
- Third Item

Ordered list:

uses `` and `` tags, and each list item must be inside `` and ``

Example:

1. List item
2. Second Item
3. Third Item



How to Create Tables

Simple data tables consist of three parts:

`<table>`, `<tr>` and `<td>`

Where all elements are contained within the **<table>** tags, **<tr>** tags surround a row, and **<td>** tags surround a table cell's content. As an example, the code:

```
<table border="1">
  <tr>
    <td>Row 1, Cell 1</td>
    <td>Row 1, Cell 2</td>
  </tr>
  <tr>
    <td>Row 2, Cell 1</td>
    <td>Row 2, Cell 2</td>
  </tr>
</table>
```

Yields the table with a border (notice above the use of the `border="1"` attribute to create a border):

Row 1, Cell 1	Row 1, Cell 2
Row 2, Cell 1	Row 2, Cell 2



HTML Images

Example

```
<html>
<body>

<h2>Spectacular Mountain</h2>


</body>
</html>
```

HTML Images Syntax

In HTML, images are defined with the **** tag.

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

The **src** attribute specifies the URL (web address) of the image:

```

```

The alt Attribute

The **alt** attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the **src** attribute, or if the user uses a screen reader).

If a browser cannot find an image, it will display the value of the **alt** attribute:

Example

```

```



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 the **width** and **height** attributes. Here, the values are specified in pixels by default:

Example

```

```

Width and Height, or Style?

Both the width, height, and style attributes are valid in HTML5. However, we suggest using the style attribute. It prevents internal or external styles sheets from changing the original size of images: **Example**

```
<html>
<head>
<style>
img {
  width:100%;
}
</style>
</head>
<body>
```

```


```

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

Playing Videos in HTML

Before HTML5, a video could only be played in a browser with a plug-in (like flash).

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

The HTML <video> Element

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">  
Your browser does not support the video tag.  
</video>
```

How it Works

The **controls** attribute adds video controls, like play, pause, and volume.

It is a good idea to always include **width** and **height** attributes. If height and width are not set, the page might flicker while the video loads.

The **<source>** element allows you to specify alternative video files which the browser may choose from. The browser will use the first recognized format.

The text between the `<video>` and `</video>` tags will only be displayed in browsers that do not support the `<video>` element.

HTML `<video>` Autoplay

To start a video automatically use the **autoplay** attribute:

Example

```
<video width="320" height="240" autoplay>  
  <source src="movie.mp4" type="video/mp4">  
  <source src="movie.ogv" type="video/ogg">  
Your browser does not support the video tag.  
</video>
```