HTML stands for **H**yper**t**ext **M**arkup **L**anguage, and it is the most widely used language to write Web Pages.

* **Hypertext** refers to the way in which Web pages (HTML documents) are linked together. Thus, the link available on a webpage is called Hypertext.
* As its name suggests, 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.

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers.

Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

HTML Tags

|  |  |
| --- | --- |
| **Sr.No** | **Tag & Description** |
| 1 | **<!DOCTYPE...>**  This tag defines the document type and HTML version. |
| 2 | **<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. |
| 3 | **<head>**  This tag represents the document's header which can keep other HTML tags like <title>, <link> etc. |
| 4 | **<title>**  The <title> tag is used inside the <head> tag to mention the document title. |
| 5 | **<body>**  This tag represents the document's body which keeps other HTML tags like <h1>, <div>, <p> etc. |
| 6 | **<h1>**  This tag represents the heading. |
| 7 | **<p>**  This tag represents a paragraph. |

## Heading Tags

You can use different sizes for your headings.

HTML also has six levels of headings, which use the elements **<h1>, <h2>, <h3>, <h4>, <h5>,** and **<h6>**.

## Paragraph Tag

An opening **<p>** and a closing **</p>**. To make different paragraphs.

## Line Break Tag

## <br /> element, anything following it starts from the next line. Empty element, where you do not need opening and closing tags.

## The <br /> tag has a space between the characters br and the forward slash. If you omit this space, older browsers will have trouble rendering the line break, *while if you miss the forward slash character and just use <br> it is not valid in XHTML*.

## Centering Content

## You can use <center> tag to put any content in the center of the page or any table cell.

## Horizontal Lines

## Horizontal lines are used to visually break-up sections of a document i.e. <hr> tag.

## <hr /> tag is an example of the empty element.

* Same description as <br /> tag.

## Preserve Formatting

Sometimes, you want your text to follow the exact format of how it is written in the HTML document. In these cases, you can use the preformatted tag **<pre>**.

## Nonbreaking Spaces

## Suppose you want to use the phrase "12 Angry Men." Here, you would not want a browser to split the "12, Angry" and "Men" across two lines

* Where you do not want the client browser to break text, you should use a nonbreaking space entity **&nbsp;** instead of a normal space.

Example:

<p>An example of this technique appears in the movie "12&nbsp;Angry&nbsp;Men."</p>

Result:

An example of this technique appears in the movie "12 Angry Men."

# **HTML - Elements**

An **HTML element** is defined by a starting tag. If the element contains other content, it ends with a closing tag.

|  |
| --- |
|  |
| **Start Tag** | **Content** | **End Tag** |
| <p> | This is paragraph content. | </p> |
| <h1> | This is heading content. | </h1> |
| <div> | This is division content. | </div> |
| <br /> |  |  |

There are some HTML elements which don't need to be closed, such as **<img.../>**, **<hr />** and **<br />** elements. These are known as **void elements**.

## HTML Tag vs. Element

* An HTML element is defined by a *starting tag*. If the element contains other content, it ends with a *closing tag*.
* For example, **<p>** is starting tag of a paragraph and **</p>** is closing tag of the same paragraph but **<p>This is paragraph</p>** is a paragraph element.

## Nested HTML Elements

## One HTML element inside another HTML element.

# **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 **<p>** 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**.

## Attribute names and attribute values are case-insensitive. However, the World Wide Web Consortium (W3C) recommends lowercase attributes/attribute values in their HTML 4 recommendation.

**Example:**

<p align = "left">This is left aligned</p>

<p align = "center">This is center aligned</p>

<p align = "right">This is right aligned</p>

**Result:**

This is left aligned

This is center aligned

This is right aligned

## Core Attributes

Used on the majority of HTML elements:

* **Id**

Id attribute as a unique identifier.

* **Title**

The title attribute gives a suggested title for the element.

Example:

<h3 title = "Hello HTML!">Titled Heading Tag Example</h3>

Result:

* Titled Heading Tag Example

Now try to bring your cursor over "Titled Heading Tag Example" and you will see that whatever title you used in your code is coming out as a tooltip of the cursor i.e. Hello HTML!

* **Class**

The class attribute is used to associate an element with a style sheet.

For example −

class = "className1 className2 className3"

* **Style**

The style attribute allows you to specify Cascading Style Sheet (CSS) rules within the element.

Example:

<p style = "font-family:arial; color:#FF0000;">Some text...</p>

Result:

Some text...

## Internationalization Attributes

There are three internationalization attributes, which are available for most (although not all) XHTML elements.

* dir
* lang
* xml:lang

### **The dir Attribute**

The **dir** attribute allows you to indicate to the browser about the direction in which the text should flow. The dir attribute can take one of two values, as you can see in the table that follows −

|  |  |
| --- | --- |
| **Value** | **Meaning** |
| ltr | Left to right (the default value) |
| rtl | Right to left (for languages such as Hebrew or Arabic that are read right to left) |

Example:

<!DOCTYPE html>

<html dir = "rtl">

<head>

<title>Display Directions</title>

</head>

<body>

This is how IE 5 renders right-to-left directed text.

</body>

</html>

Result –

.This is how IE 5 renders right-to-left directed text

When *dir* attribute is used within the <html> tag, it determines how text will be presented within the entire document. When used within another tag, it controls the text's direction for just the content of that tag.

### **The lang Attribute**

The **lang** attribute allows you to indicate the main language used in a document, but this attribute was kept in HTML only for backwards compatibility with earlier versions of HTML. This attribute has been replaced by the **xml:lang** attribute in new XHTML documents.

<html lang = "en">

**en** means that the page is using English Language.

## The xml:lang Attribute

The *xml:lang* attribute is the XHTML replacement for the *lang* attribute.

### **Generic Attributes**

Here's a table of some other attributes that are readily usable with many of the HTML tags.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Options** | **Function** |
| align | right, left, center | Horizontally aligns tags |
| valign | top, middle, bottom | Vertically aligns tags within an HTML element. |
| bgcolor | numeric, hexidecimal, RGB values | Places a background color behind an element |
| background | URL | Places a background image behind an element |
| id | User Defined | Names an element for use with Cascading Style Sheets. |
| class | User Defined | Classifies an element for use with Cascading Style Sheets. |
| width | Numeric Value | Specifies the width of tables, images, or table cells. |
| height | Numeric Value | Specifies the height of tables, images, or table cells. |
| title | User Defined | "Pop-up" title of the elements. |

# **HTML - Formatting**

## Bold Text

Anything that appears within **<b>...</b>** element. Eg: **bold**

## Italic Text

Anything that appears within **<i>...</i>** element. Eg: *italicized*

## Underlined Text

Anything that appears within **<u>...</u>** element. Eg: underlined

## Strike Text

Anything that appears within **<strike>...</strike>** element.

Eg: ~~strikethrough~~

## Monospaced Font

The content of a **<tt>...</tt>** element is written in monospaced font. Most of the fonts are known as variable-width fonts because different letters are of different widths (for example, the letter 'm' is wider than the letter 'i'). In a monospaced font, however, each letter has the same width.

Eg: monospaced

## Superscript Text

The content of a **<sup>...</sup>** element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.

Eg: Uses a superscript typeface.

## Subscript Text

The content of a **<sub>...</sub>** element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character's height beneath the other characters.

Eg: Uses a subscript typeface.

## Inserted Text

Anything that appears within **<ins>...</ins>** element

Eg: <p>I want to drink <del>cola</del> <ins>wine</ins></p>

Result :

I want to drink  wine

## Deleted Text

Anything that appears within **<del>...</del>** element.

Eg: <p>I want to drink <del>cola</del> <ins>wine</ins></p>

Result :

I want to drink  wine

## Larger Text

The content of the **<big>...</big>** element is displayed one font size larger than the rest of the text surrounding.

<p>The following word uses a <big>big</big> typeface.</p>

Result:

The following word uses a big typeface.

## Smaller Text

The content of the **<small>...</small>** element is displayed one font size smaller than the rest of the text surrounding.

<p>The following word uses a <small>small</small> typeface.</p>

Result:

The following word uses a small typeface.

## Grouping Content

* The **<div>** and **<span>** elements allow you to group together several elements to create sections or subsections of a page.
* The <span> element, on the other hand, can be used to group inline elements only. So, if you have a part of a sentence or paragraph which you want to group together, you could use the <span> element as follows.