



HTML

HTML

- HTML is used to create electronic documents (called pages) that are displayed on the [World Wide Web](#)
- A Web page (or HTML document) is a plain text file that has been encoded using **Hypertext Markup Language** (HTML).

Hypertext :Text that you click to jump from document to document . This is a reference to the ability of Web pages to link to one another .

- **Markup** :Tags that apply layout and formatting conventions to plain text . Literally, the plain text is “marked up” with the tags and computer can manipulate the text.
- **Language** :A reference to the fact that HTML is considered as a programming language .

HTML, XML, XHTML use markup tags < and > .

HTML Versions

Version	Year
Tim Berners-Lee invented www	1989
Tim Berners-Lee invented HTML	1991
Dave Raggett drafted HTML+	1993
HTML Working Group defined HTML 2.0	1995
W3C Recommended HTML 3.2	1997
W3C Recommended HTML 4.01	1999
W3C Recommended XHTML 1.0	2000
HTML5 WHATWG First Public Draft	2008
HTML5 WHATWG Living Standard	2012
HTML5 W3C Final Recommendation	2014
W3C Candidate Recommendation: HTML 5.1	2016

HTML Editors

- HTML can be edited by using a professional HTML editors like:
 - Notepad
 - Notepad++
 - EditPlus
 - Adobe Dreamweaver
 - Microsoft Expression Web
 - CoffeeCup HTML Editor
 - Komodo IDE
 - Expression
 - Php Designer
 - BestAdress
 - CSE HTML validator
 - TopStyle
 - Ultra edit
- For learning HTML we can use a text editor like Notepad (PC)

HTML Document

- `<!DOCTYPE>` is an instruction to the web browser about what version of HTML, the page is written in.
- The `<!DOCTYPE>` declaration must be the very first line in your HTML document, before the `<html>` tag.

```
<!DOCTYPE html>
<html>
<head>
<title>Title of the document</title>
</head>
<body>
The content of the document.....
</body>
</html>
```

Details

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- 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

HTML Tags

- HTML tags are element names surrounded by angle brackets
- **HTML Link Tags**
`<a>` and `<base>`
- **HTML Image and Object Tags**
``, `<area>`, `<map>`, `<param>` and `<object>`
- **HTML List Tags**
``, ``, ``, `<dl>`, `<dt>` and `<dd>`
- **HTML Table Tags**
table, tr, td, th, tbody, thead, tfoot, col, colgroup and caption
- **HTML Form Tags**
form, input, textarea, select, option, optgroup, button, label, fieldset and legend
- **HTML Scripting Tags**
script and noscript

HTML Meta tag elements

Tag	Description
<u><head></u>	Defines information about the document
<u><title></u>	Defines the title of a document
<u><base></u>	Defines a default address or a default target for all links on a page
<u><meta></u>	Defines metadata about an HTML document
<u><script></u>	Defines a client-side script
<u><style></u>	Defines style information for a document
<u><link></u>	Defines the relationship between a document and an external resource

HTML Characters Entities

Result	Description	Entity Name
	non-breaking space	
<	less than	<
>	greater than	>
&	ampersand	&
¢	cent	¢
£	pound	£
¥	yen	¥
€	euro	€
©	copyright	©
®	registered trademark	®

HTML Graphics and Multimedia

- `<canvas>` - an element to give you a drawing space in JavaScript on your Web pages. It can let you add images or graphs to tool tips or just create dynamic graphs on your Web pages, built on the fly.
- The `<video>` and `<audio>` elements for media playback support for local storage
- New form controls, like calendar, date, time, email, url, search

HTML Deprecated Tags

- basefont
- big
- center
- font
- s
- strike
- tt
- u
- frame
- frameset

noframes

acronym gets replaced by abbr.

applet gets replaced by object.

dir gets replaced by ul.

HTML Deprecated Tags

- align
- link, vlink, alink, and text attributes on the body tag
- bgcolor
- height and width
- scrolling on the iframe element
- valign
- hspace and vspace
- cellpadding, cellspacing, and border on table
- target ex: ``
- longdesc in img and iframe elements
- profile in head tag

Styling HTML with CSS

- **CSS** stands for **C**ascading **S**tyle **S**heets.
- CSS describes **how HTML elements are to be displayed on screen, paper, or in other media.**
- CSS **saves a lot of work.** It can control the layout of multiple web pages all at once.
- CSS can be added to HTML elements in 3 ways:
 - **Inline** - by using the style attribute in HTML elements
 - **Internal** - by using a <style> element in the <head> section
 - **External** - by using an external CSS file
- The most common way to add CSS, is to keep the styles in separate CSS files.

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:

- `<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>`

- Hyperlink:

- ` Google website `

- Image

- ``

HTML attributes

Attribute	Description
alt	Specifies an alternative text for an image, when the image cannot be displayed
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)

HTML attributes

Tag	Description
<u><p></u>	Defines a paragraph
<u>
</u>	Inserts a single line break
<u><pre></u>	Defines pre-formatted text

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;">
```


HTML Formatting Elements

- | | |
|-------------------------|---|
| <code></code> | define an unordered list |
| <code></code> | defines an ordered list |
| <code></code> | defines a list item |
| <code><dl></code> | defines a description list |
| <code><dt></code> | define the description term |
| <code><dd></code> | describe the term in a description list |

Example:

```
<dl>
  <dt>Coffee</dt>
  <dd>- black coffee</dd>
  <dd>- filter coffee</dd>
  <dt>Tea</dt>
  <dd>- Masala Tea</dd>
</dl>
```

Example:

```
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
      <li>Black tea</li>
      <li>Green tea</li>
    </ul>
  </li>
</ul>
```

HTML Formatting Elements

- HTML also defines special **elements** for defining text with a special **meaning**.
- HTML uses elements like `` and `<i>` for formatting output, like **bold** or *italic* text.
- Formatting elements were designed to display special types of text:
 - ✓ `` - Bold text
 - ✓ `` - Important text
 - ✓ `<i>` - Italic text
 - ✓ `` - Emphasized text
 - ✓ `<mark>` - Marked text
 - ✓ `<small>` - Small text
 - ✓ `` - Deleted text
 - ✓ `<ins>` - Inserted text
 - `<sub>`script-text
 - `<sup>`Superscript text

HTML Elements

HTML Quotation and Citation Elements

Tag	Description
<code><abbr></code>	Defines an abbreviation or acronym
<code><address></code>	Defines contact information for the author/owner of a document
<code><bdo></code>	Defines the text direction
<code><blockquote></code>	Defines a section that is quoted from another source
<code><cite></code>	Defines the title of a work
<code><q></code>	Defines a short inline quotation

`<address>`

Written by John Doe.`
`

Visit us at:`
`

Example.com`
`

Box 564, Disneyland`
`

USA

`</address>`

`<blockquote`

`cite="http://www.worldwildlife.org/who/index.html">`

For 50 years, WWF has been protecting
the future of nature.`</blockquote>`

HTML Elements

HTML Computer Code Elements

Tag	Description
<u><code></u>	Defines programming code
<u><kbd></u>	Defines keyboard input
<u><samp></u>	Defines computer output
<u><var></u>	Defines a variable
<u><pre></u>	Defines preformatted text

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

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

HTML Elements

HTML Links - The target Attribute

The **target** attribute specifies where to open the linked document.

The target attribute can have one of the following values:

- ✓ `_blank` - Opens the linked document in a new window or tab
- ✓ `_self` - Opens the linked document in the same window/tab as it was clicked (this is default)
- ✓ `_parent` - Opens the linked document in the parent frame
- ✓ `_top` - Opens the linked document in the full body of the window
- ✓ `frameName` - Opens the linked document in a named frame
- Ex : `Visit Google!`

- **HTML Links - Image as Link**

- `

`

HTML Elements

HTML Links - Create a Bookmark

- a. HTML bookmarks are used to allow readers to jump to specific parts of a Web page.
- b. Bookmarks can be useful if your webpage is very long.
- c. To make a bookmark, you must first create the bookmark, and then add a link to it.
- d. When the link is clicked, the page will scroll to the location with the bookmark.
 - create a bookmark with the id attribute:
 - `<h2 id="x">Useful Tips Section</h2>`
 - add a link to the bookmark ("Useful Tips Section"), from within the same page:
 - `Visit the Useful Tips Section`
 - add a link to the bookmark ("Useful Tips Section"), from another page:
 - `Visit the Useful Tips Section`

HTML Table Elements

- An HTML table is defined with the **<table>** tag.
- Each table row is defined with the **<tr>** tag. A table header is defined with the **<th>** tag. By default, table headings are bold and centered. A table data/cell is defined with the **<td>** tag.

```
<table style="width:100%">
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>George</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>94</td>
  </tr>
</table>
```

HTML Table Elements

- **HTML Table - Cells that Span Many Columns**
- To make a cell span more than one column, use the **colspan** attribute:
- ```
<table style="width:100%">
 <tr>
 <th>Name</th>
 <th colspan="2">Telephone</th>
 </tr>
 <tr>
 <td>Bill Gates</td>
 <td>55577854</td>
 <td>55577855</td>
 </tr>
</table>
```



# HTML Table Elements

- **HTML Table - Cells that Span Many Rows**
- To make a cell span more than one row, use the **rowspan** attribute:
- ```
<table style="width:100%">  
  <tr>  
    <th>Name:</th>  
    <td>Bill Gates</td>  
  </tr>  
  <tr>  
    <th rowspan="2">Telephone:</th>  
    <td>55577854</td>  
  </tr>  
  <tr>  
    <td>55577855</td>  
  </tr>  
</table>
```

HTML Elements

Using The class Attribute

- The HTML class attribute makes it possible to define equal styles for elements with the same class name.

Ex: <style>

```
div.festival {  
    background-color: brown;  
    color: blue;  
    margin: 20px 0 20px 0;  
    padding: 20px;  
}
```

</style>

</head>

<body>

<div class="festival">

<h2>Diwali</h2>

<p>Diwali or Deepavali is the Hindu festival of lights celebrated every year.</p>

</div>

HTML Elements

HTML iframe

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

```
<iframe src="URL"></iframe>
```

```
<iframe src="myiframe.htm" height="200" width="300"></iframe>
```

- An iframe can be used as the target frame for a link.
- The **target** attribute of the link must refer to the **name** attribute of the iframe:

```
<iframe src="myframe.htm" name="iframe_a"></iframe>
```

```
<p><a href="http://www.cdac.in" target="iframe_a">cdac.in</a></p>
```

HTML Formatting Elements

- ◆ `` → Is used to make the text boldface.
- ◆ `<I>` → Is used to italicize the text.
- ◆ `<U>` → Is used to underline the text.
- ◆ `<Center>` → Is used to center the text between left and right margins.
- ◆ `` → Is used to change the style of the text by setting the attribute values such as size and color.
- ◆ `<LIST>` → Is used to create ordered, un-ordered, or definition list in the Web page.
- ◆ `<Header>` → Is similar to the header used in Microsoft Word.
- ◆ `<Footer>` → Is similar to the footer used in Microsoft Word.
- ◆ `
` → Is used to insert a single line break.
- ◆ `<HR>` → Is used to add a horizontal rule in the Web page.
- ◆ `<ARTICLE>` → Is used to represents an independent self-contained composition.
- ◆ `<ASIDE>` → Is used to display information related to the main article in the side bar.
- ◆ `<DETAILS>` → Is used to provide additional detail, which can be hide.
- ◆ `<SUMMARY>` → Is used along with the `<DETAILS>` tag to display a visible heading.

