About HTML(Hyper Text Markup Language)--

1.HTML stands for Hyper Text Markup Language

2.HTML describes the structure of Web pages using markup.

3.Browsers do not display the HTML tags, but use them to render the content of the page

Example-

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>

</html>

1.The <!DOCTYPE html> declaration defines this document to be HTML5

2.The <html> element is the root element of an HTML page

3.The <head> element contains meta information about the document

4.The <title> element specifies a title for the document

5.The <body> element contains the visible page content

6.The <h1> element defines a large heading

7.The <p> element defines a paragraph

HTML BASICS-

1. 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>**.

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

<h1> defines the most important heading. <h6> defines the least important heading:

Size of Heading tags :

h1 { font-size: 24px;}

h2 { font-size: 22px;}

h3 { font-size: 18px;}

h4 { font-size: 16px;}

h5 { font-size: 12px;}

h6 { font-size: 10px;}

1. HTML paragraphs are defined with the **<p>** tag:
2. HTML links are defined with the **<a>** tag:
3. HTML images are defined with the **<img>** tag.

<img src="w3schools.jpg" alt="W3Schools.com" width="104" height="142”>

Empty HTML Elements

HTML elements with no content are called empty elements.

<br> is an empty element without a closing tag (the <br> tag defines a line break).

Empty elements can be "closed" in the opening tag like this: <br />.

## HTML Attributes

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

## The lang Attribute

The language of the document can be declared in the **<html>** tag.

The language is declared with the **lang** attribute.

Ex- <html lang="en-US">

## The title Attribute

## <p title="I'm a tooltip">This is a paragraph.</p>

Here, a **title** attribute is added to the **<p>** element. The value of the title attribute will be displayed as a tooltip when you mouse over the paragraph:

## The href Attribute

HTML links are defined with the **<a>** tag. The link address is specified in the **href** attribute.

## Size Attributes

HTML images are defined with the **<img>** tag.

The filename of the source (**src**), and the size of the image (**width** and **height**) are all provided as **attributes**.

## The alt Attribute

The **alt** attribute specifies an alternative text to be used, when an image cannot be displayed.

## The HTML Style Attribute

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

* Use the **style** attribute for styling HTML element.

<tagname style="property:value;">

* Use **background-color** for background color.

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

* Use **color** for text colors.

<h1 style="color:blue;">This is a heading</h1>

* Use **font-family** for text fonts

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

* Use **font-size** for text sizes

<h1 style="font-size:300%;">This is a heading</h1>.

* Use **text-align** for text alignment

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

## HTML Formatting Elements

Formatting elements were designed to display special types of text:

* <b> - Bold text
* <strong> - Important text
* <i> - Italic text
* <em> - Emphasized text
* <mark> - highlighted text
* <small> - Small text
* <del> - Deleted text
* <ins>,<u> - underline text
* <sub> - Subscript text
* <sup> - Superscript text

HTML Quotation and Citation Elements

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<abbr>](https://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation or acronym.  <abbr title="World Health Organization">WHO</abbr> |
| [<address>](https://www.w3schools.com/tags/tag_address.asp) | Defines contact information for the author/owner of a document |
| [<bdo>](https://www.w3schools.com/tags/tag_bdo.asp)  <Bi-directional override> | Defines the text direction  <bdo dir="rtl">This text will be written from right to left</bdo> |
| [<cite>](https://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work  Same as <i> and <em> tag |
| [<q>](https://www.w3schools.com/tags/tag_q.asp) | Defines a double quote text. |

# HTML Colors

->In HTML, a color can be specified by using a color name.

->an RGB value-using this formula: rgb(red, green, blue).

1.For example, rgb(255,0,0) is displayed as red, because red is set to its highest value (255) and the others are set to 0.

2.To display the color black, all color parameters must be set to 0, like this: rgb(0,0,0).

3.To display the color white, all color parameters must be set to 255, like this: rgb(255,255,255).

->a HEX value.-- in the form: #RRGGBB, where RR (red), GG (green) and BB (blue) are hexadecimal values between 00 and FF (same as decimal 0-255).

## Styling HTML with CSS

**CSS** stands for **C**ascading **S**tyle **S**heets.

CSS can be added to HTML elements in 3 ways:

* **Inline** - by using the style attribute in HTML elements

<h1 style="color:blue;">This is a Blue Heading</h1>

* **Internal** - by using a <style> element in the <head> section.

<style>  
body {background-color: powderblue;}  
h1   {color: blue;}  
p    {color: red;}  
</style>

* **External** - by using an external CSS file.

 <link rel="stylesheet" href="styles.css">

## HTML Link Colors

<a href="https://www.w3schools.com/html">Visit our HTML tutorial</a>

By default, a link will appear like this (in all browsers):

* An unvisited link is underlined and blue
* A visited link is underlined and purple
* An active link is underlined and red.
* You can change the default colors, by using styles:

### <style> a:link {     color: green;      background-color: transparent;      text-decoration: none; } a:visited {     color: pink;     background-color: transparent;     text-decoration: none; } a:hover {     color: red;     background-color: transparent;     text-decoration: underline; } a:active {     color: yellow;     background-color: transparent;     text-decoration: underline; } </style>

## -> The target Attribute

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

* \_blank - Opens the linked document in a new window or tab.
* <a href="https://www.w3schools.com/" target="\_blank">Visit W3Schools!</a>
* \_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.

## ->HTML Links - Image as Link

<a href="default.asp"><img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0;">  
</a>

## ->HTML Links - Create a Bookmark

HTML bookmarks are used to allow readers to jump to specific parts of a Web page.

Example

First, create a bookmark with the id attribute:

<h2 id="C4">Chapter 4</h2>

Then, add a link to the bookmark ("Jump to Chapter 4"), from within the same page:

<a href="#C4">Jump to Chapter 4</a>

# HTML <img> usemap Attribute

### Example

An image-map, with clickable areas:

<img src="planets.gif" width="145" height="126" alt="Planets" usemap="#planetmap">  
  
<map name="planetmap">  
  <area shape="rect" coords="0,0,82,126" href="sun.htm" alt="Sun">  
  <area shape="circle" coords="90,58,3" href="mercur.htm" alt="Mercury">  
  <area shape="circle" coords="124,58,8" href="venus.htm" alt="Venus">  
</map>

## HTML Table - Collapsed Borders

If you want the borders to collapse into one border, add the CSS **border-collapse** property:

### **Example**

table, th, td {  
    border: 1px solid black;  
    border-collapse: collapse;  
}

* Use the HTML **<table>** element to define a table
* Use the HTML **<tr>** element to define a table row
* Use the HTML **<td>** element to define a table data
* Use the HTML **<th>** element to define a table heading
* Use the HTML **<caption>** element to define a table caption
* Use the CSS **border** property to define a border
* Use the CSS **border-collapse** property to collapse cell borders
* Use the CSS **padding** property to add padding to cells
* Use the CSS **text-align** property to align cell text
* Use the CSS **border-spacing** property to set the spacing between cells
* Use the **colspan** attribute to make a cell span many columns
* Use the **rowspan** attribute to make a cell span many rows
* Use the **id** attribute to uniquely define one table

## Ordered HTML List

An ordered list starts with the **<ol>** tag. Each list item starts with the **<li>** tag.

The list items will be marked with numbers by default:

### **Example**

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

## Ordered HTML List - The Type Attribute

The **type** attribute of the <ol> 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 |

## HTML class Attribute

### **Example**

<!DOCTYPE html>  
<html>  
<head>  
<style>  
div.cities {  
    background-color: black;  
    color: white;  
    margin: 20px 0 20px 0;  
    padding: 20px;  
}

<div class="cities">  
<h2>London</h2>  
<p>London is the capital of England. It is the most populous city in the United Kingdom, with a metropolitan area of over 13 million inhabitants.</p>  
</div>

# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# HTML Iframes

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

<iframe src="demo\_iframe.htm" height="200" width="300"></iframe>

## ->Iframe - Target for a Link

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:

### **Example**

<iframe src="demo\_iframe.htm" name="iframe\_a"></iframe>  
  
<p><a href="https://www.w3schools.com" target="iframe\_a">W3Schools.com</a></p>

## The HTML <noscript> Tag

The **<noscript>** tag is used to provide an alternate content for users that have disabled scripts in their browser or have a browser that doesn't support client-side scripts:

<noscript>Sorry, your browser does not support JavaScript!</noscript>

# HTML File Paths

|  |  |
| --- | --- |
| **Path** | **Description** |
| <img src="picture.jpg"> | picture.jpg is located in the same folder as the current page |
| <img src="images/picture.jpg"> | picture.jpg is located in the images folder located in the current folder |
| <img src="/images/picture.jpg"> | picture.jpg is located in the images folder located at the root of the current web |
| <img src="../picture.jpg"> | picture.jpg is located in the folder one level up from the current folder |

The HTML <meta> Element

The **<meta>** element is used to specify which character set is used, page description, keywords, author, and other metadata.

Metadata is used by browsers (how to display content), by search engines (keywords), and other web services.

Define the character set used:

<meta charset="UTF-8">

Define a description of your web page:

<meta name="description" content="Free Web tutorials">

Define keywords for search engines:

<meta name="keywords" content="HTML, CSS, XML, JavaScript">

Define the author of a page:

<meta name="author" content="John Doe">

Refresh document every 30 seconds:

<meta http-equiv="refresh" content="30">

## HTML <base> Element

The <base> element specifies the base URL and base target for all relative URLs in a page:

<base href="https://www.w3schools.com/images/" target="\_blank">

Form Handling

->The Action Attribute

The **action** attribute defines the action to be performed when the form is submitted.

Normally, the form data is sent to a web page on the server when the user clicks on the submit button.

In the example above, the form data is sent to a page on the server called "/action\_page.php". This page contains a server-side script that handles the form data:

<form **action="/action\_page.php**">

The Method Attribute

The **method** attribute specifies the HTTP method (**GET**or **POST**) to be used when submitting the form data:

<form action="/action\_page.php" **method="get"**>

he default method when submitting form data is GET.

->However, when GET is used, the submitted form data will be **visible in the page address field**:

-> So Always use POST if the form data contains sensitive or personal information. The POST method does not display the submitted form data in the page address field.

POST has no size limitations, and can be used to send large amounts of data.

## Grouping Form Data with <fieldset>

The **<fieldset>** element is used to group related data in a form.

The **<legend>** element defines a caption for the <fieldset> element.

### **Example**

<form action="/action\_page.php">  
  <fieldset>  
    <legend>Personal information:</legend>  
    First name:<br>  
    <input type="text" name="firstname" value="Mickey"><br>  
    Last name:<br>  
    <input type="text" name="lastname" value="Mouse"><br><br>  
    <input type="submit" value="Submit">  
  </fieldset>  
</form>

HTML Form Elements

## ->The <select> Element

The **<select>** element defines a **drop-down list**:

### **Example**

<select name="cars">  
  <option value="volvo">Volvo</option>  
  <option value="saab">Saab</option>  
  <option value="fiat">Fiat</option>  
  <option value="audi">Audi</option>  
</select>

## The <textarea> Element

The **<textarea>** element defines a multi-line input field (**a text area**):

### **Example**

<textarea name="message" rows="10" cols="30">  
The cat was playing in the garden.  
</textarea>

The **<datalist>** element specifies a list of pre-defined options for an <input> element.

## HTML5 <datalist> Element

### **Example**

<form action="/action\_page.php">  
  <input list="browsers">  
  <datalist id="browsers">  
    <option value="Internet Explorer">  
    <option value="Firefox">  
    <option value="Chrome">  
    <option value="Opera">  
    <option value="Safari">  
  </datalist>   
</form>

## HTML5 <keygen> Element

The purpose of the **<keygen>** element is to provide a secure way to authenticate users.

The <keygen> element specifies a key-pair generator field in a form.

When the form is submitted, two keys are generated, one private and one public.

The private key is stored locally, and the public key is sent to the server.

The public key could be used to generate a client certificate to authenticate the user in the future.

OperaSafariChromeFirefoxInternet Explorer

### **Example**

A form with a keygen field:

<form action="/action\_page.php">  
  Username: <input type="text" name="user">  
  Encryption: <keygen name="security">  
  <input type="submit">  
</form>

Que1-what is em?

Ans-An em is equivalent to the width of a letter m. Ems allow you to change the size of text relative to the size of the text in the parent element.

for instance, if the font-size of the document is 12pt, 1em is equal to 12pt. Ems are scalable in nature, so 2em would equal 24pt, .5em would equal 6pt, etc.

Que2- What is character encoding?

Ans- a-Words and sentences in text are created from characters. Examples of characters include the Latin letter á or the Chinese ideograph 請 or the Devanagari character ह.

b-Characters that are needed for a specific purpose are grouped into a character set (also called a repertoire).

c-The characters are stored in the computer as one or more bytes.

d-Basically, you can visualise this by assuming that all characters are stored in computers using a special code, like the ciphers used in espionage. A character encoding provides a key to unlock (ie. crack) the code. It is a set of mappings between the bytes in the computer and the characters in the character set. Without the key, the data looks like garbage.

e-So, when you input text using a keyboard or in some other way, the character encoding maps characters you choose to specific bytes in computer memory, and then to display the text it reads the bytes back into characters.

Que3- Utf full form--Universal Transformation format

Que4 - How to make website ressponsive in nature?

Ans- ViewPort-The viewport is the user's visible area of a web page.The viewport varies with the device, and will be smaller on a mobile phone than on a computer screen.

HTML5 introduced a method to set viewport, through the <meta> tag.

Ex-<meta name="viewport" content="width=device-width, initial-scale=1.0">

A <meta> viewport element gives the browser instructions on how to control the page's dimensions and scaling.

The width=device-width (this means we are telling to the browser “my website adapts to your device width).

The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.

The initial-scale=1.0 is a positive number between 0.0 and 10.0. It Defines the ratio between the device width (device-width in portrait mode or device-height in landscape mode) and the viewport size.

Que5- diffrence btw float and align property?

Ans- align is a property to align a single element for table , text, span etc

float is a property to align block level elements like sidebar, div etc

<!DOCTYPE html>

<html>

<body>

<p><strong>Float the image to the right:</strong></p>

<p>

<img src="smiley.gif" alt="Smiley face" style="float:right;width:42px;height:42px;">

A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

</p>

<p><strong>Float the image to the left:</strong></p>

<p>

<img src="smiley.gif" alt="Smiley face" style="float:left;width:42px;height:42px;">

A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

</p>

<p>Please use the CSS float property. The align attribute is deprecated in HTML 4, and not supported in HTML5.</p>

</body>

</html>

Que6- difference btw margin and padding?

Ans- padding is the space between the content and the border, whereas margin is the space outside the border. Here's an image I found from a quick Google search, that illustrates this idea.

