Ctrl + U -> html of a page// You can also edit the HTML or CSS on-the-fly in the Elements or Styles panel that opens.

All HTML documents must start with a document type declaration: <!DOCTYPE html>. Helps the webpage be displayed correctly.

The HTML document itself begins with <html> and ends with </html>.

The visible part of the HTML document is between <body> and </body>.

|  |  |  |
| --- | --- | --- |
| Start tag | Element content | End tag |
| <h1> | My First Heading | </h1> |
| <p> | My first paragraph. | </p> |
| <br> | *none* | *none* |

Elements

|  |  |
| --- | --- |
| Tag | Description |
| [<html>](https://www.w3schools.com/tags/tag_html.asp) | Defines the root of an HTML doc |
| [<body>](https://www.w3schools.com/tags/tag_body.asp) | Defines the document's body |
| [<h1> to <h6>](https://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |

\* The <p> element defines a paragraph. It has a start tag <p> and an end tag </p>. Same for the others.

Attributes

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

A close-up of a website

AI-generated content may be incorrect.

All HTML elements can have **attributes**

The href attribute of <a> specifies the URL of the page the link goes to

The src attribute of <img> specifies the path to the image to be displayed

The width and height attributes of <img> provide size information for images

The **alt** attribute of <img> provides an alternate text for an image

The style attribute is used to add styles to an element, such as color, font, size, and more

The lang attribute of the <html> tag declares the language of the Web page

The title attribute defines some extra information about an element

Headings

Search engines use the headings to index the structure and content of your web pages.

|  |  |
| --- | --- |
| [<h1> to <h6>](https://www.w3schools.com/tags/tag_hn.asp) | Defines HTML headings |

Users often skim a page by its headings. It is important to use headings to show the document structure.

Paragraphs

|  |  |
| --- | --- |
| Tag | Description |
| [<p>](https://www.w3schools.com/tags/tag_p.asp) | Defines a paragraph |
| [<hr>](https://www.w3schools.com/tags/tag_hr.asp) | Defines a thematic change in the content |
| [<br>](https://www.w3schools.com/tags/tag_br.asp) | Inserts a single line break |
| [<pre>](https://www.w3schools.com/tags/tag_pre.asp) | Defines pre-formatted text/ it preserves both spaces and line breaks |

Styles

<*tagname* style="*property*:*value;*">

The ***property*** is a CSS property. The ***value*** is a CSS value.

Use the style attribute for styling HTML elements Use background-color for background color Use color for text colors Use font-family for text fonts Use font-size for text sizes Use text-align for text alignment

**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> - Marked text <small> - Smaller text <del> - Deleted text <ins> - Inserted text <sub> - Subscript text <sup> - Superscript text

Quotations

|  |  |
| --- | --- |
| Tag | Description |
| [<abbr>](https://www.w3schools.com/tags/tag_abbr.asp) | Defines an abbreviation or acronym |
| [<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) | Defines the text direction |
| [<blockquote>](https://www.w3schools.com/tags/tag_blockquote.asp) | Defines a section that is quoted from another source |
| [<cite>](https://www.w3schools.com/tags/tag_cite.asp) | Defines the title of a work |
| [<q>](https://www.w3schools.com/tags/tag_q.asp) | Defines a short inline quotation |

HTML & CSS

Depends highly on where the css file is located. CSS can be added to HTML documents in 3 ways:

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

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

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

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

* **External** - by using a <link> element to link to an external CSS file

<head>  
  <link rel="stylesheet" href="styles.css">  
</head>  
<body>

Use the HTML style attribute for inline styling Use the HTML <style> element to define internal CSS Use the HTML <link> element to refer to an external CSS file Use the HTML <head> element to store <style> and <link> elements Use the CSS color property for text colors Use the CSS font-family property for text fonts Use the CSS font-size property for text sizes Use the CSS border property for borders Use the CSS padding property for space inside the border Use the CSS margin property for space outside the border

RGB HEX HSL Colors

Links

<a href="*url*">*link text*</a>

The target attribute specifies where to open the linked document.

<h2>Absolute URLs</h2>  
<p><a href="https://www.w3.org/">W3C</a></p>  
<p><a href="https://www.google.com/">Google</a></p>  
  
<h2>Relative URLs</h2>  
<p><a href="html\_images.asp">HTML Images</a></p>  
<p><a href="/css/default.asp">CSS Tutorial</a></p>

The target attribute can have one of the following values:

* \_self - Default. Opens the document in the same window/tab as it was clicked
* \_blank - Opens the document in a new window or tab
* \_parent - Opens the document in the parent frame
* \_top - Opens the document in the full body of the window
* Use the <a> element to define a link
* Use the href attribute to define the link address
* Use the target attribute to define where to open the linked document
* Use the <img> element (inside <a>) to use an image as a link
* Use the mailto: scheme inside the href attribute to create a link that opens the user's email program

<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>

For making buttons:

<style>  
a:link, a:visited {  
  background-color: #f44336;  
  color: white;  
  padding: 15px 25px;  
  text-align: center;  
  text-decoration: none;  
  display: inline-block;  
}  
  
a:hover, a:active {  
  background-color: red;  
}  
</style>

Links and bookmarks:

Use the id attribute (id="*value*") to define bookmarks in a page

Use the href attribute (href="#*value*") to link to the bookmark

When the link is clicked, the page will scroll down or up to the location with the bookmark.

You can also add a link to a bookmark on another page:

<a href="html\_demo.html#C4">Jump to Chapter 4</a>

Images

<img src="pic\_trulli.jpg" alt="Trulli" width="500" height="333">

Alt -> if the image does not appear that is the defined text that will appear instead.

<img> tag embeds an image in the webpage. Images are linked to the webpage but not inserted on it.

Images

Required attributes: src and alt.

style="width:500px;height:600px;"-> better

or width="500" height="600" to change the size of the image. \* always set width and height

image as a link:

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

Position of the image:

style="float:right;width:42px;height:42px;"

Image Map

An image map is an image with clickable areas. The areas are defined with one or more <area> tags.

<img src="workplace.jpg" alt="Workplace" usemap="#workmap">  
  
<map name="workmap">  
  <area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.htm">  
  <area shape="rect" coords="290,172,333,250" alt="Phone" href="phone.htm">  
  <area shape="circle" coords="337,300,44" alt="Coffee" href="coffee.htm">  
</map>

In this case, all places that we have called workmap will be clickable.

* rect - defines a rectangular region
* circle - defines a circular region
* poly - defines a polygonal region
* default - defines the entire region

coords="x1,y1,x2,y2" -> 

(x1, y1) = **top-left corner** of the rectangle

 (x2, y2) = **bottom-right corner** of the rectangle

|  |  |
| --- | --- |
| [<img>](https://www.w3schools.com/tags/tag_img.asp) | Defines an image |
| [<map>](https://www.w3schools.com/tags/tag_map.asp) | Defines an image map |
| [<area>](https://www.w3schools.com/tags/tag_area.asp) | Defines a clickable area inside an image map |
| [<picture>](https://www.w3schools.com/tags/tag_picture.asp) | Defines a container for multiple image resources |

Background image

Ex.: Writing text on an image -> basically putting an image in the background.

<p style="background-image: url('img\_girl.jpg');">

Nested structure <style>  
p {  
  background-image: url('img\_girl.jpg');  
}  
</style> For the background to be on the entire page, specify the background on the body element.

If the background image is smaller than the element, the image will repeat itself, horizontally and vertically, until it reaches the end of the element.

background-repeat: no-repeat; for no repetition.

<style>  
body {  
  background-image: url('img\_girl.jpg');  
  background-repeat: no-repeat;  
  background-attachment: fixed;  
  background-size: 100% 100%;  
}  
</style>

<style>  
body {  
  background-image: url('img\_girl.jpg');  
  background-repeat: no-repeat;  
  background-attachment: fixed;  
  background-size: cover;  
}  
</style>

The Picture Element:

The HTML <picture> element gives web developers more flexibility in specifying image resources.

The <picture> element contains one or more <source> elements, each referring to different images through the srcset attribute. This way the browser can choose the image that best fits the current view and/or device.

Each <source> element has a media attribute that defines when the image is the most suitable.

Different images for different screen sizes:

<picture>  
  <source media="(min-width: 650px)" srcset="img\_food.jpg">  
  <source media="(min-width: 465px)" srcset="img\_car.jpg">  
  <img src="img\_girl.jpg">  
</picture>

The picture element can be used when the image format is not supported by all devices.

The device will use the first image format it supports and ignore the rest of the images.

FavIcon

You can use any image you like as your favicon. You can also create your own favicon on sites like [https://www.favicon.cc](https://www.favicon.cc/). A common name for a favicon image is "favicon.ico".

<head>  
  <title>My Page Title</title>  
  <link rel="icon" type="image/x-icon" href="/images/favicon.ico">  
</head>

The title should describe the content and the meaning of the page.

The page title is very important for search engine optimization (SEO). The text is used by search engine algorithms to decide the order when listing pages in search results.

HTML Tables

|  |  |
| --- | --- |
| [<table>](https://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<th>](https://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<tr>](https://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<td>](https://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<caption>](https://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<colgroup>](https://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |
| [<col>](https://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<thead>](https://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<tbody>](https://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<tfoot>](https://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |

To add a border, use the CSS border property on table, th, and td elements

To avoid having double borders like in the example above, set the CSS border-collapse property to collapse

If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border:

table, th, td {  
  border: 1px solid white;  
  border-collapse: collapse;  
}  
th, td {  
  background-color: #96D4D4;  
}

HTML Table

With the border-radius property, the borders get rounded corners

Skip the border around the table by leaving out table from the css selector

border-style -> what style should the border be

border-color: #96D4D4;

<!DOCTYPE html>

<html>

<style>

table, th, td {

border:1px solid black;

border-collapse: collapse;}

</style><body><h2>100% wide HTML Table</h2>

<table style="width:100%">

<tr><th>Firstname</th>

<th>Lastname</th>

<th>Age</th>

</tr> <tr><td>Jill</td>

<td>Smith</td>

<td>50</td>

</tr> <tr> <td>Eve</td>

<td>Jackson</td> <td>94</td>

</tr><tr> <td>John</td>

<td>Doe</td>

<td>80</td>

</tr> </table>

</body>

</html>

Defining table headers:

<table style="width:100%">

<tr>

<th>Firstname</th>

<th>Lastname</th>

<th>Age</th>

</tr>

<tr>

For vertical headers: To use the first column as table headers, define the first cell in each row as a <th> element.

By default, table headers are bold and centered. To left-align the table headers, use the CSS text-align property.

You can have a header that spans over two or more columns. To do this, use the colspan attribute on the <th> element.

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

The <caption> tag should be inserted immediately after the <table> tag.

Cell padding is the space between the cell edges and the cell content.

By default the padding is set to 0.

To add padding on table cells, use the CSS padding property: padding: 15px;

To add padding only above the content, use the padding-top property.

Add padding to the other sides with the padding-bottom, padding-left, and padding-right properties

To change the space between table cells, use the CSS border-spacing property on the table element.

To make a cell span over multiple columns, use the colspan attribute

To make a cell span over multiple rows, use the rowspan attribute

If you add a background color on every other table row, you will get a nice zebra stripes effect.

To style every other table row element, use the :nth-child(even) selector

To make vertical zebra stripes, style every other *column*, instead of every other *row*:

td:nth-child(even), th:nth-child(even) {  
  background-color: #D6EEEE;  
}

Put the :nth-child() selector on both th and td elements if you want to have the styling on both headers and regular table cells.

Use an rgba() color to specify the transparency of the color

Add the border-bottom property to all tr elements to get horizontal dividers

Use the :hover selector on tr to highlight table rows on mouse over:

tr:hover {background-color: #D6EEEE;}

If you want to style the first two columns of a table, use the <colgroup> and <col> elements.

The <colgroup> element should be used as a container for the column specifications.

Each group is specified with a <col> element.

The span attribute specifies how many columns get the style.

The style attribute specifies the style to give the columns.

The <colgroup> tag must be a child of a <table> element and should be placed before any other table elements, like <thead>, <tr>, <td> etc., but after the <caption> element, if present.

There is only a very limited selection of CSS properties that are allowed to be used in the colgroup:

[width](https://www.w3schools.com/cssref/pr_dim_width.php) property  
[visibility](https://www.w3schools.com/cssref/pr_class_visibility.php) property  
[background](https://www.w3schools.com/cssref/css3_pr_background.php) properties  
[border](https://www.w3schools.com/cssref/pr_border.php) properties

All other CSS properties will have no effect on your tables.

If you want to style multiple columns with different styles, use more than one <col> element inside the <colgroup>

If you want to style columns in the middle of a table, insert an "empty" <col> element (with no styles) for the columns before

You can hide columns with the visibility: collapse property

|  |  |
| --- | --- |
| [<ul>](https://www.w3schools.com/tags/tag_ul.asp) | Defines an unordered list |
| [<ol>](https://www.w3schools.com/tags/tag_ol.asp) | Defines an ordered list |
| [<li>](https://www.w3schools.com/tags/tag_li.asp) | Defines a list item |
| [<dl>](https://www.w3schools.com/tags/tag_dl.asp) | Defines a description list |
| [<dt>](https://www.w3schools.com/tags/tag_dt.asp) | Defines a term in a description list |
| [<dd>](https://www.w3schools.com/tags/tag_dd.asp) | Describes the term in a description list |

HTML Lists

Unordered Lists

The CSS list-style-type property is used to define the style of the list item marker. It can have one of the following values:

|  |  |
| --- | --- |
| **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 |

A list item (<li>) can contain a new list, and other HTML elements, like images and links, etc.

* Use the HTML <ul> element to define an unordered list
* Use the CSS list-style-type property to define the list item marker
* Use the HTML <li> element to define a list item
* Lists can be nested
* List items can contain other HTML elements
* Use the CSS property float:left to display a list horizontally

Ordered lists:

* Use the HTML <ol> element to define an ordered list
* Use the HTML type attribute to define the numbering type
* Use the HTML <li> element to define a list item
* Lists can be nested
* List items can contain other HTML elements

Other Lists

* Use the HTML <dl> element to define a description list
* Use the HTML <dt> element to define the description term
* Use the HTML <dd> element to describe the term in a description list

Here are the block-level elements in HTML:

[<address>](https://www.w3schools.com/tags/tag_address.asp)[<article>](https://www.w3schools.com/tags/tag_article.asp)[<aside>](https://www.w3schools.com/tags/tag_aside.asp)[<blockquote>](https://www.w3schools.com/tags/tag_blockquote.asp)[<canvas>](https://www.w3schools.com/tags/tag_canvas.asp)[<dd>](https://www.w3schools.com/tags/tag_dd.asp)[<div>](https://www.w3schools.com/tags/tag_div.asp)[<dl>](https://www.w3schools.com/tags/tag_dl.asp)[<dt>](https://www.w3schools.com/tags/tag_dt.asp)[<fieldset>](https://www.w3schools.com/tags/tag_fieldset.asp)[<figcaption>](https://www.w3schools.com/tags/tag_figcaption.asp)[<figure>](https://www.w3schools.com/tags/tag_figure.asp)[<footer>](https://www.w3schools.com/tags/tag_footer.asp)[<form>](https://www.w3schools.com/tags/tag_form.asp)[<h1><h6>](https://www.w3schools.com/tags/tag_hn.asp)[<header>](https://www.w3schools.com/tags/tag_header.asp)[<hr>](https://www.w3schools.com/tags/tag_hr.asp)[<li>](https://www.w3schools.com/tags/tag_li.asp)[<main>](https://www.w3schools.com/tags/tag_main.asp)[<nav>](https://www.w3schools.com/tags/tag_nav.asp)[<noscript>](https://www.w3schools.com/tags/tag_noscript.asp)[<ol>](https://www.w3schools.com/tags/tag_ol.asp)[<p>](https://www.w3schools.com/tags/tag_p.asp)[<pre>](https://www.w3schools.com/tags/tag_pre.asp)[<section>](https://www.w3schools.com/tags/tag_section.asp)[<table>](https://www.w3schools.com/tags/tag_table.asp)[<tfoot>](https://www.w3schools.com/tags/tag_tfoot.asp)[<ul>](https://www.w3schools.com/tags/tag_ul.asp)[<video>](https://www.w3schools.com/tags/tag_video.asp)

Here are the inline elements in HTML:

[<a>](https://www.w3schools.com/tags/tag_a.asp)[<abbr>](https://www.w3schools.com/tags/tag_abbr.asp)[<acronym>](https://www.w3schools.com/tags/tag_acronym.asp)[<b>](https://www.w3schools.com/tags/tag_b.asp)[<bdo>](https://www.w3schools.com/tags/tag_bdo.asp)[<big>](https://www.w3schools.com/tags/tag_big.asp)[<br>](https://www.w3schools.com/tags/tag_br.asp)[<button>](https://www.w3schools.com/tags/tag_button.asp)[<cite>](https://www.w3schools.com/tags/tag_cite.asp)[<code>](https://www.w3schools.com/tags/tag_code.asp)[<dfn>](https://www.w3schools.com/tags/tag_dfn.asp)[<em>](https://www.w3schools.com/tags/tag_em.asp)[<i>](https://www.w3schools.com/tags/tag_i.asp)<img>[<input>](https://www.w3schools.com/tags/tag_input.asp)[<kbd>](https://www.w3schools.com/tags/tag_kbd.asp)[<label>](https://www.w3schools.com/tags/tag_label.asp)[<map>](https://www.w3schools.com/tags/tag_map.asp)[<object>](https://www.w3schools.com/tags/tag_object.asp)[<output>](https://www.w3schools.com/tags/tag_output.asp)[<q>](https://www.w3schools.com/tags/tag_q.asp)[<samp>](https://www.w3schools.com/tags/tag_samp.asp)[<script>](https://www.w3schools.com/tags/tag_script.asp)[<select>](https://www.w3schools.com/tags/tag_select.asp)[<small>](https://www.w3schools.com/tags/tag_small.asp)<span>[<strong>](https://www.w3schools.com/tags/tag_strong.asp)[<sub>](https://www.w3schools.com/tags/tag_sub.asp)[<sup>](https://www.w3schools.com/tags/tag_sup.asp)[<textarea>](https://www.w3schools.com/tags/tag_textarea.asp)[<time>](https://www.w3schools.com/tags/tag_time.asp)[<tt>](https://www.w3schools.com/tags/tag_tt.asp)[<var>](https://www.w3schools.com/tags/tag_var.asp)

**Note:** An inline element cannot contain a block-level element!

* A block-level element always starts on a new line and takes up the full width available
* An inline element does not start on a new line and it only takes up as much width as necessary
* The <div> element is a block-level element and is often used as a container for other HTML elements
* The <span> element is an inline container used to mark up a part of a text, or a part of a document

The div element

The <div> element is by default a block element, meaning that it takes all available width, and comes with line breaks before and after.

The <div> element has no required attributes, but style, class and id are common.

The <div> element is often used to group sections of a web page together.

If you have a <div> element that is not 100% wide, and you want to center-align it, set the CSS margin property to auto.

The CSS float property was not originally meant to align <div> elements side-by-side, but has been used for this purpose for many years.

The CSS float property is used for positioning and formatting content and allows elements to be positioned horizontally, rather than vertically.

If you change the <div> element's display property from block to inline-block, the <div> elements will no longer add a line break before and after, and will be displayed side by side instead of on top of each other.

The CSS Flexbox Layout Module was introduced to make it easier to design flexible responsive layout structure without using float or positioning.

To make the CSS flex method work, surround the <div> elements with another <div> element and give it the status as a flex container.

The CSS Grid Layout Module offers a grid-based layout system, with rows and columns, making it easier to design web pages without having to use floats and positioning.

Sounds almost the same as flex, but has the ability to define more than one row and position each row individually.

The CSS grid method requires that you surround the <div> elements with another <div> element and give the status as a grid container, and you must specify the width of each column.

HTML Class Attribute

* The HTML class attribute specifies one or more class names for an element
* Classes are used by CSS and JavaScript to select and access specific elements
* The class attribute can be used on any HTML element
* The class name is case sensitive
* Different HTML elements can point to the same class name
* JavaScript can access elements with a specific class name with the getElementsByClassName() method

To create a class; write a period (.) character, followed by a class name. Then, define the CSS properties within curly braces {}

HTML Id

The id attribute is used to specify a unique id for an HTML element

The value of the id attribute must be unique within the HTML document

The id attribute is used by CSS and JavaScript to style/select a specific element

The value of the id attribute is case sensitive

The id attribute is also used to create HTML bookmarks

JavaScript can access an element with a specific id with the getElementById() method

The id attribute specifies a unique id for an HTML element. The value of the id attribute must be unique within the HTML document.

The id attribute is used to point to a specific style declaration in a style sheet. It is also used by JavaScript to access and manipulate the element with the specific id.

The syntax for id is: write a hash character (#), followed by an id name. Then, define the CSS properties within curly braces {}.

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

Bookmarks can be useful if your page is very long.

To use a bookmark, you must first create it, and then add a link to it.

Then, when the link is clicked, the page will scroll to the location with the bookmark.

HTML <iframe>

* The HTML <iframe> tag specifies an inline frame
* The src attribute defines the URL of the page to embed
* Always include a title attribute (for screen readers)
* The height and width attributes specify the size of the iframe
* Use border:none; to remove the border around the iframe

HTML JS

The HTML <script> tag is used to define a client-side script (JavaScript).

The <script> element either contains script statements, or it points to an external script file through the src attribute.

Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

To select an HTML element, JavaScript most often uses the document.getElementById() method.

This JavaScript example writes "Hello JavaScript!" into an HTML element with id="demo":

The HTML <noscript> tag defines an alternate content to be displayed to users that have disabled scripts in their browser or have a browser that doesn't support scripts

HTML Filepath

A file path describes the location of a file in a web site's folder structure.

It is best practice to use relative file paths (if possible). When using relative file paths, your web pages will not be bound to your current base URL. All links will work on your own computer (localhost) as well as on your current public domain and your future public domains.

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

HTML Header element

The HTML <head> element is a container for the following elements: <title>, <style>, <meta>, <link>, <script>, and <base>.

* The <head> element is a container for metadata (data about data)
* The <head> element is placed between the <html> tag and the <body> tag
* The <title> element is required and it defines the title of the document
* The <style> element is used to define style information for a single document
* The <link> tag is most often used to link to external style sheets
* The <meta> element is typically used to specify the character set, page description, keywords, author of the document, and viewport settings
* The <script> element is used to define client-side JavaScripts
* The <base> element specifies the base URL and/or target for all relative URLs in a page

HTML Layout

There are four different techniques to create multicolumn layouts. Each technique has its pros and cons:

* CSS framework
* CSS float property
* CSS flexbox
* CSS grid

If you want to create your layout fast, you can use a CSS framework, like [W3.CSS](https://www.w3schools.com/w3css/default.asp) or [Bootstrap](https://www.w3schools.com/bootstrap/default.asp).

* <header> - Defines a header for a document or a section
* <nav> - Defines a set of navigation links
* <section> - Defines a section in a document
* <article> - Defines independent, self-contained content
* <aside> - Defines content aside from the content (like a sidebar)
* <footer> - Defines a footer for a document or a section
* <details> - Defines additional details that the user can open and close on demand
* <summary> - Defines a heading for the <details> element

HTML Responsive Web Design

Responsive web design is about creating web pages that look good on all devices!

A responsive web design will automatically adjust for different screen sizes and viewports.

Responsive Web Design is about using HTML and CSS to automatically resize, hide, shrink, or enlarge, a website, to make it look good on all devices (desktops, tablets, and phones)

To create a responsive website, add the following <meta> tag to all your web pages: <meta name="viewport" content="width=device-width, initial-scale=1.0">

Notice that in the example above, the image can be scaled up to be larger than its original size. A better solution, in many cases, will be to use the max-width property instead.

<img src="img\_girl.jpg" **style="width:100%;"**>

If the max-width property is set to 100%, the image will scale down if it has to, but never scale up to be larger than its original size.

The HTML <picture> element allows you to define different images for different browser window sizes.

Resize the browser window to see how the image below changes depending on the width

The text size can be set with a "vw" unit, which means the "viewport width".

That way the text size will follow the size of the browser window:

<h1 style="**font-size:10vw**">Hello World</h1>

Viewport is the browser window size. 1vw = 1% of viewport width. If the viewport is 50cm wide, 1vw is 0.5cm.

In addition to resize text and images, it is also common to use media queries in responsive web pages.

With media queries you can define completely different styles for different browser sizes.

Example: resize the browser window to see that the three div elements below will display horizontally on large screens and stack vertically on small screens.

HTML <kbd> For Keyboard Input

<p>Save the document by pressing <kbd>Ctrl + S</kbd></p> the command will open the save folder and will tell you where to save it: ex: desktop, docs etc etc “””Save as””” command.

The HTML <samp> element is used to define sample output from a computer program. The content inside is displayed in the browser's default monospace font.

The HTML <code> element  is used to define a piece of computer code. The content inside is displayed in the browser's default monospace font:

<code>  
x = 5;  
y = 6;  
z = x + y;  
</code>

Notice that the <code> element does NOT preserve extra whitespace and line-breaks.

To preserve extra whitespace and line-breaks, you can put the <code> element inside a <pre> element

The HTML <var> element  is used to define a variable in programming or in a mathematical expression.

|  |  |
| --- | --- |
| [<article>](https://www.w3schools.com/tags/tag_article.asp) | Defines independent, self-contained content |
| [<aside>](https://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<details>](https://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<figcaption>](https://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](https://www.w3schools.com/tags/tag_figure.asp) | Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc. |
| [<footer>](https://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<header>](https://www.w3schools.com/tags/tag_header.asp) | Specifies a header for a document or section |
| [<main>](https://www.w3schools.com/tags/tag_main.asp) | Specifies the main content of a document |
| [<mark>](https://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<nav>](https://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |
| [<section>](https://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<summary>](https://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<time>](https://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |

HTML Semantics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mark** | **Character** | **Construct** | **Result** |  |
| ̀ | a | a&#768; | à |  |
| ́ | a | a&#769; | á |  |
| ̂ | a | a&#770; | â |  |
| ̃ | a | a&#771; | ã |  |
| ̀ | O | O&#768; | Ò |  |
| ́ | O | O&#769; | Ó |  |
| ̂ | O | O&#770; | Ô |  |
| ̃ | O | O&#771; | Õ |  |

HTML Style Guide

HTML Entities

Reserved characters in HTML must be replaced with entities:

* < (less than) = **&lt;**
* > (greater than) = **&gt;**

HTML Symbols

Symbols or letters that are not present on your keyboard can be added to HTML using entities.

To add such symbols to an HTML page, you can use the entity name or the entity number (a decimal or a hexadecimal reference) for the symbol.

HTML Emojis

HTML Encoding

To display an HTML page correctly, a web browser must know which character set to use.

The character set is specified in the <meta> tag:

<meta charset="UTF-8">

* XHTML is a stricter, more XML-based version of HTML.

HTML Forms: Inputs

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