Web Developer
HTML Basics 4

2021

HTML Images-Images

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Image</h2>
<img src="pic_trulli.jpg" alt="Trulli" width="500" height="333">

</body>
</html>
```

```html
<!DOCTYPE html>
<html>
<body>

<h2>HTML Image</h2>
<img src="img_girl.jpg" alt="Girl in a jacket" width="500" height="600">

</body>
</html>
```

```html
<!DOCTYPE html>
<html>
<body>

<h2>HTML Image</h2>
<img src="img_chania.jpg" alt="Flowers in Chania" width="460" height="345">

</body>
</html>
```

HTML Images Syntax

<img src="url" alt="alternatetext">

The src Attribute

```
<!DOCTYPE html>
<html>
<body>

<h2>Alternative text</h2>

<p>The alt attribute should reflect the image content, so users who cannot see the image gets an understanding of what the image contains:</p>

<img src="img_chania.jpg" alt="Flowers in Chania" width="460" height="345">

</body>
</html>
```

The alt Attribute

```
<!DOCTYPE html>
<html>
<body>

<h2>Alternative text</h2>

<p>The alt attribute should reflect the image content, so users who cannot see the image gets an understanding of what the image contains:</p>

<img src="img_chania.jpg" alt="Flowers in Chania" width="460" height="345">

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<p>If a browser cannot find the image, it will display the alternate text:</p>

<img src="wrongname.gif" alt="Flowers in Chania">

</body>
</html>
```

Image Size - Width and Height

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Size</h2>

<p>Here we use the style attribute to specify the width and height of an image:</p>

<img src="img_girl.jpg" alt="Girl in a jacket" style="width:500px;height:600px;">

</body>
</html>
```

Width and Height, or Style?

```
<!DOCTYPE html>
<html>
<head>
<style>
/* This style sets the width of all images to 100%: */
img {
  width: 100%;
}
</style>
</head>
<body>

<h2>Width/Height Attributes or Style?</h2>

<p>The first image uses the width attribute (set to 128 pixels), but the style in the head section overrides it, and sets the width to 100%.</p>

<img src="html5.gif" alt="HTML5 Icon" width="128" height="128">

<p>The second image uses the style attribute to set the width to 128 pixels, this will not be overridden by the style in the head section:</p>

<img src="html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">

</body>
</html>
```

Images in Another Folder

```
<!DOCTYPE html>
<html>
<body>

<h2>Images in Another Folder</h2>
<p>It is common to store images in a sub-folder. You must then include the folder name in the src attribute:</p>

<img src="/images/html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">

</body>
</html>
```

Images on Another Server/Website

```
<!DOCTYPE html>
<html>
<body>

<h2>Images on Another Server</h2>

<img src="https://www.w3schools.com/images/w3schools_green.jpg"
alt="W3Schools.com" style="width:104px;height:142px;">

</body>
</html>
```

Animated Images

```
<!DOCTYPE html>
<html>
<body>

<h2>Animated Images</h2>

<p>HTML allows moving images:</p>

<img src="programming.gif" alt="Computer man" style="width:48px;height:48px;">

</body>
</html>
```

Image as a Link

```
<!DOCTYPE html>
<html>
<body>

<h2>Image as a Link</h2>

<p>The image is a link. You can click on it.</p>

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

</body>
</html>
```

Image Floating

```
<!DOCTYPE html>
<html>
<body>

<h2>Floating Images</h2>
<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>

</body>
</html>
```

HTML-Image Maps

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Maps</h2>
<p>Click on the computer, the phone, or the cup of coffee to go to a new page and read more about the topic:</p>

<img src="workplace.jpg" alt="Workplace" usemap="#workmap" width="400" height="379">

<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="Cup of coffee" href="coffee.htm">
</map>

</body>
</html>
```
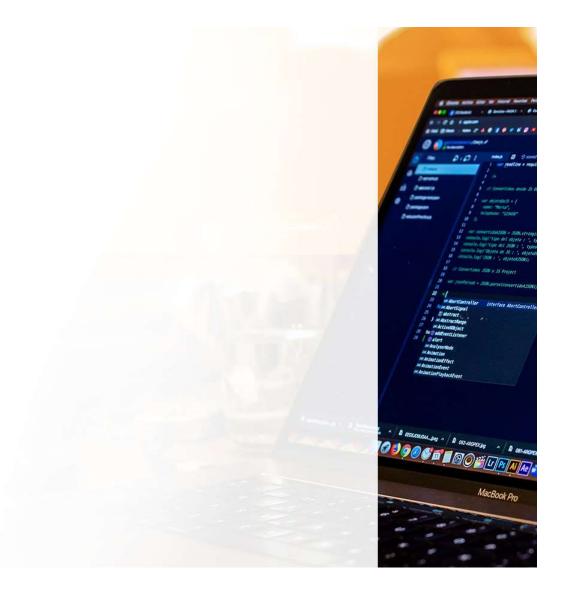
The Image

`<img src="workplace.jpg" alt="Workplace" usemap="#workmap">`

Create Image Map

`<map name="workmap">`

The Areas-Shape
Shape="rect"

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Maps</h2>
<p>Click on the computer, to go to a new page and read more about the topic:</p>

<img src="workplace.jpg" alt="Workplace" usemap="#workmap" width="400" height="379">

<map name="workmap">
  <area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.htm">
</map>

</body>
</html>
```

Shape="circle"

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Maps</h2>
<p>Click on the cup of coffee to go to a new page and read more about the topic:</p>

<img src="workplace.jpg" alt="Workplace" usemap="#workmap" width="400" height="379">

<map name="workmap">
  <area shape="circle" coords="337,300,44" alt="Cup of coffee" href="coffee.htm">
</map>

</body>
</html>
```

Shape="poly"

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Maps</h2>
<p>Click on the croissant to go to a new page and read more about the topic:</p>

<img src="frenchfood.jpg" alt="French Food" usemap="#foodmap" width="450" height="675">

<map name="foodmap">
  <area shape="poly"
coords="140,121,181,116,204,160,204,222,191,270,140,329,85,355,58,352,37,322,40,259,103,161,128,147" alt="Croissant"
href="croissant.htm">
</map>

</body>
</html>
```

Image Map and JavaScript

```
<!DOCTYPE html>
<html>
<body>

<h2>Image Maps</h2>

<p>Click on the cup of coffee to execute a JavaScript function:</p>

<img src="workplace.jpg" alt="Workplace" usemap="#workmap" width="400" height="379">

<map name="workmap">
  <area shape="circle" coords="337,300,44" href="coffee.htm" onclick="myFunction()">
</map>

<script>
function myFunction() {
  alert("You clicked the coffee cup!");
}
</script>

</body>
</html>
```

```html
<!DOCTYPE html>
<html>
<head>
<style>
div {
  background-image: url('img_girl.jpg');
}
</style>
</head>
<body>

<h2>Background Image</h2>

<div>
You can specify background images<br>
for any visible HTML element.<br>
In this example, the background image<br>
is specified for a div element.<br>
By default, the background-image<br>
will repeat itself in the direction(s)<br>
where it is smaller than the element<br>
where it is specified. (Try resizing the<br>
browser window to see how the<br>
background image behaves.
</div>

</body>
</html>
```

Background Image on a Page

```html
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('img_girl.jpg');
}
</style>
</head>
<body>

<h2>Background Image</h2>

<p>By default, the background image will repeat itself if it is smaller than the element where it is specified, in this case the body element.</p>

</body>
</html>
```

Background Repeat

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('example_img_girl.jpg');
}
</style>
</head>
<body>

<h2>Background Repeat</h2>

<p>By default, the background image will repeat itself if it is smaller than the element where it is specified, in this case the body element.</p>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('example_img_girl.jpg');
  background-repeat: no-repeat;
}
</style>
</head>
<body>

<h2>Background No Repeat</h2>

<p>You can avoid the image from being repeated by setting the background-repeat property to "no-repeat".</p>

</body>
</html>
```

Background Cover

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('img_girl.jpg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: cover;
}
</style>
</head>
<body>

<h2>Background Cover</h2>

<p>Set the background-size property to "cover" and the background image will cover the entire element, in this case the body element.</p>

</body>
</html>
```

Background Stretch

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('img_girl.jpg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: 100% 100%;
}
</style>
</head>
<body>

<h2>Background Stretch</h2>

<p>Set the background-size property to "100% 100%" and the background image will be stretched to cover the entire element, in this case the body element.</p>

</body>
</html>
```

- **HTML -The picture element**

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>

<h2>The picture Element</h2>

<picture>
 <source media="(min-width: 650px)" srcset="img_food.jpg">
 <source media="(min-width: 465px)" srcset="img_car.jpg">
 <img src="img_girl.jpg" style="width:auto;">
</picture>

<p>Resize the browser to see different versions of the picture loading at different viewport sizes.
The browser looks for the first source element where the media query matches the user's current viewport width,
and fetches the image specified in the srcset attribute.</p>

<p>The img element is required as the last child tag of the picture declaration block.
The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source
tags matched.
</p>

<p><strong>Note:</strong> The picture element is not supported in IE12 and earlier or Safari 9.0 and earlier.</p>
</body>
</html>
```

HTML Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>An Unordered HTML List</h2>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

<h2>An Ordered HTML List</h2>

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

</body>
</html>
```

Unordered HTML List

```
<!DOCTYPE html>
<html>
<body>

<h2>An unordered HTML list</h2>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

Ordered HTML List

```
<!DOCTYPE html>
<html>
<body>

<h2>An ordered HTML list</h2>

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

</body>
</html>
```

HTML Description Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>A Description List</h2>

<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>

</body>
</html>
```

HTML-Unordered Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>An unordered HTML list</h2>

<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

Unordered HTML List - Choose List Item Marker

```
<!DOCTYPE html>
<html>
<body>

<h2>Unordered List with Disc Bullets</h2>

<ul style="list-style-type:disc;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

- <!DOCTYPE html>
- <html>
- <body>

- <h2>Unordered List with Circle Bullets</h2>

- <ul style="list-style-type:circle;">
-   Coffee
-   Tea
-   Milk
-

- </body>
- </html>

- <!DOCTYPE html>
- <html>
- <body>

- <h2>Unordered List with Square Bullets</h2>

- <ul style="list-style-type:square;">
- Coffee
- Tea
- Milk
-

- </body>
- </html>

```
<!DOCTYPE html>
<html>
<body>

<h2>Unordered List without Bullets</h2>

<ul style="list-style-type:none;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>

</body>
</html>
```

Nested HTML Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>A Nested List</h2>
<p>Lists can be nested (list inside list):</p>

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

</body>
</html>
```

Horizontal List with CSS

```
<!DOCTYPE html>
<html><head>
<style>
        ul {
          list-style-type: none;
          margin: 0;
          padding: 0;
          overflow: hidden;
          background-color: #333333;}
        li {
          float: left;}
        li a {
          display: block;
          color: white;
          text-align: center;
          padding: 16px;
          text-decoration: none;}
        li a:hover {
          background-color: #111111;}
</style>
</head>
<body>
        <h2>Navigation Menu</h2>
        <p>In this example, we use CSS to style the list horizontally, to create a navigation menu:</p>
        <ul>
          <li><a href="#home">Home</a></li>
          <li><a href="#news">News</a></li>
          <li><a href="#contact">Contact</a></li>
          <li><a href="#about">About</a></li>
        </ul>
</body></html>
```

HTML-Ordered Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>An ordered HTML list</h2>

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

</body>
</html>
```

Ordered HTML List - The Type Attribute

```
<!DOCTYPE html>
<html>
<body>

<h2>Ordered List with Numbers</h2>

<ol type="1">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Ordered List with Letters</h2>

<ol type="A">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Ordered List with Lowercase Letters</h2>

<ol type="a">
 <li>Coffee</li>
 <li>Tea</li>
 <li>Milk</li>
</ol>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Ordered List with Roman Numbers</h2>

<ol type="I">
 <li>Coffee</li>
 <li>Tea</li>
 <li>Milk</li>
</ol>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Ordered List with Lowercase Roman Numbers</h2>

<ol type="i">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

Control List Counting

```
<!DOCTYPE html>
<html>
<body>

<h2>The start attribute</h2>
<p>By default, an ordered list will start counting from 1. Use the start attribute to start counting from a specified number:</p>

<ol start="50">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

<ol type="I" start="50">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>

</body>
</html>
```

Nested HTML Lists

```html
<!DOCTYPE html>
<html>
<body>

<h2>A Nested List</h2>
<p>Lists can be nested (list inside list):</p>

<ol>
  <li>Coffee</li>
  <li>Tea
    <ol>
      <li>Black tea</li>
      <li>Green tea</li>
    </ol>
  </li>
  <li>Milk</li>
</ol>

</body>
</html>
```

HTML-Other Lists
HTML Description Lists

```
<!DOCTYPE html>
<html>
<body>

<h2>A Description List</h2>

<dl>
 <dt>Coffee</dt>
 <dd>- black hot drink</dd>
 <dt>Milk</dt>
 <dd>- white cold drink</dd>
</dl>

</body>
</html>
```

HTML Block and Inline Elements

Block-level Elements

```
<!DOCTYPE html>
<html>
<body>

<div style="border: 1px solid black">Hello World</div>

<p>The DIV element is a block element and will always start on a new line and take up the full width available (stretches out to the left and right as far as it can).</p>

</body>
</html>
```

- Here are the block-level elements in HTML:
- [\<address\>](#)
- [\<article\>](#)
- [\<aside\>](#)
- [\<blockquote\>](#)
- [\<canvas\>](#)
- [\<dd\>](#)
- [\<div\>](#)
- [\<dl\>](#)
- [\<dt\>](#)
- [\<fieldset\>](#)
- [\<figcaption\>](#)
- [\<figure\>](#)
- [\<footer\>](#)
- [\<form\>](#)
- [\<h1\>-\<h6\>](#)
- [\<header\>](#)
- [\<hr\>](#)
- [\<li\>](#)
- [\<main\>](#)
- [\<nav\>](#)
- [\<noscript\>](#)
- [\<ol\>](#)
- [\<p\>](#)
- [\<pre\>](#)
- [\<section\>](#)
- [\<table\>](#)
- [\<tfoot\>](#)
- [\<ul\>](#)
- [\<video\>](#)

Inline Elements

```
<!DOCTYPE html>
<html>
<body>

<p>This is an inline span <span style="border: 1px solid black">Hello World</span> element
inside a paragraph.</p>

<p>The SPAN element is an inline element, and will not start on a new line and only takes up as
much width as necessary.</p>

</body>
</html>
```

- Here are the inline elements in HTML:
- [<a>](#)
- [<abbr>](#)
- [<acronym>](#)
- [<b>](#)
- [<bdo>](#)
- [<big>](#)
- [
](#)
- [<button>](#)
- [<cite>](#)
- [<code>](#)
- [<dfn>](#)
- [<em>](#)
- [<i>](#)
- [<img>](#)
- [<input>](#)
- [<kbd>](#)
- [<label>](#)
- [<map>](#)
- [<object>](#)
- [<output>](#)
- [<q>](#)
- [<samp>](#)
- [<script>](#)
- [<select>](#)
- [<small>](#)
- [<span>](#)
- [<strong>](#)
- [<sub>](#)
- [<sup>](#)
- [<textarea>](#)
- [<time>](#)
- [<tt>](#)
- [<var>](#)
- **Note:** An inline element cannot contain a block-level element!

The <div> Element

```
<!DOCTYPE html>
<html>
<body>

<div style="background-color:black;color:white;padding:20px;">
  <h2>London</h2>
  <p>London is the capital city of England. It is the most populous city in the United Kingdom, with a
metropolitan area of over 13 million inhabitants.</p>
  <p>Standing on the River Thames, London has been a major settlement for two millennia, its history going
back to its founding by the Romans, who named it Londinium.</p>
</div>

</body>
</html>
```

The <span> Element

```
<!DOCTYPE html>
<html>
<body>

<h1>The span element</h1>

<p>My mother has <span style="color:blue;font-weight:bold">blue</span> eyes and my
father has <span style="color:darkolivegreen;font-weight:bold">dark green</span> eyes.</p>

</body>
</html>
```

HTML class Attribute

Using The class Attribute

```
<!DOCTYPE html>
<html>
<head>
<style>
        .city {
         background-color: tomato;
         color: white;
         border: 2px solid black;
         margin: 20px;
         padding: 20px;
        }
</style>
</head>
<body>
        <div class="city">
        <h2>London</h2>
        <p>London is the capital of England.</p>
        </div>
        <div class="city">
        <h2>Paris</h2>
        <p>Paris is the capital of France.</p>
        </div>
        <div class="city">
        <h2>Tokyo</h2>
        <p>Tokyo is the capital of Japan.</p>
        </div>
</body>
</html>
```

```
<!DOCTYPE html>
<html>
<head>
<style>
.note {
  font-size: 120%;
  color: red;
}
</style>
</head>
<body>

<h1>My <span class="note">Important</span> Heading</h1>
<p>This is some <span class="note">important</span> text.</p>

</body>
</html>
```

The Syntax For Class

```
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}
</style>
</head>
<body>

<h2>The class Attribute</h2>
<p>Use CSS to style elements with the class name "city":</p>

<h2 class="city">London</h2>
<p>London is the capital of England.</p>

<h2 class="city">Paris</h2>
<p>Paris is the capital of France.</p>

<h2 class="city">Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>

</body>
</html>
```

Multiple Classes

```
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}

.main {
  text-align: center;
}
</style>
</head>
<body>

<h2>Multiple Classes</h2>
<p>Here, all three h2 elements belongs to the "city" class. In addition, London also belongs to the "main" class, which center-aligns
the text.</p>

<h2 class="city main">London</h2>
<h2 class="city">Paris</h2>
<h2 class="city">Tokyo</h2>

</body>
</html>
```

Different Elements Can Share Same Class

```
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}
</style>
</head>
<body>

<h2>Different Elements Can Share Same Class</h2>

<p>Even if the two elements do not have the same tag name, they can both point to the same class, and get
the same CSS styling:</p>

<h2 class="city">Paris</h2>
<p class="city">Paris is the capital of France.</p>

</body>
</html>
```

Use of The class Attribute in JavaScript

```
<!DOCTYPE html>
<html>
<body>

<h2>Use of The class Attribute in JavaScript</h2>
<p>Click the button to hide all elements with class name "city":</p>

<button onclick="myFunction()">Hide elements</button>

<h2 class="city">London</h2>
<p>London is the capital of England.</p>

<h2 class="city">Paris</h2>
<p>Paris is the capital of France.</p>

<h2 class="city">Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>

<script>
function myFunction() {
  var x = document.getElementsByClassName("city");
  for (var i = 0; i < x.length; i++) {
    x[i].style.display = "none";
  }
}
</script>

</body>
</html>
```

HTML id Attribute

Using The id Attribute

```
<!DOCTYPE html>
<html>
<head>
<style>
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}
</style>
</head>
<body>

<h2>The id Attribute</h2>
<p>Use CSS to style an element with the id "myHeader":</p>

<h1 id="myHeader">My Header</h1>

</body>
</html>
```

Difference Between Class and ID

```html
<!DOCTYPE html>
<html>
<head>
<style>
/* Style the element with the id "myHeader" */
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;}
/* Style all elements with the class name "city" */
.city {
  background-color: tomato;
  color: white;
  padding: 10px;}
</style>
</head>
<body>
<h2>Difference Between Class and ID</h2>
<p>A class name can be used by multiple HTML elements, while an id name must only be used by one HTML element within the page:</p>
<!-- An element with a unique id -->
<h1 id="myHeader">My Cities</h1>
<!-- Multiple elements with same class -->
<h2 class="city">London</h2>
<p>London is the capital of England.</p>
<h2 class="city">Paris</h2>
<p>Paris is the capital of France.</p>
<h2 class="city">Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>
</body>
</html>
```

HTML Bookmarks with ID and Links
Using The id Attribute in JavaScript

```
<!DOCTYPE html>
<html>
<body>

<h2>Using The id Attribute in JavaScript</h2>
<p>JavaScript can access an element with a specified id by using the getElementById() method:</p>

<h1 id="myHeader">Hello World!</h1>
<button onclick="displayResult()">Change text</button>

<script>
function displayResult() {
  document.getElementById("myHeader").innerHTML = "Have a nice day!";
}
</script>

</body>
</html>
```

- HTML Iframe Syntax
- `<iframe src="url" title="description"></iframe>`

Iframe - Set Height and Width

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Iframes</h2>
<p>You can use the height and width attributes to specify the size of the iframe:</p>

<iframe src="demo_iframe.htm" height="200" width="300" title="Iframe Example"></iframe>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Iframes</h2>
<p>You can also use the CSS height and width properties to specify the size of the
iframe:</p>

<iframe src="demo_iframe.htm" style="height:200px;width:300px" title="Iframe
Example"></iframe>

</body>
</html>
```

Iframe - Remove the Border

```
<!DOCTYPE html>
<html>
<body>

<h2>Remove the Iframe Border</h2>
<p>To remove the default border of the iframe, use CSS:</p>

<iframe src="demo_iframe.htm" style="border:none;" title="Iframe Example"></iframe>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Custom Iframe Border</h2>
<p>With CSS, you can also change the size, style and color of the iframe's border:</p>

<iframe src="demo_iframe.htm" style="border:2px solid red;" title="Iframe Example"></iframe>

</body>
</html>
```

Iframe - Target for a Link

```
<!DOCTYPE html>
<html>
<body>

<h2>Iframe - Target for a Link</h2>

<iframe src="demo_iframe.htm" name="iframe_a" height="300px" width="100%" title="Iframe
Example"></iframe>

<p><a href="https://www.w3schools.com" target="iframe_a">W3Schools.com</a></p>

<p>When the target attribute of a link matches the name of an iframe, the link will open in the iframe.</p>

</body>
</html>
```

HTML JavaScript

```
<!DOCTYPE html>
<html>
<body>

<h1>My First JavaScript</h1>

<button type="button"
onclick="document.getElementById('demo').innerHTML = Date()">
Click me to display Date and Time.</button>

<p id="demo"></p>

</body>
</html>
```

The HTML <script> Tag

```
<!DOCTYPE html>
<html>
<body>

<h2>Use JavaScript to Change Text</h2>
<p>This example writes "Hello JavaScript!" into an HTML element with id="demo":</p>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = "Hello JavaScript!";
</script>

</body>
</html>
```

A Taste of JavaScript

```
<!DOCTYPE html>
<html>
<body>

<h1>My First JavaScript</h1>

<p>JavaScript can change the content of an HTML element:</p>

<button type="button" onclick="myFunction()">Click Me!</button>

<p id="demo">This is a demonstration.</p>

<script>
function myFunction() {
  document.getElementById("demo").innerHTML = "Hello JavaScript!";
}
</script>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h1>My First JavaScript</h1>

<p id="demo">JavaScript can change the style of an HTML element.</p>

<script>
function myFunction() {
  document.getElementById("demo").style.fontSize = "25px";
  document.getElementById("demo").style.color = "red";
  document.getElementById("demo").style.backgroundColor = "yellow";
}
</script>

<button type="button" onclick="myFunction()">Click Me!</button>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h1>My First JavaScript</h1>
<p>Here, a JavaScript changes the value of the src (source) attribute of an image.</p>

<script>
function light(sw) {
 var pic;
 if (sw == 0) {
   pic = "pic_bulboff.gif"
 } else {
   pic = "pic_bulbon.gif"
 }
 document.getElementById('myImage').src = pic;
}
</script>

<img id="myImage" src="pic_bulboff.gif" width="100" height="180">

<p>
<button type="button" onclick="light(1)">Light On</button>
<button type="button" onclick="light(0)">Light Off</button>
</p>

</body>
</html>
```

The HTML <noscript> Tag

```
<!DOCTYPE html>
<html>
<body>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = "Hello JavaScript!";
</script>

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

<p>A browser without support for JavaScript will show the text written inside the noscript element.</p>

</body>
</html>
```

HTML File Paths

Path	Description
<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 File Paths
- A file path describes the location of a file in a web site's folder structure.
- File paths are used when linking to external files, like:
- Web pages
- Images
- Style sheets
- JavaScripts

Absolute File Paths

```
<!DOCTYPE html>
<html>
<body>

<h2>Using a Full URL File Path</h2>
<img src="https://www.w3schools.com/images/picture.jpg"
alt="Mountain" style="width:300px">

</body>
</html>
```

Relative File Paths

```
<!DOCTYPE html>
<html>
<body>

<h2>Using a Relative File Path</h2>
<img src="/images/picture.jpg" alt="Mountain" style="width:300px">

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Using a Relative File Path</h2>
<img src="images/picture.jpg" alt="Mountain" style="width:300px">

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>Using a Relative File Path</h2>
<img src="../images/picture.jpg" alt="Mountain" style="width:300px">

</body>
</html>
```

The HTML <head> Element

The HTML <title> Element

```
<!DOCTYPE html>
<html>
<head>
  <title>A Meaningful Page Title</title>
</head>
<body>

<p>The content of the body element is displayed in the browser window.</p>
<p>The content of the title element is displayed in the browser tab, in favorites and in search-engine results.</p>

</body>
</html>
```

The HTML <style> Element

```
<!DOCTYPE html>
<html>
<head>
  <title>Page Title</title>
  <style>
    body {background-color: powderblue;}
    h1 {color: red;}
    p {color: blue;}
  </style>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

The HTML <link> Element

```
<!DOCTYPE html>
<html>
<head>
  <title>Page Title</title>
  <link rel="stylesheet" href="mystyle.css">
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

The HTML <meta> Element

- Setting The Viewport
- `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

The HTML <script> Element

```
<!DOCTYPE html>
<html>
<head>
 <title>Page Title</title>
 <script>
 function myFunction() {
   document.getElementById("demo").innerHTML = "Hello JavaScript!";
 }
 </script>
</head>
<body>

<h1>My Web Page</h1>
<p id="demo">A Paragraph</p>
<button type="button" onclick="myFunction()">Try it</button>

</body>
</html>
```

The HTML <base> Element

```
<!DOCTYPE html>
<html>
<head>
  <base href="https://www.w3schools.com/" target="_blank">
</head>
<body>

<h1>The base element</h1>

<p><img src="images/stickman.gif" width="24" height="39" alt="Stickman"> - Notice that we have only specified a relative address for the image. Since we have specified a base URL in the head section, the browser will look for the image at "https://www.w3schools.com/images/stickman.gif".</p>

<p><a href="tags/tag_base.asp">HTML base tag</a> - Notice that the link opens in a new window, even if it has no target="_blank" attribute. This is because the target attribute of the base element is set to "_blank".</p>

</body>
</html>
```

HTML Layout Elements and Techniques

```html
<!DOCTYPE html>
<html lang="en">
<head>
<title>CSS Template</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
* {
  box-sizing: border-box;
}

body {
  font-family: Arial, Helvetica, sans-serif;
}

/* Style the header */
header {
  background-color: #666;
  padding: 30px;
  text-align: center;
  font-size: 35px;
  color: white;
}
```

```css
/* Create two columns/boxes that floats next to each other */
nav {
  float: left;
  width: 30%;
  height: 300px; /* only for demonstration, should be removed */
  background: #ccc;
  padding: 20px;
}

/* Style the list inside the menu */
nav ul {
  list-style-type: none;
  padding: 0;
}

article {
  float: left;
  padding: 20px;
  width: 70%;
  background-color: #f1f1f1;
  height: 300px; /* only for demonstration, should be removed */
}

/* Clear floats after the columns */
section::after {
  content: "";
  display: table;
  clear: both;
}

/* Style the footer */
footer {
  background-color: #777;
  padding: 10px;
  text-align: center;
  color: white;
}
```

```
/* Responsive layout - makes the two columns/boxes stack on top of each other instead of next to each other, on small screens */
@media (max-width: 600px) {
  nav, article {
    width: 100%;
    height: auto;
  }
}
</style>
</head>
<body>

<h2>CSS Layout Float</h2>
<p>In this example, we have created a header, two columns/boxes and a footer. On smaller screens, the columns will stack on top of each other.</p>
<p>Resize the browser window to see the responsive effect (you will learn more about this in our next chapter - HTML Responsive.)</p>

<header>
  <h2>Cities</h2>
</header>

<section>
  <nav>
    <ul>
      <li><a href="#">London</a></li>
      <li><a href="#">Paris</a></li>
      <li><a href="#">Tokyo</a></li>
    </ul>
  </nav>

  <article>
    <h1>London</h1>
    <p>London is the capital city of England. It is the most populous city in the  United Kingdom, with a metropolitan area of over 13 million inhabitants.</p>
    <p>Standing on the River Thames, London has been a major settlement for two millennia, its history going back to its founding by the Romans, who named it Londinium.</p>
  </article>
</section>

<footer>
  <p>Footer</p>
</footer>

</body>
</html>
```