

Class 1 HTML intro

heading (h1-h5)

```
<h1> web technology </h1>
```

div element (div)

The `<div>` element is used as a container for other HTML elements.

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

```
<div>I am a div</div> dolor sit amet
```

HTML class Attribute

The `class` attribute is often used to point to a class name in a style sheet. It can also be used by a JavaScript to access and manipulate elements with the specific class name.

```
<!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>

```

Html id

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

You cannot have more than one element with the same id in an HTML document.

```

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

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

</body>
</html>

```

Html lists

HTML lists allow web developers to group a set of related items in lists

```

<ul>
  <li>Coffee</li>

```

```
<li>Tea</li>
<li>Milk</li>
</ul>
```

Html tables

HTML tables allow web developers to arrange data into rows and columns.

```
<table>
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
</table>
```

Html styles

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

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

HTML Text Formatting

Formatting elements were designed to display special types of text:

- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text

- `<small>` - Smaller text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

Html file path

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

Path	Description
<code></code>	The "picture.jpg" file is located in the same folder as the current page
<code></code>	The "picture.jpg" file is located in the images folder in the current folder
<code></code>	The "picture.jpg" file is located in the images folder at the root of the current web
<code></code>	The "picture.jpg" file is located in the folder one level up from the current folder

```

```

HTML layout

HTML Layout Techniques

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

HTML Forms

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

The <form> Element

The HTML `<form>` element is used to create an HTML form for user input:

```
<form>
.
form elements
.
</form>
```

The `<form>` element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

All the different form elements are covered in this chapter: [HTML Form Elements](#).

The <input> Element

The HTML `<input>` element is the most used form element.

An `<input>` element can be displayed in many ways, depending on the `type` attribute.

Here are some examples:

Type	Description
<code><input type="text"></code>	Displays a single-line text input field
<code><input type="radio"></code>	Displays a radio button (for selecting one of many choices)
<code><input type="checkbox"></code>	Displays a checkbox (for selecting zero or more of many choices)
<code><input type="submit"></code>	Displays a submit button (for submitting the form)
<code><input type="button"></code>	Displays a clickable button

All the different input types are covered in this chapter: [HTML Input Types](#).

Text Fields

The `<input type="text">` defines a single-line input field for text input.

```
<form>
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname">
</form>
```

Note: The form itself is not visible. Also note that the default width of an input field is 20 characters.

The <label> Element

Notice the use of the `<label>` element in the example above.

The `<label>` tag defines a label for many form elements.

The `<label>` element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focuses on the input element.

The `<label>` element also helps users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the `<label>` element, it toggles the radio button/checkbox.

The `for` attribute of the `<label>` tag should be equal to the `id` attribute of the `<input>` element to bind them together.

Radio Buttons

The `<input type="radio">` defines a radio button.

Radio buttons let a user select ONE of a limited number of choices.

```
<p>Choose your favorite Web language:</p>

<form>
  <input type="radio" id="html" name="fav_language" value="HTML">
  <label for="html">HTML</label><br>
  <input type="radio" id="css" name="fav_language" value="CSS">
  <label for="css">CSS</label><br>
  <input type="radio" id="javascript" name="fav_language" value="JavaScript">
  <label for="javascript">JavaScript</label>
</form>
```

Checkboxes

The `<input type="checkbox">` defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

```

<form>
  <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
  <label for="vehicle1"> I have a bike</label><br>
  <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
  <label for="vehicle2"> I have a car</label><br>
  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
  <label for="vehicle3"> I have a boat</label>
</form>

```

The Submit Button

The `<input type="submit">` defines a button for submitting the form data to a form-handler.

The form-handler is typically a file on the server with a script for processing input data.

The form-handler is specified in the form's `action` attribute.

```

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname" value="Doe"><br><br>
  <input type="submit" value="Submit">
</form>

```

The Name Attribute for <input>

Notice that each input field must have a `name` attribute to be submitted.

If the `name` attribute is omitted, the value of the input field will not be sent at all.

```

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" value="John"><br><br>
  <input type="submit" value="Submit">
</form>

```

HTML Images

Images can improve the design and the appearance of a web page.

```

```

HTML Images Syntax

The HTML `` tag is used to embed an image in a web page.

Images are not technically inserted into a web page; images are linked to web pages.

The `` tag creates a holding space for the referenced image.

The `` tag is empty, it contains attributes only, and does not have a closing tag.

The `` tag has two required attributes:

- `src` - Specifies the path to the image
- `alt` - Specifies an alternate text for the image

Syntax

```

```

The src Attribute

The required `src` attribute specifies the path (URL) to the image.

Note: When a web page loads, it is the browser, at that moment, that gets the image from a web server and inserts it into the page. Therefore, make sure that the image actually stays in the same spot in relation to the web page, otherwise your visitors will get a broken link icon. The broken link icon and the `alt` text are shown if the browser cannot find the image.

```

```

The alt Attribute

The required `alt` attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the `src` attribute, or if the user uses a screen reader).

The value of the `alt` attribute should describe the image:

```

```

Image Size - Width and Height

You can use the `style` attribute to specify the width and height of an image.


```
<html>
<head>
<style>
img { width: 100%;
}
</style>
</head>
<body>


</body>
</html>
```

[Try it Yourself »](#)

Images in Another Folder

If you have your images in a sub-folder, you must include the folder name in the `src` attribute:

```

```

Images on Another Server/Website

Some web sites point to an image on another server.

To point to an image on another server, you must specify an absolute (full) URL in the `src` attribute:

Example

```

```

[Try it Yourself »](#)

Notes on external images: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; they can suddenly be removed or changed.

Animated Images

HTML allows animated GIFs:

Example

```

```

[Try it Yourself »](#)

Image as a Link

To use an image as a link, put the `` tag inside the `<a>` tag:

Example

```
<a href="default.asp"> </a>
```

[Try it Yourself »](#)

Image Floating

Use the CSS `float` property to let the image float to the right or to the left of a text:

Example

```
<p>The  
image will float to the right of the text.</p><p>The image will float to the left of the text.</p>
```

[Try it Yourself »](#)

Tip: To learn more about CSS Float, read our [CSS Float Tutorial](#).

Common Image Formats

Here are the most common image file types, which are supported in all browsers (Chrome, Edge, Firefox, Safari, Opera):

Abbreviation	File Format	File Extension
APNG	Animated Portable Network Graphics	.apng
GIF	Graphics Interchange Format	.gif
ICO	Microsoft Icon	.ico, .cur
JPEG	Joint Photographic Expert Group image	.jpg, .jpeg, .jfif, .pjpeg, .jpp
PNG	Portable Network Graphics	.png
SVG	Scalable Vector Graphics	.svg

Chapter Summary

- Use the HTML `` element to define an image
- Use the HTML `src` attribute to define the URL of the image
- Use the HTML `alt` attribute to define an alternate text for an image, if it cannot be displayed
- Use the HTML `width` and `height` attributes or the CSS `width` and `height` properties to define the size of the image
- Use the CSS `float` property to let the image float to the left or to the right

Note: Loading large images takes time, and can slow down your web page. Use images carefully.

HTML Image Tags

Tag	Description
<code></code>	Defines an image
<code><map></code>	Defines an image map
<code><area></code>	Defines a clickable area inside an image map
<code><picture></code>	Defines a container for multiple image resources

