

HTML FUNDAMENTALS

Part 3

CASCADING STYLE SHEET (CSS)

HTML Styles - CSS

CSS stands for Cascading Style Sheets.

CSS saves a lot of work. It can control the layout of multiple web pages all at once.

What is CSS?

Cascading Style Sheets (CSS) is used to format the layout of a webpage.

With CSS, you can control the **color**, **font**, the **size** of text, the **spacing** between elements, how elements are **positioned** and laid out, what **background images** or **background colors** are to be used, different **displays** for different devices and screen sizes, and much more!

Using CSS

CSS can be added to HTML documents in 3 ways:

- Inline - by using the style attribute inside HTML elements
- Internal - by using a <style> element in the <head> section
- External - by using a <link> element to link to an external CSS file

The most common way to add CSS, is to keep the styles in external CSS files.

1. Inline CSS

An inline CSS is used to apply a unique style to a single HTML element.

An inline CSS uses the style attribute of an HTML element.

1. Inline CSS

The following example sets the text color of the <h1> element to blue, and the text color of the <p> element to red:

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

```
<p style="color:red;">A red paragraph.</p>
```

2. Internal CSS

An internal CSS is used to define a style for a single HTML page.

An internal CSS is defined in the `<head>` section of an HTML page, within a `<style>` element.


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

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

</body>
</html>
```

3. External CSS

An external style sheet is used to define the style for many HTML pages.

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

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

</body>
</html>
```

The external style sheet can be written in any text editor. The file must not contain any HTML code, and must be saved with a **.css** extension.

```
body {  
    background-color: powderblue;  
}  
h1 {  
    color: blue;  
}  
p {  
    color: red;  
}
```

CSS Colors, Fonts and Sizes

Here, we will demonstrate some commonly used CSS properties. You will learn more about them later.

- The CSS **color** property defines the text color to be used.
- The CSS **font-family** property defines the font to be used.
- The CSS **font-size** property defines the text size to be used.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: blue;
  font-family: verdana;
  font-size: 300%;
}
p {
  color: red;
  font-family: courier;
  font-size: 160%;
}
</style>
</head>
<body>

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

</body>
</html>
```

CSS Border

The CSS border property defines a border around an HTML element.

Tip: You can define a border for nearly all HTML elements.

```
p {  
    border: 2px solid powderblue;  
}
```


CSS Padding

The CSS padding property defines a padding (space) between the text and the border.

```
p {  
    border: 2px solid powderblue;  
    padding: 30px;  
}
```

CSS Margin

The CSS margin property defines a margin (space) outside the border.

```
p {  
    border: 2px solid powderblue;  
    margin: 50px;  
}
```

Link to External CSS

This example uses a full URL to link to a style sheet:

```
<link rel="stylesheet" href="https://www.samplesite.com/html/styles.css">
```

This example links to a style sheet located in the html folder on the current web site:

```
<link rel="stylesheet" href="/html/styles.css">
```

This example links to a style sheet located in the same folder as the current page:

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

HTML LINKS

HTML Links - Hyperlinks

HTML links are hyperlinks.

You can click on a link and jump to another document.

When you move the mouse over a link, the mouse arrow will turn into a little hand.

HTML Links - Syntax

The HTML <a> tag defines a hyperlink. It has the following syntax:

```
<a href="url">link text</a>
```

The most important attribute of the <a> element is the **href** attribute, which indicates the link's destination.

The link text is the part that will be visible to the reader.

HTML Links - Syntax

Clicking on the link text, will send the reader to the specified URL address.

```
<p><a href="https://www.facebook.com/">Visit Facebook</a></p>
```

HTML Links - Syntax

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and [blue](#)
- A visited link is underlined and [purple](#)
- An active link is underlined and [red](#)

HTML Links - The target Attribute

By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link. The target attribute specifies where to open the linked document.

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

HTML Links - The target Attribute

Use target="_blank" to open the linked document in a new browser window or tab:

```
<a href="https://www.facebook.com/" target="_blank">Visit Facebook!</a>
```

Absolute URLs vs. Relative URLs

Both examples above are using an absolute URL (a full web address) in the href attribute.

A local link (a link to a page within the same website) is specified with a relative URL (without the "https://www" part)

<h2>Absolute URLs</h2>

<p>W3C</p>

<p>Google</p>

<h2>Relative URLs</h2>

<p>HTML Images</p>

<p>CSS Tutorial</p>

HTML Links - Use an Image as a Link

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

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

Link to an Email Address

Use mailto: inside the href attribute to create a link that opens the user's email program (to let them send a new email):

```
<a href="mailto:someone@example.com">Send email</a>
```

Button as a Link

To use an HTML button as a link, you have to add some JavaScript code.

JavaScript allows you to specify what happens at certain events, such as a click of a button:

```
<button onclick="document.location='default.asp'">HTML Tutorial</button>
```

Link Titles

The title attribute specifies extra information about an element.

The information is most often shown as a tooltip text when the mouse moves over the element.

```
<a href="https://www.facebook.com/" title="Go to Facebook.com">Visit our HTML Facebook</a>
```


HTML LINKS - DIFFERENT COLORS

HTML Links – Different Colors

An HTML link is displayed in a different color depending on whether it has been visited, is unvisited, or is active.

You can change the link state colors, by using CSS:

```
<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>
```

Link Buttons

A link can also be styled as a button, by using CSS:



This is a link

```
<!DOCTYPE html>
<html>
<head>
<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>
</head>
<body>

<h2>Link Button</h2>
<p>A link styled as a button:</p>
<a href="default.asp" target="_blank">This is a link</a>

</body>
</html>
```