

Internet Web Site Design

Styling HTML with CSS

- CSS stands for **Cascading Style Sheets**.
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media.
- CSS saves a lot of work. It can control the layout of multiple web pages all at once.
- CSS can be added to HTML elements in 3 ways:
 - Inline – by using the style attribute in HTML elements.
 - Internal – by using a <style> element in the <head> section.
 - External – by using an external CSS file.
- The most common way to add CSS, is to keep the styles in separate CSS files.

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.
- This example sets the text color of the <h1> element to blue:

HTML Script	<pre><!DOCTYPE html> <html> <body> <h1 style="color:blue;">This is a Blue Heading</h1> </body> </html></pre>
Result	<h1 style="color: blue;">This is a Blue Heading</h1>

Internal CSS

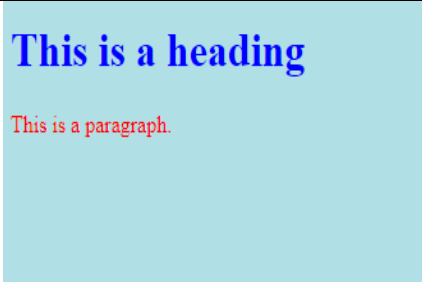
- An internal CSS is used to define a style for a single HTML page.
- An internal CSS is defined in the <head> section of an HTML page, within a <style> element:

HTML Script	Result
<pre><!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></pre>	<p style="color: blue; font-size: 1.2em; font-weight: bold;">This is a heading</p> <p style="color: red;">This is a paragraph.</p>

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External CSS

- An external style sheet is used to define the style for many HTML pages.
- With an external style sheet, you can change the look of an entire web site, by changing one file!
- To use an external style sheet, add a link to it in the <head> section of the HTML page.

HTML Script	Result
<pre><!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></pre>	

- An 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.
- Here is how the "styles.css" looks:

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

Note: We will use inline and internal styling, because this is easier to demonstrate, and easier for you to try it yourself.

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CSS Fonts

- 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.

HTML Script	Result
<pre><!DOCTYPE html> <html> <head> <style> h2 { color: blue; font-family: verdana; font-size: 300%; } p { color: red; font-family: courier; font-size: 160%; } </style> </head> <body> <h2>This is a heading</h2> <p>This is a paragraph.</p> </body> </html></pre>	<p>This is a heading</p> <p>This is a paragraph.</p>

CSS Border

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

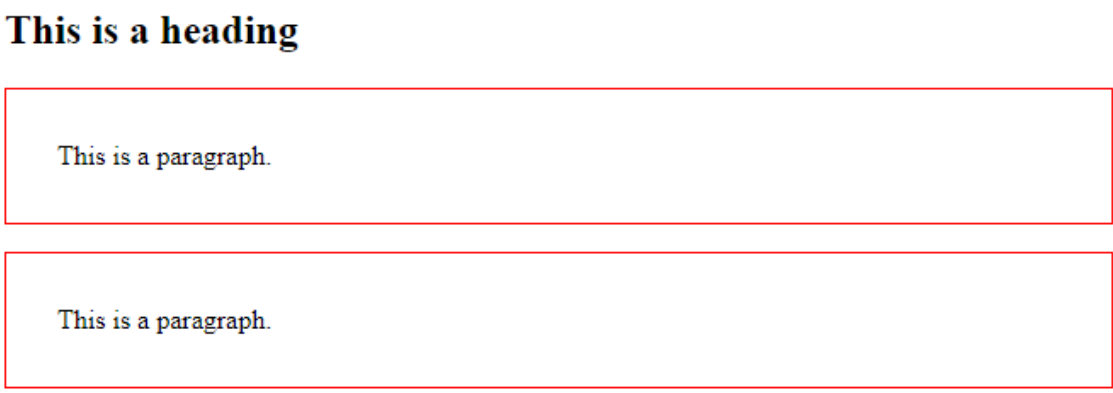
Example:

```
p {
  border: 1px solid powderblue;
}
```

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CSS Padding

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

HTML Script	<pre><!DOCTYPE html> <html> <head> <style> p { border: 1px solid red; padding: 30px; } </style> </head> <body> <h2>This is a heading</h2> <p>This is a paragraph.</p> <p>This is a paragraph.</p> </body> </html></pre>
Result	 <p>The result shows a heading "This is a heading" and two paragraphs "This is a paragraph." Each paragraph is enclosed in a red border with padding, demonstrating the effect of the CSS padding property.</p>

CSS Margin

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

HTML Script	<pre><!DOCTYPE html> <html> <head> <style> p { border: 1px solid red; margin: 50px; } </style> </head> <body> <h2>This is a heading</h2> <p>This is a paragraph.</p> <p>This is a paragraph.</p> </body> </html></pre>
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Result	This is a heading
	This is a paragraph.
	This is a paragraph.

The id Attribute

- To define a specific style for one special element, add an id attribute to the element:

```
<p id="p01">I am different</p>
```

then define a style for the element with the specific id:

HTML Script	Result
<pre><!DOCTYPE html> <html> <head> <style> #p01 { color: blue; } </style> </head> <body> <p>This is a paragraph.</p> <p>This is a paragraph.</p> <p id="p01">I am different.</p> </body> </html></pre>	<p>This is a paragraph.</p> <p>This is a paragraph.</p> <p>I am different.</p>

Note: The id of an element should be unique within a page, so the id selector is used to select one unique element!

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The class Attribute

- To define a style for special types of elements, add a class attribute to the element:

```
<p class="error">I am different</p>
```

- then define a style for the elements with the specific class:

HTML Script	Result
<pre><!DOCTYPE html> <html> <head> <style> p.error { color: red; } </style> </head> <body> <p>This is a paragraph.</p> <p>This is a paragraph.</p> <p class="error">I am different too.</p> </body> </html></pre>	<p>This is a paragraph.</p> <p>This is a paragraph.</p> <p>I am different.</p>

External References

- External style sheets can be referenced with a full URL or with a path relative to the current web page.
- This example uses a full URL to link to a style sheet:

```
<link rel="stylesheet" href="https://www.w3schools.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">
```