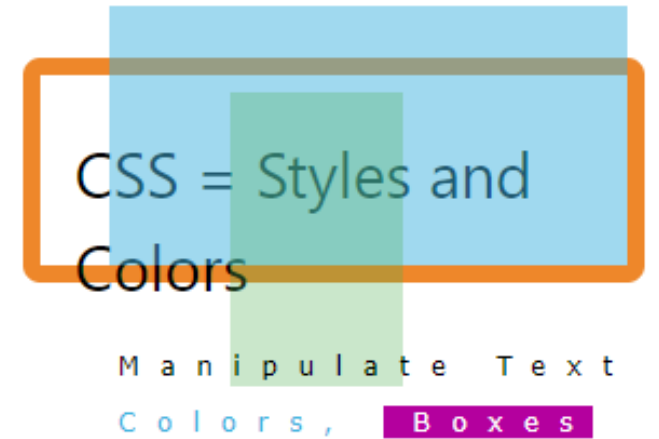# HTML:
CSS & ELEMENTS

HTML Styles - 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. However, here we will use inline and internal styling.

CSS = Styles and Colors

Manipulate Text

Colors, Boxes

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:

- <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:

```
<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>
```

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:

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


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

</body>
```

External CSS

- 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:

```css
body {
  background-color: powderblue;
}

h1 {
  color: blue;
}

p {
  color: red;
}
```

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.

Example

```
<!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:

p {
    border: 1px solid powderblue;
}

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 1px solid powderblue;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

CSS Padding

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

```
p {
    border: 1px solid
powderblue;
    padding: 30px;
}
```

CSS Margin

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

```
p {
    border: 1px solid
powderblue;
    margin: 50px;
}
```

CSS Padding

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

```html
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 1px solid powderblue;
  padding: 30px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

CSS Margin

```html
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 1px solid powderblue;
  margin: 50px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

This is a heading

This is a paragraph.

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:

```
#p01 {
   color: blue;
}
```

The id Attribute

```html
<!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>
```

This is a paragraph.

This is a paragraph.

I am different.

The class Attribute

To define a style for a special type 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:

The class Attribute

This is a paragraph.

This is a paragraph.

I am different.

This is a paragraph.

I am different too.

```
<!DOCTYPE html>
<html>
<head>
<style>
).error {
    color: red;
}
</style>
</head>
<body>

<p>This is a paragraph.</p>
<p>This is a paragraph.</p>
<p class="error">I am different.</p>
<p>This is a paragraph.</p>
<p class="error">I am different too.</p>

</body>
</html>
```

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:

Example:

```
<link rel="stylesheet" href="http://www.w3schools.com/html/styles.css">
```

External References

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">
```

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

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

</body>
</html>
```

This is a heading

This is a paragraph.

```
<!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>
```

This is a heading

This is a paragraph.

Chapter Summary

- 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