Internet Web Site Design / 3rd Stage
Prepared by: Lect. Ahmed Mahmood
2- HTML5

Diyala University - College of Engineering
Computer Engineering Department

**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.

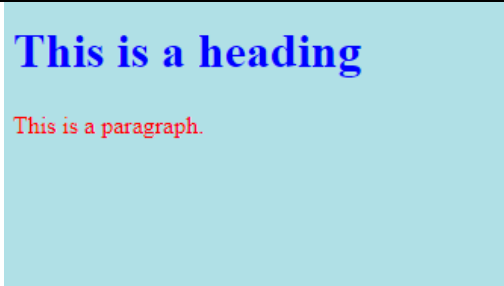- The most common way to add CSS, is to keep the styles in separate CSS files.

**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:

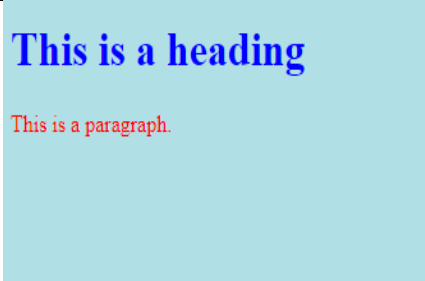| HTML Script | <pre><!DOCTYPE html><br><html><br>  <body><br>    <h1 style="color:blue;">This is a Blue Heading</h1><br>  </body><br></html></pre> |
|---|---|
| Result | **This is a Blue Heading** |

**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><br><html><br>  <head><br>  <style><br>    body {background-color: powderblue;}<br>    h1    {color: blue;}<br>    p     {color: red;}<br>  </style><br>  </head><br>  <body><br>    <h1>This is a heading</h1><br>    <p>This is a paragraph.</p>><br>  </body></html></pre> | **This is a heading**<br><br>This is a paragraph. |

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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 |
|---|---|
| ```<!DOCTYPE html><html>   <head>   <style>    <link rel="stylesheet" href="styles.css">   </style>   </head>   <body>     <h1>This is a heading</h1>     <p>This is a paragraph.</p>>   </body></html>``` | **This is a heading**<br><br>This is a paragraph. |

- 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.

**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 |
|---|---|
| ```html
<!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>
``` | **This is a heading**<br><br>This is a paragraph. |

**CSS Border**

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

Example:

```css
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 | ```html
<!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>
``` |
|---|---|
| Result | **This is a heading**<br><br>This is a paragraph.<br><br>This is a paragraph. |

## CSS Margin

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

| HTML Script | ```html
<!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>
``` |
|---|---|

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| Result | **This is a heading**<br><br>This is a paragraph.<br><br><br>This is a paragraph.<br><br><br>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 |
|---|---|
| ```<!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.<br><br>This is a paragraph.<br><br>I am different. |

**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 |
|---|---|
| ```<br><!DOCTYPE html><br><html><br>   <head><br>   <style><br>     p.error {<br>         color: red;<br>     }<br>   </style><br>   </head><br>   <body><br>     <p>This is a paragraph.</p><br>     <p>This is a paragraph.</p><br>     <p class="error">I am different too.</p><br>   </body><br></html><br>``` | This is a paragraph.<br><br>This is a paragraph.<br><br>I am different. |

**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">