

Cascading Style Sheets



CST 365 – Web Applications
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Objectives

- Explain the need for Cascading Style Sheets (CSS) and their importance
- Discuss the use of CSS to enhance the presentation/layout of Web content
- Explain the several styles of using CSS

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Cascading Style Sheets (CSS)
Reading: Chapter 3.4



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Cascading Style Sheets (CSS)

- HTML tags were originally designed to define the content of a document.
 - The browser was supposed to layout the document, without using any formatting tags
- As the two major browsers - Netscape and Internet Explorer - continued to add new HTML tags
 - became more difficult to separate content from layout
- To solve this problem, W3C created STYLES
 - All major browsers support Cascading Style Sheets (CSS)

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Why is CSS important?

- Styles sheets define HOW HTML elements are to be displayed
 - Styles are external which enable you to change the appearance and layout of all the pages at once
- CSS allows developers to control the style and layout of multiple Web pages all at once.
 - you can define a style for each HTML element and apply it to as many Web pages as you want
 - To make a global change, simply change the style, and all elements in the Web are updated automatically

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How do I use them?

- Style sheets allow style information to be specified in many ways
 - Inside the HTML element
 - Inside the <head> element
 - In an external CSS file
 - multiple external style sheets can be referenced inside a single HTML document

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What is meant by Cascading?

- What style will be used when there is more than one style specified for the same HTML element?
- Generally speaking we can say that all the styles will "cascade" into a new "virtual" style sheet by the following precedence rules
 - Browser default - lowest
 - External style sheet
 - Internal style sheet (inside the <head> tag)
 - Inline style (inside an HTML element) - highest

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Syntax

- The CSS syntax is made up of three parts:
 - Selector – normally the HTML element/tag of interest
 - property – attribute you wish to change
 - Value – the value you wish to set
- After the Selector, the property and value are separated by a colon and surrounded by curly braces
 - Syntax: selector {property: value}
 - Ex:
 - body {color: black}

More Syntax

- If the value is multiple words, put quotes around the value:
 - EX: **p {font-family: "sans serif"}**
- If you wish to specify more than one property, you must separate each property with a semicolon
 - EX: **p {text-align:center;color:red}**
- To make the style definitions more readable, you can describe one property on each line, like this:

```
p {  
    text-align: center;  
    color: black;  
}
```

Grouping

- You can group selectors by separating each selector with a comma.
 - EX:
**h1,h2,h3,h4,h5,h6 {
 color: green;
}**

Class Selectors

- With the class selector you can define different styles for the same type of HTML element
 - Ex:
 - `p.right {text-align: right}`
 - `p.center {text-align: center}`
- You have to use the class attribute in your HTML document:
 - Ex:
 - `<p class="right"> This paragraph will be right-aligned.`
`</p><p class="center"> This paragraph will be center-aligned. </p>`

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More on Class Selectors

- You can also omit the tag name in the selector to define a style that will be used by all HTML elements that have a certain class
 - Ex: `.center {text-align: center}`
 - `<h1 class="center"> This heading will be center-aligned`
`</h1><p class="center"> This paragraph will also be center-aligned. </p>`
- To apply more than one class per given element, the syntax is:
 - `<p class="center bold"> This is a paragraph. </p>`

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The id Selector

- You can also define styles for HTML elements with the id selector which is defined as a #
- Ex:
 - `#green {color: green}`
 - `<p id="green">`
 - `#para1 { text-align: center; color: red }`
 - `<p id="para1">`

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Finally, Comments

- Comments are used to explain your code, and may help you when you edit the source code at a later date
 - Comments are ignored by browsers
- A CSS comment begins with "/*", and ends with "*/"
 - Ex:
 - /* this is a comment */

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Okay, so how to insert into HTML?

- Style sheets can be inserted into HTML documents in variety of ways
 - Inside the HTML element
 - Inside the <head> element
 - In an external CSS file
 - multiple external style sheets can be referenced inside a single HTML document
- And we'll discuss how to NOW

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External Style Sheet

- An external style sheet is ideal when the style is applied to many pages
 - Each page must link to the style sheet using the <link> tag which goes inside the <head>
 - Ex:

```
<head>
  <link rel="stylesheet" type="text/css" href="mystyle.css"/>
</head>
```
 - An external style sheet can be written in any text editor
 - The file should not contain any html tags
 - Your style sheet should be saved with a .css extension
 - Ex:

```
hr {color: sienna}
p {margin-left: 20px}
```

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Internal Style Sheets

- An internal style sheet should be used when a single document has a unique style
 - You define internal styles in the head section by using the <style> tag, like this:

– Ex:

```
<head>
  <style type="text/css">
    hr {color: sienna}
    p {margin-left: 20px}
    body {background-image: url("images/back40.gif")}
  </style>
</head>
```

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Browser Problems?

- A browser normally ignores unknown tags.
 - This means that an old browser that does not support styles, will ignore the <style> tag, but the content of the <style> tag will be displayed on the page

– To avoid this:

```
<head>
  <style type="text/css">
    <!--
      hr {color: sienna}
      p {margin-left: 20px}
      body {background-image: url("images/back40.gif")}
    -->
  </style>
</head>
```

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Inline Styles

- An inline style loses many of the advantages of style sheets by mixing content with presentation
 - Use this method sparingly, such as when a style is to be applied to a single occurrence of an element.
- To use inline styles you use the style attribute in the relevant tag
 - The style attribute can contain any CSS property
 - Ex:
 - <p style="color: sienna; margin-left: 20px"> This is a paragraph </p>

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Online Tutorials

- CSS Tutorials
 - <http://www.w3schools.com/css/>

Summary

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- Discussed the use of CSS to enhance the presentation/layout of Web content
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Questions?


