CS 110 Website Production
Cascading Style Sheets

Session overview

- Introducing CSS

- Understanding Style rules

- First style sheet

- Combining CSS with HTML

- Using style attribute (Inline CSS)

- Using `<style>` element

- Basic selection techniques

- Using the class selector

- Working with `<div>` and `<span>` elements

Introduction

- In some document-processing applications like MS-Word, choosing a particular `style` produces a complex set of changes in typeface, color, size etc.

- Style sheets give you a corresponding capability as you design a Web page

- CSS is an easy to use style language that lets you use familiar desktop publishing terminology to control the appearance of the Web page.

- You can use CSS to control typography, colors, backgrounds and other design characteristics.

Understanding Style Rules

- The main components of CSS syntax are `<style>` tags and their associated **style rules**.

- You write style rules that select an HTML element and then declare style characteristics for the element.

- The **style rule** expresses the style information for an element in the HTML document

Understanding Style Rules

- The **style rule** is composed of two parts:

- The **selector** determines the element to which the rule is applied.

- The **declaration** specifies the exact property values to be applied to the element

Understanding Style Rules

h1 **{ color:red; }**

Selector   **Declaration**

Simple style rule that sets all **<h1>** headings in red

Understanding Style Rules

- Declaration contains a property and a value
- The **property** is quality or characteristic, such as color, font size or margin, followed by a colon (:)
- The **value** is the precise specification of the property, such as red for color, followed by semicolon (;)

```
h1 { color : red; }
```

Property   **Value**

Combining CSS rules with HTML

- You can combine CSS rules with HTML code in the following three ways:

- The `style` attribute (Inline CSS)

- The `<style>` element

- An external style sheet

Understanding Style Rules

- The style rules you write are contained in a **style sheet.**

- An **external style sheet** is a stand-alone document that is shared by a number of Web pages; this is convenient method of controlling styles throughout a Web site.

- Alternately, the style sheet can be contained **within a single Web page**, controlling the styles for that page only.

Writing your first style sheet contained within an HTML document

- Create an html file with following content or open the file first style sheet.html

```
<html>
  <head>
   <title>First Style Sheet</title>
  </head>
<body>
<h1> Writing Your First Style
  Sheet</h1>
<p> In this exercise you will write
  your first style sheet.</p>
</body>
</html>
```

Writing your first style sheet…

- Add a **`<style>`** element and style rule for the **`<h1>`** element as a part of the **`<head>`**

```
<head>
  <style type="text/css">
  h1 {color:red;}
</style>
  <title>First Style Sheet
  </title>
</head>
```

Save the file and open with the browser

Writing your first style sheet…

- Add within the **`<style>`** tag, a style rule for the **`<body>`** element

`body {font-family: arial; }`

Save the file and open with the browser

Combining CSS rules with HTML

- You can combine CSS rules with HTML code in the following three ways:

- The `style` attribute (Inline CSS)

- The `<style>` element

- An external style sheet

Using the `style` attribute (Inline CSS)

- The style attribute is an HTML attribute that can be used with any HTML element.

- You can define the style for a single element by using the style attribute.

- Used to override a style that was specified at a higher level or for testing styles.

Using the `style` attribute (Inline CSS)

- **`<p
style="font-weight:bold;
color:green;"> The text in this
paragraph uses inline CSS
attribute</p>`**

Using the `<style>` element

- The <style> element is always contained in the <head> section of the document.

```
<head>
 <style type="text/css">
 h1 {color:red;}
 h2 {color:blue;}
</style>
</head>
```

Adding Comments

- CSS allows comments within the <style> element or in an external style sheet

```
<style type="text/css">
/*This is the base style sheet
  */
 h1 {color:red;
     font-weight:bold;}    /* The
 headline color, bolded*/
</style>
```

- Comments provide documentation for your style rules

Hands on time

See Week 9 CSS Assignments.

Basic selection techniques

- The power of CSS comes from the different methods of selecting elements, which allow an HTML author to apply style rules in a variety of ways.
  - Using Type selector
  - Grouping selectors
  - Combining declarations
  - Using descendant selectors

Using Type selector

- Type selector applies the rule to every instance of the element in the document.

```
h1 { color: red; }
body {font-family: arial;}
b {color: blue;}
p {font-size: 10pt;}
```

Grouping selectors

```
h1 { color: red;}
h2 { color: red;}
```

These two rules can be expressed more simply by separating selectors by commas:

```
h1, h2 { color: red;}
```

Combining declarations

```
p {color: green; }
p {font-size: 12pt;}
```

These two style rules can be expressed more simply by combining the declarations in one rule:

```
p {font-size: 12pt; color: green;}
```

Using descendant selectors

- A **descendant selector(contextual selector)** is based on the hierarchical structure of the elements in the document tree.

- This selector lets you select a elements that are the descendants of other elements.

```
p b {color: blue; }
```

- This rule selects only <b> elements that are contained within <p> elements. All other <b> elements in the document will not be affected

Using the `class` selector

- The **class selector** lets you write a style rule, assign it a name, and then apply that name to any elements you choose instead of just specified types.

- To apply the style rule to an element, you add the **`class`** attribute to the element and set it to the name you have specified.

Using the `class` selector

```
.quote {color:red;font-
  weight:bold;}
```

Flag char   Class name   Declaration

Rule name when there is a class selector begins with a period (.). Add rule to the HTML document using `class` attribute.

Use class selector with a paragraph.

```
<p class="quote">Text in red and
  bold </p>
```

Using the `<div>` and `<span>` elements

- The **`<div>`** (division) and **`<span>`** (span of words) elements of HTML are designed to be used with CSS class selector.

- You can specify logical divisions within a document that have their own class name and style properties.

- Used with the class attribute, **`<div>`** and **`<span>`** let you create your own element names for your HTML document.

Working with the `<span>` and `<div>` elements

```
See Examples in Resources
See Example in Assignment CSS
```

Hands on time

See Week 9 CSS Assignments