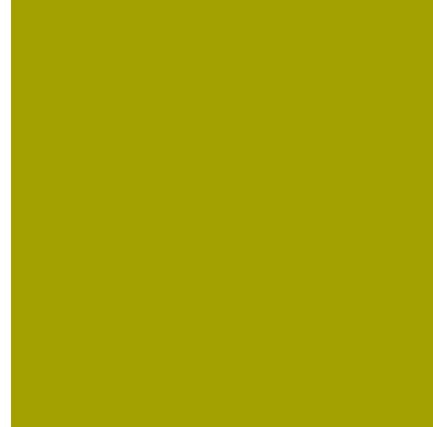


+



Web Development

03 Configuring colors and text with CSS

Learning Outcomes

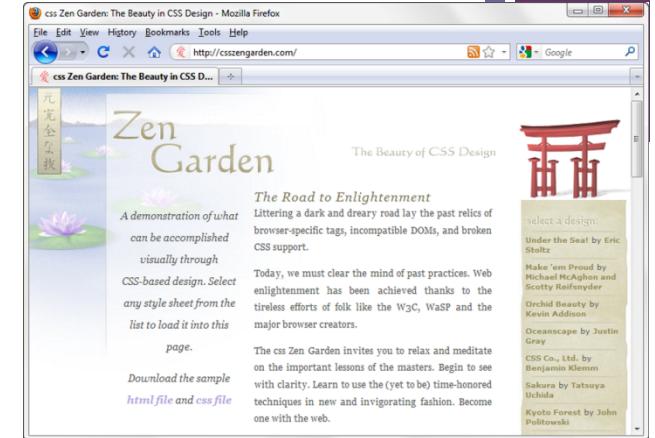
■ In this chapter, you will learn how to . . .

- Describe the evolution of style sheets from print media to the Web
- List advantages of using Cascading Style Sheets
- Use color on web pages
- Create style sheets that configure common color and text properties
- Apply inline styles
- Use embedded style sheets
- Use external style sheets
- Configure element, class, id, and contextual selectors
- Utilize the “cascade” in CSS
- Validate CSS

Overview of Cascading Style Sheets (CSS)

■ See what is possible with CSS:

- Visit <http://www.csszengarden.com>



■ Style Sheets

- used for years in Desktop Publishing
- apply typographical styles and spacing to printed media

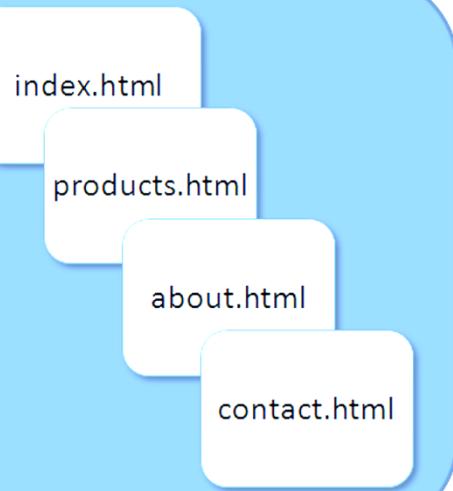
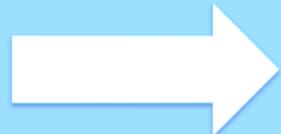
■ CSS

- provides the functionality of style sheets (*and much more*) for web developers
- a flexible, cross-platform, standards-based language developed by the W3C.

CSS Advantages

4

Cascading
Style
Sheet



A single Cascading Style Sheet file can control the color, typography, and layout of multiple web pages.

- Greater typography and page layout control
- Style is separate from structure
- Styles can be stored in a separate document and associated with the web page
- Potentially smaller documents
- Easier site maintenance

Types of Cascading Style Sheets (1)

- Inline Styles
- Embedded Styles
- External Styles
- Imported Styles

Cascading Style Sheets



- **Inline Styles**
 - body section
 - HTML style attribute
 - apply only to the specific element
- **Embedded Styles**
 - head section
 - HTML style element
 - apply to the entire web page document
- **External Styles**
 - Separate text file with .css file extension
 - Associate with a HTML link element in the head section of a web page
- **Imported Styles**
 - Similar to External Styles
 - We'll concentrate on the other three types of styles.

- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.



CSS Syntax Sample

Configure a web page to display blue text and yellow background.

```
body { color: blue;  
       background-color: yellow; }
```

This could also be written using hexadecimal color values as shown below.

```
body { color: #0000FF;  
       background-color: #FFFF00; }
```



Common Formatting CSS Properties

- See Table 3.1 Common CSS Properties, including:
 - background-color
 - color
 - font-family
 - font-size
 - font-style
 - font-weight
 - line-height
 - margin
 - text-align
 - text-decoration
 - width

Using Color on Web Pages

Red: #FF0000

Green: #00FF00

Blue: #0000FF

Black: #000000

White: #FFFFFF

Grey: #CCCCCC

- Computer monitors display color as intensities of red, green, and blue light
- RGB Color
- The values of red, green, and blue vary from 0 to 255.
- Hexadecimal numbers (base 16) represent these color values.

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300
#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000

Hexadecimal Color Values

- # is used to indicate a hexadecimal value
- Hex value pairs range from 00 to FF
- Three hex value pairs describe an RGB color

#000000 black #FFFFFF white

#FF0000 red

#00FF00 green

#0000FF blue

#CCCCCC grey

Web Color Palette

- A collection of 216 colors
- Display the most similar on the Mac and PC platforms
- Hex values:
00, 33, 66, 99, CC, FF
- Color names supported by all browsers
http://www.w3schools.com/colors/colors_names.asp

Web Safe Color Chart					
#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300
#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000
#CCFFFF	#CCFFCC	#CCFF99	#CCFF66	#CCFF33	#CCFF00
#CCCCFF	#CCCCCC	#CCCC99	#CCCC66	#CCCC33	#CCCC00
#CC99FF	#CC99CC	#CC9999	#CC9966	#CC9933	#CC9900
#CC66FF	#CC66CC	#CC6699	#CC6666	#CC6633	#CC6600
#CC33FF	#CC33CC	#CC3399	#CC3366	#CC3333	#CC3300
#CC00FF	#CC00CC	#CC0099	#CC0066	#CC0033	#CC0000
#99FFFF	#99FFCC	#99FF99	#99FF66	#99FF33	#99FF00
#99CCFF	#99CCCC	#99CC99	#99CC66	#99CC33	#99CC00
#9999FF	#9999CC	#999999	#999966	#999933	#999900
#9966FF	#9966CC	#996699	#996666	#996633	#996600
#9933FF	#9933CC	#993399	#993366	#993333	#993300
#9900FF	#9900CC	#990099	#990066	#990033	#990000

+ Making Color Choices

■ How to choose a color scheme?

■ Monochromatic

- <http://meyerweb.com/eric/tools/color-blend>

■ Choose from a photograph or other image

- <http://www.colr.org>

■ Begin with a favorite color

- Use one of the sites below to choose other colors

- <http://colorsontheweb.com/colorwizard.asp>
- <http://kuler.Adobe.com>
- <http://colorschemedesigner.com/>





Verify Sufficient Contrast

- When you choose colors for text and background, sufficient contrast is needed so that the text is easy to read.
- Use one of the following online tools to verify contrast:
 - <http://webaim.org/resources/contrastchecker/>
 - http://snook.ca/technical/colour_contrast/colour.html
 - <http://juicystudio.com/services/luminositycontrastratio.php>

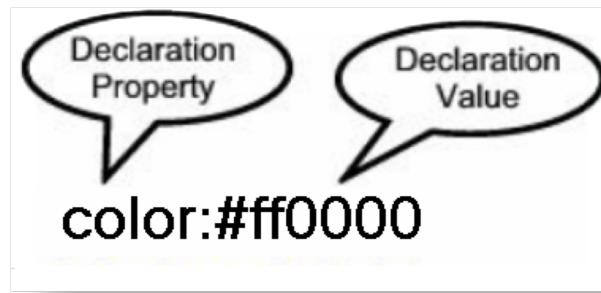
Configuring Color with Inline CSS

■ Inline CSS

- Configured in the body of the web page
- Use the style attribute of an HTML tag
- Apply only to the specific element

■ The Style Attribute

- Value: one or more style declaration property and value pairs



Example: configure red color text in an `<h1>` element:

```
<h1 style="color:#ff0000">Heading text is red</h1>
```

Heading text is red

Configuring Color with Inline CSS

Example 2: configure the red text in the heading

configure a gray background in the heading

Separate style rule declarations with ;

```
<h1 style="color:#FF0000;background-color:#cccccc">This is  
displayed as a red heading with gray background</h1>
```

This is displayed as a red heading with gray background

CSS Embedded (Internal) Styles

- Configured in the head section of a web page.
- Use the HTML <style> element
- Apply to the entire web page document
- Style declarations are contained between the opening and closing <style> tags
- Example: Configure a web page with white text on a black background

```
<style>
body { background-color:
#000000;
      color: #FFFFFF;
}
</style>
```

CSS Embedded Styles



- The body selector sets the global style rules for the entire page.
- These global rules are overridden for `<h1>` and `<h2>` elements by the h1 and h2 style rules.

```
<style>

body { background-color: #E6E6FA;
       color: #191970; }

h1 { background-color: #191970;
     color: #E6E6FA; }

h2 { background-color: #AEAED4;
     color: #191970; }

</style>
```

Configuring Text with CSS

■ CSS properties for configuring text:

- **font-weight**
 - Configures the boldness of text
- **font-style**
 - Configures text to an italic style
- **font-size**
 - Configures the size of the text
- **font-family**
 - Configures the font typeface of the text

The font-size Property

Accessibility Recommendation: Use em or percentage font sizes – these can be easily enlarged in all browsers by users

Text Values	Em Units	Px Units	Pt Units	Percentage
xx-small	.5 em	8 px	6 pt	50%
x-small	.60 em	11 px	8 pt	60%
small	.75 em	13 px	10 pt	75%
medium	1 em	16 px	12 pt	100%
large	1.15 em	18 px	13.5 pt	110%
x-large	1.5 em	24 px	18 pt	150%
xx-large	2 em	30 px	24 pt	200%



The font-family Property

Font-family Category	Font Typeface
serif	Times New Roman, Georgia, Times
sans-serif	Arial, Verdana, Geneva
monospace	Courier New, Lucida Console
cursive	<i>Brush Script MT, Comic Sans MS</i>
fantasy	<i>Jokerman, Curlz MT</i>

- Not everyone has the same fonts installed in their computer
- Configure a list of fonts and include a generic family name

```
p { font-family: Arial, Verdana, sans-serif; }
```

Trillium Media Design

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Trillium Media Design will bring your company's Web presence to the next level. We offer a comprehensive range of services:

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- E-Commerce Solutions
- Usability Studies
- Search Engine Optimization

Meeting Your Business Needs

Our expert designers are creative and eager to work with you. Take power of Web 2.0!

Copyright © 2012 Your Name Here

Embedded Styles Example

```
<style>
body { background-color: #E6E6FA;
      color: #191970;
      font-family: Arial, Verdana, sans-serif; }
h1 { background-color: #191970;
     color: #E6E6FA;
     line-height: 200%;
     font-family: Georgia, "Times New Roman", serif; }
h2 { background-color: #AEAED4;
     color: #191970; text-align: center;
     font-family: Georgia, "Times New Roman", serif; }
p {font-size: .90em; text-indent: 3em; }
ul {font-weight: bold; }
</style>
```

More CSS TEXT Properties

▶ line-height

- ▶ Configures the height of the line of text
(use the value 200% to appear double-spaced)

▶ text-align

- ▶ Configures alignment of text within a block display element

▶ text-indent

- ▶ Configures the indentation of the first line of text

▶ text-decoration (**Note:** The text-decoration-style is only supported by Firefox.)

- ▶ Modifies the appearance of text with an underline, overline, or line-through

▶ text-transform

- ▶ Configures the capitalization of text

▶ text-shadow

- ▶ Configures a drop shadow on text

CSS Selectors

CSS style rules can be configured for an:

- HTML element selector
- class selector
- id selector
- descendant selector



USING CSS WITH “CLASS”

■ class Selector

- Apply a CSS rule to a certain "class" of elements on a web page
- Does not associate the style to a specific HTML element

■ Configure with .classname

- code CSS to create a class called “new” with red italic text.

■ Apply the class:

```
<p class="new">This is text is red and in italics</p>
```

This is text is red and in italics

```
<style>
.new { color: #FF0000;
      font-style: italic;
    }
</style>
```

■ id Selector

- Apply a CSS rule to ONE element on a web page.

■ Configure with #idname

- Code CSS to create an id called “new” with red, large, italic text.

■ Apply the id:

```
<p id="new">This is text is red, large, and in italics</p>
```

```
<style>
#new { color: #FF0000;
        font-size: 2em;
        font-style: italic;
    }
</style>
```

This is text is red, large, and in italics

- Specify an element within the context of its container (parent) element.
- AKA contextual selector
- The example configures a green text color only for p tags located *within* an element assigned to the id named content
- Advantage of contextual selectors:
Reduces the number of classes and ids you need to apply in the HTML

```
<style>
#content p {
color: #00ff00; }
</style>
```

span element

■ Purpose:

- configure a specially formatted area displayed in-line with other elements, such as within a paragraph.

- There is no additional empty space above or below a span – it is inline display.

span Element Example

■ Embedded CSS:

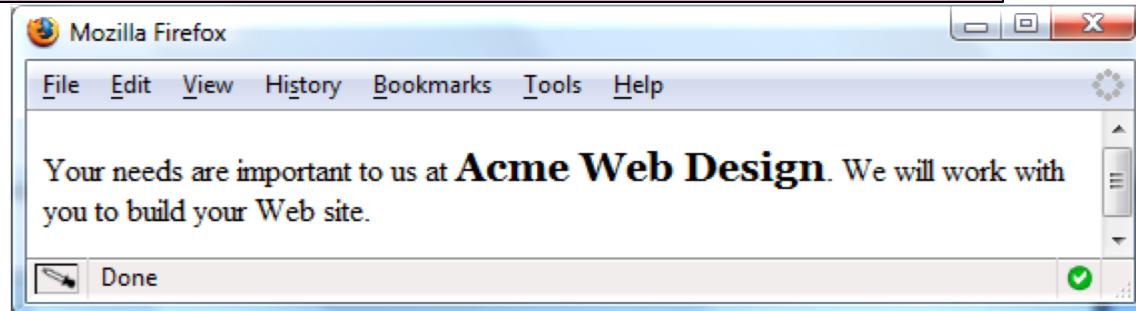
```
<style>

.companynam { font-weight: bold;
font-family: Georgia, "Times New Roman", serif;
font-size: 1.25em;
}

</style>
```

■ HTML:

```
<p>Your needs are important to us at <span
class= "companynam">Acme Web Design</span>.
We will work with you to build your Web site.</p>
```



External Style Sheets - 1

- CSS style rules are contained in a text file separate from the HTML documents.

- The External Style Sheet text file:
 - extension ".css"
 - contains only style rules
 - does not contain any HTML tags

External Style Sheets - 2

- Multiple web pages can associate with the same external style sheet file.

site.css

```
body {background-color:#E6E6FA;  
      color:#000000;  
      font-family:Arial, sans-  
serif;  
      font-size:90%; }  
h2 { color: #003366; }  
.nav { font-size: 16px;  
      font-weight: bold; }
```



- A self-contained tag
- Placed in the header section
- Purpose: associates the external style sheet file with the web page.
- Example:

```
<link rel="stylesheet" href="color.css">
```

Using an External Style Sheet

External Style Sheet color.css

```
body { background-color: #0000FF;  
      color: #FFFFFF;  
}
```

To associate the external style sheet called color.css, the HTML code placed in the head section is:

```
<link rel="stylesheet" href="color.css">
```

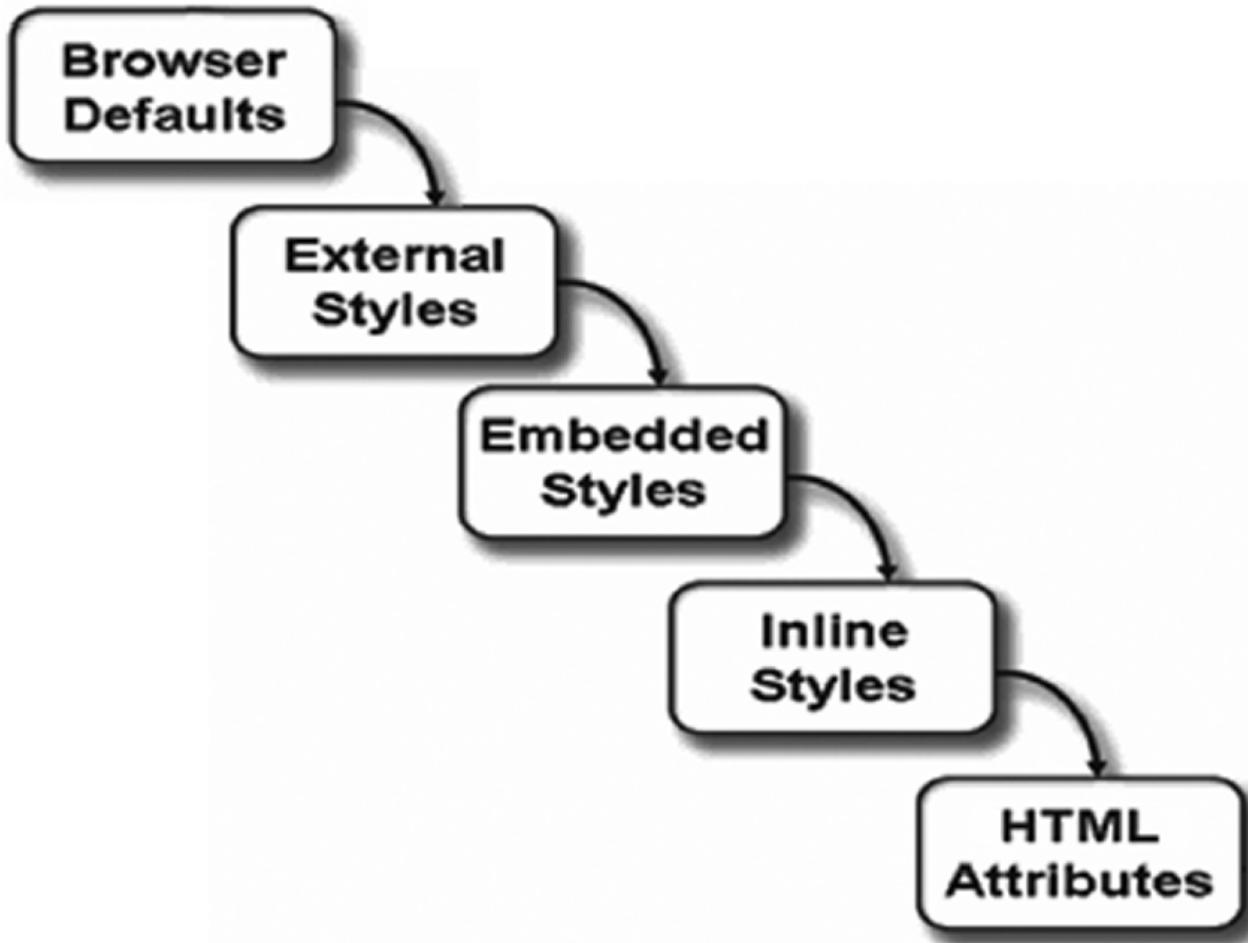


Centering Page Content with CSS

```
#container { margin-left: auto;  
            margin-right: auto;  
            width:80%; }
```



THE “CASCADE”





W3C CSS Validation

- <http://www.css-validator.org/>

The screenshot shows a Firefox browser window with the title bar "Firefox". The address bar displays "The W3C CSS Validation Service" and the URL "http://jigsaw.w3.org/css-validator/". Below the address bar is a toolbar with various icons. The main content area is titled "CSS Validation Service" and contains the sub-instruction "Check Cascading Style Sheets (CSS) and (X)HTML documents with style sheets". There are three tabs at the top of this section: "By URI" (selected), "By file upload", and "By direct input". Below these tabs is a section titled "Validate by URI" with the instruction "Enter the URI of a document (HTML with CSS or CSS only) you would like validated:". A text input field labeled "Address:" is present. At the bottom of this section is a link "More Options". The background of the page features a dark blue header and a white main content area.

- This chapter introduced you to Cascading Style Sheet Rules associated with color and text on web pages.
- You configured inline styles, embedded styles, and external styles.
- You applied CSS style rules to HTML, class, and id selectors.
- You are able to submit your CSS to the W3C CSS Validation test.