

CPSC-114

Introduction to Internet Programming

Introduction to Cascading Style Sheets

Overview

- **What is CSS?**
- **Rules**
- **Properties**
- **Attaching Style**
- **Style Guidelines**

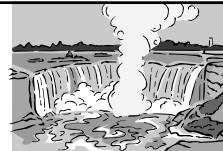
What is CSS?



- HTML was intended to define the structure of a document.
 - Not the style
- Cascading Style Sheets created to separate content from presentation.
 - Why is this good?

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What is CSS? (cont.)



- Cascading Style Sheet: Set of formatting rules that tell browser how to present document.
 - Cascading part are the rules that tell how style from different sources should be applied
 - Rules use HTML tag names
 - Rules have a very different syntax than HTML
 - Don't use the < and > characters

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What is CSS? (cont.)



- Browsers have default style sheet.
- Designers can create style sheets for uniformity of appearance.
- Rules are applied in hierarchical or cascading manner.
 - Combine default rules from browser with explicit rules from designer

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What is CSS? (cont.)



- Style may be applied using attributes defined in tags.
- We've already seen some examples of this type of style:

```
<body bgcolor='teal'>  
<hr width='50%'  
align='right' size='4' />  
. . .
```

- Simple example.

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```
<html>
<head>
<title>Simple Style</title>
</head>
<body bgcolor="papayawhip" text="navy">
<hr>
<center>
<h1>Test Page for</h1>
<h2>Cascading StyleSheets </h2>
</center>
<hr width='50%'>
</body>
</html>
```

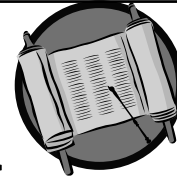
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What is CSS? (cont.)

- What are the disadvantages to using tag attributes to specify style?
- Note: Most style is not specified using attributes.
- Warning: Syntax of CSS rules is different than syntax of tag attributes.

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Rules

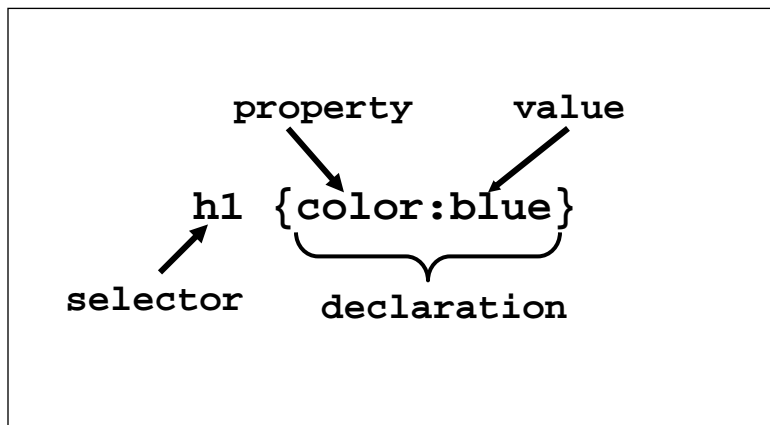


- CSS rules consist of two parts:
 - Selector: Link between HTML document and style
 - Declaration: Describes effect of rule
- Rules have the format:

```
selector {prop1:value1;  
          prop2:value2;  
          . . . }
```

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Rules (cont.)



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Rules (cont.)

- Property: Quality of selector.
- Value: Legal entries for a property.
- Selectors may be grouped:

```
h1,h2,h3 {font-weight:bold}
```

- Declarations can also be grouped, separated by semicolons:

```
h1 {color:red;  
    text-align:center}
```

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Rules (cont.)



- What might these rules do?

```
body { background-color: white }  
  
h1 { font-family : sans-serif }  
  
h2, h3, h4 { font-family : cursive }  
  
h2, h4 { color : orange }
```

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Properties Text Properties



Property	Action	Possible Values
color	text color	browser decides
background-color	background	transparent (default) browser decides
background-image	background	none (default) url of image

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Properties Font Properties

Property	Action	Possible Values
font-family	type of font	browser decides default, font name
font-size	size of font	medium (default) percentage or number of pixels
font-style	style of font	none (default) italics, oblique
font-weight	boldness of font	normal (default) lighter, bold, bolder 100, ... 900

Attaching Style Sheets



- HTML documents interpreted by browser from top to bottom.
 - Style sheets must be at top of document
 - Typically within <head> element
- Style sheets may be internal or an external file.
- Style sheets should not contain HTML.
 - May contain comments

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Attaching Style Sheets (cont.)



- Four ways to attach style:
 1. Embed a style in an individual element using the <style> element.

```
<p style=
"text-decoration:underline">
Underlined text goes here
</p>
```

- Advantages? Disadvantages?

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Attaching Style Sheets (cont.)

2. In the <head> element as separate style :

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

- Example

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Attaching Style Sheets (cont.)



3. Link external style sheet using the <link> element.

```
<head>
<link rel="stylesheet"
      type="text/css"
      href="mystyle.css" />
</head>
```

- Advantages? Disadvantages?

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Attaching Style Sheets (cont.)



- The `mystyle.css` style sheet:

```
body {background-color:papayawhip}  
hr {width:50%}  
p { text-decoration:underline }
```

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Attaching Style Sheets (cont.)

4. Import a style sheet using the `@import` notation.

```
<style type="text/css">  
@import url(  
    "http://www.w3.org/  
    StyleSheets/Core/Midnight");  
</style>
```

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Style Guidelines

















- Put contents in logical order.
 - Ensure that document makes sense in browsers that don't support CSS
- Make sure that documents are legible without style sheets.
- Always specify default font.

```
body {font-family:sans-serif}
```

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Style Guidelines (cont.)

- CSS specifies five generic fonts:
 - serif, sans-serif, monospace, cursive, and fantasy
- CSS supports 16 color names:

Color Name	Hex	Safe	Sample	Color Name	Hex	Safe	Sample
black	#000000	Yes		silver	#C0C0C0	No	
gray	#808080	No		white	#FFFFFF	Yes	
maroon	#800000	No		red	#FF0000	Yes	
purple	#800080	No		fuchsia	#FF00FF	Yes	
green	#008000	No		lime	#00FF00	Yes	
olive	#808000	No		yellow	#FFFF00	Yes	
navy	#000080	No		blue	#0000FF	Yes	
teal	#008080	No		aqua	#00FFFF	Yes	

Style Guidelines Advantages

1. Separate content from formatting.
2. Reduce download time by removing formatting information from documents.
3. Give far more control over formatting than HTML.
4. Ensure a consistent appearance across a site.

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Questions?



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