

Cascading Style Sheets, part I

Web Design in a Nutshell, Third Edition

Chapters 16 and 17

CSS Fundamentals

- Before Cascading Style Sheets (CSS), web designers were at the mercy of the browser's rendering engine and internal style sheets for the way HTML elements looked in the browser window.
 - CSS is a W3C standard defining the presentation of web documents.
 - Cascading style sheets offer much greater control over type characteristics than do the font, bgcolor and other presentational html elements and attributes.
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How CSS Works

- Start with an XHTML document, correctly structured and as simple as possible
 - Write style rules for how each element should look. Each rule targets the element by name and then lists properties, such as font, color, etc.
 - Attach styles to the XHTML document either as a separate document, as part of the head section of the document, or as part of the style attribute to individual elements, such as paragraphs, headers, etc.
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Understanding CSS Style Rules

- Style rules are composed of two parts: a selector and a declaration
 - The selector determines the element to which the rule is applied
 - The declaration details the exact property and its corresponding values
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Selector and Declaration

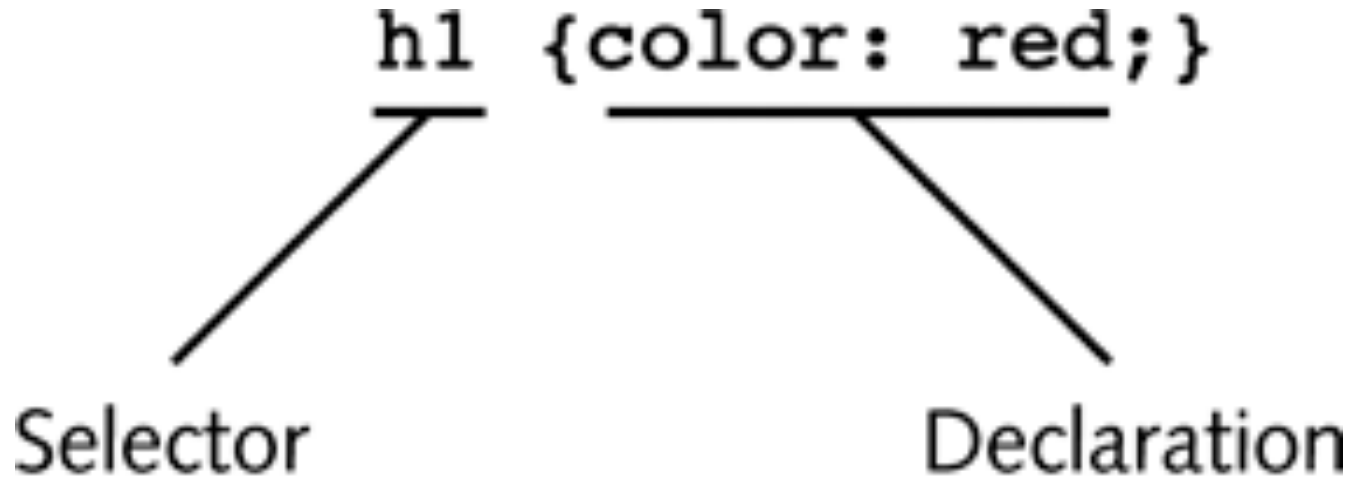


Figure 6-1 Style rule syntax

Understanding CSS Style Declarations

- The declaration contains a property and a value
 - The property is a quality or characteristic
 - The precise specification of the property is contained in the value
 - CSS includes over 50 different properties, each with a specific number of values
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Property and Value

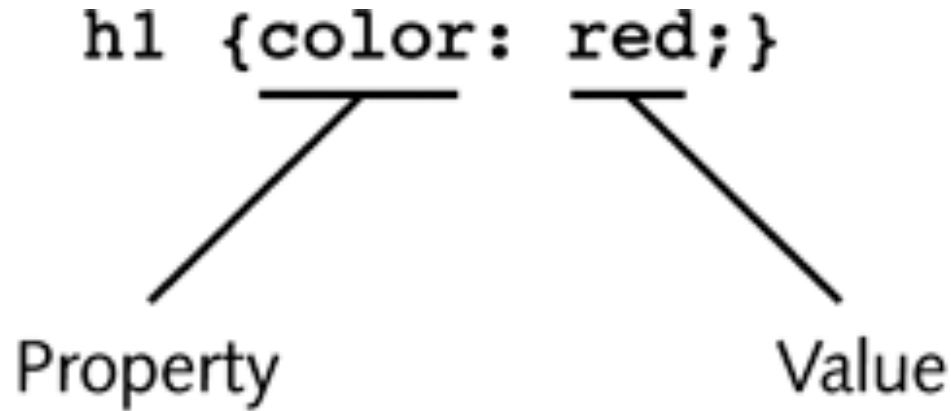


Figure 6-2 Property declaration syntax

CSS Basics – Using CSS

- Three ways to combine CSS rules and XHTML

- The style attribute in a standard xhtml element

```
<p style="text-align: left;">
```

- The <style> element in the head section

```
<style type="text/css">p {text-align: left;}</style>
```

- External style sheet

```
<link rel="stylesheet" href="style.css" type="text/ css" media="screen" />
```

CSS Basics – Combining CSS with XHTML

- The style attribute:
 - Defines a style for a single element
 - Generally used to override a style set at a higher level in the document for a single element
 - Only affects one instance of an element in a document
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CSS Basics – Embedded CSS

- The `<style>` element
 - Always contained in the `<head>` section of the document
 - Generally used to override a style set at a higher level in the document, such as an external style sheet
 - Only affects the document in which it resides
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CSS Basics – External CSS

- External style sheet
 - Text document that contains style rules
 - Allows specification of rules for multiple HTML documents
 - Does not contain HTML code
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CSS – Understanding the Cascade

- Understanding the Cascade
 - Cascading mechanism of CSS determines which rules are assigned to document elements by assigning a weight based on three variables:
 1. origin of the rule
 2. specificity of the selector
 3. order of the rule in the style sheet
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CSS – Understanding the Cascade

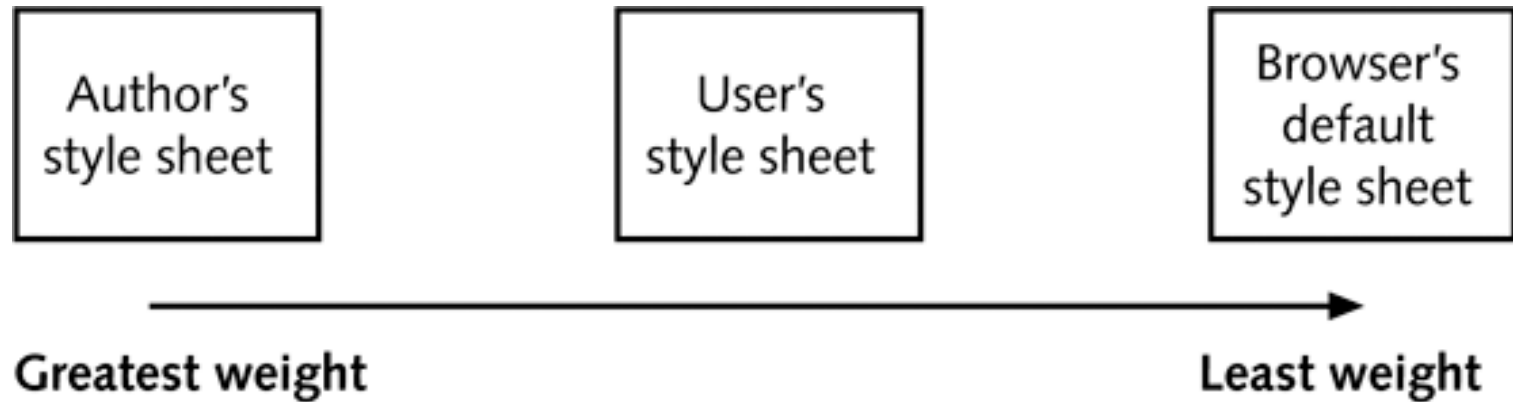


Figure 6-5 The cascading order of precedence

CSS – Understanding the Cascade

- Determining rule weight by specificity
 - Rules with more specific selectors take precedence over rules with less specific selectors
 - Determining rule weight by order
 - Based on order of rule within style sheet
 - Those listed later take precedence over those listed earlier in the style sheet
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CSS – Understanding Inheritance

- Based on hierarchical structure of documents
 - CSS rules inherit from parent elements to child elements:
 - thus elements will inherit style rules from elements unless a style rule is specifically set for the element
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CSS – Understanding Inheritance

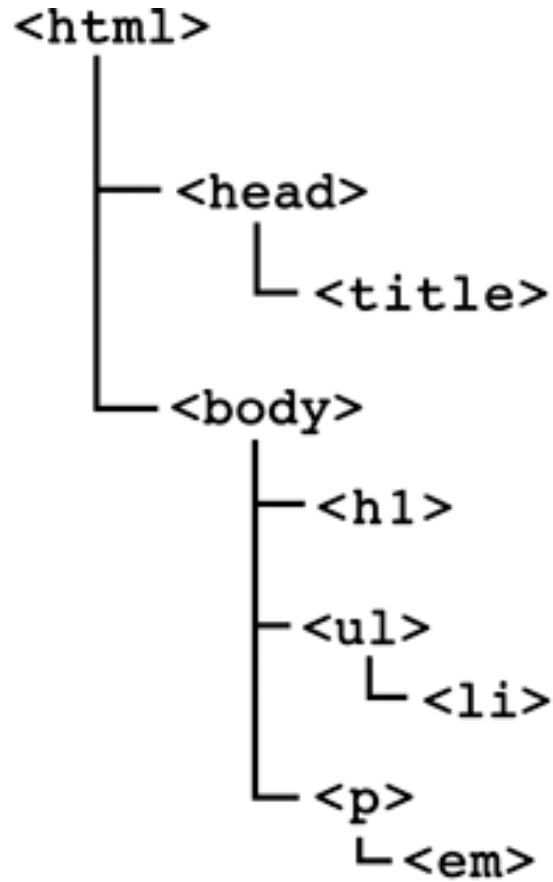


Figure 6-6 HTML document structure

Understanding Selection Techniques

- Using type selectors
 - Grouping selectors
 - Combining declarations
 - Using descendant selectors
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Using Type Selectors

- The following rule selects the H1 element:

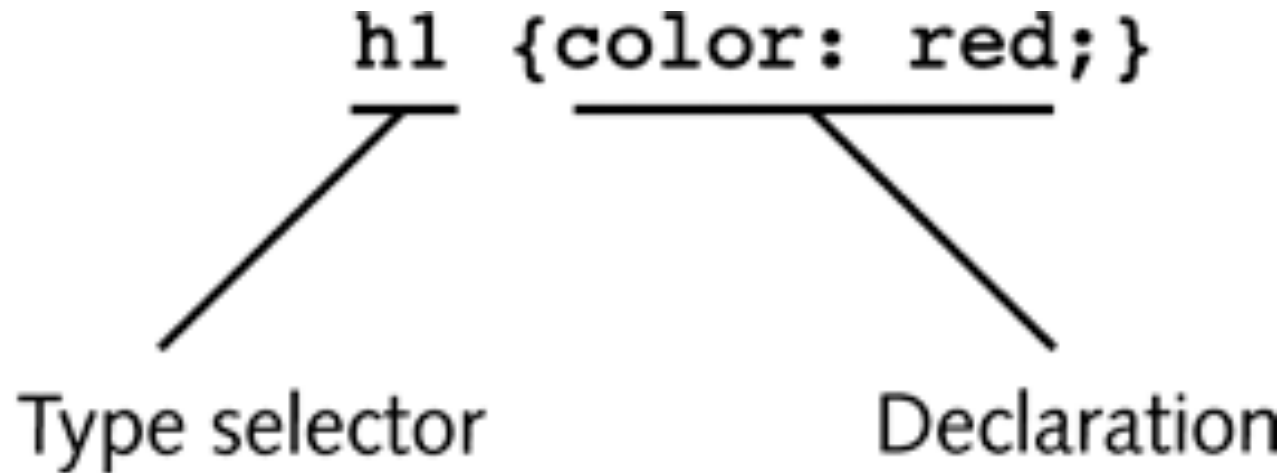


Figure 6-7 Style rule syntax

Grouping Selectors

- The following rule selects the H1 and H2 elements:

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

Combining Declarations

- The following style rules set the <p> element to 12-point blue text:

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

These two style rules can be expressed in a simpler way:

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

Using Descendant Selectors

- A descendant selector lets you specify the exact context in which a style is applied. To specify that `` elements appear blue only within `<p>` elements, use the following rule:

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

Using the class Attribute Selector

- The class attribute lets you write rules and then apply them to groups of elements that you have classified
 - To create a class, declare it within the `<style>` element first. The period (.) flag character indicates that the selector is a class selector.
 - In your HTML, you simply add `class = "classname"` to have the rule apply to that element
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class Attribute Selector

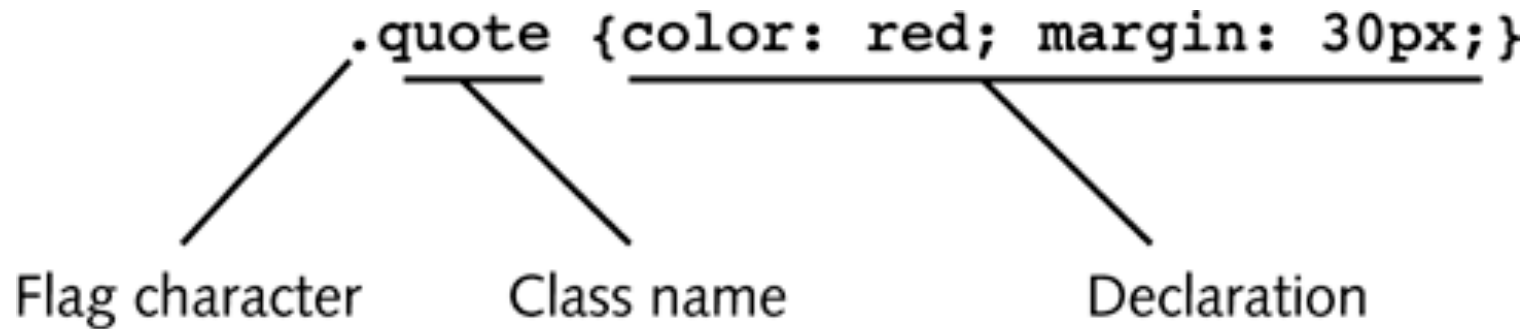


Figure 6-10 Class syntax

class Attribute Selector

```
.special {font-size: 10pt; font-weight:  
        bold;}
```

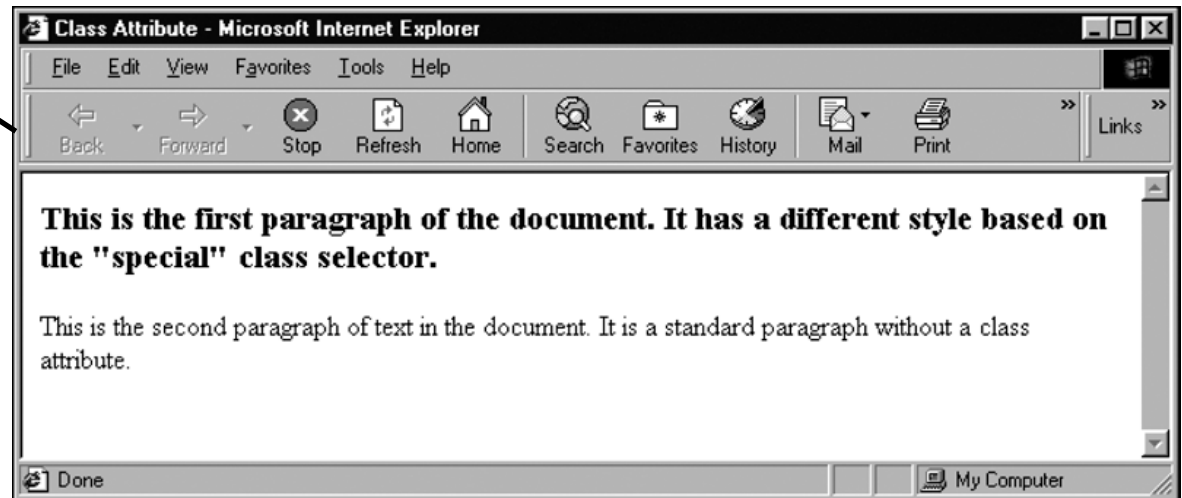


Figure 6-11 Styling with a class attribute

Using IDs

- Similar to a class, an id attribute lets you write rules and apply them to just one group of elements on a page, such as a header or footer.
 - To create an id, declare it within the `<style>` element first. The number sign (#) character indicates that the selector is an id selector.
 - In your HTML, you simply add `id = "idname"` to have the rule apply to that element
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Working with `<div>`

- The `<div>` element lets you specify logical divisions within a document that have their own name and style properties
 - `<div>` is a block-level element. It contains a leading and trailing carriage return.
 - You can use `<div>` with the `class` attribute to create customized block-level elements
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Working With <div>

- To create a division, declare it within the <style> element first. The first example specifies a division with a class name of introduction as the selector for the rule. The second specifies a division with an ID name of header as the selector for the rule:

```
div.introduction {color:red;}  
div#header {color:red;}
```

Working With <div>

- Next, specify the <div> element in the document. Then use the class or ID attributes to specify the exact type of division. In the first example, the code defines the <div> element as the special class named “introduction.” In the second, the code defines the <div> element as the special ID named “header.”

```
<div class=“introduction”>Some text</div>  
<div id=“header”>Some header text</div>
```

Working with ``

- The `` element lets you specify inline elements within a document that have their own name and style properties
 - Inline elements go within the line of text, like the `` element
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Working with ``

- To create a span, declare it within the `<style>` element first. The following example specifies a `` element named “logo” as the selector for the rule:

```
span.logo {color:white;  
background-color: black;}
```

Working with ``

- Next, specify the `` element in the document. Then use the class attribute to specify the exact type of span. In the following example, the code defines the `` element as the special class named “logo.”

Welcome to the **``**Wonder
Software**``** Web site.

Working with ``

Welcome to the ``Wonder
Software`` Web site.

Welcome to the **Wonder Software** Web site.

Figure 6-12 Using the `` element

Summary

- CSS rules can be combined with your XHTML code in a number of creative ways. CSS rules are easy to write and read.
 - CSS uses cascading and inheritance to determine which style rules take precedence.
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Summary

- Basic style rules let you apply style rules based on standard element selectors.
 - You can combine the selectors and declarations to create more powerful style expressions.
 - You can also select elements based on the contextual relationship of elements in the document tree.
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Summary

- The advanced selection techniques allow you to use the class attribute selector, which is often paired with the `<div>` and `` XHTML elements.
 - These elements have no style of their own, but offer a convenient way of expressing style for any section of a document, whether block-level or inline.
 - Additionally, class allows you to choose a meaningful naming convention for your style rules.
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