

**Cascading Style Sheets**

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STYLING THE SEMANTIC WEB

AALL 2007 - New Orleans, LA - Michael Lindsey - School of Law, University of California, Berkeley

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**Early Web Days**

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- HTML began as a *structural* language.
- Expanded to become *presentational*.
- Became bloated and unwieldy.

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**Semantic Markup**

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- Semantic markup means content should be *self-describing*.
- Aids indexing and devices.
- More accessible to users with disabilities.
- Offloads presentation to another layer.
- Speeds development and revision.

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## XHTML 1.0

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
<title>Federal Legislative Research</title>
</head>
<body>
<h1>Law Library - University of California, Berkeley</h1>
<ul id="utilityLinks">
<li><a href="http://lawcat.berkeley.edu">Lawcat</a></li>
<li><a href="/">Law School</a></li>
<li><a href="/library/sitemap.html">Site Map</a></li>
<li><a href="/library/index.html">Library Home</a></li>
</ul>
<h3>Online Research</h3>
...
</body>
</html>
```

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## XML and XHTML

```
<presenter>Michael Lindsey</presenter>
```

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## Elements must be terminated

```
<br>
<br></br>
<br/>
```

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### Elements must be properly nested

```
<presentation>  
  <presenter>Michael Lindsey</presenter>  
  <occasion>AALL Conference</occasion>  
  <location>New Orleans, LA</location>  
</presentation>
```

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### Attributes must be quoted

```
<presentation id="B7">...</presentation>
```

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### Divide Your Content

```
<html>  
  <head>...</head>  
  <body>  
    <div id="navigation">...</div>  
    <div id="newsFeed">...</div>  
    <div id="article">...</div>  
  </body>  
</html>
```

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## Identify Unique Content

```
<html>
<head>...</head>
<body>
  <div id="navigation">...</div>
  <div id="newsFeed">
    <p class="feedItem">...</p>
  </div>
  <div id="article">...</div>
</body>
</html>
```

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## Rule Structure

**p { color: green; }**

The diagram illustrates the components of a CSS rule. The selector 'p' is identified by a red arrow pointing to the label 'selector'. The declaration '{ color: green; }' is identified by a red bracket and labeled 'declaration'. Within the declaration, 'color' is labeled 'property' and 'green' is labeled 'value' with red arrows pointing to them.

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## Selectors, Comments and Syntax

```
/* type, element, or simple selector */
p { line-height: 1.2em; }
h1, h2, h3, h4 { font-weight: normal; }

/* descendent selector */
h1 a { font-style: italic; }

/* id selector */
#intro { background: yellow; }

/* class selector */
.error { color: red; }

/* pseudo-class selector */
a:hover { text-decoration: none; }
input:hover { background: #eee; }
```

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## Applying Styles

To reference an *external* stylesheet, link it from within the head of the document:

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

Utilize an *embedded* style sheet within the <head>:

```
<head>
<style type="text/css">
...
</style>
</head>
```

*Inline* styles are applied within the element itself:

```
<p style="...">lorem ipsum</p>
```

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## Specificity

count 1 if the declaration is from a 'style' attribute rather than a rule with a selector, 0 otherwise (= a)

count the number of ID attributes in the selector (= b)

count the number of other attributes and pseudo-classes in the selector (= c)

count the number of element names and pseudo-elements in the selector (= d)

Specificity = (1000\*a) + (100\*b) + (10\*c) + d

Some examples:

```
* {} /* a=0 b=0 c=0 d=0 -> specificity = 0 */
* li {} /* a=0 b=0 c=0 d=1 -> specificity = 1 */
* ul li {} /* a=0 b=0 c=0 d=2 -> specificity = 2 */
* ul ol li.red {} /* a=0 b=0 c=1 d=3 -> specificity = 13 */
* #x34y {} /* a=0 b=1 c=0 d=0 -> specificity = 100 */
* style="" /* a=1 b=0 c=0 d=0 -> specificity = 1000 */
```

From CSS2.1 specification

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## !important

```
/* This rule will beat the most
specific conflicting rule */
```

```
.error { color: red !important; }
```

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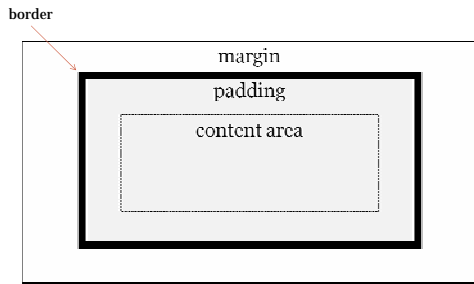
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## The Box Model



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## Universal Selector

```
* { padding: 0;
  margin: 0;
}
```

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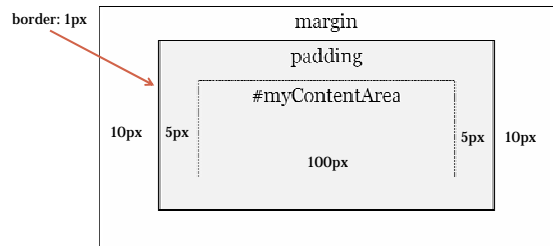
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## Setting Width



```
#myContentArea {
  width: 100px;
  padding: 5px;
  border: 1px solid black;
  margin: 5px;
}
```

**Total width: 132px;**

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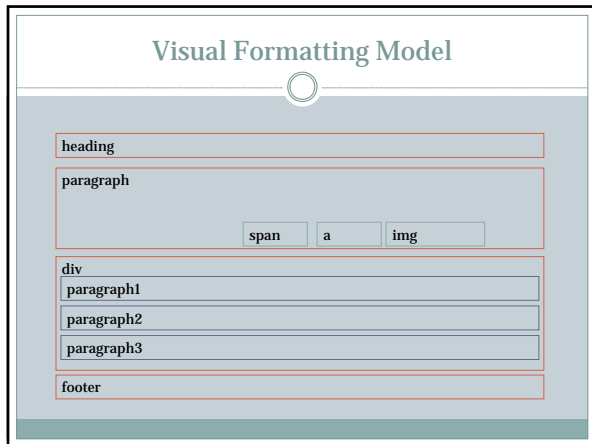
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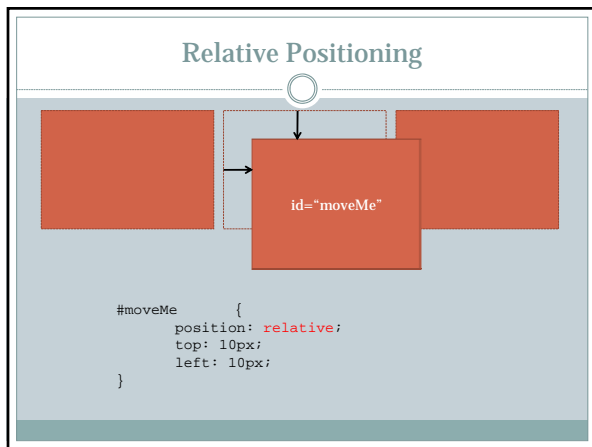
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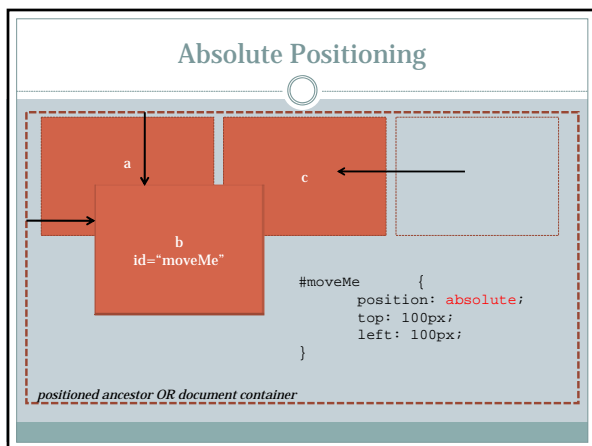
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## Floating

id="moveMe" ←  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec convallis nibh ac nibh. Mauris lacus. Praesent arcu justo,

id="moveMe" ←

id="moveMe" ←  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec convallis nibh ac nibh. Mauris lacus. Praesent arcu justo,

```
<p class="clear"> sagittis sit amet, pellentesque sit amet, aliquet sit</p>
```

```
#moveMe { float: left; }  
.clear { clear: both; }
```

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## Styling for Specific Media

```
/* import a media stylesheet from within an existing stylesheet */  
@import url("loudvoice.css") aural;  
  
/* create a special section in an existing stylesheet */  
@media print {  
  body {  
    background: white;  
  }  
}  
  

```