

# CSSS

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Notes from Jennifer Niederst: Web Design in a Nutshell  
and Thomas A. Powell: HTML & XHTML, Fourth Edition

Based on a tutorials by Prof. Daniel Sauter / Prof. Casey Reas

# What is CSS?

Official W3C standard for controlling presentation

Style sheets rely on underlying markup structure

Greater typography and page layout control

Style is separate from structure

Potentially smaller documents

Allow for easier site maintenance

# First example

```
<html>
<head>
<title>CSS Example</title>
<style type="text/css">
  h1 { font-size: 32pt;
        font-family: Helvetica,Arial;
        color: gray;
        margin: 30px; }
  p { font-size: 12pt;
        font-family: Helvetica,Arial;
        font-style: italic;
        line-height: 1.7;
        margin-left: 30px;
        width: 400px; }
</style>
</head>
<body>
<h1>New and improved markup using CSS Styles</h1>
<p>CSS provides a powerful set of properties for
manipulating the look of HTML elements</p>
</body>
</html>
```

# Adding CSS to a document

*Inline* styles on one tag

```
<h1 style="color: red">Red Herring</h1>
```

Document-wide *embedded* styles

```
<head>  
<style type="text/css">  
<!--  
h1 { color: red; font-size: 36pt; }  
-->  
</style>  
</head>
```

Linking to *external* CSS

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

# Type selectors

Apply styles to HTML elements by tags

```
H1 {color: blue}
p {font-family: Sans-Serif; font-size: 10pt;}
body {background-color:#FFFFCC;
      margin-left:100px; }
```

Can be grouped together

```
H1, H2, P {font-style: bold; color: red}
```

# <div> and <span>

Generic HTML tags

<div> = block element

<span> = inline element

Useful for applying styles

```
<div style="background-color: #DDDDDD; font-weight:  
bold; color: black; padding: 20pt;">  
<p>Style sheets separate the structure of a document  
from its presentation.</p>  
</div>
```

```
<p>Calling out <span style="background-color: yellow;  
color:black;">special sections of text</span> by using  
span</p>
```

# class selectors

In the stylesheet:

```
.important { color: red }  
.caption {font-size:12pt; line-height:14pt;  
font-family:Helvetica,Arial,sans-serif; }
```

In the HTML:

```
<p class="important">Attention!</p>  
<p class="caption">The class' name doesn't  
matter! </p>
```

# id selectors

In the stylesheet:

```
#001 {color: red}  
#yourIdName {color: magenta; font-weight: normal; }
```

In the HTML:

```
<p id="001">Attention!</p>  
<p id="yourIdName">Attention!</p>
```

The ID must be unique and should be used only once in the respective document

# Some type properties

font-family	p {font-family: Verdana,sans-serif}
font-style	h1 {font-style: italic}
font-weight	h2 {font-weight: bold}
font-size	p {font-size: 13px}
font	h1 {font: 12pt Times, serif}
word-spacing	h3 {word-spacing: 3px}
letter-spacing	.subhead {letter-spacing: 2pt}
text-decoration	a:link {text-decoration: underline}
text-transform	h1 {text-transform: uppercase}
text-align	p {text-align: justify}
text-indent	p {text-indent: 10px}
color	.caption {color: #6644EE}

# Type properties

In the stylesheet:

```
.fancy {  
  font-family:'Times New Roman',Times,serif;  
  text-decoration:underline;  
  font-style:italic;  
  font-variant:small-caps;  
  font-size:10pt;  
  font-weight:bold;  
  word-spacing:8pt;  
  letter-spacing: 1pt;  
  color:blue; }
```

in the HTML:

```
<p class="fancy">  
CSS allows extended type control.  
</p>
```

# Pseudoclasses

```
<style type="text/css">
a { font-weight:bold; }
a:link {
    color:#0000E0;
    text-decoration:none }
a:visited {
    color:#000080;
    text-decoration:none }
a:hover {
    color:#FFFFFF;
    background-color:#E00000;
    text-decoration:underline }
a:active {
    color:#FFFFFF;
    background-color:#E00000;
    text-decoration:underline }
a:focus {
    color:#FFFF00;
    text-decoration:none }
</style>
```

# Color

```
<style type="text/css">
h1 { color:#FFCCDD; background-color:black; }
body { background-color:rgb(51,0,102); }
blockquote { background-color:rgb(60%,90%,75%); }
</style>
```

These definitions are equivalent:

```
color:white;
color:rgb(255, 255, 255);
color:#FFFFFF;
```

# Length units

**p t** = point (absolute). Typographical unit. 1 point equals 1/72 inches.

**p c** = pica (absolute). Typographical unit. 1 pica is equivalent to 12 point.

**i n** = inch (absolute). 1 inch is equivalent to 2.54 centimeters.

**m m** = millimeters (absolute).

**c m** = centimeters (absolute).

**p x** = pixel (absolute/relative). Depends on the output device.

**e m** = em (relative). 1 em in a 24pt size type is 24pt.

**e x** = ex (relative). Refers to height of the small character x.

**%** = percent (relative). Can be relative to the size of the element itself, to the size of the parent element, etc.

# Box properties

margin

margin-top, -bottom, -left, -right

border

border-top, -bottom, -left, -right

border-style

border-width

border-color

padding

padding-top, -bottom, -left, -right

width

height

background

background-color

background-image

background-repeat

# Positioning with CSS

`position` = position type

`top` = start position from the top

`left` = start position from the left

`bottom` = start position from the bottom

`right` = start position from the right

`width` = width

`height` = height

`overflow` = content exceeds the size of the element

`direction` = content direction

`float` = text flow around elements

`z-index` = layer position of overlapping areas

`display` = display behavior without reserved space

`visibility` = display behavior with reserved space

`clip` = limit displayed area

# Positioning with CSS, cont.

absolute

```
.abs
{
position: absolute;
top: 140px;
left: 150px;
width: 230px;
}
```

relative

```
.rel
{
position: relative;
top: 30px;
width: 230px;
}
```

# Using CSS for different output media types

```
<html><head>  
<link rel="stylesheet" media="screen"  
href="website.css">  
<link rel="stylesheet" media="print" href="print.css">  
<link rel="stylesheet" media="aural"  
href="speaker.css">  
<link rel="stylesheet" media="braille"  
href="braille.css">  
</head>  
<body></body></html>
```

Each of these CSS files must contain only the format definitions for the respective output medium