

Cascading Style Sheets

Overview and Basic
use of CSS

What are Style Sheets?

- A way for web page designers to separate the formatting of a document from the HTML markup
- A way of centrally managing the styles for an entire web site

What are Style Sheets?

- A way to layout web pages without the use of complex tables and tricks
- A way for users to take control of how web pages are displayed

Style Anatomy

Selector

`h1`

```
{  
  color: #0000FF;  
  font-size: 24pt;  
}
```

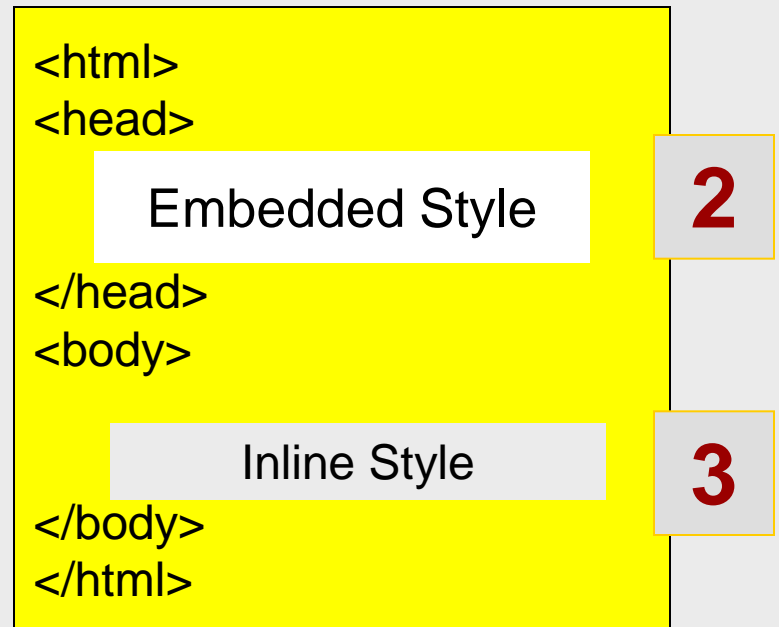
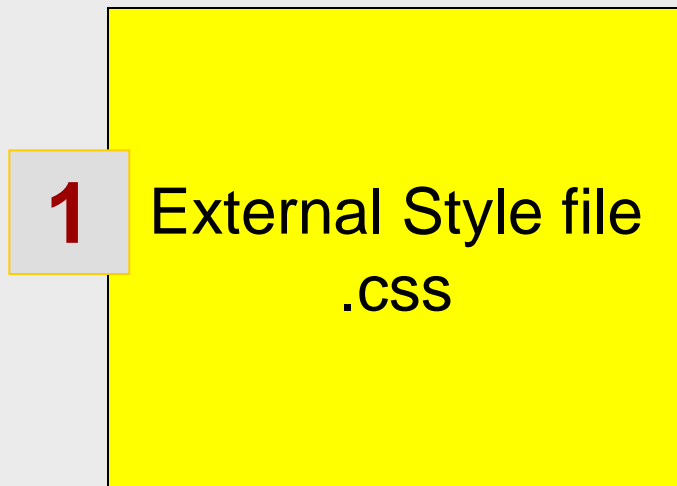
Declarations

Property

Value

Types of Style Sheets

Each has a smaller scope ...



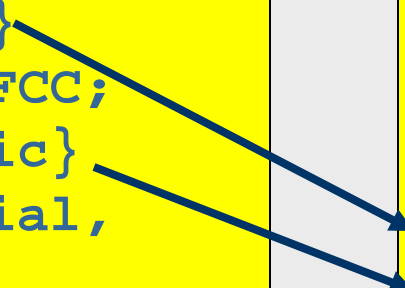
External Style Sheets

stylefile.css

```
H1 { color:#FF3355;
    text-align:center}
h2,h3 { color: #22FFCC;
        font-style: italic}
p { font-family:Arial,
    Helvetica }
```

html code

```
<html>
<head>
<link rel="stylesheet"
      href="stylefile.css"/>
</head>
<body>
<h1>Heading</h1>
<h2>Heading</h2>
</body>
```



Embedded Style Sheets

```
<head>
<style type="text/css">
<!--
  h1 { font-family: Arial, Helvetica, Verdana;
        color: blue;
        text-align: center}
  p { font-family: Arial, Helvetica, sans-serif;
        font-style: italic;
        color: red}

-->
</style>
</head>
```

Comment tag alerts older browsers to ignore Styles they cannot read

Inline Style Sheets

```
<body >  
<p style="font-weight:bold;  
        background-color:blue;  
        text-align:center">
```

This paragraph will be bold, and centered against a blue background.

```
</p>  
</body>
```

Calling Style Sheets

- Linked (in the <HEAD>)

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

- Embedded (in the <HEAD>)

- `<style> h1 {color: #FFFFFF;} </style>`

- Inline (in the tag)

- `<p style="color: #FFFFFF"></p>`

Grouping Selectors

- Instead of

```
H1 { color: #FFFF00; }  
H2 { color: #FFFF00; }
```

- Combine Rules

```
H1, H2 { color: #FFFF00; }
```

Classes

- Classes

- Allow styles for groups of elements

CSS: `td.navbar { color: blue; }`

HTML: `<td class="navbar"></td>`

Style Classes

```
<head>
<style type="text/css">
<!--
p.norm {font-family: 'Times New Roman' ;
      text-indent: .5in }
p.spec {font-family: Arial ;
      font-style: italic ; text-indent: 1in }
-->
</style>
</head>
<body>
<p class="norm">Normal paragraph</p>
<p class="spec">Special paragraph</p>
</body>
```

Create your own section names

Apply them to HTML tags

Style Classes

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

```
<!--
```

```
.first {color: red }
```

```
-->
```

```
</style>
```

```
<body>
```

```
<p>Welcome to your <span class="first">new  
home</span></p>
```

```
</body>
```

.first is the name of the class

Style Ids

- Specifies a particular element on a page
- Similar to classes, but the in the case of Ids you should have only one element with the id (i.e. They should be unique)

- In element start tag

```
<element id="this">Blah blah</element>
```

- In style

```
element#this {  
    property:value;    div#gaudi {color:red}  
}
```

- ID wildcard, all elements with that ID:

```
#this {  
    property:value;    #gaudi {color:red}  
}
```

Style Ids

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

```
<!--
```

```
p#intro{color: red }
```

```
-->
```

```
</style>
```

```
<body>
```

```
<p id="intro"> >This is my introduction paragraph.</p>
```

```
</body>
```

.intro is the id of the page element

Pseudo-elements

- Special-case selectors
- Anchors
 - `a:link` (when a link is not active, and has not been visited)
 - `a:visited` (after the link has been visited)
 - `a:hover` (when the mouse is hovering over the link)
 - `a:active` (when a link has focus or has been selected)
- Can use pseudo-elements with classes
 - e.g., `a.navbar:active`
- Other pseudo-elements
 - `:first-line`, `:first-letter`

CSS Units

- Used for specific heights and lengths
- CSS supports several length units
 - px – Pixels – screen dots
 - pt – Points – font sizes
 - in, cm – Inches and centimeters
 - % - percent of the current/parent font
 - em – height of current font
- Pixels vs. Em
 - For easiest/best design control – pixels
 - For best flexibility/accessibility – % or em

Fonts

■ font-family

- Ordered list of font names
- Quote names with spaces: e.g., "Arial Black"

```
p.arial
{
    font-family: "Arial, Helvetica, sans-serif";
}
```

■ font-size

- larger, smaller, or specific height

```
p.big { font-size: 60px; }
```

Fonts

- font-style

- normal or italic

```
p.plain { font-style: normal; }
```

- font-weight

- normal, lighter, bold, or bolder

```
p.bolder { font-weight: bolder; }
```

Colors

■ color:

➤ Named Colors: `red`, `blue`, `green`

➤ Hex: `#FFCC00`, `#FC0`

➤ RGB values: `rgb(123, 123, 123)`

```
p.green { color: #00FF00; }
```

■ background-color:

➤ color or transparent

```
p.highlight { background-color: #FFCC00; }
```

Text

- Line-height

- Normal, number, length, percentage

- ```
p.wellspaced { line-height: 150%; }
```

- Text-align

- left, right, center, justify

- ```
p { text-align: justify; }
```

Positioning of Elements

- You can place/layout you page using CSS
- Usually takes the form of `<div>..</div>` tags with id or class names
- Types of positioning:
 - Static – default, element shows up as it would normally
 - Relative – position the element relative to where it would be (if static)
 - Fixed - You can specify a position on a page, and it will stay there
 - Absolute – similar to Fixed, except you it does not have to be locked relative to the page (can be in another element)

Some Tips

- Always define a generic font last
 - End font-family declarations with serif, sans-serif, cursive, fantasy, or monospace

```
body {  
    font-family: "Arial, Helvetica, sans-  
    serif";  
}
```

- Define font styles for BODY, P, and TD
 - TDs do not inherit font sizes, and font settings are sometimes lost after tables

```
body, p, td { font-size: 12pt; }
```

Making CSS valid

- Like XHTML w3c provides a validator at: <http://jigsaw.w3.org/css-validator/>
- It will check to make sure you have used acceptable properties, proper/appropriate values and that your syntax is correct
 - i.e. closing braces, colons instead of equal signs

Technical Tips

- Use linked style sheets
 - Makes updates easier
 - Your HTML is cleaner
- Test
 - Different browsers
 - Different platforms
- If style sheets are removed, the page should still be readable

CSS References

Online specs can be found at:

<http://www.w3.org/TR/REC-CSS1>

Online specs can be found at:

<http://www.w3.org/TR/REC-CSS2>

Online resource can be found at:

<http://www.w3schools.com/css/default.asp>