

Introduction to Cascading Style Sheets by R. Berdan Feb 21, 2006

Styles permit a web developer much more control over the appearance of a web page than HTML alone. Styles can be used to position elements on the page, control the font face and size to a much greater extent than HTML and styles can even be used to control the appearance of browser window like the scroll bars and tool bars or be used to make hyperlinks into rollover text links. The support for styles varies among the browsers and may differ even with different operating systems (e.g. Mac vs PC), however more and more web developers are incorporating styles into their web sites because it offers greater flexibility and control. Since MS Explorer is now the dominant browser on the Net (I.E. 5 or 6 approx 90% of users as of this date) – most web developers target the use of styles for this browser. If you or your customer use another browser you will want to check that your styles work as you expect.

The term Cascading Style sheets comes from the fact that the web developer can put styles into an external text file and name it **myfile.css** and then link this style to each web page. This permits the appearance of the web pages to be standardized and by changing this one style sheet all the effects are **cascaded** throughout the web site. Using CSS is then particularly useful for large web sites or where a company wants to maintain a consistent appearance on different web sites perhaps by smaller branch offices located across the country.

Styles can be written and embedded inside HTML using a simple text editor (notepad) and some web development programs (e.g. Dreamweaver) will write some CSS styles for the web developer. CSS is also required to format data written using XML i.e. extensible markup language.

These notes are only meant as a simple introduction to CSS and contain a few examples. I recommend for more information you pick up a book on CSS or visit a web site with more detailed tutorials (e.g. <http://www.echoecho.com/css.htm>)

Styles can be inserted into three places

1. Inline – embedded within the <body></body> of a web page surrounding specific elements
2. Embedded inside the <head></head> tags where it affects only one page
3. External stylesheet – linked to various web pages, the style can be stored in the folder with other web pages or can be located on a remote server.

All styles have a similar format

selector { property: value; property2; value etc }

In most cases the selector is an HTML tag e.g. h1, the property might be color: and the value: red.

H1 { color: red }

Additional property: value pairs are separated by a semicolon.

Example #1 Inline Style

```
<html>
<head>
<title>My first style </title>
</head>
<body>

<p style="font-size:100 px;color:red">This text is big and red</style></p>

</body>
</html>
```

Inline styles can over ride styles in the head or external styles. The style however only affects the elements it surrounds. This particular style permits one to change the font size to almost any size, whereas HTML only permits a max of size="7".

Example #2 - embedding a style in the head tags of an HTML document

```
<html>
<head>
<title>My first style </title>

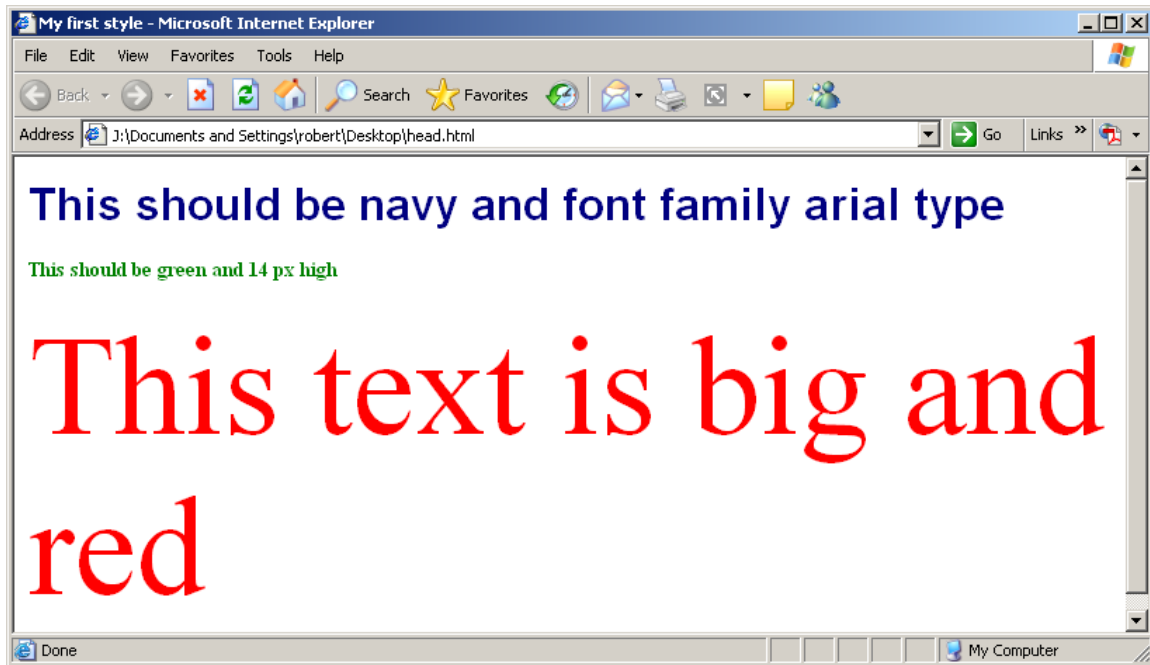
<style type="text/css">
<!--
h1 { color: navy;
      font-family: Arial;
    }

h2 { color:green;
      font-size: 14 px;
    }
-->
</style>
</head>
<body>
<h1>This should be navy and font family arial type</h1>
<h2>This should be green and 14 px high</h2>
<p style="font-size:100 px;color:red">This text is big and red</style></p>
</body>
</html>
```

Note the <!-- --> are comment tags for browser that do not support styles they will be treated as a comment and not appear on the page.

Save as **head.html** and view it in your browser.

see screen shot next page



Example #3 – Embedding a style in an external file

Create a new file using notepad and type in the following styles (do not include any HTML)

```
h1 { color: navy;  
      font-family: Arial;  
    }
```

```
h2 { color:green;  
      font-size: 14 px;  
    }
```

```
p { font-size:100 px;  
    color:red  
  }
```

Save this file and call it **mystyle.css** (note the file must be in the same place you save your web pages or you must include the file path below when you link to this style)

Create a new web page and link to the style as shown below.

```
<html>
<head>
<title>My first style </title>

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

</head>
<body>

<h1>This should be navy and font family arial type</h1>
<h2>This should be green and 14 px high</h2>
<p>This text is big and red</p>

</body>
</html>
```

Save this page as **external.html** and view it in your browser it should look identical to the previous page except now the style sheet is outside the code. You can create new web pages and link to this styles sheet, you can also add additional styles to the mystyle.css page and they will be applied to any of the linked pages.

Look out for some common mistakes.

1. type="text/css" works but if you use type="text\css" with a back slant the style does not work
2. if you put color; green and use a semi-colon instead of a colon to separate property: values – the style will not work.

Question: is it possible to create a style that affects more than one HTML tag?

In short the answer is yes, we have to create a class or pseudo class and define the various property values.

Example #4 – Creating Class selectors - we will define the styles in the head in this example but they could also go into an external styles sheet.

```
<html>
<head>
<title>Class styles</title>
<style type="text/css">
<!--
B.extra { font-style: italics;
          font-size: 19 pt
        }

.huge { font-size: 42 pt }
```

```

-->
</style>
</head>
<body>

<p><b class="extra">This is Big Text</b></p>

<big class="huge">this text will be huge</big>
<h1 class="huge">So will this text</h1>

</body>
</html>

```

The first class is associated only with the bold or tag and is thus a dependent class. The second class, huge is independent and can be applied to many different tags e.g. <big> and <h1>

Creating multiple Hyperlink colors on the same page using Class selector.

Suppose you want to create rollover hyperlinks with different colors on different parts of a web page. This is impossible to do using HTML alone, but by creating two classes you can achieve this.

```

<html>
<head>
<title>Class styles</title>
<style type="text/css">
<!--

.header a:link {
    font-weight: bold;
    color: red;
    text-decoration: none;
}
.header a:visited {
    color: #FFFFFF;
    text-decoration: none;
    font-weight: bold;
}

.header a:hover {
    color: #0099FF;
    text-decoration: none;
    font-weight: bold;
}

.header a:active {
    font-weight: bold;
    color: #FF0000;
    text-decoration: none;
}

a:link {
    color: #0000CC;
    text-decoration: underline;
}

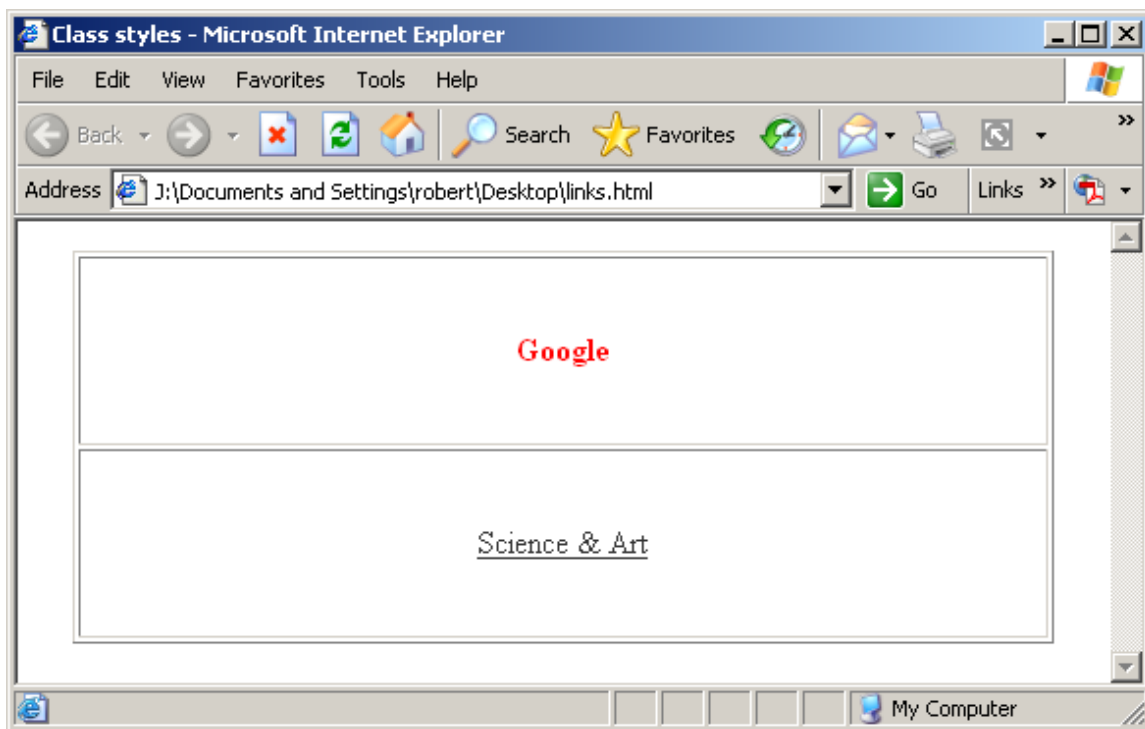
```

```

}
a:visited {
    color: #333333;
    text-decoration: underline;
    font-weight: normal;
}
a:hover {
    color: #FF0000;
    text-decoration: underline;
}
a:active {
    font-weight: normal;
    color: #FF0000;
    text-decoration: underline;
}
-->
</style>
</head>
<body>

<table border="1" width="500" align="center" height="200">
<tr><td class="header"><center><a
href="http://www.google.com">Google</a></center></td></tr>
<tr><td><center><a href="http://www.scienceandart.org">Science &
Art</a></center></td></tr>
</table>
</body>
</html>

```



Two different colored hyperlinks on the same page.

Suppose you wanted 3 different hyperlink colors on the same page! Here is how you might do it.

```
<html>
<head>
<title>Class styles</title>
<style type="text/css">
<!--

.header a:link {
    font-weight: bold;
    color: red;
    text-decoration: none;
}
.header a:visited {
    color: #FFFFFF;
    text-decoration: none;
    font-weight: bold;
}

.header a:hover {
    color: #0099FF;
    text-decoration: none;
    font-weight: bold;
}

.header a:active {
    font-weight: bold;
    color: #FF0000;
    text-decoration: none;
}

.bottom a:link {
    font-weight: bold;
    color: green;
    text-decoration: none;
}
.bottom a:visited {
    color: #FFFFFF;
    text-decoration: none;
    font-weight: bold;
}

.bottom a:hover {
    color: #0099FF;
    text-decoration: none;
    font-weight: bold;
}

.bottom a:active {
    font-weight: bold;
    color: #FF0000;
    text-decoration: none;
}
}
```

```

a:link {
    color: #0000CC;
    text-decoration: underline;
}
a:visited {
    color: #333333;
    text-decoration: underline;
    font-weight: normal;
}
a:hover {
    color: #FF0000;
    text-decoration: underline;
}
a:active {
    font-weight: normal;
    color: #FF0000;
    text-decoration: underline;
}
-->
</style>
</head>
<body>
<table border="1" width="500" align="center" height="200">
<tr><td class="header"><center><a
href="http://www.google.com">Google</a></center></td></tr>
<tr><td><center><a href="http://www.scienceandart.org">Science &
Art</a></center></td></tr>
<tr><td class="bottom"><center><a href="http://www.moodsfnature.com">Moods of
nature</a></td></tr>
</table>
</body>
</html>

```

