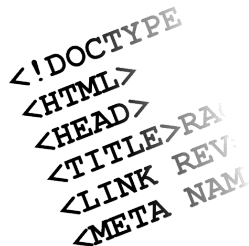


# Introduction to CSS

By Amit Tyagi

# What is CSS

- **C**ascading **S**tyle **S**heets
- Contains the rules for the **presentation** of HTML.



<!DOCTYPE  
<HTML>  
<HEAD>  
<TITLE>RA  
<LINK REV  
<META NAM

HTML

+



h2 {  
color: #000080;  
font-weight: bold;  
font-family: serif;  
font-size: 1.2em;  
text-align: center;  
margin: 10px 0;  
}

CSS

=



Web Page

- CSS was introduced to keep the **presentation** information **separate** from **HTML** markup (content).

# Before CSS

- Initially Designers used presentation tags like (FONT, B, BR, TABLE etc.) and spacers GIFs to control the design of web pages.

```
<body>
<table width="600" border="10" cellpadding="0" cellspacing="0" bordercolor="#FF00FF">
  <tr>
    <td><table width="100%" border="10" cellpadding="0" cellspacing="0" bordercolor="#0000FF">
      <tr>
        <td><table width="100%" border="10" cellpadding="0" cellspacing="0" bordercolor="#FF0000">
          <tr>
            <td>&nbsp;</td>
          </tr>
        </table></td>
      </tr>
    </td>
    <td><table width="100%" border="10" cellpadding="0" cellspacing="0" bordercolor="#FF0000">
      <tr>
        <td>&nbsp;</td>
        <td>&nbsp;</td>
      </tr>
      <tr>
        <td>&nbsp;</td>
        <td>&nbsp;</td>
      </tr>
    </table></td>
  </tr>
  <tr>
    <td><table width="100%" border="10" cellpadding="0" cellspacing="0" bordercolor="#FF0000">
      <tr>
        <td>&nbsp;</td>
      </tr>
    </table></td>
  </tr>
</table>
</body>
</html>
```

- Any **modification** in the design of websites was a very **difficult** and **boring** task , as it evolves **manually editing** every HTML page.



# Providing support for multiple browsers was a difficult task.

This site is best viewed using current versions of Microsoft Internet Explorer at a screen resolution of 800 x 600 or higher.



# Sources of Styles

## Author (developer) Styles

- **Inline Styles** - As inline attribute “style” inside HTML tags  
`<div style="font-weight: bold;">I am bold</div>`

- **Embedded Styles** - As embedded style tag with in HTML document.

```
<html>
  <head>
    <title>Welcome to Vendio!</title>
    <style>
      .footer {
        width:90%;
      }
    </style>
    -----
  </html>
```

- **Linked Styles** - Inside separate files with .css extension  
`<link rel="stylesheet" href="external.css" type="text/css" />`

# Sources of Styles(contd.)

- **User Style sheets**

This file contains the user created styles .

`[firefox profile folder]/ chrome/userContent-example.css` is the current user's style sheet file for the firefox.

- **Browser default style sheet**

This file contains default styles for all users of a browser

`[firefox folder]/res/html.css` is the default style sheet file for the firefox.

# CSS Selectors

- ID based ( #)

## HTML

```
<div id="content">  
  Text  
</div>
```

## CSS

```
#content {  
  width: 200px;  
}
```

ID selectors should be used with **single** elements.



# Class based selector

- Class (.)

## HTML

```
<div class="big">
  Text
</div>
<div>
  <span class="big">some text </span>
</div>
```

## CSS

```
.big{
  width: 200px;
}
```

Class based styles can be used by **multiple** HTML elements.

# Tag based selectors

- Tag (Tag name)

## HTML

```
<div>
  Text
</div>
<div>
  <span>some text </span>
</div>
<span>some other text </span>
```

## CSS

```
DIV {
    width: 200px;
}
SPAN {
    font-size:130%;
}
```

# Grouping

- Multiple selectors can be grouped in a single style declaration by using , .

```
H1, P, .main {  
    font-weight:bold;  
}
```

# Descendant selectors

Descendant selectors are used to select elements that are descendants (**not necessarily children**) of another element in the document tree.

## HTML

```
<div class="abc">
  <div>
    <P>
      Hello there!
    </p>
  </div>
</div>
```

## CSS

```
DIV.abc P {
  font-weight:bold;
}
```

# Child selectors

A child selector is used to select an element that is a direct child of another element (parent). Child selectors will not select all descendants, only direct children.

## HTML

```
<div >
  <div class="abc">
    <P>
      Hello there!
    </p>
  </div>
</div>
```

## CSS

```
DIV.abc > P {
  font-weight:bold;
}
```

# Universal selectors

Universal selectors are used to select any element.

```
* {  
    color: blue;  
}
```

# Adjacent sibling selectors

Adjacent sibling selectors will select the sibling immediately following an element.

```
DIV.abc + P {  
    font-weight: bold;  
}
```

will work for

```
<div>  
    <div class="abc">Message</div>  
    <P>Hello there!</p>  
</div>
```

# Attribute selectors

Attribute selectors selects elements based upon the attributes present in the HTML Tags and their value.

```
IMG[src="small.gif"] {  
    border: 1px solid #000;  
  
}
```

will work for

```

```



# CSS Pseudo-classes

selector:pseudo-class { property: value }

:link

:visited

} Link (A tag) related pseudo classes

:hover

:active

:after

:before

:first-child

:focus

:first-letter

:first-line

:lang

# CSS Values

- **Words:** text-align:center;.
- **Numerical values:** Numerical values are usually followed by a unit type.  
font-size:12px;  
12 is the numerical value and px is the unit type pixels.
  - Absolute Values – in, pc, px, cm, mm, pt
  - Relative Values – em, ex, %
- **Color values:** color:#336699 or color#369 or rgb(255, 255, 255).

# Categories of CSS properties

- Positioning and layout handling related.
- Background related properties.
- Font and text related
- Links related.
- Lists related.
- Table related.

# Cascade

The CSS cascade assigns a weight to each style rule. When several rules apply, the one with the greatest weight takes precedence.

Order of preference for various styles:

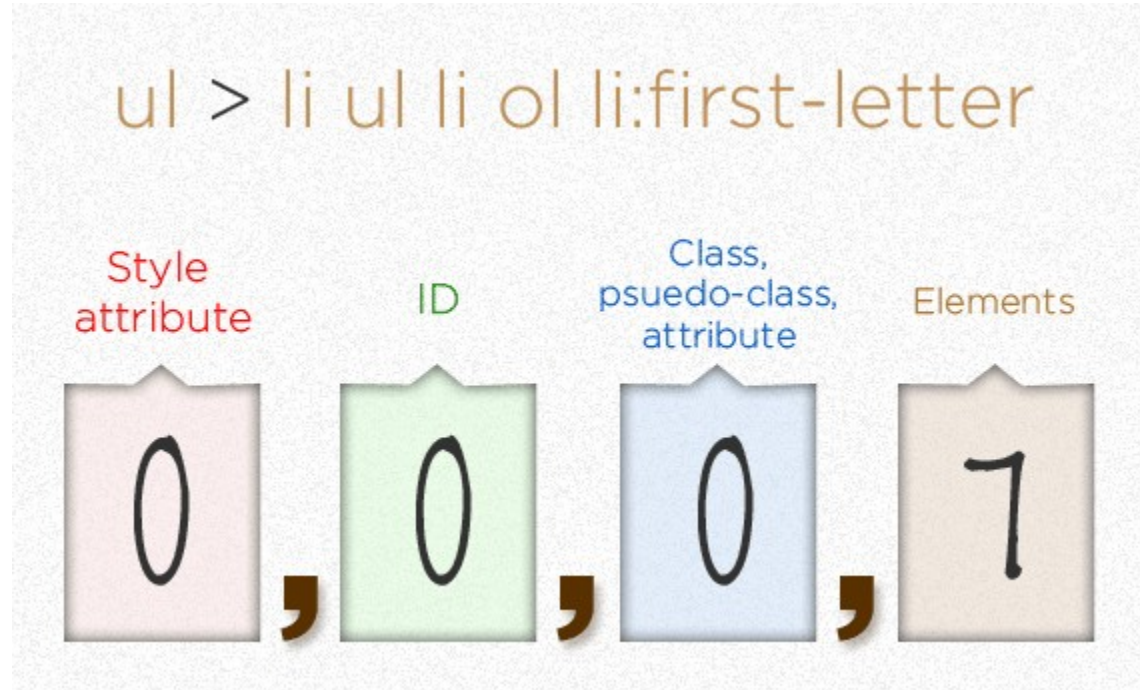
- Default browser style sheet (**weakest**)
- User style sheet
- Author style sheet
- Author embedded styles
- Author inline styles (**strongest**)



# CSS Specificity

Rule 1. CSS File >> Embedded >> Inline

Rule 2. TAG >> class >> ID



# Inheritance

- Styles that relate to **text and appearance** are **inherited** by the descendant elements.
- Styles that relate to the appearance of boxes created by styling DIVs, paragraphs, and other elements, such as **borders, padding, margins** are **not inherited**.







# References

- *[www.w3schools.com](http://www.w3schools.com)*
- *[www.w3.org](http://www.w3.org)*
- *World wide web*