This presentation covers the following topics

- Compound Selectors (Descendant Selectors)
- Pseudo Classes
- Pseudo Elements
- Span and div
- Display Property

Validation

You should be in the habit of checking all the html you write using the w3c validator tool. You should now start to do the same for any stylesheets you write. The CSS validation tool can be found at http://jigsaw.w3.org/css-validator

Tables - CSS

As mentioned during the lecture about HTML Tables – CSS must be used to style the tables

All of the Table Examples in HTML Lecture 2 contained validation errors – due to **'border'** and **'width'** – for example:

    <table border = "1" width="50%" >

These are NOT allowed in HTML5
- Must use CSS !!!!!!
For example – Table 1

```
<style>
        table, td {
                border: 2px solid black;
        }
</style>
</head>
<body>
        <table>
                <tr>
                 <td>Glasgow</td>
                 <td>Scotland</td>
                </tr>
                <tr>
                 <td>Paris</td>
                 <td>France</td>
                </tr>
        </table>
</body>
```

CSS is used to ensure that :
- Table
- th cells
- td cells

Have a 2px solid black border

Tables - CSS - Table 2

```
<style>
        table, th, td {
                border: 1px solid black;
                }
        table { width : 50%;
                }
</style>
<body>
        <table> <caption> TABLE CAPTION </caption>
        <thead>
                <tr>
                    <th>Heading</th>
                    <th>Row</th>
                </tr>
        </thead>
        <tbody>
                <tr>
           <td>Row 1 Cell 1</td>
           <td> </td>
   etc
```

CSS is used to ensure that :
- Table
- th cells
- td cells

Have a 1px solid black border

In addition
- Table
- Will have a width of 50%

More CSS

Compound Selectors
- (Descendant Selectors)

Pseudo-classes

Pseudo-elements

Compound Selectors

Also known as : **Descendant Selectors**

Selectors can be defined so that a style rule applies to an element **only when it is a descendant** of a certain other type of element. Examples:

ul ul { list-style-type : square }

This specifies that an unordered list inside another unordered list will be bulleted by squares.

h1 em em { color : red }

This specifies that emphasized text inside emphasized text in an <h1> header will appear in red.

Compound selectors are more specific than simple selectors. For instance, if a style sheet defines both

p{ color : red }

div p { color : blue }

then for a <p> tag that is inside a <div> element, the second rule would apply.

Pseudo-classes

These are like style classes, but an element **acquires a pseudo-class** by **user action or by a relationship** other than descendancy.

In the style sheet, a pseudo-class name is **preceded by a colon**.

In the HTML, the pseudo-class name is **NOT** used with the affected tag, because it is implied.

Link-related pseudo-classes :

a:link { color : red }

Applies when the link has not yet been visited.

a:visited { color : green }

Applies when the link has been visited

a:hover { color: yellow }

Applies when the mouse is over the link.

    a:active { color : orange }

Applies when the link is clicked.

Pseudo-elements

Closely related to pseudo-classes, in that they are defined by relationships, not by explicit declarations.

A **pseudo-element** refers to a virtual element that is part of an actual element, rather than a special case of a whole element.

- **:first-line** is a pseudo-element that consists of the first line of text in a block-level element.
- **:first-letter** is a pseudo-element that consists of the first letter of the text in an element.

First-line formatting :

    p:first-line { font-weight:bold }

First-letter formatting :

    p:first-letter { font-size: 200%; float: left }
    p   { text-indent: 1em }

    p.initial   { text-indent: 0 }

    p.initial:first-line   { text-transform: uppercase }

    p.initial:first-letter   { font-size: 24pt }

This indents **all** normal paragraphs.
A paragraph that is declared with **class="initial"** is not indented
Its first line appears :
- in all capital letters,
- with an extra-large first letter.

The and <div> Tags

These tags are provided to allow arbitrary chunks of HTML to be treated as elements. This is usually done in order to apply style attributes to them

A **** ... **** element defines an **"inline"** structure, i.e. it simply defines a stretch of text. Thus it can be used within a paragraph or table element without affecting the flow of the text.

A **<div>** ... **</div>** element defines a **"block"** structure. Usually the browser will place line breaks before and after this element, but otherwise it has no effect itself.
    <div> - can contain any content

<span>

```
<html>
<head>
<title>CSS - Ex 5 - span</title>
<style type="text/css">
  span.blue {color:lightskyblue;font-weight:bold}
  span.green {color:darkolivegreen;font-weight:bold}
</style>
</head>
<body>
<p>This text is <span class="blue">light blue</span> and this text is <span class="green">dark green</span> - example of span.</p>
</body>
</html>
```

<div>

```
<html>
<body>

<h1>This is a header</h1>
<p>This is a paragraph.</p>

<div style="color:#00FF00">
  <h1>This is a header</h1>
  <p>This is a paragraph.</p>
</div>

</body>
</html>
```

CSS display Property

inline;
- This is default. The element is displayed as an inline-level element (like span)

block;
- The element is displayed as a block-level element (like paragraphs and headers)

none;
- The element will not be displayed at all

```
<style>
span
{
    color:red;
}

span.disp1
{
    display:block;
}

    li.disp2{display:inline;}
    li.disp3{display:none;}
</style>
```

Special Selectors - Style Classes

If you want to distinguish between instances of one element – can use Style Classes
(see previous Lecture)
- e.g. one particular paragraph

In the CSS file - precede the class name with the '.' flag in your style sheet.

```
p.warning {
    background-color:#FFE4E1;
    ………
        }
p.info {
    background-color:# FFD700;
    ………
        }
```

In the HTML file add a 'class' attribute to the element(s) and give them a value.

```
<p class="warning">This is a Warning !!!</p>

<p class="info"> This is for Information </p>
```

In the above example the styles were explicitly defined for the <p> tag only

However, styles can be defined by omitting the tag, thus generating a style that can
be used by many elements
- not just <p>

In CSS file :

```
.large {font-size: xx-large;}
```

In XHTML :

```
<p class="large"> This text is very large</p>

<h1 class="large"> This Header is very large</h1>
```

Special Selectors - ID Tags

The ID selector is used to specify a style for a **single, unique element**.

The ID selector uses the ID attribute of the HTML element, and is defined with a "#".

The style rule below will ONLY be applied to the element with id="para1" :

```
#para1
{
text-align:center;
color:red;
}

<p id="para1">This paragraph uses an ID!</p>
<p>This paragraph is not affected by the style.</p>
```

Using <div> to control content

The <div> tag is widely used with CSS to control the styling of a web-page
This example is based on the example used within the CSS for Developers videos

```
<style>
 #content
   { width:50%;
   margin : 0 auto;
   padding :50px;
   background-color: #DCEEFF;
   border : 1px solid #333;
   }
</style>
 </head>
<body>
<div id = "content">
……
…….
</div>
</body>
```

```
<style>
 #content
  { width:50%;
   //width is 50% of browser window
   margin : 0 auto;
   //margin top and bottom are 0px
   //margin left and right are auto – adjusts with window size
   padding :50px;
   // padding (inside border) is 50 px
   background-color: #00f8f8;
   // background colour is blue
   border : 1px solid #333;
   // border around all content
  }
</style>
```

Using Various Selectors….

We can use these various tags together

```
<div id="content">

  <div id="site_header">
    <h1>Site Title</h1>
    <h2>Various Content</h2>
  </div>

  <div id="page_content">
   <h3 class="title">Page Title</h3>
   <p> Item Information</p>
   <p>Extra Information.</p>
  </div>
</div>
```
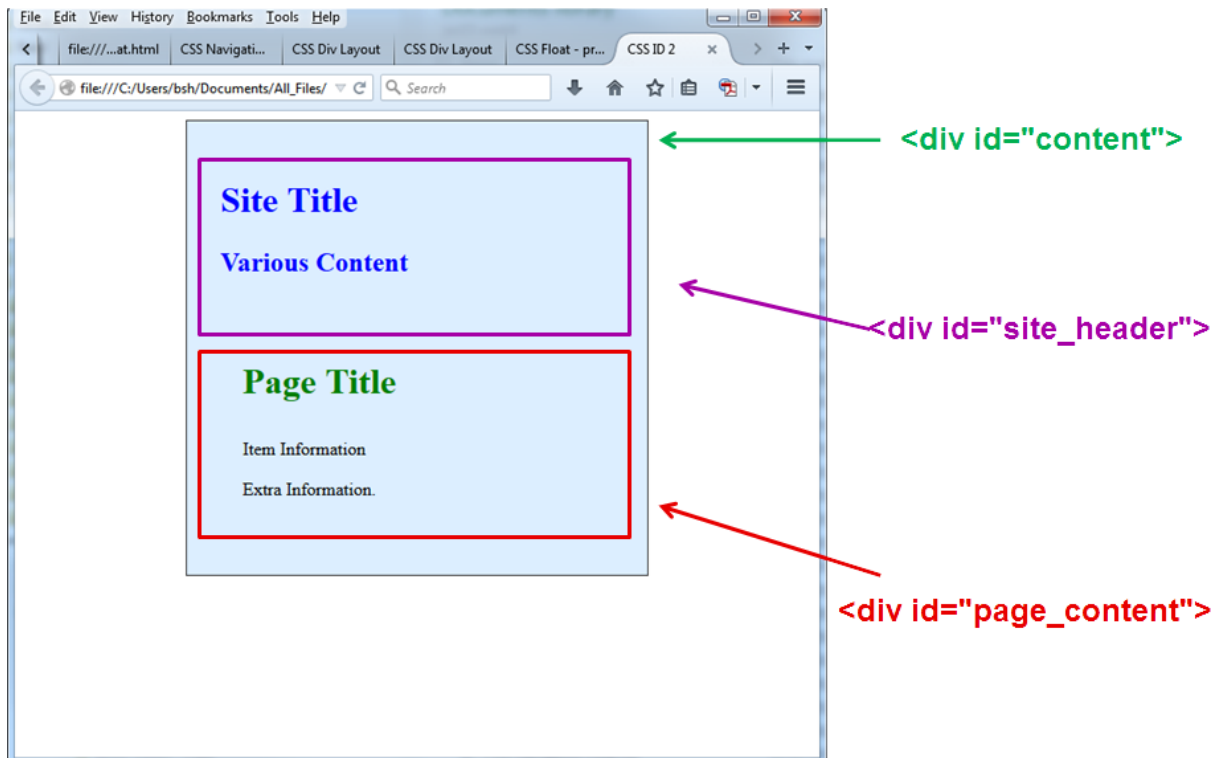
```
#content
{ width:50%;
   margin : 0 auto;
   padding :30px;
   background-color: #DCEEFF;
   border : 1px solid #333;
}
#site_header
{ color:blue; }
#page_content
{ padding :20px; }
.title {
 font-size: 200%;
 font-weight:bold;
 color:Green;
 }
```

A collated list of all CSS Examples

All of these Examples are from w3schools
Colour RGB Values
- use this to identify specific RGB values/Colour names:

http://www.w3schools.com/cssref/css_colors.asp
http://www.w3schools.com/css/css_examples.asp

Specific Examples :

Specify the space between lines
Add other styles to hyperlinks

Specify the padding for th and td elements
Create a fancy table
Make the first letter and first line special

CSS Image Opacity / Transparency
http://www.w3schools.com/css/css_image_transparency.asp