span *and* div *Elements and* id *Selector*

❖ **<span class="?">** Inline element with no inherent format
  - ◆ Usually a class attribute is associated with spans to specify similarly formatted inline sections
  - ◆ class attribute allows same format applied to several elements
  - ◆ id attribute could be used to style a single inline element
❖ **<div id="?">** Block-level element with no inherent format
  - ◆ Usually an id attribute is associated with div elements to control position and layout for a single occurance of an element
  - ◆ div element may encapsulate other block level elements
  - ◆ Sometimes referred to as a "super block-level element"
❖ **id Selector** used for accessing one element by id
  #dvBack { position:absolute; left: 30px; top: 40px }
  #dvNav h5 { font-size: 16pt; color: #990000; }

id Selector   h5 Elements contained in div with id dvNav

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```
1.   <head> <title>Font Family Example</title>
2.   <style type="text/css"> /*<![CDATA[*/
3.      p    { margin-top: 2pt; margin-bottom: 2pt; font-size: 16pt }
4.      .Geo  { font-family: "Georgia" }
5.      .Ver  { font-family: "Verdana" }
6.      .Imp  { font-family: "Impact" }
7.      #Arl  { font-family: "Arial" }
8.      #Wd { font-family: "Wingdings"}
9.      #Greek { font-family: "Symbol" }
10.  /*]]>*/ </style>
11.  </head>
12.  <body style="color: #999900" >
13.    <h2 class="Ver"> Different Font Families</h2>
14.    <p>Georgia = <span class="Geo">abcdef123ABCDEF</span></p>
15.    <p>Verdana = <span class="Ver">abcdef123ABCDEF</span></p>
16.    <p>Impact = <span class="Imp">abcdef123ABCDEF</span></p>
17.    <p>Arial = <span id="Arl">abcdef123ABCDEF</span></p>
18.    <p>Wingdings = <span id="Wings">abcdef123ABCDEF</span></p>
19.    <p>Symbol = <span id="Greek">abcdef123ABCDEF</span></p>
20.  </body>
```

Different Font Families

Georgia = abcdef123ABCDEF
Verdana = abcdef123ABCDEF
Impact = abcdef123ABCDEF
Arial = abcdef123ABCDEF
Wingdings = ✺♌♓♍♑♏✖☞▤▦♐♋♌♋☜☞
Symbol = αβχδεφ123ΑΒΧΔΕΦ

---

span *and* div *Exam...*

This is a test of setting various text style classes:
Here is some **Strong** text,
And some Green Text

This is a test of ｜H3 Bordered Red｜ Text

Back   Back

```
<head> <title> Border Example</title>
<style type="text/css"/*<![CDATA[*/
  body {  background-color: #FFFFCC; color: #990000; }
  p { font-family: Arial; font-size: 12pt; }
  h3 { color: #0000FF; }
  .MakeGreen  { color: #00FF00 }
  .MakeRedAndBox { color: #FF0000; border: 8px #FF0000 double; }
#Bck { font-size: 16pt; color: #00CC00; } /*]]>*/</style> </head>
<body>
  <p>This is a test of setting various text style classes:<br />
  Here is some <strong class="MakeGreen">Strong</strong> text,
    <br /><span class="MakeGreen"> And some Green Text</span></p>
  <h3>This is a test of <span class="MakeRedAndBox">H3 Bordered
  Red</span>Text</h3>
  <div id="Bck" class="MakeRedAndBox" style="height: 40pt">
    <img src="btBack.gif" height="29" width="59" alt="Back" />
    Back </div></body>
```

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CSS – Box Model

❖**The box model utilizes <div> elements to structure the document into 2-D blocks**
❖**CSS allows *Absolute, Fixed,* or *Relative Positioning* of elements on a document**

```
<body>
  <div id="dvNav">         <div id="dvContent">
    <h3>                     <h1 id="A" >Slides</h1>
     <a href="#A">           <p>Slides will be here</p>
     Slides</a>              <h1 id="B" >Work</h1>
    </h3>                    <p>Work will be here</p>
    <h3>
     <a href="#B">
     Work</a>
    </h3>
  </div>                    </div>
</body>
```

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Measurement Specification

❖**Absolute Length Measurements**
  ◆**12pt**   12 points (1 point = 1/72 inch)
  ◆**0.5in**   ½ inch
  ◆**1.25cm**   1 ¼ centimeters
  ◆**16mm**   16 milimeters
❖**Relative Length Measurements**
  ◆**152px**   152 pixels
  ◆**18em**   18 times the height of uppercase M
  ◆**24ex**   24 times the height of lowercase x
  ◆**120%**   120 percent of default size
❖**Relative Font Specification**
  ◆**xx-small | x-small | medium | large | x-large | xx-large**

Element Structural Properties

❖**See Appendix B for details**
❖**Element Position property**
  ◆**position: [absolute | fixed | relative] ;**
❖**Element Placement properties**
  ◆**top: 10px;**   /* distance browser top to div top */
  ◆**left: 20px;**   /* distance browser left to div left */
❖**Element size properties**
  ◆**height: 400px;** /* height of div element */
  ◆**width: 500px;** /* distance browser right to div right */
❖**Element display property**
  ◆**display: [inline | block | list-item | none] ;**

CSS - Absolute Positioning

❖ *Absolute Positioning* **locates the contents of the <div> element to the coordinates specified by the top left properties**
❖**Can define as inline style**
```
<div style="position: absolute; right: 0; top: 40px;">
  <img src="../Logo.gif" width="100" height="140"
       alt="Logo" /> </div>
```
❖**Can define Style Rule for CSS**
```
#dvSymbol { position: absolute; right: 0; top: 40px; }

<div id="dvLogo">
<img src="../Logo.gif"  width="100"
height="140"  alt="Logo" /></div>
```

CSS – Fixed Positioning

❖ *Fixed Positioning* **locates the contents of the <div> element to a fixed position in the window that is unaffected by scrolling**
  ◆**Excellent replacement for frame layouts**
  ◆**A W3C Standard and supported by Opera, Mozilla, and Netscape. Unfortunately not supported by IE <=6**
```
<style type="text/css">
body { color: #000000; margin: 0; padding: 0;
 background: #FFFF00 url(wpNMCMenu.gif) repeat-y;}
#dvNav { position: fixed; top: 0; left: 0; width: 130px;}
#dvContent { position: absolute; top: 0; left: 150px;
 width: 500px;}
</style>
```

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CSS –Relative Positioning

❖ ***Relative Positioning* locates the contents of the <div> element to a relative position from its placement in the natural flow.**

#dvTop { position: relative; top: -50px; left: -105px; }

```
<div id="dvTop">
  <a href="#TOP">
  <img src="../btTop.gif" width="50" height="50" />
  </a> </div>
```

◆ W3C CSS Validator checks for valid CSS code
◆ SnapFiles Freeware (Excellent freeware source)

Border Properties

❖**Border a colored region surrounding element**
  ◆ **border-top: 0;   /* removes top border */**
  ◆ **border-right: 10px;**
  ◆ **border-bottom: 6pt; /* border ½ line if 12pt font */**
  ◆ **border-left: 20px;**
  ◆ **border-color: #00FF00; /* For bullet lists */**
  ◆ **list-style-position: inside;   /* default outside */**
  ◆ **border-style: [dashed | none | solid | dotted | inset];**
  ◆ **border-bottom-style: dotted; /* alternative to <hr /> */**
  ◆ **border-width: 4px;**
  ◆ **border-left-style: double;**
❖**Combined form font properties**
  ◆ **border: 2px   solid   #0000CC;**
      width   style   color

Padding Properties

❖**See Appendix B for details**
❖**Padding is the transparent region between the border and the element contents**
  ◆ **padding-top: 0;   /* removes top border */**
  ◆ **padding-right: 10px;**
  ◆ **padding-bottom: 6pt; /* border ½ line if 12pt font */**
  ◆ **padding-left: 20px;**
  ◆ **padding: 0   12pt   15px   0;**
      top   right   bottom   left
❖**Padding can be problematic because browsers may interpret box model differently**
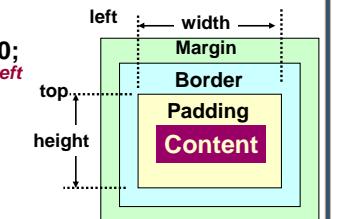
left ↔ width
Margin
top — Border
Padding
height — **Content**

Stacking and Overflow Properties

❖ **3D Stacking element style**
  ◆ **z-index: 40; /* highest no. = top */**
     z-index: 20; /* lowest no. = bottom */
❖ **Contents Overflow**
  ◆ **overflow: [visible | hidden | scroll | auto];**
     /* determines how overflow displayed */

One
Two
This is the
third
element with
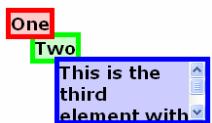
```
<head> <title> Stacking</title><style type="text/css">
  body { font-family: "Verdana"; font-size: 18px; font-weight: bold; }
  #dvA { border: 5px solid #FF0000; background-color: #FFCCCC;
      top:40px; left:40px; position: absolute; z-index: 10;}
  #dvB { border: 5px solid #00FF00; background-color: #CCFFCC;
      top:65px; left:65px; position: absolute; z-index: 5;}
  #dvC { border: 5px solid #0000FF; background-color: #CCCCFF;
      top:90px; left:90px; position: absolute; z-index: 8;
      height: 60px; width: 150px; overflow: auto; }   </style> </head>
<body><div id="dvA">One</div> <div id="dvB">Two</div>
<div id="dvC">This is the third element with overflow</div>  </body>
```

Floating and Aligning Properties

❖ **Floating elements in a sea of text**
  ◆ **float: [left | right]; /* position element & float text */**
  ◆ **clear: [left | right | both]; /* prevents floating */**
❖ **Vertically Aligning elements**
  ◆ **vertical-align: [baseline | middle | top | text-top | bottom | text-bottom];**
❖ **Rollover Effects**
  ◆ **The next slide illustrates floating image to right**
  ◆ **Borders are used and colored to as hover rollover**

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Aligning Multiple Elements Using Class

❖ **Using a *CSS Class* position properties can be assigned to multiple elements**
  a.rolloverImage img{
   border: 3px solid #FFFFFF; float: right;
  }
  a.rolloverImage:hover img{ border: 3px outset #CCCC99 }
  a.rolloverImage:active img{ border: 3px outset #FF9933 }
❖ **Designation of div element class**
  <p>   Mozilla Firefox - Mozilla's next generation browser with extension architecture. 5 MByte download. </p>

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CSS Layout Exercises

❖ **Utilize the CSS Box Model to design a 2 Dimensional Layout for your web pages that you created on your web site**
❖ **Utilize absolute, relative, and fixed positioning of elements on your web site.**
❖ **Use an Internal style sheet for your home page to control the presentation of the document. This needs to include absolute positioning of elements.**
❖ **For your resume page create a simulated frame layout using a right side vertical navigation bar that utilizes fixed positioning.**
❖ **Create an additional xhtml document that describes the topic you will be covering.**
❖ **Use an external CSS file to control the format for the topic section which requires the use of the link element.**
❖ **Upload all files to your web site using ftp.**

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