Computer Science 140

Lab 3

Due: Week of October 23-25

Purpose

1. Develop use of linked, embedded and inline CSS skills.
2. Develop skill using Firebug web development tool.

Overview

In this lab you create CSS style definitions to format the display of web pages. In the previous lab you used a `table` layout structure for each of the web pages. This `table` structure will be replaced in this lab with a series of `div` elements having defined CSS styles.

Resources

- Online HTML specification: `http://www.w3.org/MarkUp`
- List of web colour names: http://www.w3schools.com/html/html_colornames.asp
- (Recommended) E. Castro book on HTML, XHTML, and CSS – chapters 7,8,9,10
- Course notes on CSS
- CSS resource links found on your course web site under Resources
- https://developer.mozilla.org/en/Using_gradients

Preparation

1. Read this section for a review of the CSS material.
2. If you have the Castro book, review the CSS material in chapters 8, 9 and 10.

   Recall that CSS style declarations have two components: the **selector**, which defines the tags to which the style will be applied, and the **properties**, which specify what the style actually does.

   A typical **embedded** or **linked** CSS style declaration has this format:

```
one or more selectors separated by commas {  a CSS property name : value ;
                                             a CSS property name : value ;
                                            etc...
                                           }
```

A typical **inline** CSS style declaration has this format:

<*start_tag* style= "CSS property name: value; CSS property name: value; ..">

Common style definitions:

Type selectors

By naming a particular HTML tag, you can apply a style definition to every occurrence of that tag in the document. By separating the type selectors with commas, the defined styles for font-size and color are applied to the document's **body**, **p**, **div**, **ul** and **ol** tags.

```
body, p, div, ul, ol  {
      font-size: 1em;  color: black; }
```

Class selectors

You may want to assign different styles to identical tags occurring in different places within your document. Class selector names are case sensitive and must contain no spaces – you can make up any class name you like but it must not start with a number and it must not be the same as a Javascript reserved word (see http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference:Reserved_Words)

```
p         { color: blue; }
.notice   { color:red; }
              /* <p class= "notice"> text will show as red
                <p>  text will show as blue  */
```

ID selectors

ID selectors are used to select one particular tag, rather than a group of tags. ID selector names follow the same rules as class selector names.

```
#sidebar  {  color: blue;  }
```

/* All text between <div id="sidebar"> and its enclosing </div> will display as blue. */

Note that ID selectors have a higher precedence than class selectors, which have a higher precedence than HTML tags.

```
p       { color: red; }
p.desc  {color: blue; }
p#note  { color: green; }
```

/* `<p> …</p>` will have red text;
`<p class="desc" id="note"> … </p>` will have green text – rarely seen usage of selectors this way */

Pseudo-Class selectors

To redefine how links are graphically represented, this order of CSS style must be used: link first, then visited, then hover, then active.

```
a:link    {color: blue; }      /* for unvisited links */
a:visited {color:magenta; }    /* for visited links */
a:hover   {color:green; } /* mouse hovering over the link */
a:active  {color:red;   }      /* when link is clicked on */
```

Because `a:active` is defined last, its style overrides any of the previous three.

```
p.dropCap:first-letter {  font: bold;
                         color: red; }
```

The `first-letter` pseudo-class lets you define a style for the first letter of an element (here the class named dropCap for p).

Descendant Selectors

An important concept of CSS is the idea that a tag can be defined *inside* another tag; we call these tags *nested*.

```
<div id= "mypage">
      <div id= "navbar">
            <ul id= "menu">
            …
            </ul>
      </div>

      <div id= "content">
            <p class="note"> ...</p>
      </div>

      <div id= "footer">
            <p class="final"> … </p>
      </div>
</div>
```

The div navbar is nested inside div page.

The first </div> closes off the div navbar

Last </div> closes off the div mypage

Many CSS style properties of nested selectors are **inherited** from the parent selector. In the above example a CSS color style defined for the div `mypage` would be automatically inherited by the nested divs `navbar`, `content` and `footer`. Some style properties such as those for margin, width and border are not inherited.

Any selector with an **ID** has a higher cascade-order value (precedence) than one with a **class**. And a **class**-named selector has a higher cascade-order value than one without any name.

If you want to make a CSS style such that it cannot be overridden, use the `!important` declaration. The following makes all paragraph text red, even those with named IDs.

```
p   { color: red  !important; }
```

When you need to define a different style for a selector depending where that selector is used (say inside a class), use a descendant selector style with the two selectors separated by a space.

```
p.notice a:visited  {
      font-weight: bold;
      color:white;  }
```

This CSS style rule directs any `<a>` tags inside any `<p class= "notice">` to use a bold font and display as white for visited links.

```
#sidebar  a:link   { font-weight: bold; }
```

/* Any unvisited `<a>` links defined within `<div id= "sidebar">` and its enclosing `</div>` are in bold */

CSS can be defined for HTML in one of three ways: **inline**, **embedded**, or **linked**.

Inline CSS uses the `style` attribute within the HTML element as in

`<p style= "color:blue; font: Verdana; font-weight: bold">` *text* `</p>`

Inline styles are used less commonly than embedded and linked because they are styles declared exclusively for that HTML element.

Embedded CSS is the set of CSS styles defined within the `<style>` element contained within the head section of the HTML document as in

```
<style type = "text/css">
    p  {  color: red;
            font-weight: bold;
       }
```

```
</style>
```

Embedded styles apply only for those HTML elements within that HTML document.

Linked CSS is the set of CSS styles defined within a separate CSS stylesheet document often named default.css, and then linked to the HTML document using the `<link>` element as in

```
<link href=“default.css” rel=“stylesheet” type=“text/css”>
```

The advantage of using linked CSS styles is that you can reuse all the CSS definitions for all your HTML files simply by including the `<link>` to that separate CSS file. And, if in the future, some CSS styles needed altering, you only need edit that one `default.css` file to make the change for the entire site.

Some CSS gotcha’s to watch out for:

i. Missing the closing } when defining a CSS style

bad:
```
<style type= “text/css”>
 h1   { color:blue;
</style>
```

Missing the } in the style rule

ii. Using **=** (bad) instead of **:** (good) when defining a CSS style

bad:
```
<style type= “text/css”>
h1   { color=blue; }
</style>
```

Styles must be defined with a colon

iii. Forgetting the semicolon at the end of a CSS style (except when it is the last in the list)

bad:
```
<style type= “text/css”>
h1   { color:blue font-family:arial }
</style>
```

Missing the **;** after blue

iv. Using the property name incorrectly (e.g. it is `font-family` not `fontfamily`)

bad:
```
<style type= “text/css”>
h1   { text-color:red }
</style>
```

Wrong property name

v. Forgetting the closing */ when using CSS comments

bad:
```
<style type= “text/css”>
```

Missing closing */

```
/*  John Smith –
h1  { padding:right}
</style>
```

vi. Defining a CSS style outside the `<style>`   `</style>` tags

bad:

```
<style type= “text/css”>
h1  { padding:right}
</style>
p   { margin:10px; }
```

CSS style outside the <style> </style>

vii. Forgetting the # when defining ID selector styles

bad:

```
<style type= “text/css”>
nav  { margin:10px; }
</style>
</head>
<body>
<div id=“nav”>…
```

CSS style for ID selectors must start with a #

viii. Adding a space between the unit amount and unit measure

bad:

```
<style type= “text/css”>
 nav  { margin:10 px; }
```

Should be 10px not 10   px

ix. Order of CSS style definition matters

```
<style type= “text/css”>
H1  { color: blue; }
h1  { color: red;  }
</style>
```

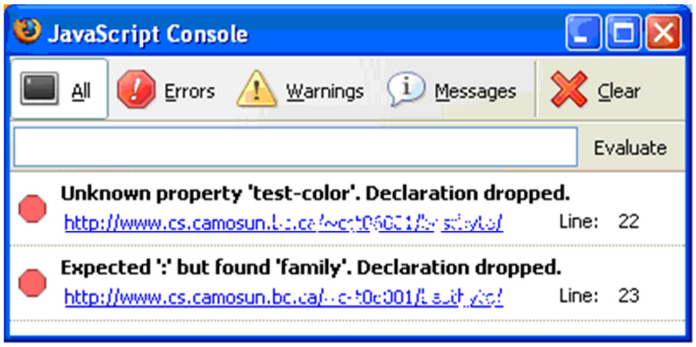
H1 and h1 are the same HTML selector – the color style of the second one is used

2. CSS style format (embedded)

Good :

```
<style type= "text/css">
   p {  color:blue;
        margin:10px;
        font-family:arial, helvetica, sans-serif; }
</style>
```

3. Two ways to find any problems with your CSS styles is to load the web page in the Firefox browser, then
    1. If you do not see the menu bar (File Edit View etc) at the top, right click at the top and select the Menu Bar option to make it visible. Select Tools | Web Developer | Error Console. You should click on Clear to remove error warnings from previous pages, close the Javascript console, reload the web page, then check the Javascript console again. The sample window below shows two errors caused by faulty CSS rule definitions.



Unknown property 'test-color'. Declaration dropped.
http://www.cs.camosun.[illegible] Line: 22

Expected ':' but found 'family'. Declaration dropped.
http://www.cs.camosun.bc.ca/[illegible] Line: 23

2. Select Tools | Web Developer | Firebug to use the Firebug tool to review your HTML and CSS definitions. You will be using the Firebug add-on in this lab. If you do not see the Firebug option, you will need to install the Firebug add-on here:

   https://addons.mozilla.org/en-US/firefox/addon/firebug/

Description:

1. Using the HTML content created in the previous lab, change the page layout from a table structure to CSS `divs` to enhance its visual appearance. There are many CSS frameworks used by web developers which automate this process, but not for this lab.

2. The navigation anchor links will be formatted with a CSS style.

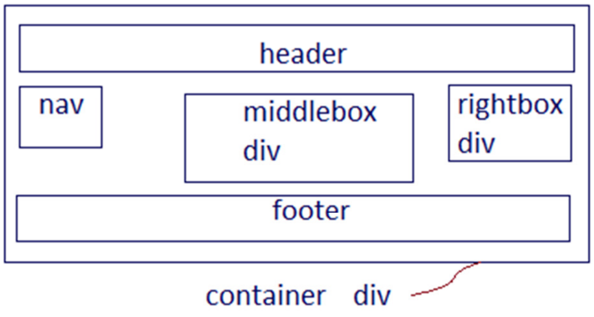
3. The **header** element appears at the top of the page. It displays the text “Pizza Palace” for all pages in the site.

   The **nav** element appears to the left of the screen and displays all the navigation links to each of the site’s pages.

   The main content displays in the **middlebox** div.

   The **rightbox** div (for any potential ad space) appears adjacent to middlebox to its right.

   The **footer** element will ‘float’ on the bottom of the page.



Process

1. Open the File Explorer and create the following new folders on your H: drive:

   ```
   comp140\lab03
   comp140\lab03\PizzaPalace
   comp140\lab03\PizzaPalace\images.
   ```

   On the H: drive copy all your previous lab 2 work (the html files and the images folder and its contained image files) into your new lab 3 folders.

2. Start the WinSCP application and copy the new `lab03` folder to your `deepblue` account inside the `public_html\comp140` folder. Make sure you haven't accidentally copied a second `lab03` folder underneath your `lab03` folder.

3. Open `DreamWeaver` and create a new web site `PizzaPalace3`, which points to your new lab 3 on deepblue. Refer back to your lab 2 notes if you need to review how to do this step. Verify the new lab 3 web site works in the browser.

4. Modify the lab 3 version of `index.html` file with the following CSS `div` style instead of the table style you used in lab 2. The original content between the table tags remains – only the table structure tags are required to be deleted. You will need to remove all the HTML markup tags `<table>` and all the `<tr>` and `<td>` tags. The example below shows this new `index.html` file. The line numbers serve as reference only. (Note: if you "cut and paste" this html into Dreamweaver, you may find the double-quotes do not get copied correctly.) Although this new `div` layout will be basis for all your site pages, do not copy the new `index.html` over the other web site html files yet. The `<body>` tag on line 1 indicates where you need to add the new elements (do not add a second `<body>` tag). If you prefer not to type it all in, you can copy the html file from this location:
   http://hal.cs.camosun.bc.ca/~langs/comp140-13/labs/lab03/index_step2.html

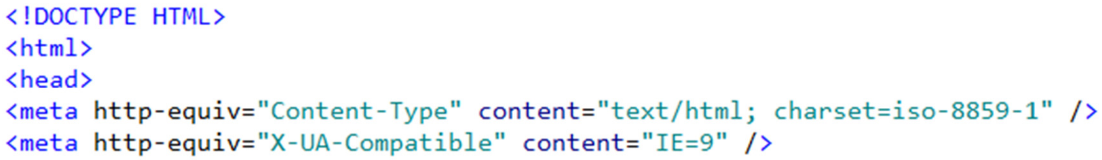
```
1   <body>
2   <div id="container">
3         <header>
4               <h1> Pizza Palace </h1>
5         </header>
6
7         <nav>
8               <ul>
9                 <li> <a href= "index.html">Home</a></li>
10                        ...etc  –  the rest of the page links (menu, ..)
11              </ul>
12        </nav>
13
```

```
     <div id="rightbox">
         Your ad goes here !
      </div> <!-- end div rightbox -->

      <div id="middlebox">
           <p>Enjoy the best pizza…</p>
           <p>Hours: Mon-Sat 12-8; Sun 1-7</p>
           <p>Location: … </p>
     </div> <!-- end div middlebox -->

     <footer>
           <hr />
           &copy; M and L - 2013
     </footer>
</div> <!-- end div container -->
```

5. We will use HTML 5 doctype for our HTML files. Modify the first lines of your `index.html`:



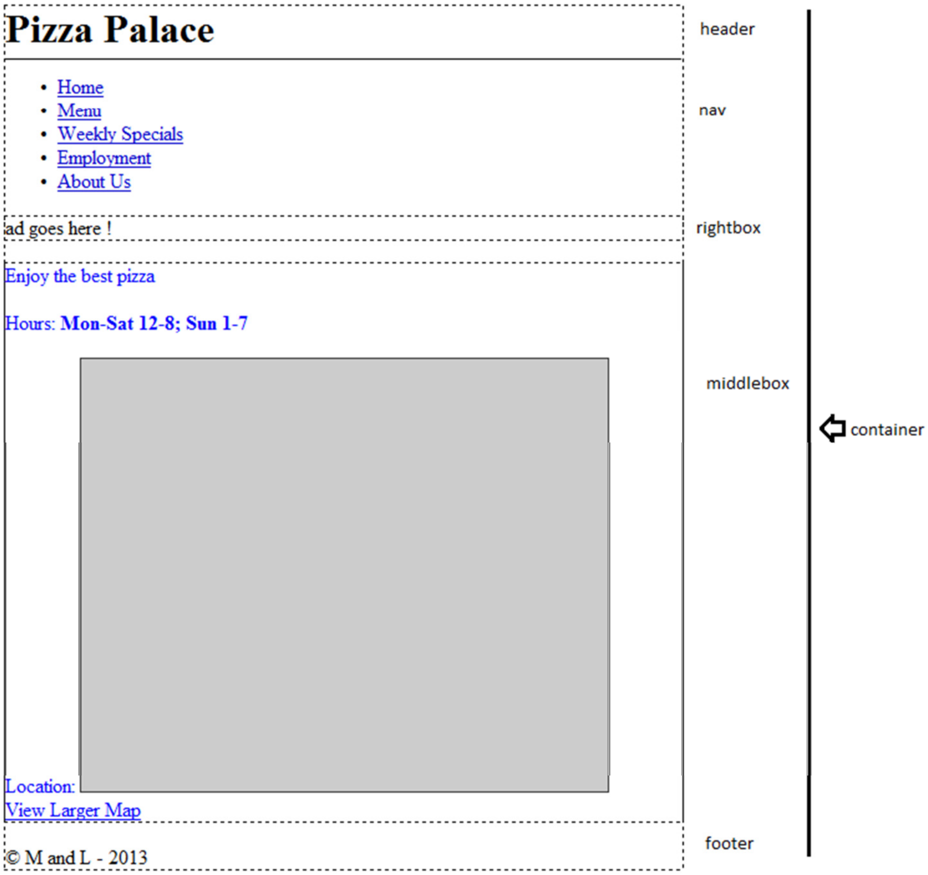
```
<!DOCTYPE HTML>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<meta http-equiv="X-UA-Compatible" content="IE=9" />
```

The first `meta` element declares that the HTML content uses a type of character set encoding called "ISO 8859". Change the `charset` to "`UTF-8`" which is a more commonly used character set encoding than "ISO 8859" these days.

The second `meta` element allows the IE 9 browser to handle some CSS style elements you will add later.

6. In a new line just before the `</head>` tag in all of the HTML files, define the `link` element for the stylesheet `default.css`. Refer to your CSS notes regarding linked CSS stylesheets on how this is defined within the HTML document.

7. Save your `index.html` file. Click on the Design view to see this:



Pizza Palace

- Home
- Menu
- Weekly Specials
- Employment
- About Us

ad goes here !

Enjoy the best pizza

Hours: **Mon-Sat 12-8; Sun 1-7**

Location:
View Larger Map

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In this lab you will apply CSS style to position all the div boxes correctly and provide enhanced text styles.

8. In Dreamweaver create a new CSS page (File | New | Blank Page, Page Type CSS)

9. Define CSS styles for the divs in a new CSS file called `default.css`. This file should be saved in the same folder as the lab 3 HTML files. Ensure each CSS style declaration ends with a semi-colon. Enter the following CSS into the `default.css` file.

```
@charset “utf-8”;
/* CSS Document */
/******************************************
 Container division contains the individual box
 divisions on the page.
******************************************/
#container  { width: 90%;
              margin: auto;
              text-align: left;
             }

header     {  background: red;
13                border: solid 1px black;
14                height: 60px;
15                width: 100%;
16             }
17
18  nav      {   float: left;
19               width: 130px;
20               padding-right: 10px;
21           }
22
23  #middlebox  {   top: 10px;
24                  margin: 0 100px 0 140px;
25                  background-color: ivory;
26              }
27
28  #rightbox { float: right;
29              padding: 0 5px 0 5px;
30              width: 70px;
31            }
32
33  footer     { background: #f33;
34               border: solid 1px black;
35             }
```

Lines 7-10 define CSS for the `container` div which is to be 90% of the width of the screen and auto margins for left and right (thus centering the box on the screen). Any text is to be left justified.

Lines 12-16 define CSS for the `header`. The border is 1 pixel on top, right, bottom and left. The height of the box is 60 pixels and the width is 100% the width of the container.

Lines 18-21 define the CSS for the element `nav`. This element is to appear to the left of anything that is defined after it so the `float: left` style is used. The box is 130 pixels wide with no margins. The padding of 10 pixels on the right ensures there is some white space to the right of the text links.

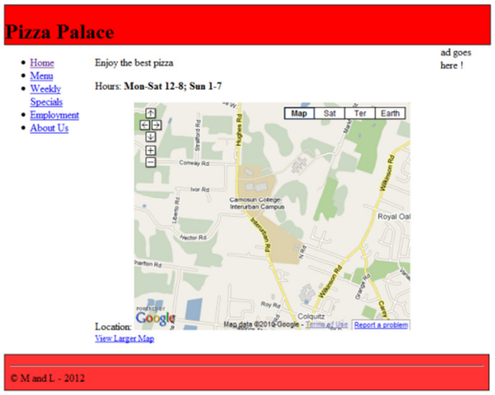
Lines 23-26 define the CSS for the div `middlebox`. This box appears ten pixels down from the top of the container div and has margins to keep the text in line.

Lines 28-31 define the CSS for the div `rightbox`. This box will appear adjacent to the `middlebox` div (because `rightbox` div will be defined before the `middlebox` and the `float: right` is defined). The `padding` declaration allows for some white space to the left and right of this div.

Lines 33-35 define the CSS for the `footer`. This box, like `header`, appears across the width of the container. It has a slightly lighter red background (for now – later in this lab you will be changing this).

10. The Firefox browser will display the `nav` slightly higher than the `middlebox`. Apply an appropriate CSS property to the `nav` element to correct this alignment to make it appear even with the `middlebox` div. Also the `middlebox` appears too close to the `nav`. Add some padding to the `middlebox` div to space it out further from the `nav`. Set the background colours for the `nav` and `rightbox` divs to `#f8f8f8` and `wheat`, respectively.

11. In Dreamweaver select the `index.html` file, then press the F12 key to preview it in Firefox somewhat similar to this example:



Pizza Palace

- Home
- Menu
- Weekly Specials
- Employment
- About Us

Enjoy the best pizza

Hours: **Mon-Sat 12-8; Sun 1-7**

Location:
View Larger Map

ad goes here !

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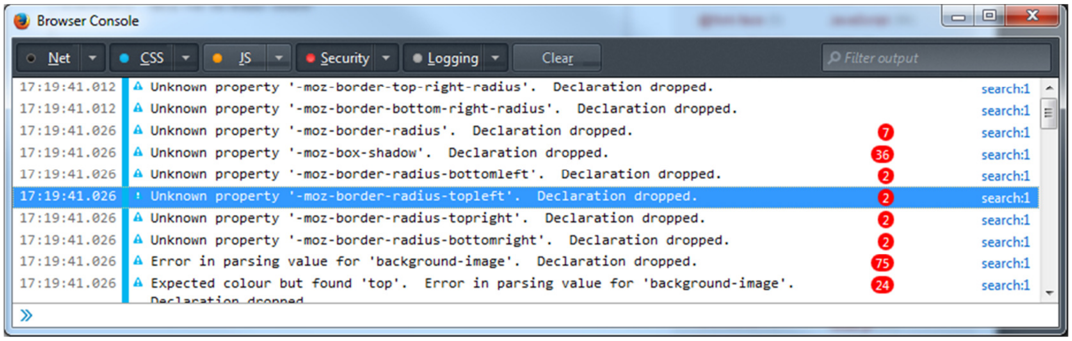
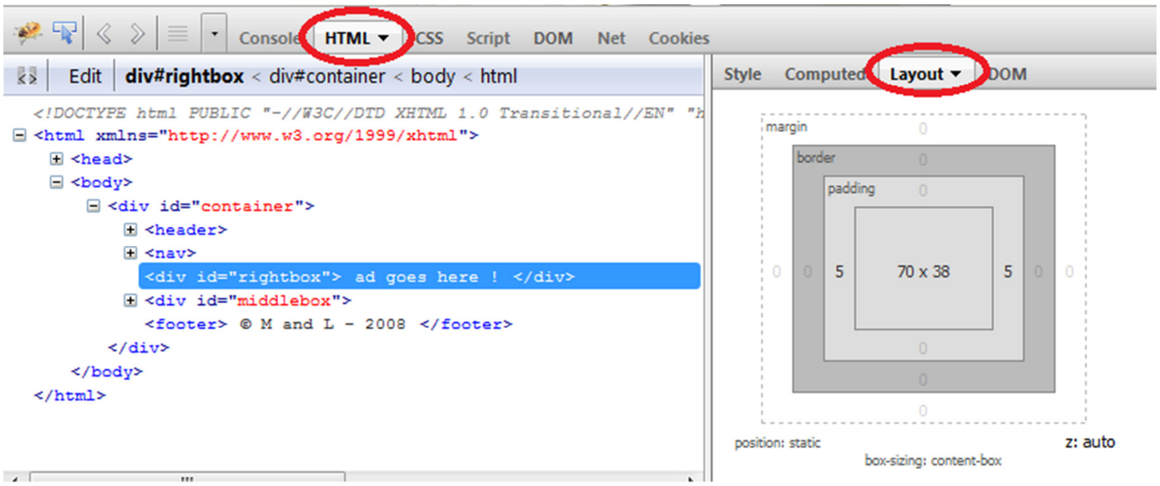
12. Resize the browser window and the header and footer `div` panels should resize while the `nav` and `rightbox` panels stay in place. Select Tools | Web Developer | Browser Console in the Firefox browser (or press control-shift-J keys). You may see warning messages from the Google map iframe; those messages can be ignored.



```
17:19:41.012  Unknown property '-moz-border-top-right-radius'.  Declaration dropped.                 search:1
17:19:41.012  Unknown property '-moz-border-bottom-right-radius'.  Declaration dropped.              search:1
17:19:41.026  Unknown property '-moz-border-radius'.  Declaration dropped.                      7    search:1
17:19:41.026  Unknown property '-moz-box-shadow'.  Declaration dropped.                        36    search:1
17:19:41.026  Unknown property '-moz-border-radius-bottomleft'.  Declaration dropped.           2    search:1
17:19:41.026  Unknown property '-moz-border-radius-topleft'.  Declaration dropped.              2    search:1
17:19:41.026  Unknown property '-moz-border-radius-topright'.  Declaration dropped.             2    search:1
17:19:41.026  Unknown property '-moz-border-radius-bottomright'.  Declaration dropped.          2    search:1
17:19:41.026  Error in parsing value for 'background-image'.  Declaration dropped.             75    search:1
17:19:41.026  Expected colour but found 'top'.  Error in parsing value for 'background-image'. 24    search:1
              Declaration dropped.
```

13. In the Firefox browser press the F12 key or click on Tools | Firebug | Open Firebug. (If your Firefox browser does not have the Firebug add-on, you can get it from the Firefox web site https://addons.mozilla.org/en-US/firefox/addon/firebug/ or from http://www.getfirebug.com).

Firebug is a useful tool for web page designers because it shows you exactly what the browser is seeing in terms of HTML and CSS. Click on the HTML tab on the Firebug panel and the Layout tab on the right side.



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "h
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
  <body>
    <div id="container">
      <header>
      <nav>
      <div id="rightbox"> ad goes here ! </div>
      <div id="middlebox">
      <footer> © M and L - 2008 </footer>
    </div>
  </body>
</html>
```

Move the cursor over the `div` elements shown on the left and Firebug will highlight in the Firefox browser the `div` regions separately. The content area is shown as a light blue box. Padding space is shown in purple and margin space as yellow. The layout panel displays the selected `div` box features (click on the `div` tags individually to see). In the above example the content of the selected element (`div` id rightbox) is in a box 70 by 40 pixels. There is a padding space of 5 pixels and a margin of 0 pixels surrounding.

Click on the Inspect icon (small blue bordered rectangle containing a blue arrow) to the right of the insect icon. In Firebug, Inspect mode occurs when the cursor is moved over an element in the web page, that element description in the HTML is shown in the Firebug window.

The CSS Firebug tab shows you the CSS style declarations in effect for the shown web page.

The Script Firebug tab is used for JavaScript development.

The DOM Firebug tab shows the web page as a DOM structure (Document Object Model).

The Net Firebug tab shows you the amount of time it takes to access each part of the web page from the web server. It also shows you the size of each downloaded image, where it came from (the host) and the HTTP status code (200 means it downloaded successfully).

The Style Firebug tab shows you the CSS styles in effect for the selected element in the browser window.

Both the Google Chrome and Microsoft Internet Explorer 9 browsers support a similar Firebug-like utility obtainable by pressing the F12 key.

14. The `<h1>` element within the header element requires some CSS style formatting. Using Dreamweaver edit the CSS file `default.css` to define a **new** style rule for this selector: `header h1`

    This is a *descendant selector* or sometimes called a *context selector*.

    This new style rule applies only to any `h1` elements contained within a `header` element

    Provide the necessary CSS declarations for this new style rule:
    i. the text is aligned center (CSS property is `text-align`),
    ii. the font family is "Times New Roman", default serif,
    iii. the font size is 36 pixels,
    iv. font colour is yellow,

    Do not define these styles within the `header` CSS styles.

    To make the box corners appear slightly rounded in Firefox (this will not work in the IE browsers because Trident does not recognize Mozilla-based properties), add in this style rule for the `header` selector:

    ```
    -moz-border-radius: 10px;
    ```

    Chrome, Safari, and Internet Explorer (version 9) browsers will recognize this CSS3 property however for specifying rounded corners.

    ```
    border-radius: 10px;
    -webkit-border-radius: 10px;
    ```

15. Vertical centering of text within an element is easy to do in CSS with tables (just use `vertical-align:center` within the `<td>` element). But with `div` elements there are different techniques to do this. Since we want to center the header `h1` in the `header` element, add in this CSS style

    ```
    position: absolute;
    top: 50%;
    height: 2em;
    width: 100%;
    margin-top: -0.6em;
    ```

    And add the CSS declaration `position: relative;` to the parent element `header` CSS style. This process uses the CSS style technique of defining the top of the `h1` header to be halfway down the parent element (the `header`) and then adjusting the top margin slightly above that to make the vertical centering work.

16. Test the `index.html` page to confirm the `header` element is styled correctly. If the styles didn't appear, check the property names and values you entered in the `default.css` file are correct. Firebug can help you here. Or use the W3C CSS validator service http://jigsaw.w3.org/css-validator/. Note the slight difference with the Microsoft Internet Explorer browser's rendering of the `header` element.

17. Edit the `index.html` to change all the navigation anchor links from

```
<a href=
```

to

```
<a class="pagelink" href=
```

An easy way to do this in Dreamweaver is to use Edit | Find and Replace to change all occurrences of `<a href=` or use this text:

```
<nav>
  <ul>
       <li> <a class="pagelink" href="index.html">     Home           </a></li>
       <li> <a class="pagelink" href="menu.html">      Menu           </a></li>
       <li> <a class="pagelink" href="specials.html">  Weekly Specials</a></li>
       <li> <a class="pagelink" href="employment.html">Employment     </a></li>
       <li> <a class="pagelink" href="about.html">     About Us       </a></li>
  </ul>
</nav>
```

18. Edit the `default.css` file and add in

```
nav li      { display: block;
              line-height: 150%;
              width: auto; }

a.pagelink { text-decoration: none;
             font-family: Arial, Helvetica, sans-serif;
             font-size: 14px; }
```

19. Observe what happened to the navigation links style within the browser.

20. To provide some dynamic colour feedback when the user hovers over the navigation links, enter the following CSS styles in the `default.css` file. Feel free to specify other colours if you like. http://www.quackit.com/css/css_color_codes.cfm

```
a.pagelink            { color: black;  }

a.pagelink:link       { color: blue;   }
a.pagelink:visited    { color: lime;   }
a.pagelink:hover      { color: orange; }
```

```
            a.pagelink:active     { color: fuchsia;}
```

21. Save the `default.css` file and observe how the CSS pseudo-classes :link, :visited, :hover and :active are handled in the browser.

22. For the `footer` element we can place an image in the background and repeat it across the box sideways (along the x-axis). Add in this CSS style to the `footer` element:

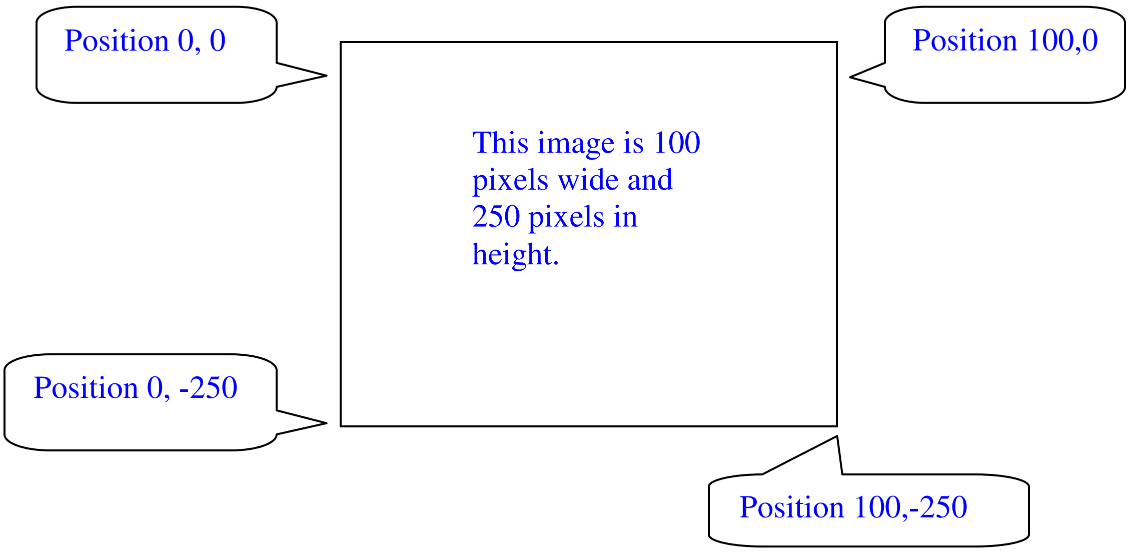
```
            background: url(images/pepperoni_pizza.png) 0px -230px;
```

    The above CSS style is a short form combination of the two CSS styles

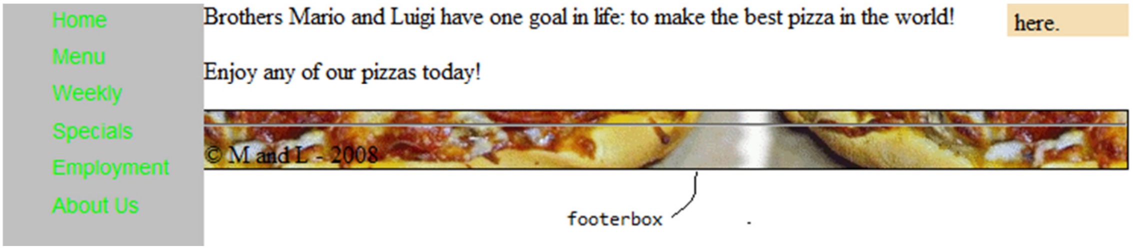
```
            background-image: url(images/pepperoni_pizza.png);
            background-position: 0px  -230px;
```

This style contains two rules: the first is `background-image` and the second is `background-position`, which sets the starting position of the image within the box. The first number is the offset from the left edge of the box; the second, from the top edge. These numbers may be expressed as percentages as in 10% 25% (meaning show the image's left side 10% and top part by 25%).
The `0px -230px` numbers tell the browser to clip the image at zero pixels from the left edge and 230 pixels from the bottom edge. The background-repeat tells the browser to keep showing the image along the x-axis. If you had resized the image, the pixel measurements of 0px and -230px may not work – load the image into MS Paint and select Image | Attributes from the MS Paint menu.

Web site designers rely on a variety of online tools to help define the precise shades of colours they need. The colour blender site at http://websitetips.com/colortools/colorblender/ allows you to pick valid CSS colours and preview harmonious colours that blend between them. The Adobe site at https://kuler.adobe.com/# features a number of colour themes. The Accessibility colour wheel http://gmazzocato.altervista.org/colorwheel/wheel.php demonstrates various selectable colour schemes as they would appear to those having colour vision challenges.



23. If the `footer` on the "About Us" page appears tucked under the `middlebox` and to the right of the navigation box as below, you can fix that.



Brothers Mario and Luigi have one goal in life: to make the best pizza in the world!

Enjoy any of our pizzas today!

© M and L - 2008

This can be fixed by applying the CSS style declarations `clear: both` and `padding: 0.5em` to the `footer` CSS style so that no elements are to appear on either side of the `footer` (causing it to shift down) with some padding.

24. The text in the footer will get lost in the image – make it more prominent by changing the font and colour characteristics. Remove the `<hr>` element.

25. Apply appropriate font and colour CSS style features to the text in the `middlebox` `div` by defining an <u>embedded</u> style rule for all `p` selectors there. Update the `p` elements to use a class named "mainpage". The HTML and CSS should look like this where the ellipsis (...) represents a set of CSS font styles of your selection.

```
<style type="text/css">
  p.mainpage { … }
</style>
</head>
```

26. Define a span element around the `Mon-Sat 12-8; Sun 1-7` text. Create an **inline** CSS style rule for this `<span>` which makes the enclosed text appear bold.

27. Save your changes to `index.html` and synchronize with your deepblue site.

28. A gradient is a colour gradually shifting into another shade or colour. In CSS you can apply a gradient to the `header` background to make it appear more vibrant. The following CSS, when added to the `header` style properties, causes the display in Firefox version 3.6 and later browsers to show a gradient.

```
header     {
             background: -moz-linear-gradient(top,
                   #ff6666, #ff0000);  /* Firefox */
            }
```

For Safari and Chrome browsers this won't work, you have to provide this CSS style as well:

```
background: -webkit-gradient(linear,left bottom,
        left top,
        color-stop(0, #ff0000),color-stop(1, #ff6666));
       /* Safari & Chrome */
```

Microsoft IE browsers will need additional work to define a gradient pattern. This CSS style will work for pre-version 9 IE browsers:

```
 filter: progid:DXImageTransform.Microsoft.gradient(
startColorstr='#ff0000', endColorstr='#ff6666',GradientType=0 );
```

Add this style just before the Chrome background image style. When previewing this in IE, the browser may prompt for an ActiveX permission. Click Ok.

The Opera browser has a custom linear gradient style definition as well.

```
background: -o-linear-gradient(top, #ff0000  0%, #ff6666 100%);
```

The rounded corners of the `header` will not work in IE 9 with the gradient feature. Additional CSS work would need to be done later to fix that. (bonus section)

29. Edit the `menu.html` page and add an embedded class style

```
.thumb   {  vertical-align: middle;
         }
```

and modify the toppings' image elements to use this class. For example,

```
<img src="images/...
```

becomes

```
<img class="thumb" src="images/...
```

Save the file and refresh the page in the browser to check that the images are currently vertically aligned to the associated text.

30. Also in the `menu.html` page modify the first three pizza `<dd>` elements to specify the class "oneline" `<dd class="oneline">`. In the menu.html file add in this new embedded class style:

```
dd.oneline  ul  li  {  display:  inline;
                       padding: 0 5px 0 5px;
                    }
```

31. Define four new embedded classes in `menu.html`, one for each of `<dt>` elements for cheese, pepperoni, Hawaiian, and toppings. The classes will specify the font style of bold, 120% and font name "Consolas" and a different text colour (e.g. and you may choose whatever colours work best – "Cheese Pizza" appears red, "Pepperoni Pizza" appears yellow, etc).

32. Make the necessary CSS layout updates to the other html pages as needed. No HTML page in lab 3 should use the table layout from lab 2.

Hand In / Demonstration / Questions:

1. When you have completed the lab work send me an email message (langs@camosun.bc.ca) with the subject: **`Comp 140  Lab 3`**. The body of the message should contain the URL to your work above, e.g. the URL:

   `http://deepblue.cs.camosun.bc.ca/~cst0xx/comp140/lab03/PizzaPalace`

   in the address bar of the browser) In Dreamweaver you can use File | Validate | Validate Current Document (W3C) to check for possible errors in the HTML.

   and include answers to the following questions as a text file attachment. Test your Lab 3 URL above in a browser before you send me the email message! (10 marks plus 10 marks for answering the five questions)

   a. Does the `index.html` web page look the same in the browsers Internet Explorer, Firefox, Chrome? If not, what was different?

   b. You have a sentence in your HTML document that you want to display more prominently than the text around it. What is the best way to resize that message's text font by 150%?

c. Why is it good practice to specify more than one font choice in a `font-family` declaration?

d. What is the CSS style difference between `padding: 5px;` and `padding: 5px 10px;` ?

e. If the customer wanted the navigation links to show up on the right side of the screen rather than the left, how would you change the CSS style declaration?