CGS 3175: Internet Applications
Fall 2007

Cascading Style Sheets (CSS) – Part 2

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Some More Practice – From CSS – Part 1

5. Modify the ordered list example from Page 9 of XHTML – Part 3 so that it uses the "firstCSS.css" file to print the list elements in purple.

6. Modify the hyperlink example from page 22 of XHTML – Part 3, by creating a linked style sheet that will set the links to the colors below and turns off the underlining for all links. Validate your CSS document on the W3C site using the CSS validator.

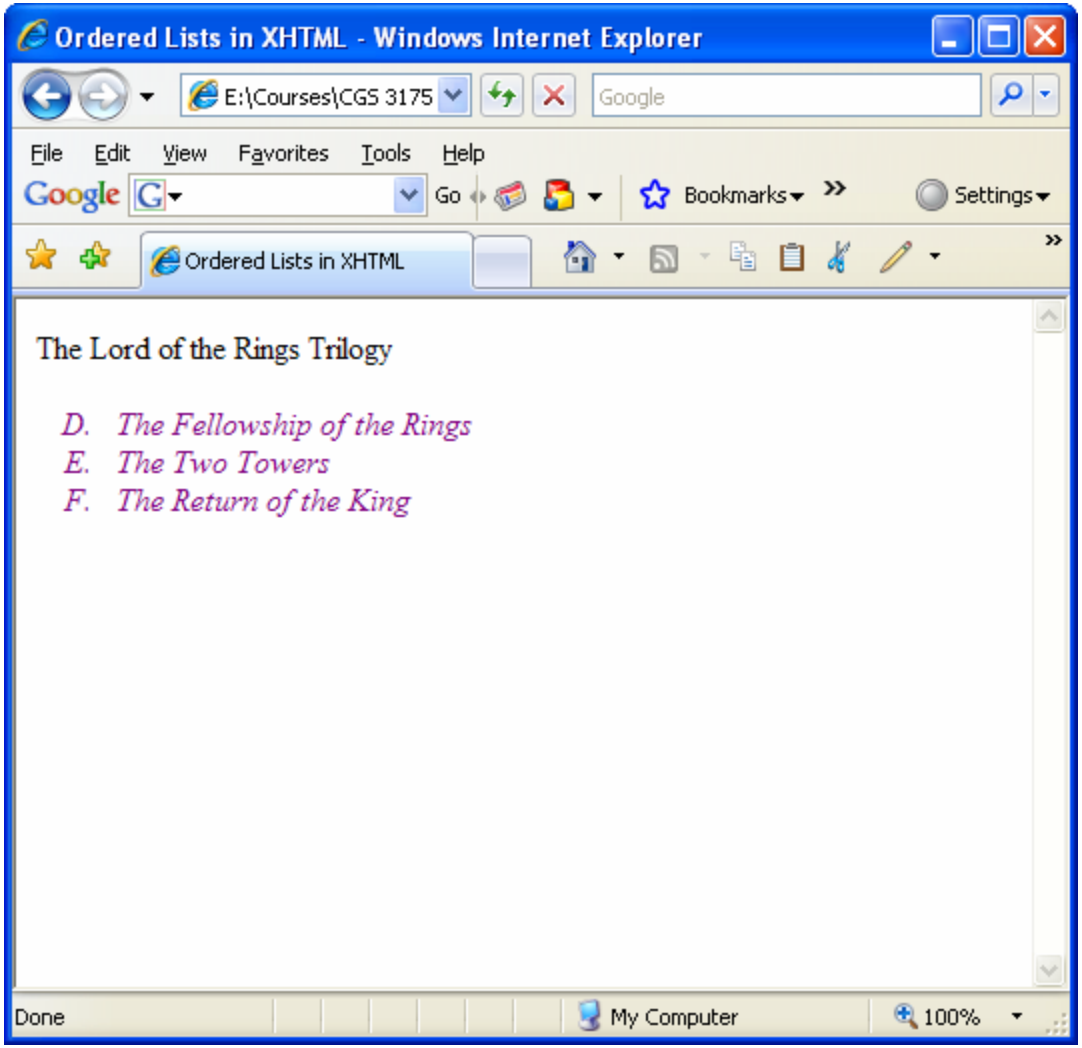
   unvisited links: green

   visited links: purple

   active link: red

   hover: blue

Practice Problem #5 – Output



Practice Problem #5 – The Code

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <head>
     <title>Ordered Lists in XHTML</title>
     <link rel="stylesheet" href="firstCSS.css"
type="text/css"  />
   </head>
   <body>
        <p> The Lord of the Rings Trilogy</p>
          <ol start="4" type="A">
            <li>The Fellowship of the Rings</li>
            <li>The Two Towers</li>
            <li>The Return of the King</li>
          </ol>
   </body>
</html>
```

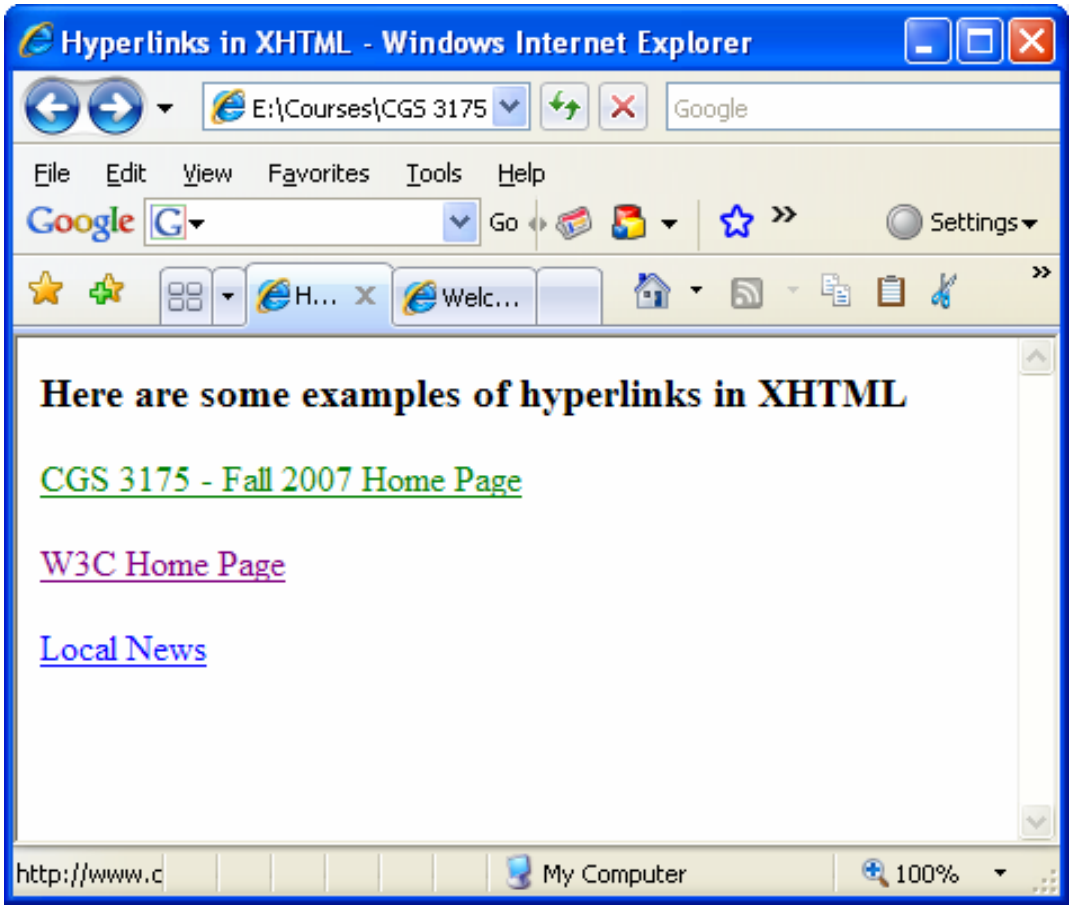
The XHTML code

```
/* My first Cascading Style Sheet */

strong     {
           font-weight:bold;
             text-align: left;
             background-color: yellow;
             text-decoration: underline;
           }
li         {
             font-style:italic;
             color: purple;
           }
```

firstCSS.css

Practice Problem #6 – Output



Practice Problem #6 – The Code

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <head>
     <title>Hyperlinks in XHTML</title>
     <link rel="stylesheet" href="hyperstyles.css" type="text/css" />
   </head>
   <body>
            <h3> Here are some examples of hyperlinks in XHTML</h3>
            <a href="http://www.cs.ucf.edu/courses/cgs3175/fall2007/index.html">CGS 3175 - Fall 2007 Home
Page</a>
            <br /><br />
            <a href="http://www.w3c.org">W3C Home Page</a>
            <br /><br />
            <a href="http://www.cfnews13.com">Local News</a>
    </body>
</html>
```

hyperstyles.css

```
/* Linked Cascading Style Sheet - for hyperlink example */

a:link {
           color: green; /* unvisited links */
        }
a:visited {
                     color: purple;  /* visited links */
           }
a:active {
                     color: red;  /* a clicked link – active */
           }
a:hover    {
                     color: blue;  /* mouse on link – not clicked */
}
```


CSS – Classes and IDs

- You might be wondering after reading the first part of the CSS notes and creating your first style sheets what to do if you need to assign more than one style to the same element.
- For example, suppose that you define the following style for the <p> element:

```
p { color: red }
```

- If you define the <p> element like this, all paragraphs in your document will be formatted with red text. If you want some paragraphs to have black text, you'll need to override the global styles with an inline style. This however can become quite tedious if many style changes are needed in a single document.
- The better solution is to use a class or id selector.

CSS – Classes and IDs

- Class and id selectors are used to define styles in your document that are independent of elements.
- Classes can be used to define styles for any number of elements and for any number of occurrences of elements in a document.
- The id attribute occurs only once in a document, so it should not be used to declare styles for a number of elements.
- For example, if you know that a certain element in a document will be used to uniquely identify the document, but you are not sure which element it will be in each document, you can use the id selector to generically reference the unique element independent of the document itself.
- The syntax for the class and id attributes are shown on the next two pages.

Class Selector Syntax

Style Sheet

```
.class_example {
                color : red
               }
```

XHTML document reference

```
<p  class="class_example">
```


ID Selector Syntax

Style Sheet

```
#id_example {
                color : black
            }
```

XHTML document reference

```
<p  id="id_example">
```

Using `class` and `id` Selectors

- Using class and id selectors for style formatting requires certain changes to the XHTML document because the appropriate attributes must be defined for each element to be formatted.
- Classes can also be assigned to individual elements to allow more control over formatting. This is done by placing the name of an element in front of the period in a class style declaration. For example, the following defines class formatting styles that apply only to the <p> element:

```
p         { color: black }
p.red_text { color: red }
p.cyan_text { color: cyan}
```

- These declarations set font colors for the <p> element depending on which class is defined in the element. If no class attribute is specified, then the declaration for the <p> element of black is applied.

Using `class` and `id` Selectors

- Let's look at a slightly more complex example, using our original `markup.xhtml` file for our course description (see page 37, XHTML – Part 1).
- We'll modify this original example using class and id attributes. We'll also define a new linked style sheet (external to the document) as well as using a global style sheet (internal to the document) and also include a few inline styles as well.
- Page 13 illustrates the linked style sheet we'll call `thirdCSScss`.
- Page 14 is the modified XHTML document with global and inline styles.
- Finally page 15 illustrates how the document looks in a browser.

thirdCSS.css Style Sheet

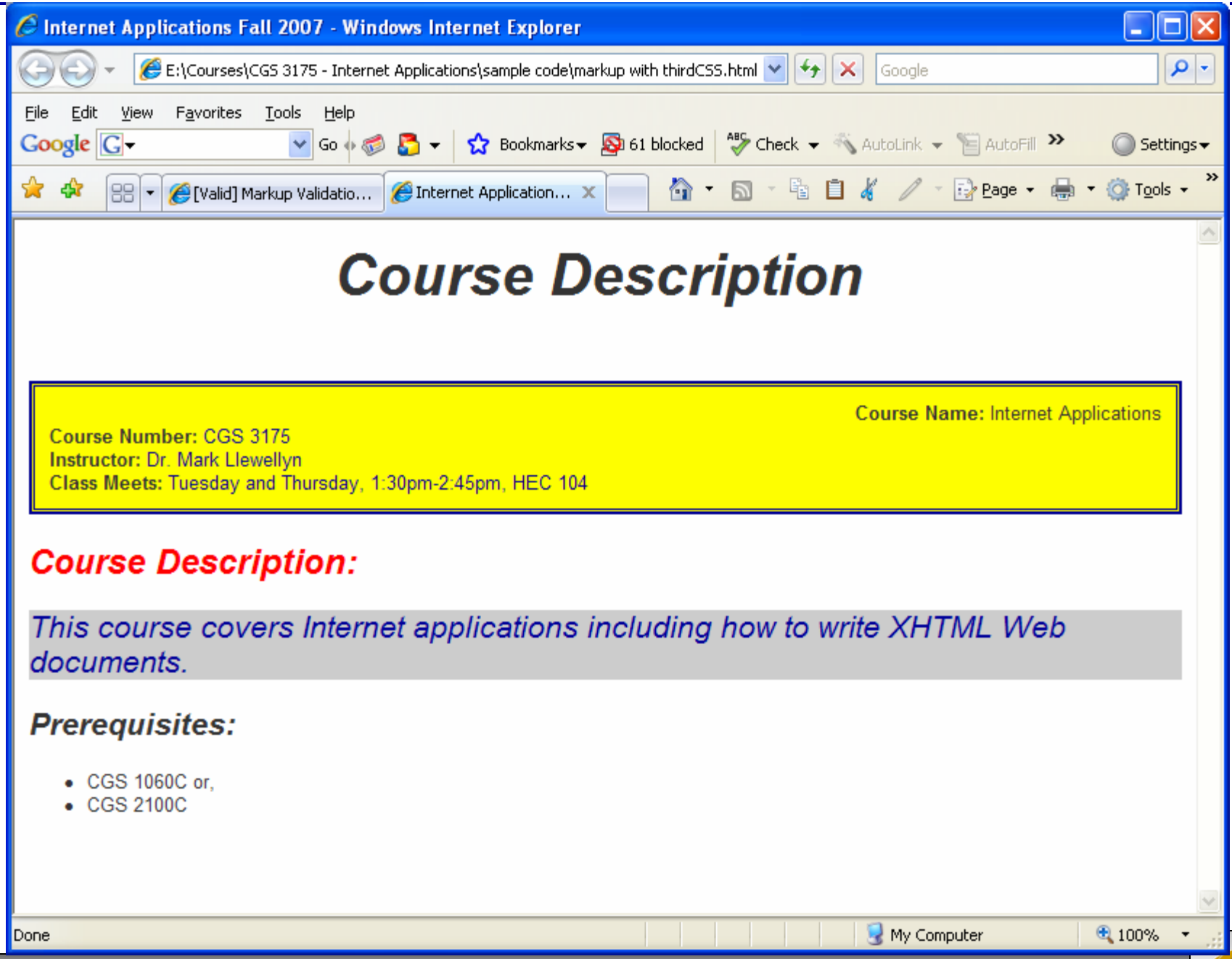
```
/* My third Cascading Style Sheet */
/* define a class called box */
div.box {
            margin-top:50px;
            background-color: yellow;
            color: #000090;
            border-style: double;
            padding: 10px;
            border-color: #000090;
          }
/* define styles for <p> element */
p         {
            font-size:16pt;
          }
/* define specific properties for the <p> element with
   the class name of description */
p.description {
                     color: #000099;
                     background-color: #cccccc;
                     font-style: italic;
                }
/* define a unique id selector that will be applied to one
   element within the document */
#identifier {
                color: red;
              }
/* define a class to align text to the right */
.right  {
             text-align: right;
          }
/* define universal element formatting styles */
*  {
          color: #333333;
          font-family: arial;
          font-size:10pt;
   }
```


```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <head>
     <title>Internet Applications Fall 2007</title>
     <link rel="stylesheet" href="thirdCSS.css" type="text/css"  />
     <style  type="text/css">
          <!--
             h1 {
                    font-size:20;
                    text-align:center;
                    font-style:italic;
                }
             h2 {
                    font-size:18;
                    text-align: left;
                    font-style: italic;
                }
             h3 {
                    font-size:16;
                    text-align: left;
                    font-style: italic;
                }
          -->
      </style>
   </head>
   <body>
      <h1> Course Description </h1>
      <div class="box">
          <div class="right"><strong>Course Name: </strong>  Internet Applications</div>
```

markup with thirdCSS.html

markup with thirdCSS.html
continued

```
<strong>Course Number: </strong> CGS 3175 <br />
        <strong>Instructor: </strong> Dr. Mark Llewellyn <br />
        <strong>Class Meets: </strong> Tuesday and Thursday, 1:30pm-2:45pm,
HEC 104 <br />
      </div>
      <h2 id="identifier">Course Description: </h2>
      <p class="description">This course covers Internet applications
including how to write XHTML Web documents.
      </p>
      <h3>Prerequisites: </h3>
      <ul>
         <li> CGS 1060C or,</li>
         <li> CGS 2100C</li>
      </ul>
   </body>
</html>
```



Internet Applications Fall 2007 - Windows Internet Explorer
E:\Courses\CGS 3175 - Internet Applications\sample code\markup with thirdCSS.html
Google
File Edit View Favorites Tools Help
Bookmarks 61 blocked Check AutoLink AutoFill Settings
[Valid] Markup Validatio...
Internet Application...
Page Tools
Course Description
Course Name: Internet Applications
Course Number: CGS 3175
Instructor: Dr. Mark Llewellyn
Class Meets: Tuesday and Thursday, 1:30pm-2:45pm, HEC 104
Course Description:
This course covers Internet applications including how to write XHTML Web documents.
Prerequisites:
CGS 1060C or,
CGS 2100C
Done
My Computer
100%

Property Inheritance

- We looked at nesting elements in XHTML (see XHTML – Part 3).
- Elements that are contained within other elements are said to be children of the outer elements, and the outer elements are referred to as parents of the nested elements.
- This hierarchy of elements is applied to CSS in the form of property inheritance.
- Property inheritance means the properties that are defined for parent elements are passed along to child elements, unless the child element overrides the property.

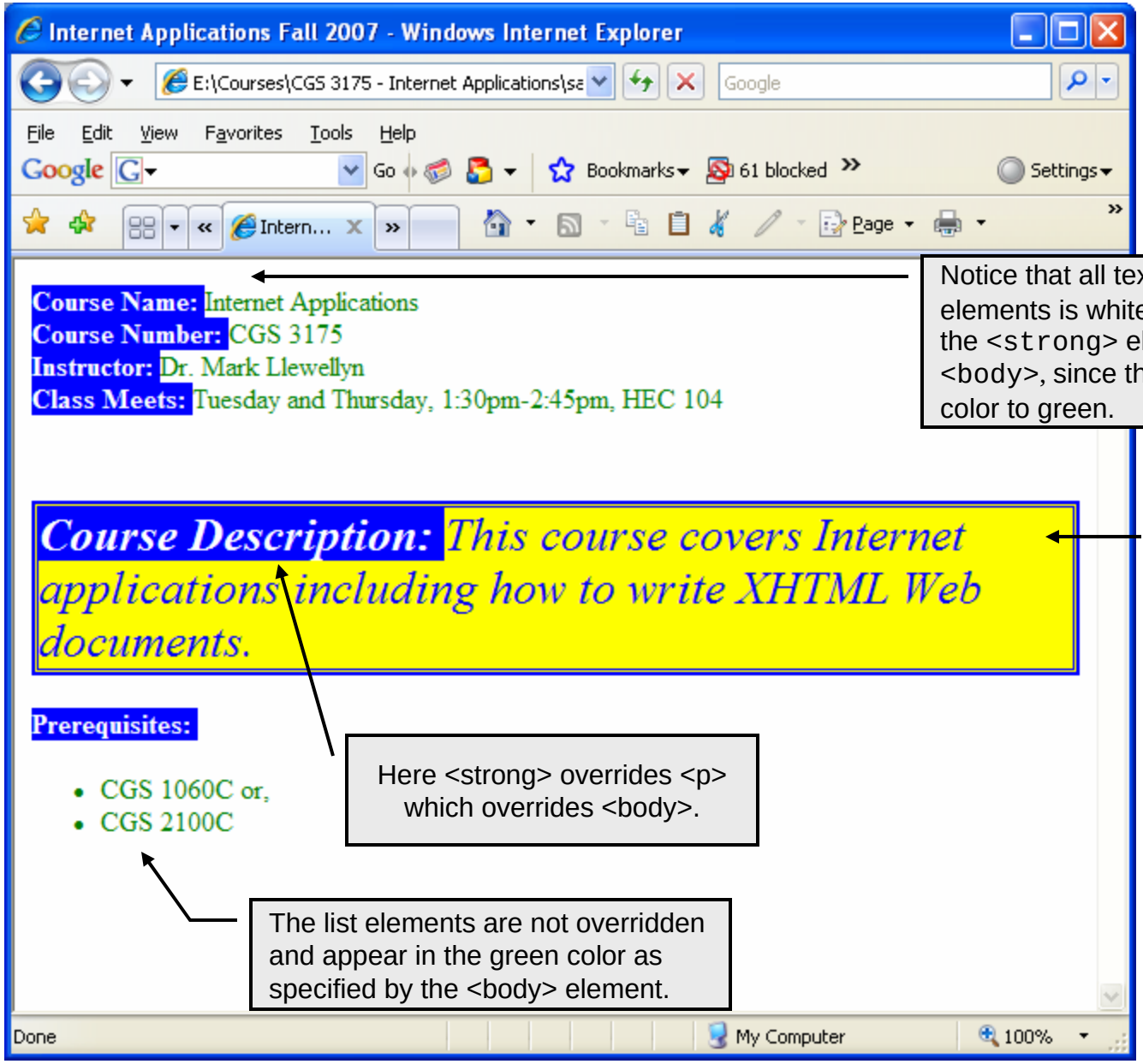
Property Inheritance

- For example, if the parent of an element sets its font to be 18 points, the child elements will also have a font size of 18 points unless they declare their own rules to override the rules defined by the parent.

- Using the course description example from the previous set of notes – the one that used the style sheet named `secondCSS.css`, let's create a new style sheet called `inheritance.css` to demonstrate property inheritance for this XHTML document.

markup with inheritance.html

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
   <head>
     <title>Internet Applications Fall 2007</title>
     <link rel="stylesheet" href="inheritance.css" type="text/css"  />
   </head>
   <body>
      <strong>Course Name: </strong>  Internet Applications <br />
      <strong>Course Number: </strong> CGS 3175 <br />
      <strong>Instructor: </strong> Dr. Mark Llewellyn <br />
      <strong>Class Meets: </strong> Tuesday and Thursday, 1:30pm-2:45pm, HEC
104 <br />
     <p>
      <strong>Course Description: </strong> This course covers Internet
applications including how to write XHTML Web documents.
      </p>
      <strong>Prerequisites: </strong>
      <ul>
         <li> CGS 1060C or,</li>
         <li> CGS 2100C</li>
      </ul>
   </body>
</html>
```

Notice that all text within the `<strong>` elements is white which overrides the settings of the `<strong>` element's parent, which is `<body>`, since the `<body>` element sets the text color to green.

Since the Course Description is contained within the <p> element, this overrides the style defined in the parent element `<body>`.

Here overrides <p> which overrides <body>.

The list elements are not overridden and appear in the green color as specified by the <body> element.

Web Safe Colors – Page 1

For more information on colors visit: http://www.w3schools.com/html/html_colors.asp

000000	000033	000066	000099	0000CC	0000FF
003300	003333	003366	003399	0033CC	0033FF
006600	006633	006666	006699	0066CC	0066FF
009900	009933	009966	009999	0099CC	0099FF
00CC00	00CC33	00CC66	00CC99	00CCCC	00CCFF
00FF00	00FF33	00FF66	00FF99	00FFCC	00FFFF
330000	330033	330066	330099	3300CC	3300FF
333300	333333	333366	333399	3333CC	3333FF
336600	336633	336666	336699	3366CC	3366FF
339900	339933	339966	339999	3399CC	3399FF
33CC00	33CC33	33CC66	33CC99	33CCCC	33CCFF
33FF00	33FF33	33FF66	33FF99	33FFCC	33FFFF
660000	660033	660066	660099	6600CC	6600FF
663300	663333	663366	663399	6633CC	6633FF
666600	666633	666666	666699	6666CC	6666FF
669900	669933	669966	669999	6699CC	6699FF
66CC00	66CC33	66CC66	66CC99	66CCCC	66CCFF
66FF00	66FF33	66FF66	66FF99	66FFCC	66FFFF
990000	990033	990066	990099	9900CC	9900FF
993300	993333	993366	993399	9933CC	9933FF

Web Safe Colors – Page 2

996600	996633	996666	996699	9966CC	9966FF
999900	999933	999966	999999	9999CC	9999FF
99CC00	99CC33	99CC66	99CC99	99CCCC	99CCFF
99FF00	99FF33	99FF66	99FF99	99FFCC	99FFFF
CC0000	CC0033	CC0066	CC0099	CC00CC	CC00FF
CC3300	CC3333	CC3366	CC3399	CC33CC	CC33FF
CC6600	CC6633	CC6666	CC6699	CC66CC	CC66FF
CC9900	CC9933	CC9966	CC9999	CC99CC	CC99FF
CCCC00	CCCC33	CCCC66	CCCC99	CCCCCC	CCCCFF
CCFF00	CCFF33	CCFF66	CCFF99	CCFFCC	CCFFFF
FF0000	FF0033	FF0066	FF0099	FF00CC	FF00FF
FF3300	FF3333	FF3366	FF3399	FF33CC	FF33FF
FF6600	FF6633	FF6666	FF6699	FF66CC	FF66FF
FF9900	FF9933	FF9966	FF9999	FF99CC	FF99FF
FFCC00	FFCC33	FFCC66	FFCC99	FFCCCC	FFCCFF
FFFF00	FFFF33	FFFF66	FFFF99	FFFFCC	FFFFFF

Some More Practice

7. Create an XHTML document and a linked style sheet that will generate the document shown below when viewed with a browser. Use the color charts on the two previous pages to set the colors.