



SOFE 3700U Data Management Systems

## Lab # 7: Getting Started with HTML and Cascading Style Sheets (CSS)

Submission Type: **Individual Work**

### Objectives:

The objective of this lab is to review some of the basic HTML tags and Cascading Style Sheets (CSS) rule sets used for creating web pages. You will also learn how to easily control the display of HTML files through CSS. You may use any HTML editor for this lab.

### Important Notes:

- Save all your lab-related files as you may need them for future labs.
- Once you are done with your work, ask the lab instructor to check your work to assign you a mark.

### What to submit:

- No written report or online submission is required for this lab.
- To receive marks for this lab, ask Lab TA to grade your work after finishing the steps and answering/demonstrating the Steps and questions throughout the lab.

**Scenario:** Interactive Media Inc. has asked you to create a simple webpage for its customers. Your task is to design the website in such a way that makes it easy to maintain the HTML page via the Cascading Style Sheet (CSS).

- Open Microsoft Visual Studio
- Click on File → New Web Site → Select ASP.NET Empty Web Site (default) → Click Browse and select a location where you would like to save your files → Click Ok
- Download files required for this lab
  - Located on Blackboard (Labs → Lab 7 → Lab7\_source.zip)
- Create a directory called “images” inside your lab folder. Then, extract files to the images folder
- On Microsoft Visual Studio, press ‘Ctrl + Alt + L’ on your keyboard. This will point you to the **Solution Explorer** (right hand side)
- Create a new HTML file; name it ‘index.html’
  - Right-click on the root of your website → Select “Add New Item” – you can also press ‘Ctrl+ Shift + A’ → Select ‘HTML Page’ → Click ‘Add’
- Change the Source view to Design view
- Right-click anywhere on an empty space of the HTML page in the design view and select Properties (or you can press ‘Alt + Enter’). This will highlight the Properties window (lower right hand side). Scroll down until you see the HTML tag (property) title and change it to **“Welcome to Interactive Media Inc.”**
- We would like to design an HTML page as shown below

Header
Menu Items
Body

- Point the mouse cursor anywhere in the design view to activate the Table menu
- Create a table with the following specifications (top menu: Table → Insert Table)
  - 1 row; 1 column; (this will be the outer table used for controlling the orientation of the HTML display)

**Important:** Go through the source code of the HTML file and remove any style tags that may be created by the program by default. This happens occasionally when you add mainly table elements into the design space

- Point the mouse cursor anywhere inside the table and create a new table with the following specifications:
  - 20 rows; 1 column (this will be the inner table which contains the style and HTML text)
- Add an external style sheet: right-click on the website path in Solution Explorer → Add New Item → Select Style Sheet → Click ‘Add’
  - To link the style sheet to the webpage (index.html); in the design view, from Solution Explorer, drag the style sheet file (.css file) and drop it anywhere on the webpage

You now have created two tables: an outer table that contains one row (and one column). Inside this column, you have created another table (an inner table) that contains 20 rows and one column.

## Part I: First Style Sheet

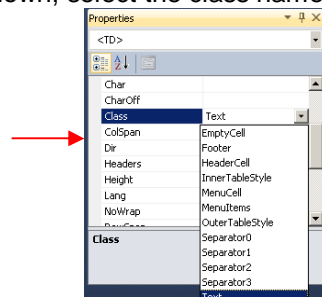
- Add a background image to the HTML webpage using the following syntax:

```
body
{
    background-image: url ('images/BackColor.gif');
    background-repeat: repeat-x;
}
```

- Set the cell padding for all tables, rows and columns to 0 pixel

```
table tr td
{
    padding: 0px;
}
```

- Create a new class style called **OuterTableStyle** and set the following styles
  - border style  
**border: 1px solid #527a67;**
  - collapse table border  
**border-collapse: collapse;**
  - set border spacing to 0 pixel  
**border-spacing: 0px;**
  - set width to 790 pixels (fixed table size)  
**width: 790px;**
  - set right and left margins to auto (used to center the outer table)  
**margin-left: auto;**  
**margin-right: auto;**
- Create a new class style called **InnerTableStyle** and set the following styles
  - border spacing: 1px
  - set width to 100% (spans over the size specified set in the outer table - i.e 790 pixels)
  - set right and left margins to auto
  - collapse table border  
**border-collapse: collapse;**
  - set border spacing to 0 pixel  
**border-spacing: 0px;**
- Apply the styles **OuterTableStyle** and **InnerTableStyle** to the outer and inner tables, respectively
  - To apply a class to an HTML element, there are two ways you can do that:
    - Highlight the HTML element in the **design view**, right-click → Select Properties **or** in the **source view**, select the element you wish to use by highlighting its contents from the start to the end tag
      - Scroll down to Class attribute, under the value section, click on the arrow pointing down, select the class name from the list



- Switch to the **source view**, manually type the class name

*i.e <table class="...">*

View your work so far in the browser. Note: All of the styles in the following steps will apply to HTML elements inside the inner table

- Create a class style named **HeaderCell** with the following characteristics:
  - background image URL set to logo.gif

*i.e background-image: url (' 'images/filename.gif')*

- background repeat: no
  - height 100 pixels
  - width 100%
  - set background position to left
- Apply the class style named **HeaderCell** to the first row

*i.e <tr>*

*<td class="....">...</td>*

*</tr>*

- Create a class style called **Separator0** with the following characteristics:
  - height 1 pixels
  - width 100%
  - background color: #426a57
- Create a class style called **Separator1** with the following characteristics:
  - height 1 pixels
  - width 100%
  - background color: #afd5c5
- Create a class style called **Separator2** with the following characteristics:
  - height 1 pixels
  - width 100%
  - background color: #dbe6df
- Create a class style called **Separator3** with the following characteristics:
  - height 2 pixels
  - width 100%
  - background color: #9dbaa8
- Apply the class style named **Separator0** to the second row, **Separator1** to the third row, **Separator2** to the fourth row, and **Separator3** to the fifth row
- In the design view, highlight the sixth row and right-click on the row → select Modify → Split Cells → enter 7 in the number of columns
- Create a class style named **EmptyCell** with the following characteristics:
  - background color #769c7e
  - width 120 pixels
  - height 20 pixels
  - set the right and left margins to 10 pixels
- Apply the class style named **EmptyCell** to the first and last columns of the sixth row
- Create a class style named **MenuCell** with the following characteristics:
  - background color #769c7e
  - width 100 pixels
  - height 30 pixels
  - set the right and left margins to 10 pixels
  - align text to center
  - set font type as Arial
  - set font size as 12 points (i.e. font-size: 12pt;)
- Apply the class style named **MenuCell** to the seventh, eighth, ninth, tenth, eleventh columns of the sixth row
- Create a class style for links called **MenuItems** with the following characteristics:
  - Link, Visited, and Active
    - text decoration set to none

- mouse cursor set to help

*cursor: help;*

- set color to #edfff
- Hover
  - text decoration set to underline
  - mouse cursor set to help
  - set color to #a8e0a3

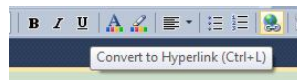
Using the following syntax

```
a.MenuItems:link,
{
    /* declaraction block */
}
```

You can combine multiple styles if they share the same similarities (i.e. link, visited, active) using the following syntax:

```
a.MenuItems:link, a.MenuItems:visited
{
    /* declaraction block */
}
```

- In the design view, add text to the second, third, fourth, fifth, and sixth columns of the sixth row as follows
  - Second: "about us"
  - Third: "products"
  - Fourth: "services"
  - Fifth: "portfolio"
  - Sixth: "contact us"
- Create links for about us, products, services, portfolio, and contact us as follows
  - In the design view, select the text and then click on the link icon on the top toolbox



- OR simply press 'Ctrl + L' then type the address/url (for the purpose of this example, do not select a link type, keep it as "other")
- OR in the source view, manually enter the address/url
- Since we do not have webpages created for each of these links, we will place a link placeholder using "#"

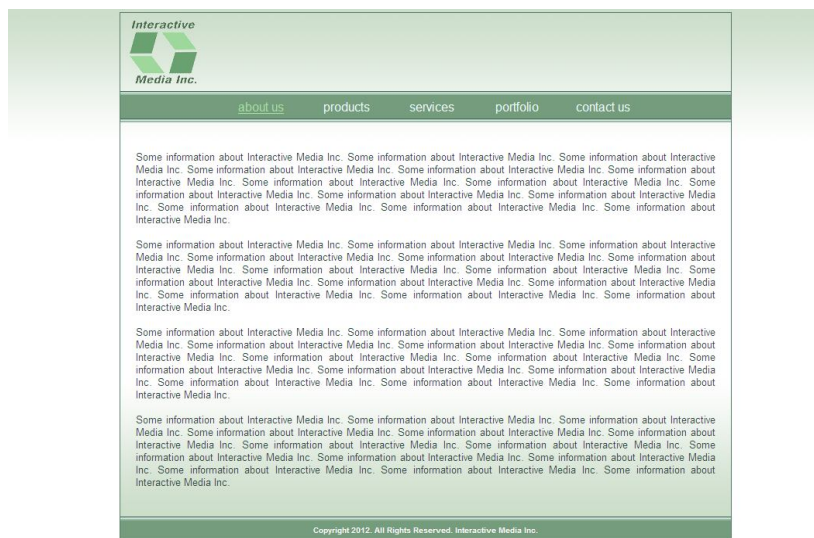
*<a href="#"> ... </a>*

- Apply the link class style named **MenuItems** to the five hyperlinks
- Apply the class style named **Separator0** to the seventh row, **Separator1** to the eighth row, **Separator2** to the ninth row, and **Separator3** to the tenth row
- Create a class style named **Text** with the following characteristics
  - text alignment : justify
  - font type: Arial
  - font size: small
  - padding: 20 pixels
  - font color: #2c4c40
  - set background image to *BackCol or Flipped.gif*
  - repeat the pattern horizontally

- set the background position to bottom
- Apply class style named **Text** to contents of the eleventh row. Populate some text into this row (at least three paragraphs)
- Apply the class style named **Separator0** to the twelfth row, **Separator1** to the thirteenth row, **Separator2** to the fourteenth row, and **Separator3** to the fifteenth row
- Create a class style named **Footer** with the following characteristics
  - set background color to **#769c7e**
  - height 25 pixels
  - align text to center
  - set vertical alignment to middle
  - set color to **#ffffff**
  - set font type to Arial
  - set font size to 10 pixels
  - set font weight to bold
- Apply the link class style named **Footer** to the sixteenth row
- Enter the following text in the footer section: “Copyright 2012. All rights reserved. Interactive Media Inc.”
- Apply the class style named **Separator0** to the seventeenth row, **Separator1** to the eighteenth row, **Separator2** to the nineteenth row, and **Separator3** to the twentieth row
- View the results in the browser

**Important:** To have the correct result, make sure that the source code of the HTML file does not have any style tags that may have been populated by the MS Visual Studio by default. Check the source view and remove any styles. Your HTML code **should NOT** have any styles but only references to classes created in the style sheet. Make sure to remove any cell spacing or cell spacing attributes from any table elements. In addition, to have best results, remove any spaces that MS Visual Studio may add by default when creating table rows/columns (i.e. **remove &nbsp;**;) )

## Sample Result



## Part II: Second Style Sheet

*In this part of the lab, you will easily change the presentation of the HTML file without making changes to the HTML file*

- Duplicate the style sheet you created in Part I. Update the path of the new style sheet file in the HTML file.
- Apply the following changes to the classes of the new style sheet (keep everything else the same):
  - **Body**: change the background image to [BackColor2.gif](#)
  - **HeaderCell**: change the background image to [Logo2.gif](#)
  - **Separator0**: change the background color to #42606a
  - **Separator1**: change the background color to #afccd5
  - **Separator2**: change the background color to #dbe3e6
  - **Separator3**: change the background color to #9db2ba
  - **EmptyCell**: change the background color to #76929c
  - **MenuCell**: change the background color to #76929c
  - **MenuItems** hover: change the color to #a3d1e0
  - **Text**: change the background image to [BackColorFlipped2.gif](#)
  - **Footer**: change the background color to #76929c

View the results in the browser with the new style sheet