Unit 6 – Tables & Commenting

Objectives	- Learn and demonstrate how to create tables. - Explore uses for presenting information using tables. - Learn how to comment your code
Required Reading	- Lesson 8 – Building Tables (Lemay, p. 220) - Lesson 4 – Learning the Basics of HTML: Comments (Lemay, p. 86) - Chapter 5 – Creating Page Templates (Sklar, p. 125)
Supplemental Reading	- None
Assignment	- Create a new web page named **mini_project_3.html**, with at least 20 unique tags (including table with multiple rows and columns), and provide comments. **Please refer to mini project 3 instruction for details.** - **Mini Project 3 will be due on July 3rd at 11:45 pm**

I. Important Concepts

In this unit, you will learn how to use tables to organize information. HTML tables are great ways for formatting your page. Tables allow you to put things where you want them.

1. How to start creating an HTML table? (Refer to p. 221 for the table element)

The necessary tags in creating an HTML table are introduced below.

1.1 <table>: When creating a table, we always start with a <table> opening tag and end with a </table> closing tag. Within the opening table tag, you can add attributes, such as border, bgcolor, cellspacing, cellpadding…,etc. to meet your design needs. Below is an example of using <table>.

i.e. <table border="1" bgcolor="#00ccff"> Here is where to add the row or column tags </table>

1.2 <tr>: The <tr> tag is used to create **rows of a table**. Each row starts with a <tr> opening tag and ends with a </tr> closing tag. You can also use attributes, such as bgcolor, align, and valign, inside the opening tr tag to set the background color and text alignment for the entire row. **NOTE:** The width and height attributes are not allowed in the opening tr tag.

1.3 <td> & <th>: The <td> and <th> tags are used to create columns of a row. Each column starts with a <td> opening tag and ends with a </td> closing tag. Differs from <td> tags for data cells, the <th> elements are used for heading cells which is mostly the first row of a table. For example, if you have a table (**2 rows x 4 columns**) with a heading row, the completed HTML should be:

HTML Source Code

```
<table border="1">
    <tr align="center">
        <th>Secton I</th>
        <th>Secton II</th>
        <th>Secton III</th>
        <th>Secton IIII</th>
    </tr>
    <tr>
        <td>lesson 1</td>
        <td>lesson 2</td>
        <td>lesson 3</td>
        <td>lesson 4</td>
    </tr>
</table>
```

How it looks in the web page

row 1

row 2

align text to "center"

Section I	Section II	Section III	Section IIII
lesson 1	lesson 2	lesson 3	lesson 4

border of the table is set to "1"

1.4 Other useful attributes in creating a table: You may also use the border, bgcolor, and align attributes within the table tag. Please refer to the textbook (Lemay p. 229 – 266) for some other attributes.

Background color of a table (bgcolor=" "): In order to change the background color of a table or a cell, you can use **bgcolor** attribute of the <table>, <tr>, <th>, or <td> elements. When you have different background colors for your page, a table, and a particular cell inside the table, the table background color overrides the web page background color and the cell background color overrides both table and the webpage background colors. (Lemay p. 236)

Cell padding: The cellpadding attribute controls the space between the edges of the cells and the content inside a cell. The default cell padding is 2 pixels. You can modify it by adding the cellpadding attribute to the <table> tag. i.e. <table cellpadding="10">. (Lemay p. 231)

Cell spacing (cellspacing=" "): The cellspacing attribute controls the space between the cells, which is the width space between the inner and outer lines that make up the table border. You can modify the space by adding the cellspacing attribute to the <table> tag. i.e. <table cellspacing="10">. (Lemay p. 232)

2. Use HTML table to control the placement of objects

In the early days of web authoring, tables were not included as tags that were supported. When HTML 2 came on the scene, suddenly there was much more control over placement of objects. Before tables, it was nearly impossible to spread anything across a page except straight text. Aligning images and text was frustrating, but with the addition of tables the text and images could be added inside a table cell, making alignment much more refined. Here are some common ways of using tables to control the placement of objects:

2.1 You may set the borders of tables to "0" if you don't want the page looks like comprising of different tables.

2.2 You can adjust the width and height of a table cell to fit the object that you want to add inside. The object could be textual paragraphs, images, tables, etc.

If the object is a table, you will have a table inside a big table. In this case, the HTML code would be:

If the object is an image, you can adjust the width and height of a data cell to fit the the image by adding the width and height attributes of the cell. In this case, the HTML code would be:

HTML Source Code   **How it looks in a web browser**
--   ---
                                                            Add the width and height of the cell

```
<table border="0">
  <tr>
    <td width="50" height="50" >
      <img src=" image.gif "
        alt="My work." width="50"
        height="50" />
    </td>
    <td>lesson 2</td>
    <td>lesson 3</td>
    <td>lesson 4</td>
  </tr>
  <tr>
    <td>class 1</td>
    <td>class 2</td>
    <td>class 3</td>
    <td>class 4</td>
  </tr>
</table>
```

Table

	lesson 2	lesson 3	lesson 4
class 1	class 2	class 3	class 4

The border of the **table** is set to "0"

Cautions for using tables to place objects: You may feel excited in using tables to place objects on your pages. However, don't overuse tables, especially too many nesting tables. A brower shows a table after finishing reading the entire content within a set of <table> tags. Thus, if you overuse tables in your pages, it may cost a lot of time for a browser to render your pages.

3. Commenting (Refer to p. 84 for "Comments")

The comment tag (<!-- -->): You have learned how to write HTML code for about 3 weeks. The page of your source code may get longer and messier when you have richer content. Using comments can serve as a reminder for yourself or other programmers about what you are doing. The comment tag (<!--This is a comment.-->) is what you need to use when adding a comments in the HTML source. The text inside the **<!-- -->** tag is ignored when the HTML file is parsed. Thus, the comments will not show up on web pages but only in the HTML source.

*Applying comments correctly for this assignment: In this class, we will use comments in another way. In the following projects, you will be asked to add comments for the tags you used. **The purpose of adding comments in projects is to demonstrate your understanding of the tags.** You will explain the functions of the tags and the reason you use them. For example, if you use a <table> tag, you will need to add comments like the following,

```
<!--A table tag is used to help me control the placement of the image. The border is set to "0" so that the
grid of the table will not display in the web page. -->
<table border="0">
  <!--The <tr> tag lets me create 2 table rows. -->
  <tr >
   <!--The <td> tag is used to create columns. I have one column in the first row and 2 columns in the
       second row. -->
   <td>
    <!--The <img> tag is used to insert a picture of my work. -->
    <img src=" 3960/image.gif " alt="My hometown." width="480" height="360" />
   </td>
  </tr>
</table>
```