ACS-1809-050
Web Design and Development
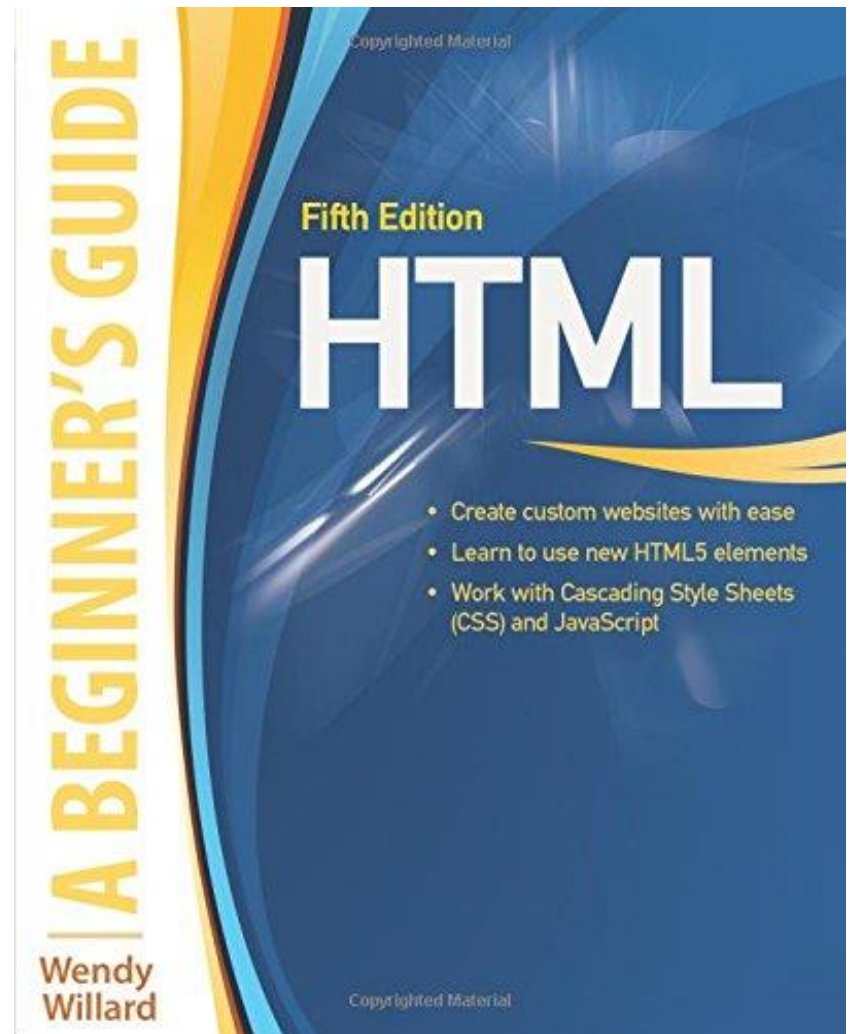
Chapter 11

THE UNIVERSITY OF WINNIPEG

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A BEGINNER'S GUIDE

Fifth Edition

HTML

- Create custom websites with ease
- Learn to use new HTML5 elements
- Work with Cascading Style Sheets (CSS) and JavaScript

Wendy Willard

Copyrighted Material

Using Tables

- Understand the concept and uses of tables in web pages

- Create a basic table structure

- Format tables within web pages

- Format content within table cells

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Examples of Tables in HTML

Computer Models		
Manufacturer	**Model**	**Price**
City Computers	P325+	$2500
MidWest CPU	586/Ultra	$2700
CowCity Computers	P133/+	$2450
CMF Computers	P150z	$2610

O	X	O
X	O	X
X	O	X

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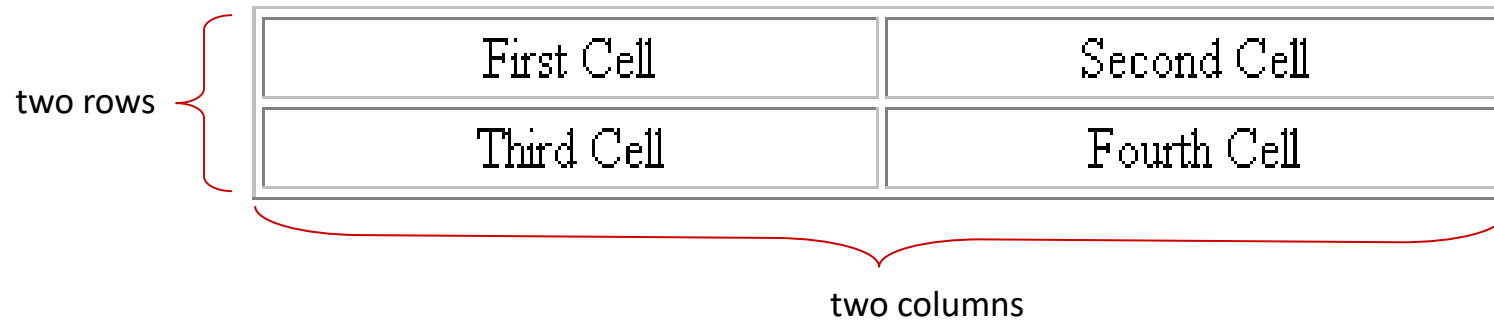
Basic Table Structure

```
<table>
  <tr>
    <td>cell content</td>
    …
    <td>cell content</td>
  </tr>
  …
  <tr>
    <td>cell content</td>
    …
    <td>cell content</td>
  </tr>
</table>
```

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A Simple Table

The layout of a graphical table

First Cell	Second Cell
Third Cell	Fourth Cell

two rows

two columns

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A simple table – HTML Code

```
<table>
  <tr>
   <td> First Cell </td>
   <td> Second Cell </td>
  </tr>
  <tr>
   <td> Third Cell </td>
   <td> Fourth Cell </td>
  </tr>
</table>
```

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Table Example

Here is a 5 x 2 table. Can you tell me what information the table tells me?

18,953	20,081	22,131	25,112	30,468
984	2,324	6,171	14,781	25,987

So without any heading or labels, the table itself do not give any meaning to the data it contain.

Table Headings

But when we add in heading and labels, it gives meaning to the table.

Compression	1	5	10	20	50	80
Size	18,953	20,081	22,131	25,112	30,468	41,249
# of colors	984	2,324	6,171	14,781	25,987	28,960

Table Headings

```
<table>
    <tr>
        <th>heading</th>
        …
        <th>heading</th>
    </tr>
    …
    <tr>
        <td>cell content</td>
        …
        <td>cell content</td>
    </tr>
</table>
```

Adding Table Headings to the Table

Text in cells formatted with the <th> tag is bold and centered above each table column

```
<table>
    <tr>
        <th>Group</th>
        <th>Runner</th>
        <th>Time</th>
        <th>Origin</th>
    </tr>
    <tr>
        <td>Men</td>
        <td>1. Peter Teagan</td>
        <td>2:12:34</td>
        <td>San Antonio, Texas</td>
    </tr>
```

Row of table headings

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Tables - Summary

- Table:

  <table>*content*</table>

- Table row:

  <tr>*content*</tr>

- Table cell:

  <td>*content*</td>

- Table heading:

  <th>*content*</th>

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Images In Tables

- You can add images to any of the cells
  - Just put an img element inside the cell in which you want to display the image

    `<td><img src="star.gif" width="64" height="64"> </td>`

Table Borders

- Add attribute in the 'table' tag

border="*value*"

where value is "1" or "0"

  1 – turns on all the internal and external borders

  0 – turns off all the borders

Style the borders:

{border: border-width, border-style, border-color;}

table, th, td

    {

    border: 1px solid black;

    }

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Border Properties

– Border-collapse
- Value:
    – Collapse – turn off all the space between the cell borders
    – Separate – maintains the space between the cell borders
        » So you can use the border-spacing property to specify the space value

table {border-collapse: separate; border-spacing: 10px 5px;}

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Spacing Properties

- You can use padding and margin properties in style sheet on tables
  - Padding and margin for table
  - Only padding for table cells

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Defining the Table Size

- It's a good practice to specify the size of your table
  - The size here is the width and height of the table as measured in pixels or as a percentage of the display area

    ```
    table {width: "size"; height: "size";>
    ```

    - To create a table whose height is equal to the entire height of the display area, enter the attribute height="100%"
    - If you specify an absolute size for a table in pixels, its size remains constant, regardless of the browser or monitor settings used
    - What if you have multiple tables to style in a single page?

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Setting the Width of the Table to 70% of the page width

Local Woman Wins Marathon

Park City native, **Laura Blake**, won the 27th Front Range Marathon over an elite field of the best long distance runners in the country. Laura's time of 2 hr. 28 min. 21 sec. was only 2 minutes off the women's course record set last year by Sarah Rawlings. Kathy Lasker and Lisa Peterson finished second and third, respectively. Laura's victory came on the heels of her performance at the NCAA Track and Field Championships, in which she placed second running for Colorado State.

Race Results

Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington

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Defining the Table Size

- Remember that some monitors may display Web pages at a resolution of 640 by 480 pixels – that can be considered as the lowest resolution of today

- Make sure the page's height is a 100% of the browser window when you set the table height to 100%

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More Of Table Properties

- Like to an image, you can use the float property to be aligned to the right or left of any surrounding text.

  table {float: right; }

- You can also style a table with background color

  table {background-color: #090; }

- You can even use an image as the background for the table

  table {background-image: url("star.gif"); }

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Caption

- Add the following tag directly after the <table> tag and before the first <tr> tag

  <caption >*Table Caption*</caption>

   Style the caption in CSS:

  caption-side : top, bottom, left, right

  text-align : right, left, center

  caption { text-align: right; caption-side: bottom; }

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Result of a Table Caption

A table with caption

table caption

Race Results

Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington

Format Content Within Table Cells

- You can also format the individual table cells
  - You can change vertical and horizontal alignment to the table rows and table cells.
    - tr, td, and th – different coverages
      - Text-align: left, right, center, or string (like "." – for monetary values)

        td {text-align: center;}
      - Vertical-align: middle, baseline, sub, super, top, bottom, ….
    - Width and height
      - You can define the width and height of each cell just like what we did to the entire table
        - » This is very useful if you want to have same-size columns
        - » Usually just specify the width of the firs column is good enough, with the help from "table-layout: fixed;"
        - » Example: table {table-layout: fixed;} th {width: 33%;}

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Cell Padding

- To control the space between the table text and the cell borders, you can use the **padding** property to style the table cell.

- The syntax for this attribute is:

```
td {padding: value;}
```

  - *value* is the distance from the table text to the cell border, as measured in pixels

  - the default cell padding value is 1 pixel

  - To define different padding space on different sides you can use

    ```
    td {padding: 10px 5px;}
    ```

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Tables with Different Cell Padding Values

The effect of changing the cell padding value for a table

0 pixels	1 pixel	5 pixels	10 pixels

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Setting the Cell Padding to 4 Pixels

A table with an increased amount of cell padding.

By increasing the cell padding, you added needed space to the table.

Race Results

Group	Runner	Time	Origin
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
Men	2. Kyle Wills	2:13:05	Billings, Montana
Men	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
Women	2. Kathy Lasker	2:30:11	Chicago, Illinois
Women	3. Lisa Peterson	2:31:14	Seattle, Washington

Background Color For A Cell

- Just like to a table you can set the background color to individual table cells
  - Background color can be used to "tr", "td", and "th" as well
  - It can be very helpful to make your table more readable

    th {background-color: yellow;}

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A Table with a Colored Background

The University of Winnipeg

Race Results			
Runner		**Time**	**Origin**
Men	1. Peter Teagan	2:12:34	San Antonio, Texas
	2. Kyle Wills	2:13:05	Billings, Montana
	3. Jason Wu	2:14:28	Cutler, Colorado
Women	1. Laura Blake	2:28:21	Park City, Colorado
	2. Kathy Lasker	2:30:11	Chicago, Illinois
	3. Lisa Peterson	2:31:14	Seattle, Washington

Prohibit Line Breaks

- In case you have content in a table cell that you want to keep in a single line

    td.nowrap {white-space: nowrap;}

    <td class="nowrap"> This is a long line that won't be wrap</td>

Spanning Cells

This cell spans two columns and two rows —

This cell spans three rows —

Today's Opinion Poll Question		Political Party		
		Democrat	Republican	Independent
"Do you favor or oppose increasing the minimum wage?"	Favor	70%	35%	55%
	Oppose	25%	60%	30%
	Unsure	5%	5%	15%

— This cell spans three columns

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Spanning Rows and Columns

1			2	
3	4	5	6	7
8			9	0
a			b	c

- In 'th' or 'td' tag

    rowspan="*rvalue*" colspan="*cvalue*"

A Table Structure with a Row-Spanning Cell

four table cells in the first row

```
<table>
    <tr>
        <td rowspan="3">1: This cell spans three rows</td>
        <td>2</td>
        <td>3</td>
        <td>4</td>
    </tr>
    <tr>
        <td>5</td>
        <td>6</td>
        <td>7</td>
    </tr>
    <tr>
        <td>8</td>
        <td>9</td>
        <td>10</td>
    </tr>
</table>
```

only three table cells are required for the second and third rows

HTML code

1: This cell spans three rows	2	3	4
	5	6	7
	8	9	10

resulting table

HTML Structure of a Table

beginning of the table structure

first row of five in the table

table cells

end of the table structure

```
<TABLE>
<TR>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
</TR>
<TR>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
</TR>
<TR>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
        <TD></TD>
</TR>
</TABLE>
```

You do not need to indent the <td> tags or place them on separate lines, but you may find it easier to interpret your code if you do so.

After the table structure is in place, you're ready to add the text for each cell.

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Group Rows

- Three tags are used to group rows
  - thead
  - tfoot
  - tbody
  - That will make it easier to style each section

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Questions?