Key Objectives

- How to recognize when to use a table
- Preparing and creating a table
  - Determining the number of rows and columns
- How to populate a table
  - Identifying headers
- Manipulating a table and its cells
  - Inserting rows and columns
  - Merging cells
  - Copy and pasting cell data
  - Modifying table properties
- Coding a table for ADA compliance
  - Using the “id” and “headers” attributes
  - Using the “scope” attribute

*How to recognize when to use a table*

Tables can be very handy in a situation, in which you need to organize, present, and/or layout data or information. Recognizing a situation in which a table can be incorporated is usually an easy task. If you have information that needs aligned, columned, or graphed, a table can be useful.

EG: Example of information that could use a table:

Family Birthdays
First Name   DOB
John    01/09/1982
Bob     07/22/1902

Using a table with the same information:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td>John</td>
</tr>
<tr>
<td>Bob</td>
</tr>
</tbody>
</table>

(Note: You can also use other HTML elements within table cells, besides text. For example: images, links, more tables, forms, etc.)
Preparing and creating a table

Now that you know how to recognize a situation when a table is useful, here’s how you prepare and create one:

First, we must figure how many rows and columns we need to create the table. The number of rows is usually equivalent to the number of lines the data takes to present. In this case, we have one row for the heading, “Family Birthdays”, one for the column headers, “First Name” and “DOB”, and two for the data (one for each record). After the rows have been calculated you must determine the number of columns to use. The number of columns you need can be figured by the number of pieces of information you would like to present per record, in this case, one for “First Name” and another for “DOB”.

Once you’ve determined the number of rows and columns within your table, it’s time to create it. Within FrontPage there is a menu option called “Table”:

Click on the “Table” menu option and then go to “Insert”, and then “Table…”.
Once you’ve clicked on “Table…” the following dialog box will appear:

With the rows and columns that you’ve calculated, you can enter those values within this dialog box. Once you’ve done that, the following table will appear:

<table>
<thead>
<tr>
<th>First Name</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>01/09/1982</td>
</tr>
<tr>
<td>Bob</td>
<td>07/22/1902</td>
</tr>
</tbody>
</table>

*How to populate a table*

Now that your table has been created you are ready to populate it with your information. For this table, we’ll use the first row to display the table heading: “Family Birthdays”. For right now we’ll put it in either column of the first row. Later, we’ll manipulate the row to center the heading, merge the cells, and make the font bold. On the next row we’ll place the column headings: “First Name” and “DOB”. With the remaining rows we’ll insert the data. After the table has been populated, it will look something like this:
**Manipulating a table and its cells**

Now you have your information within your table. It still doesn’t look quite as you would like it to. The heading isn’t centered or bold, and the column headers aren’t bold. With those changes in mind, let’s first center “Family Birthdays” and then make the font bold. To center the header, we must first merge the cells within that row, otherwise the header won’t be centered across the whole table. To do this, do the following:

First, highlight the cells you wish to merge with your mouse cursor:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
<td><strong>DOB</strong></td>
</tr>
<tr>
<td>John</td>
<td>01/09/1982</td>
</tr>
<tr>
<td>Bob</td>
<td>07/22/1902</td>
</tr>
</tbody>
</table>

Then, right click on the highlighted area, and you’ll see the following menu:
Click on “Merge Cells” to merge the highlighted cells. Once you have done that, you’re ready to center the header text. To do this, right click again on the row of the header text and select “Cell Properties…” from the menu. The following dialog box will appear:

Within this dialog box, select “Center” under the drop box labeled “Horizontal alignment”. Now your table will appear something like the following:

```
<table>
<thead>
<tr>
<th>First Name</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>01/09/1982</td>
</tr>
<tr>
<td>Bob</td>
<td>07/22/1902</td>
</tr>
</tbody>
</table>
```

Now we’re ready to highlight the header text and the column header for emphasis on the data that we’re displaying. To do this, highlight the first two rows and then click on the “Bold” icon at the top-right of the menu bar.
Once you’ve done that you have your finished table:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td>John</td>
</tr>
<tr>
<td>Bob</td>
</tr>
</tbody>
</table>

Assuming you have more relatives, you can add another row, or even another column. First we’ll add another record, or row. To do this, right click on the row in which you would like to see the new record above. When you add a new row, FrontPage adds the row above the row in which your cursor is place. In this scenario, let’s add another record above “Bob”. Place your mouse cursor within the cell with the text “Bob”, and then right click. You’ll see the following menu again:

Highlight and click on the menu option labeled “Insert Row”. This will add a row right above Bob’s record. You can then populate it with your new data. Now, let’s assume you’d like to add another column to your table, or another field to your data. To add another column to the right of the “DOB”, place your cursor anywhere within the “DOB” column, right click and select “Insert Column”. This is similar to how you added a row. Once you’ve done that, you’ll notice the problems that result from this action. Your table should look something like:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td>John</td>
</tr>
<tr>
<td>Paul</td>
</tr>
<tr>
<td>Bob</td>
</tr>
</tbody>
</table>

Notice the header text is no longer centered, and the new column was added to the left instead of the right. First, we’ll fix the header text. Right click on the cell in which the
header text is located. Select “Cell Properties…” from the menu. Once you’ve done this you’ll notice an attribute labeled “Columns Spanned”, we’ll need to increment this to 3 to span across our new column. To move the data of the “DOB” column to the center column, highlight the text within the cell with the text, “DOB”. Then, press “Ctrl-X” to cut the text out of the cell. After you’ve cut the text, place your cursor within the top cell of the new column and press “Ctrl-V” to paste the text. Do this for each cell. Your table should now look like this:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td>John</td>
</tr>
<tr>
<td>Paul</td>
</tr>
<tr>
<td>Bob</td>
</tr>
</tbody>
</table>

Now you’re ready to populate your new column with your new data. As an example, I’ve used each person’s age.

Our final table should look something like this:

<table>
<thead>
<tr>
<th>Family Birthdays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td>John</td>
</tr>
<tr>
<td>Paul</td>
</tr>
<tr>
<td>Bob</td>
</tr>
</tbody>
</table>

Now that the table is finished, you can manipulate its look and alignment by modifying its table properties. To do this, right click anywhere on the table and select “Table Properties…”. Once you do this the following dialog box will appear:
Once you’re within this dialog box you can change the alignment to position your table one the page, you can change the cell padding, spacing inside the cells, and the cell spacing, the spacing between cells, you can also change the color of the border and the background color of the entire table. Play around with these to customize your table.

_Coding a table for ADA compliance_

Now that we’ve planned, created, manipulated and finished our table we’re ready to code it for ADA Compliance. If you’re uncertain what we mean by “ADA Compliance”, please read the documents contained here: [http://www.usi.edu/webservices/wcag.ASP](http://www.usi.edu/webservices/wcag.ASP)

With the Americans with Disabilities act, we know we are to follow the coding standards within the W3C’s Web Content Accessibility Guidelines. To comply with these standards tables can be coded many different ways, we’ll look at two ways this table could be coded.
The first way is identifying the headers with the “id” attribute and then associating each piece of data with its corresponding header, using the “headers” attribute. To do this, we have to manipulate the HTML code. To view the HTML code of your page, click on the “HTML” tab near the bottom of the application.

For each header, apply the “id” tag with the header name. E.g.: id=”HeaderName”

Your table should look something like this:

```html
<table border="1" width="42%">
  <tr>
    <td width="100%" colspan="3" align="center">Family Birthdays</td>
  </tr>
  <tr>
    <td id="header1"><b>First Name</b></td>
    <td id="header2"><b>DOB</b></td>
    <td id="header3"><b>Age</b></td>
  </tr>
  <tr>
    <td>John</td>
    <td>01/09/1982</td>
    <td>20</td>
  </tr>
  <tr>
    <td>Paul</td>
    <td>05/19/1974</td>
    <td>27</td>
  </tr>
  <tr>
    <td>Bob</td>
    <td>07/22/1902</td>
    <td>99</td>
  </tr>
</table>
```

Now we can associate each piece of data with its corresponding header using the “headers” attribute. To do this, for each data cell apply the “headers” tag like the following:

```html
<table border="1" width="42%">
  <tr>
    <td width="100%" colspan="3" align="center">Family Birthdays</td>
  </tr>
  <tr>
    <td id="header1"><b>First Name</b></td>
    <td id="header2"><b>DOB</b></td>
    <td id="header3"><b>Age</b></td>
  </tr>
  <tr>
    <td headers="header1">John</td>
    <td headers="header2">01/09/1982</td>
    <td headers="header3">20</td>
  </tr>
  <tr>
    <td headers="header1">Paul</td>
    <td headers="header2">05/19/1974</td>
    <td headers="header3">27</td>
  </tr>
  <tr>
    <td headers="header1">Bob</td>
    <td headers="header2">07/22/1902</td>
    <td headers="header3">99</td>
  </tr>
</table>
```
Another way to code this same table would be using the “scope” attribute. This is a much easier solution to coding the table for compliance. In this solution you identify a header’s scope or range of cells it is associated with. This is done the following way:

```html
<table border="1" width="42%">
  <tr>
    <td width="100%" colspan="3" align="center"><b>Family Birthdays</b></td>
  </tr>
  <tr>
    <td scope="col"><b>First Name</b></td>
    <td scope="col"><b>DOB</b></td>
    <td scope="col"><b>Age</b></td>
  </tr>
  <tr>
    <td>John</td>
    <td>01/09/1982</td>
    <td>20</td>
  </tr>
  <tr>
    <td>Paul</td>
    <td>05/19/1974</td>
    <td>27</td>
  </tr>
  <tr>
    <td>Bob</td>
    <td>07/22/1902</td>
    <td>99</td>
  </tr>
</table>
```

To check your pages for all accessibility issues, use “Bobby” [http://www.cast.org/bobby/](http://www.cast.org/bobby/), to see if your code complies with the Web Content Accessibility Guidelines v1.0. Unfortunately, “Bobby” won’t check to see if the table is coded correctly. It only recognizes if you have a table and then tells you to be sure that the code is in compliance. For more information on the W3C Web Content Accessibility Guidelines on tables, go here: [http://www.w3.org/TR/WCAG10-HTML-TECHS/#identifying-table-rows-columns](http://www.w3.org/TR/WCAG10-HTML-TECHS/#identifying-table-rows-columns)