Advanced Tables

Spanning Rows and Columns

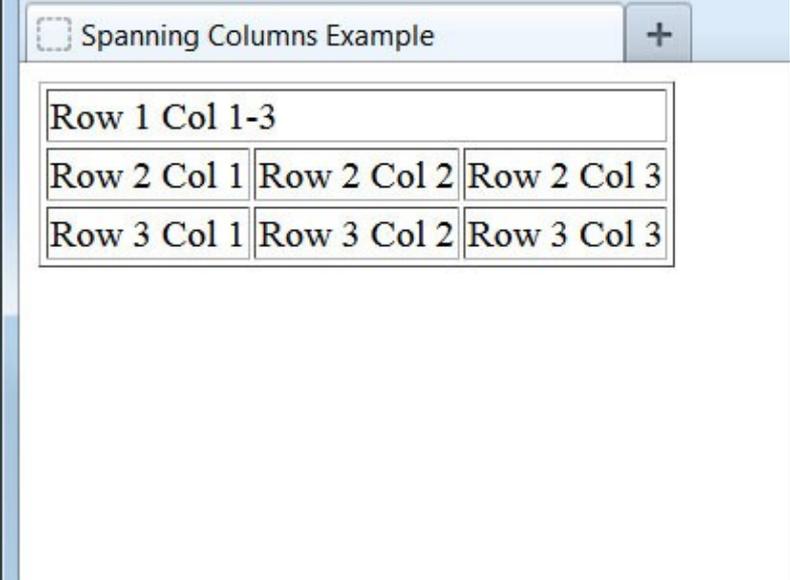So far, our tables have been relatively simple, with a uniform grid of rows and columns:

XHTML allows us to create more complex table elements by spanning multiple rows or columns, like this:

Let's build some tables using each of these features and then try combining both features into the same table.

Example: Spanning Columns

We can build a data cell that spans more than one column by using the **colspan** attribute:

```
<table border="1">
  <tr>
    <td colspan="3">Row 1 Col 1-3</td>
  </tr>
  <tr>
    <td>Row 2 Col 1</td>
    <td>Row 2 Col 2</td>
    <td>Row 2 Col 3</td>
  </tr>
  <tr>
    <td>Row 3 Col 1</td>
    <td>Row 3 Col 2</td>
    <td>Row 3 Col 3</td>
  </tr>
</table>
```
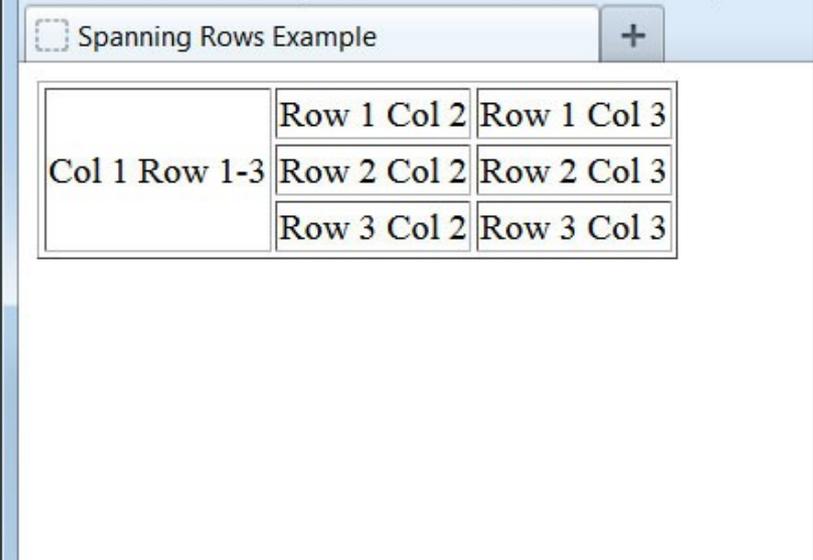

Spanning Columns Example +

Row 1 Col 1-3		
Row 2 Col 1	Row 2 Col 2	Row 2 Col 3
Row 3 Col 1	Row 3 Col 2	Row 3 Col 3

The value placed in the **colspan** attribute informs the browser how many columns to combine into a single data cell.

Example: Spanning Rows

Using the same principle, we can build a data cell that spans more than one row by using the **rowspan** attribute:

```
<table border="1">
  <tr>
    <td rowspan="3">Col 1 Row 1-3</td>
    <td>Row 1 Col 2</td>
    <td>Row 1 Col 3</td>
  </tr>
  <tr>
    <td>Row 2 Col 2</td>
    <td>Row 2 Col 3</td>
  </tr>
  <tr>
    <td>Row 3 Col 2</td>
    <td>Row 3 Col 3</td>
  </tr>
</table>
```
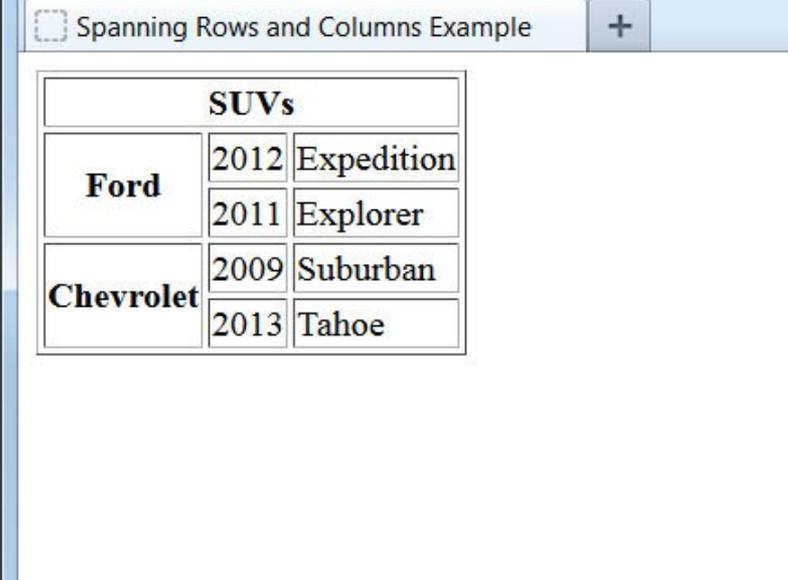

Spanning Rows Example

Col 1 Row 1-3	Row 1 Col 2	Row 1 Col 3
	Row 2 Col 2	Row 2 Col 3
	Row 3 Col 2	Row 3 Col 3

The **rowspan** attribute works the same way by informing the browser how many rows to combine into a single cell.

Example: Spanning Rows and Columns

```html
<table border="1">
  <tr>
    <th colspan="3">SUVs</th>
  </tr>
  <tr>
    <th rowspan="2">Ford</th>
    <td>2012</td>
    <td>Expedition</td>
  </tr>
  <tr>
    <td>2011</td>
    <td>Explorer</td>
  </tr>
  <tr>
    <th rowspan="2">Chevrolet</th>
    <td>2009</td>
    <td>Suburban</td>
  </tr>
  <tr>
    <td>2013</td>
    <td>Tahoe</td>
  </tr>
</table>
```
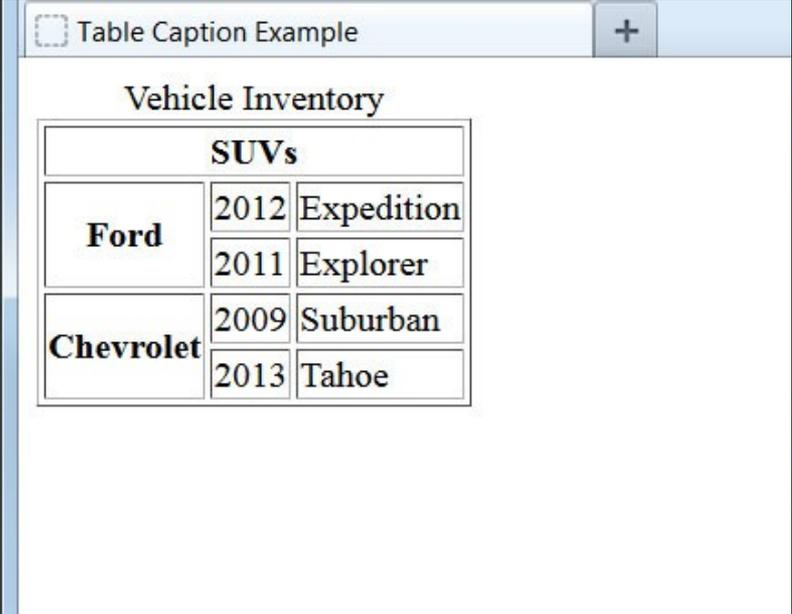
Spanning Rows and Columns Example +

SUVs		
Ford	2012	Expedition
	2011	Explorer
Chevrolet	2009	Suburban
	2013	Tahoe

Both the **colspan** and **rowspan** features can be used in the same table to create a more complex table structure.

Notice that these two attributes can also be applied to table header elements, as we did in this example.

Adding a Table Caption

```
<table border="1">
  <caption>Vehicle Inventory</caption>
  <tr>
    <th colspan="3">SUVs</th>
  </tr>
  <tr>
    <th rowspan="2">Ford</th>
    <td>2012</td>
    <td>Expedition</td>
  </tr>
  <tr>
    <td>2011</td>
    <td>Explorer</td>
  </tr>
  ...
</table>
```
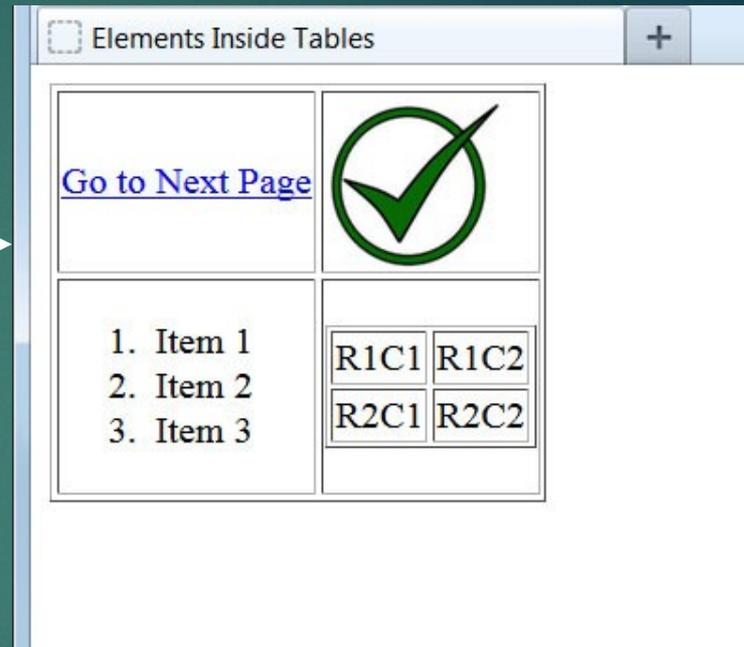

Table Caption Example

Vehicle Inventory

SUVs		
Ford	2012	Expedition
	2011	Explorer
Chevrolet	2009	Suburban
	2013	Tahoe

To add a caption to the table, we use the <caption> element <u>immediately after the opening <table> tag</u>. The text enclosed within the <caption> element will be displayed above the table and centered.

Other Elements Inside Tables

```html
<table border="1">
  <tr>
    <td>
      <p><a href="page2.html">Go to Next Page</a></p>
    </td>
    <td>
      <img src="check.jpg" alt="check mark" />
    </td>
  </tr>
  <tr>
    <td>
      <ol>
        <li>Item 1</li>
        <li>Item 2</li>
        <li>Item 3</li>
      </ol>
    </td>
    <td>
      <table border="1">
        <tr>
          <td>R1C1</td><td>R1C2</td>
        </tr>
        <tr>
          <td>R2C1</td><td>R2C2</td>
        </tr>
      </table>
    </td>
  </tr>
</table>
```

Many other elements can be placed inside table cells, including paragraphs, links, images, lists, and even other tables.