

Working with Tables

- Tables can be used to align your data from spreadsheets, listings, or other data.
- In HTML, a Table is comprised of Table Rows, and each *Table Row* contains *Table Cells*.
- Once the structure of your table is created, you can insert your data into the appropriate Table Cell.
- If you want to create a Table with merged cells, it would be helpful to draw the table on paper before translating it to HTML.

Creating a Table

- The TABLE element is used to define a **Table**. A *Table Row* is defined by the **TR** element, and a *Table Cell* is defined by the **TD** element.
- In the HTML document, place the insertion point where you want to add a Table.
- Type in the opening and closing TABLE tags:

```
<HTML>  
<HEAD>  
<TITLE>HTML Tables</TITLE>  
</HEAD>  
<BODY>  
<TABLE></TABLE>  
</BODY>  
</HTML>
```

Note: It is important to note that although an HTML Table has the concept of columns, it does not have a Table Column element.

Adding Table Rows & Adding Table Cells

Adding Contents to Cells

- The ***TR*** element nested within the ***TABLE*** element will add a table row to your table.
- In the HTML document, place the insertion point between the opening and closing TABLE tags, type in `<TR></TR>`.
- ..Repeat the above for every row you want to add. The following HTML snippet contains a table with three rows:

```
<TABLE>
```

```
  <TR> </TR>
```

```
  <TR> </TR>
```

```
  <TR> </TR>
```

```
</TABLE>
```

- The ***TD element*** nested within a ***TR element*** will add a table cell to your table row.
- In the HTML document, place the insertion point between the opening and closing TR tags of the row you want to add a cell to.
- Type in `<TD></TD>...` *Repeat the above for every cell you want to add.*
- The following HTML snippet contains a three-row table with two cells in each row:

```
<TABLE>
```

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

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

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

```
</TABLE>
```

- *To add contents into your table, you will need to add the data into the appropriate cell.*
- In the HTML document, place the insertion point between the opening and closing TD tags of the cell you want to add data to.
- .. Type in the data you want. .. Repeat the above for the other data.
- .. The following HTML snippet contains a 3x2 table with data:

```
<body>
<table>
  <tr>
    <td>cell 1</td>
    <td>cell 2</td>
    <td>cell 3</td>
  </tr>
  <tr>
    <td>cell 4</td>
    <td>cell 5</td>
    <td>cell 6</td>
  </tr>
  <tr>
    <td>cell 7</td>
    <td>cell 8</td>
    <td>cell 9</td>
  </tr>
</table>
</body>
```


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file:///C:/Users/Admin/Desktop/web/tables.html

cell 1 cell 2 cell 3

cell 4 cell 5 cell 6

cell 7 cell 8 cell 9

CSS Table Properties

Property	Description
border	Sets all the border properties in one declaration
border-collapse	Specifies whether or not table borders should be collapsed. Can have a value like “collapse”
border-spacing	Specifies the distance between the borders of adjacent cells. Can have a value like 10px;
caption-side	Specifies the placement of a table caption
width	defines the width of a table in pixels or as a percentage of the display window.
height	defines the height of a table in pixels.
background-color	allows you to set the back color of the table in color name or in color code.
table-layout	Sets the layout algorithm to be used for a table

- HTML tables can be formatted with a border around the table and each cell in the table. The size of the table border can be adjusting using the border attribute of the TABLE element.
- A border of 0 removes the border from the table.

```
<style>
```

```
    table, td {
```

```
        border:1px solid black;
```

```
    }
```

```
</style>
```

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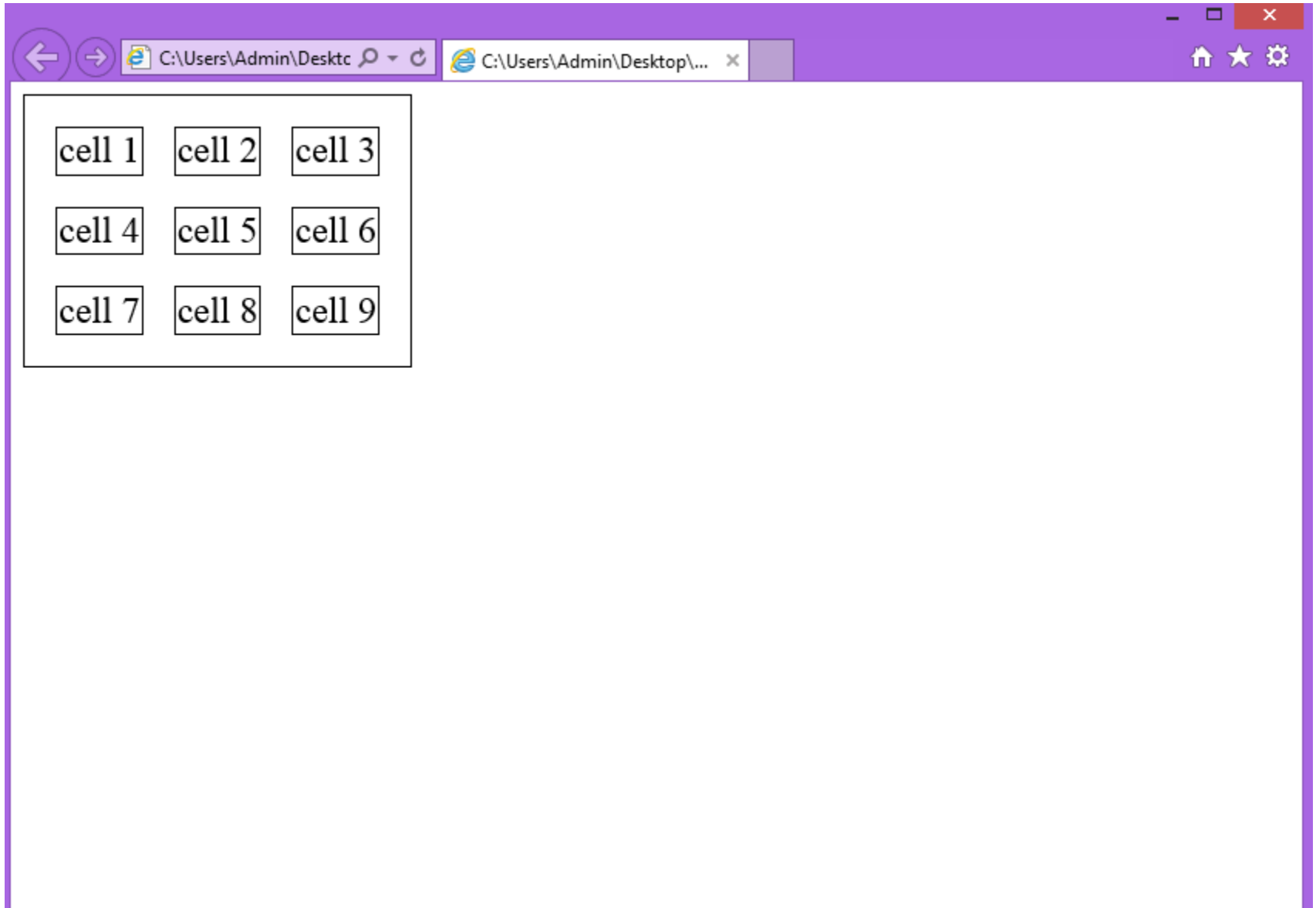


file:///C:/Users/Admin/Desktop/web/tables.html

cell 1	cell 2	cell 3
cell 4	cell 5	cell 6
cell 7	cell 8	cell 9

Border-spacing property

```
table, td {border:1px solid black;  
border-spacing:20px; }
```



Border- collapse property

- The border-collapse property sets whether the table borders should be collapsed into a single border

```
table, td{border:1px solid black;  
           border-collapse:collapse;  
           }
```

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file:///C:/Users/Admin/Desktop/web/tables.html

cell 1	cell 2	cell 3
cell 4	cell 5	cell 6
cell 7	cell 8	cell 9

Width and Height of a table

`table {width:50%; height:150px; }`

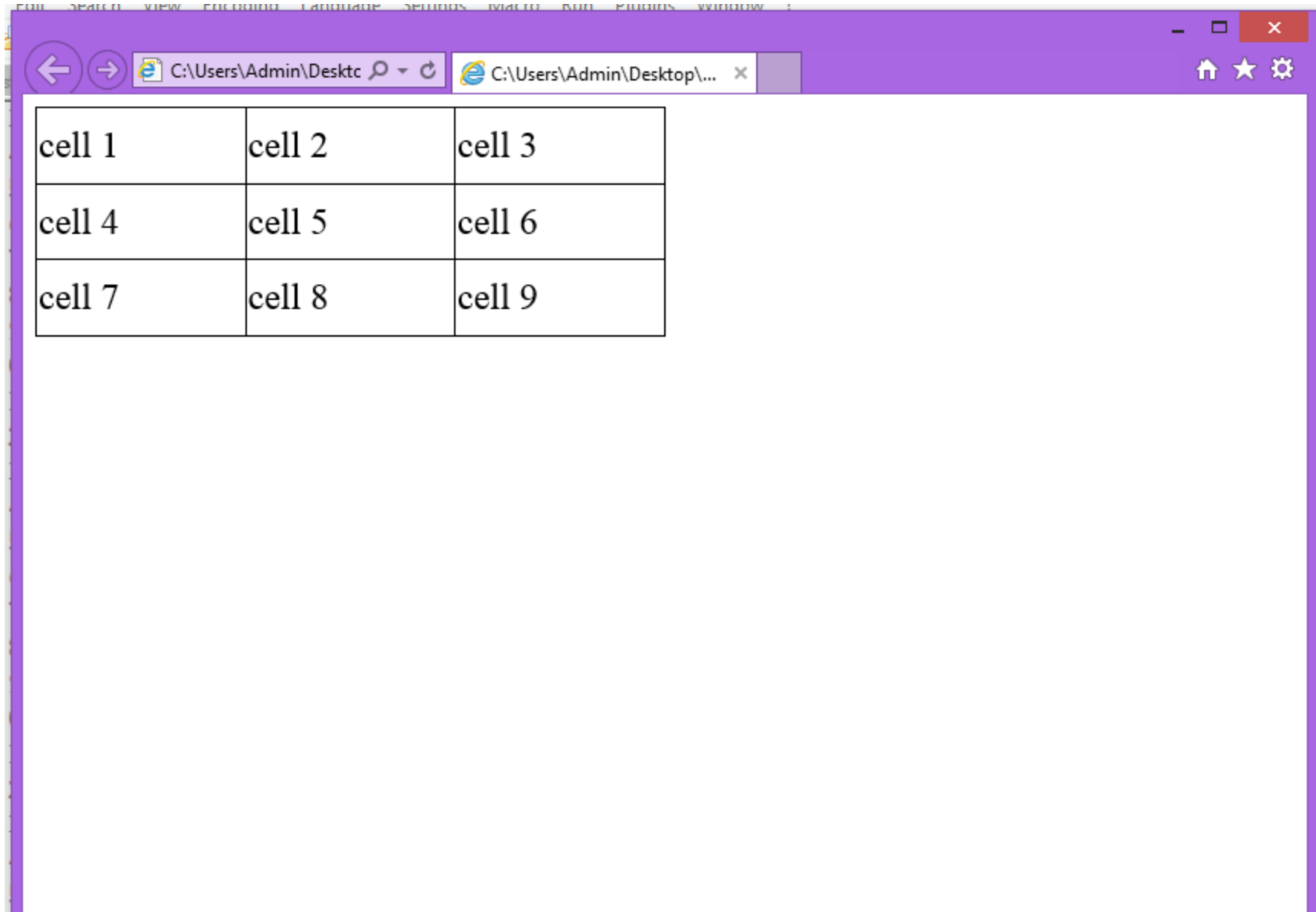


Table background-color `table{ width:50%; height:150px;
background-color:#cc00ff; }`

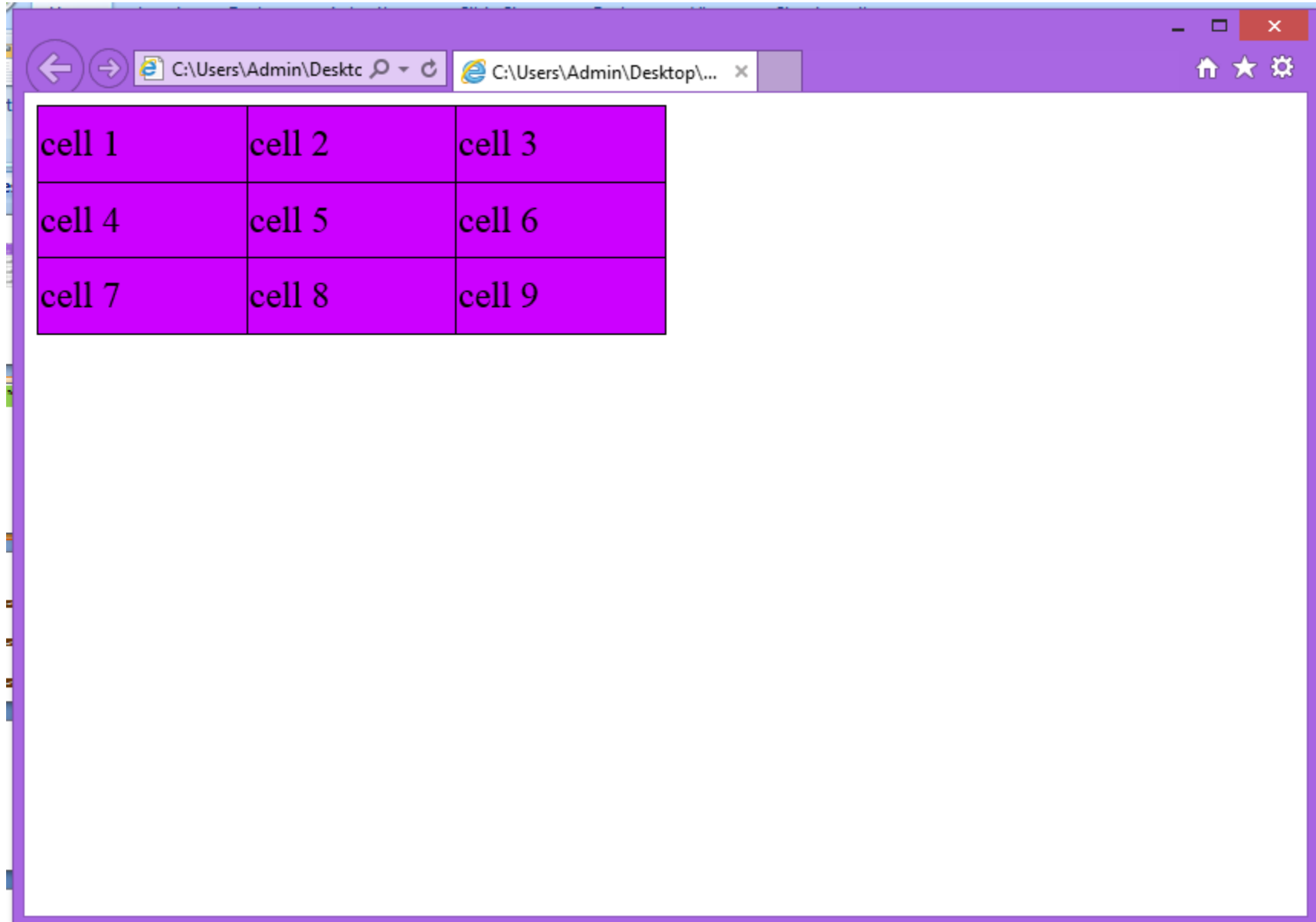


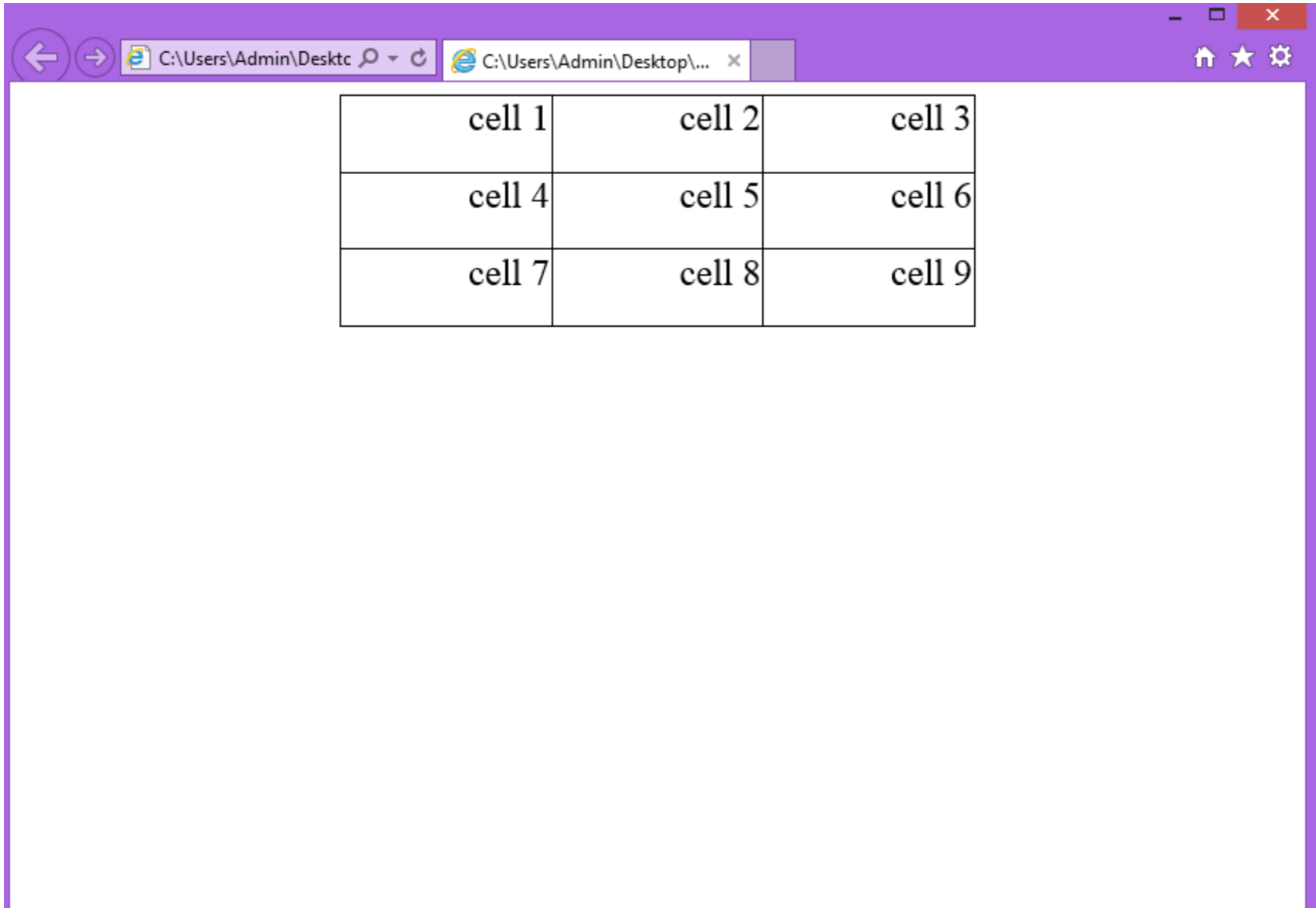
Table margin

- Can use the margin property to align a table;
`table{ margin:auto;}`

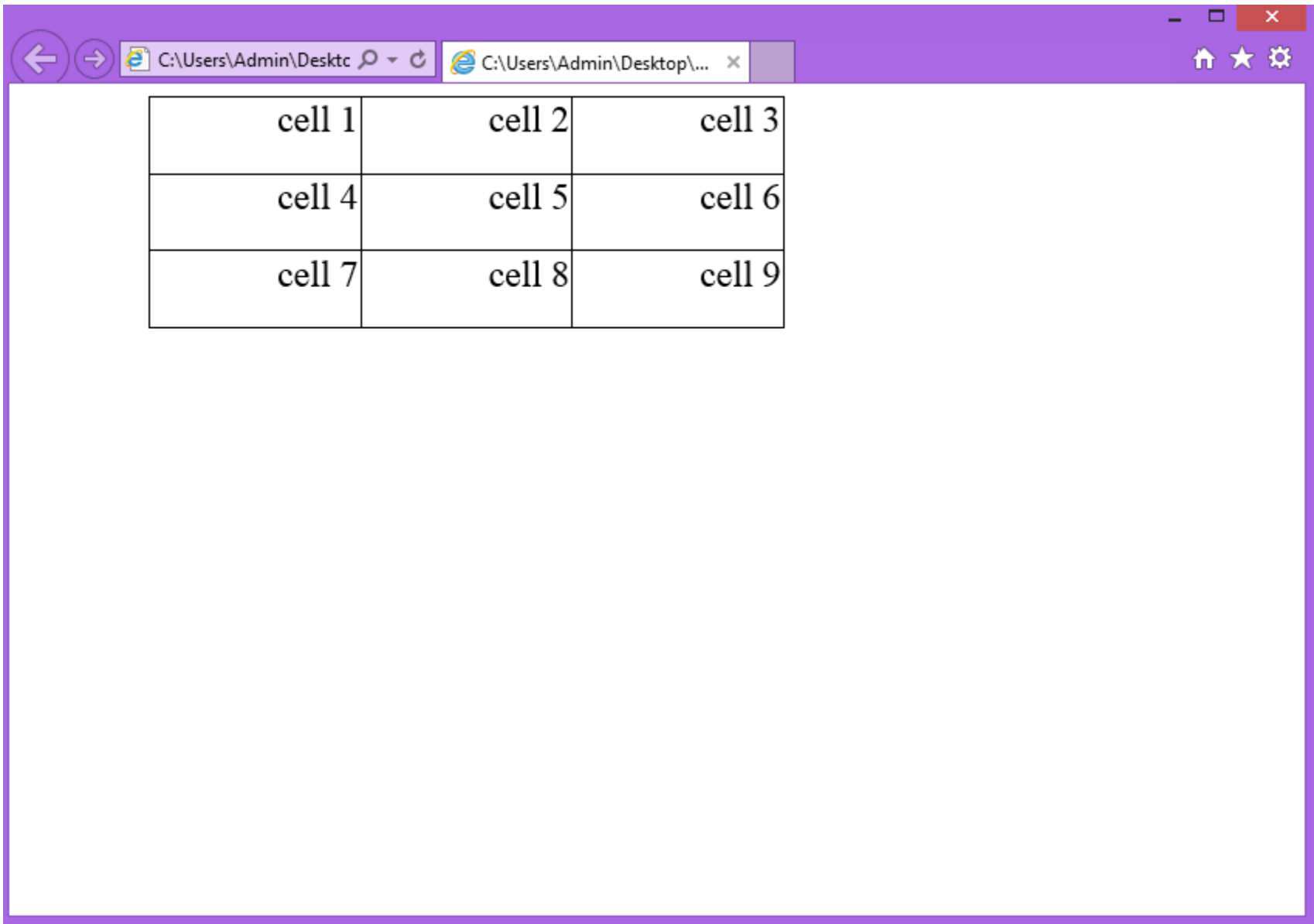
This will align the table on the center of the page.

- Can specify the margin-left or margin-right in pixel.

```
table{ width:50%; height:150px; margin:auto; }
```



```
table{ width:50%; height:150px; margin-left:10%;}
```



Formatting Cells

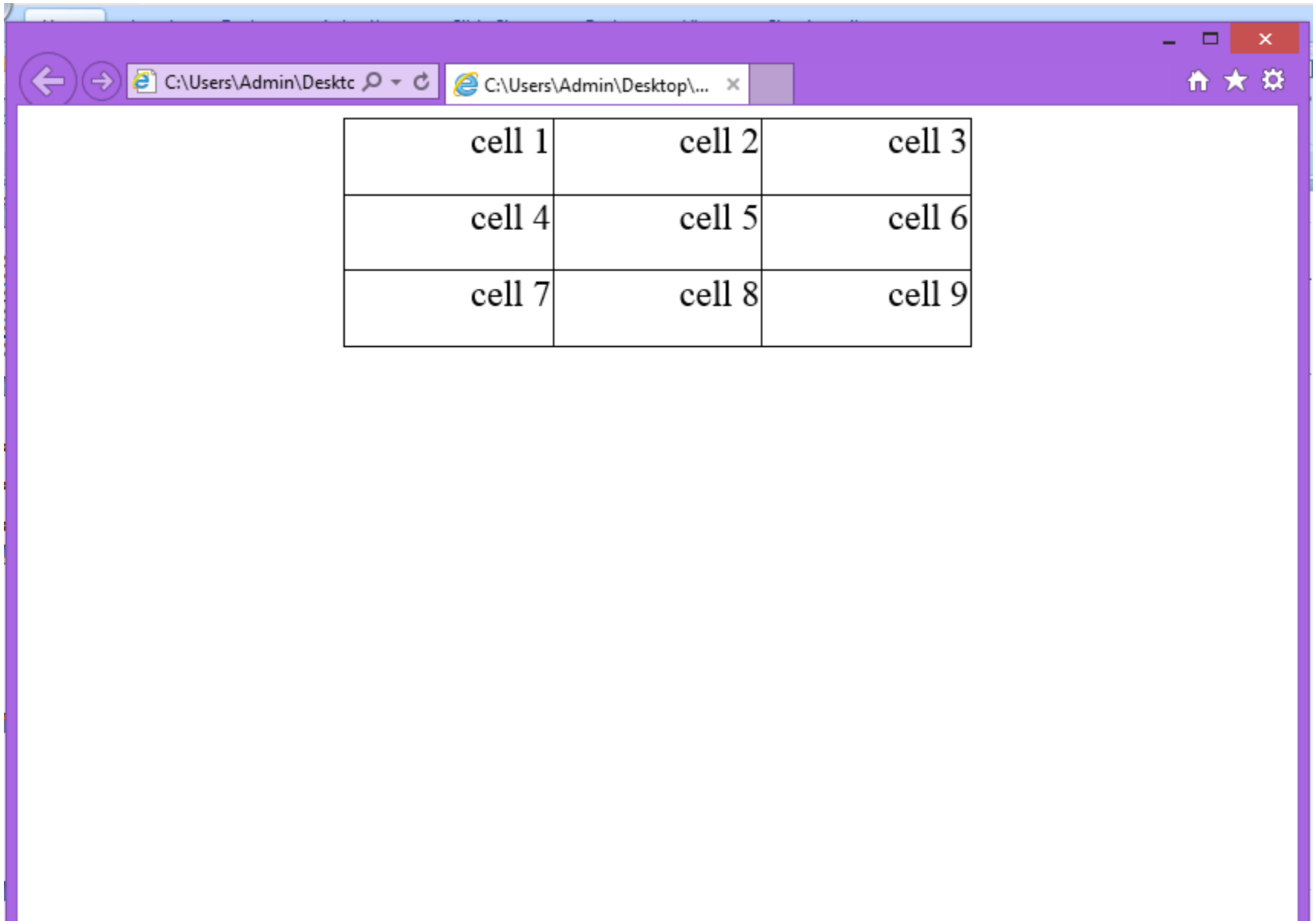
The property for the Table Cell or td element include the following:

- The ***width*** property can be used to define the width of a table cell in pixels or as a percentage of the table width.
- The ***height*** property can be used to define the height of a table cell in pixels or as a percentage of the table height.
- The ***text-align*** property allows you to align the cell contents horizontally within the table cell. (like left, right, or center)
- The ***vertical-align*** property allows you to align the cell contents vertically within the table cell. (like top, bottom, or middle)
- The ***background-color property*** allows you to set the back color of a cell.
- The ***padding*** property allows to set the space around the content from the cell border. Used with <tr> and <td> elements

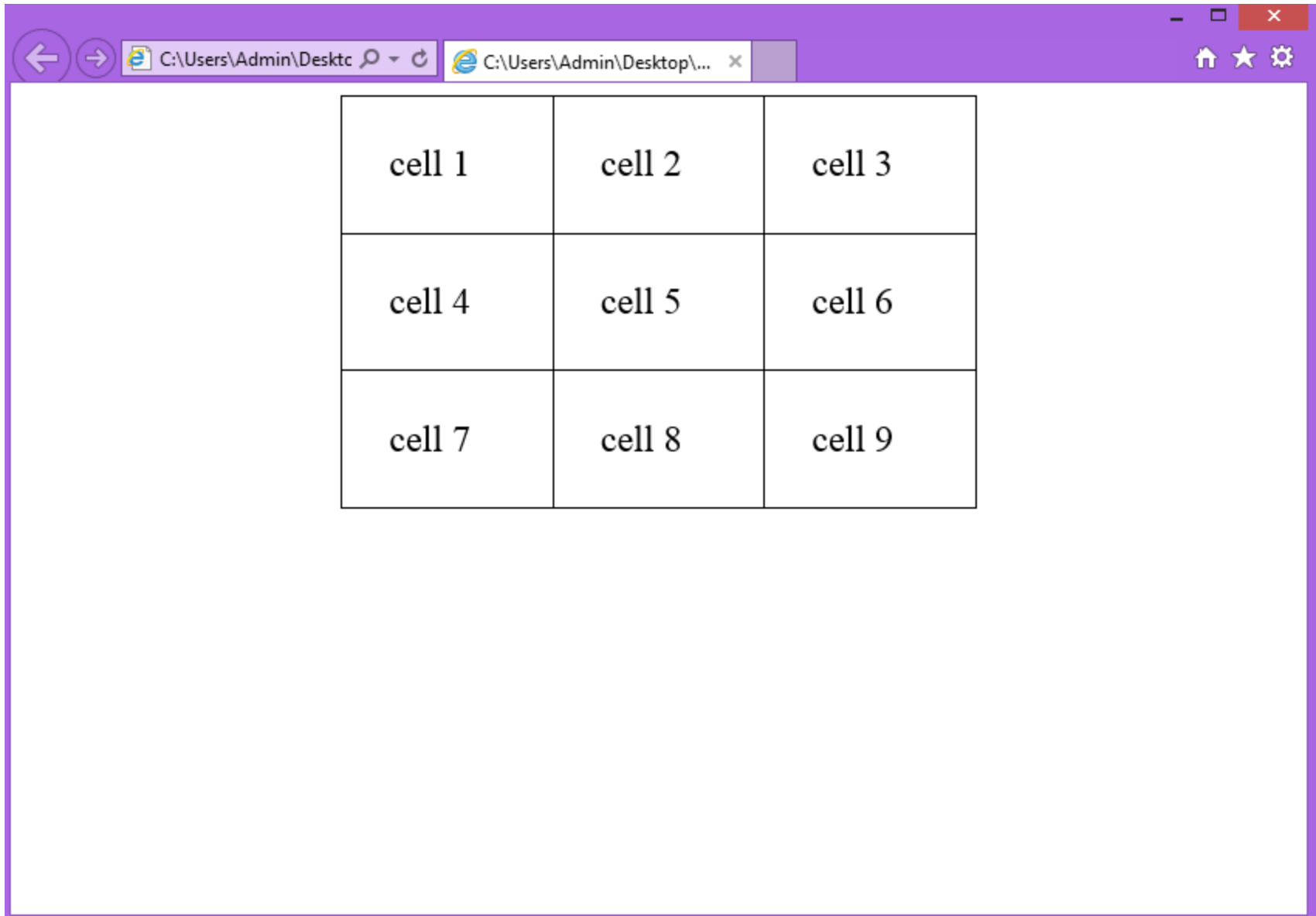
Table text Alignment

	Text-align:left	Text-align:center	Text-align:right
vertical-align:top	Cell1	Cell2	Cell3
vertical-align:middle	Cell4	Cell5	Cell6
vertical-align:bottom	Cell7	Cell8	Cell9

```
td { text-align:right;  
      vertical-align:top; }
```



```
td { padding:30px; }
```



A screenshot of a web browser window with a purple title bar and address bar. The address bar shows two tabs: 'C:\Users\Admin\Desktop' and 'C:\Users\Admin\Desktop\...'. The main content area displays a 3x3 table with black borders. The cells are labeled 'cell 1' through 'cell 9' in a simple black font, centered within each cell. The table is positioned on the left side of the browser window, leaving a large white area on the right.

cell 1	cell 2	cell 3
cell 4	cell 5	cell 6
cell 7	cell 8	cell 9

CSS

```
td.a { background-color:yellow;}
```

HTML

```
<td class="a">cell 1</td>
```

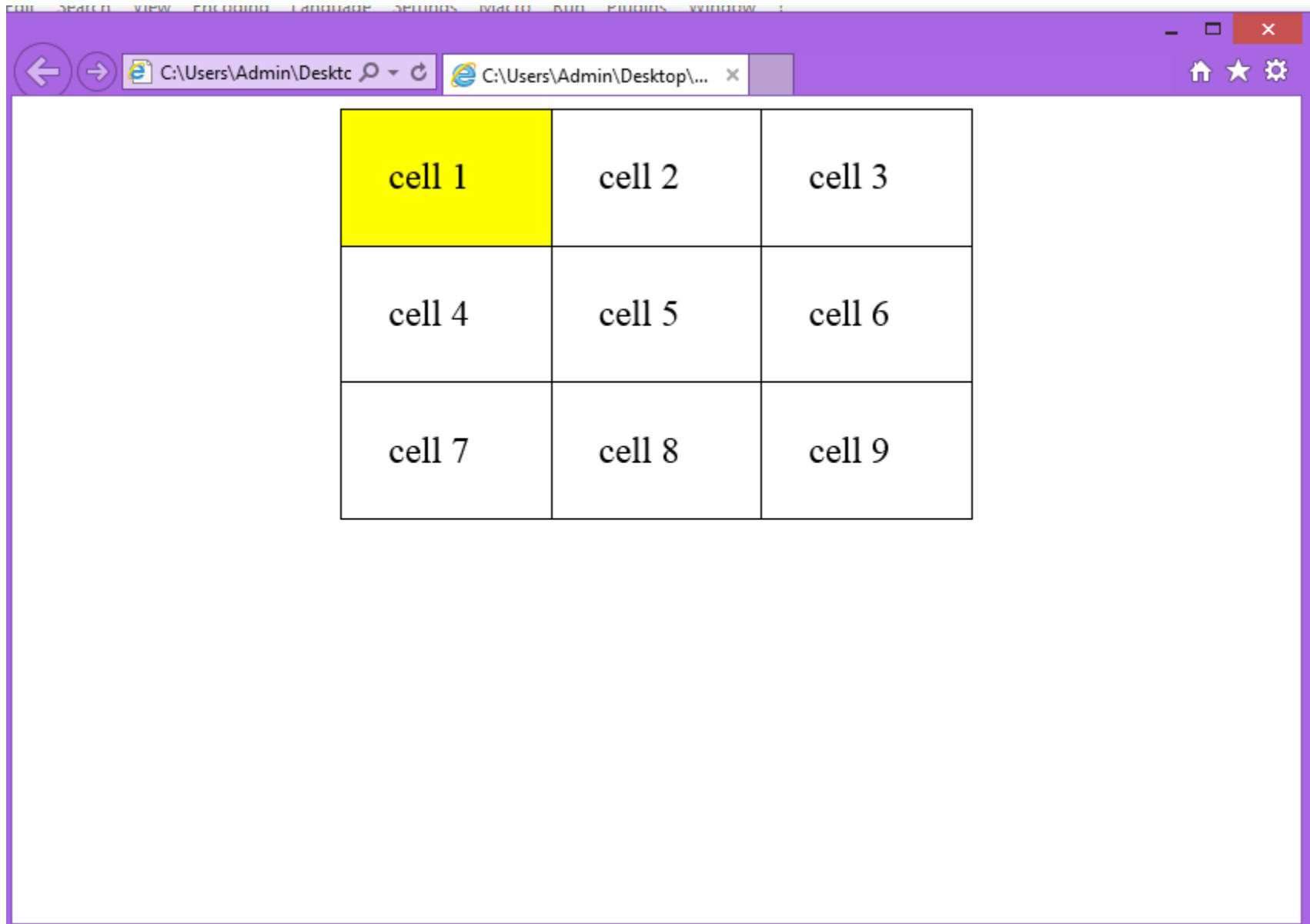


Table headings

- A table row can also be divided into **table headings** with the `<th>` tag inside the table row tag.
- By default, all major browsers display table headings as bold and centered:

```
<table>
  <tr >
    <th>RegNo</th>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td >BBIT/17/09/3444</td>
    <td>Vivian Johns</td>
    <td>27</td>
  </tr>
  <tr >
    <td >BBIT/17/09/0099</td>
    <td>Dexter Hugeus</td>
    <td>23</td>
  </tr>
</table>
```

```
<style>
table,th, td{border:1px solid black;
               border-collapse:collapse;}

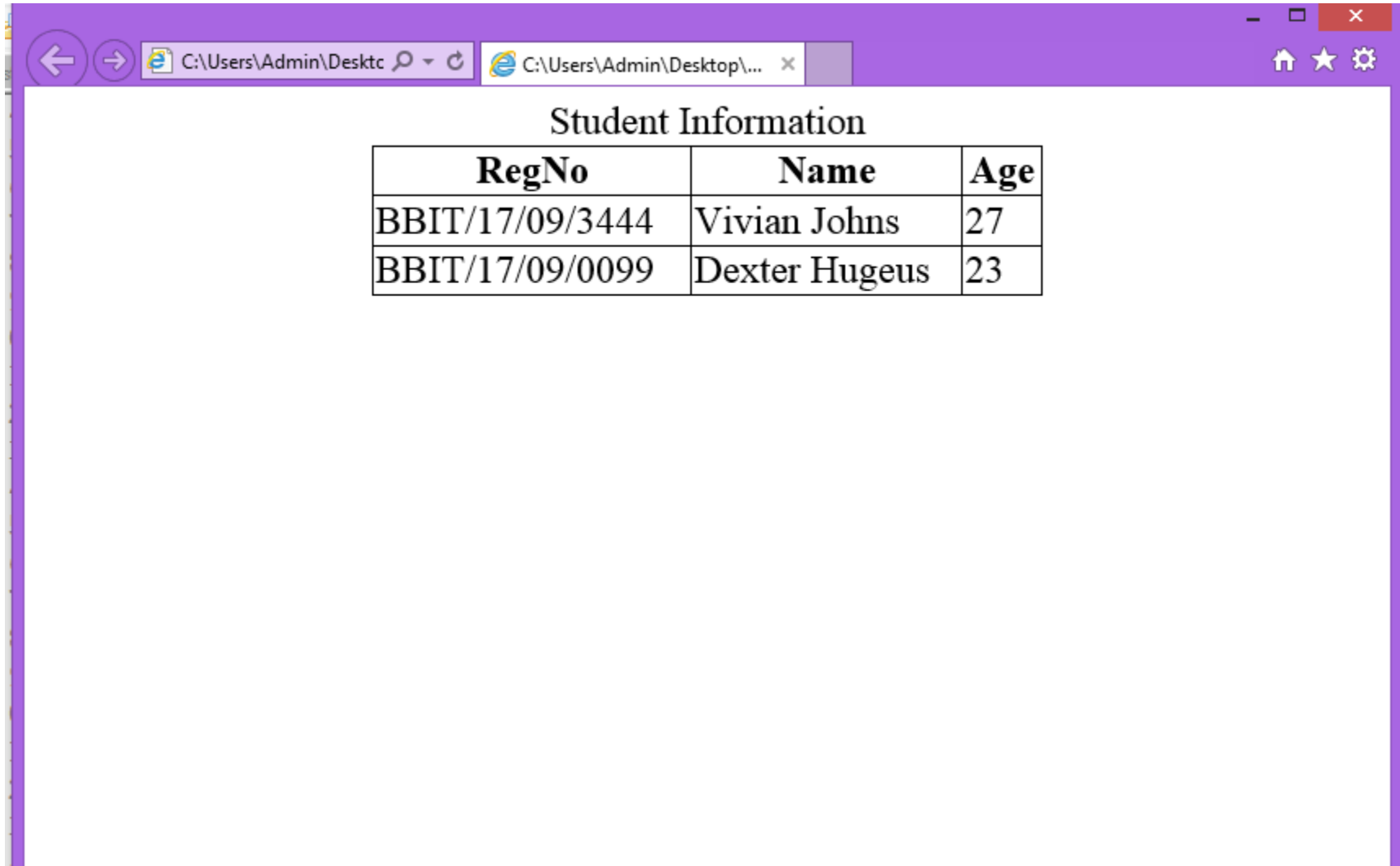
table{ margin:auto; width:50%;}
</style>
```

RegNo	Name	Age
BBIT/17/09/3444	Vivian Johns	27
BBIT/17/09/0099	Dexter Hugeus	23

Table With a Caption

- To add a caption to a table, use the **<caption>** tag:
- This is the title of the table.

Note:The **<caption>** tag must be inserted immediately after the **<table>** tag.



The screenshot shows a web browser window with a purple header bar. The address bar displays two tabs: 'C:\Users\Admin\Desktop\...' and 'C:\Users\Admin\Desktop\...'. The main content area features a table with the caption 'Student Information' centered above it. The table has three columns: 'RegNo', 'Name', and 'Age'. It contains two data rows: one for Vivian Johns (RegNo: BBIT/17/09/3444, Age: 27) and one for Dexter Hugeus (RegNo: BBIT/17/09/0099, Age: 23).

RegNo	Name	Age
BBIT/17/09/3444	Vivian Johns	27
BBIT/17/09/0099	Dexter Hugeus	23

Table With a Caption

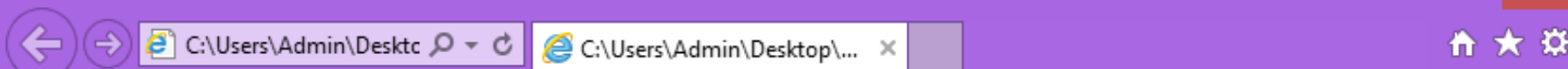
```
<table>  
<caption> Student  
Information</caption>
```

```
<tr >  
  <th>RegNo</th>  
  <th>Name</th>  
  <th>Age</th>  
</tr>  
<tr>  
  <td >BBIT/17/09/3444</td>  
  <td>Vivian Johns</td>  
  <td>27</td>  
</tr>  
<tr >  
  <td >BBIT/17/09/0099</td>  
  <td>Dexter Hugeus</td>  
  <td>23</td>  
</tr>  
</table>
```

```
<style>  
table,th, td{border:1px solid black;  
               border-collapse:collapse;}  
  
table{ margin:auto; width:50%;}  
</style>
```

Joining Cells in the Same Row

- The **colspan** attribute in the TD/TH element will *join the current cell with the cell(s) directly beside it*.
- Type in *colspan="number"*, replacing number with the total number of cells you want join.



Student Information		
RegNo	Name	Age
BBIT/17/09/3444	Vivian Johns	27
BBIT/17/09/0099	Dexter Hugeus	23


```
<table>
  <tr>
    <th colspan="3">Student
Information</th>
  <tr >
    <th>RegNo</th>
    <th>Name</td>
    <th>Age</th>
  </tr>
  <tr>
    <td >BBIT/17/09/3444</td>
    <td>Vivian Johns</td>
    <td>27</td>
  </tr>
  <tr >
    <td >BBIT/17/09/0099</td>
    <td>Dexter Hugeus</td>
    <td>23</td>
  </tr>
</table>
```

Joining Cells in the Same Column

- The ***rowspan*** attribute in the TD or TH element will join the current cell with the cell(s) directly beneath it.
- Type in *rowspan="number"*, replacing number with the total number of cells you want join.

Student Information		
RegNo	Name	Age
BBIT/17/09/3444	Vivian Johns	27
BBIT/17/09/0099	Dexter Hugeus	

```

<table>
  <tr>
    <th colspan="3">Student
Information</th>
  <tr >
    <th>RegNo</th>
    <th>Name</td>
    <th>Age</th>
  </tr>
  <tr>
    <td >BBIT/17/09/3444</td>
    <td>Vivian Johns</td>
    <td rowspan="2">27</td>
  </tr>
  <tr >
    <td >BBIT/17/09/0099</td>
    <td>Dexter Hugeus</td>
  </tr>
</table>

```

HTML Basics

Questions?

A collection of approximately 12 colorful, 3D question marks scattered around the central text. The question marks are in various colors including blue, orange, pink, red, purple, and black, and are oriented in different directions, creating a dynamic and playful background.

Summary working with tables

- Use the HTML **<table>** element to define a table
- Use the HTML **<tr>** element to define a table row
- Use the HTML **<td>** element to define a table data
- Use the HTML **<th>** element to define a table heading
- Use the HTML **<caption>** element to define a table caption
- Use the CSS **border** property to define a border
- Use the CSS **padding** property to add padding to cells
- Use the CSS **text-align** property to align cell text horizontally
- Use the CSS **vertical-align** property to align cell text vertically
- Use the CSS **border-spacing** property to set the spacing between cells
- Use the CSS **border-collapse** property collapse the border between cells
- Use the **colspan** attribute to make a cell span many columns
- Use the **rowspan** attribute to make a cell span many rows

HTML Layout - Using Tables

- The simplest and most popular way of creating layouts is using HTML `<table>` tag. These tables are arranged in columns and rows, so you can utilize these rows and columns in whatever way you like.

Example

- For example, the following HTML layout example is achieved using a table with 3 rows and 2 columns but the header and footer column spans both columns using the `colspan` attribute:

```

<html>
<head>
<title>HTML Layout using Tables</title>
<style>
table{width:100%;}
td.top
{
background-color:#b5dcb3}
td.menu{
width:20%; background-color:#aaa;
height:500px;
}
td.main
{
background-color:#eee;
}
.menu, .main{vertical-align:top;
}
td.lower
{text-align:center;
background-color:#b5dcb3;
}

```

```

<tr >
  <td class="menu">
    <h2>Main Menu</h2>
    HTML<br />
    CSS<br />
    JavaScript
  </td>
  <td class="main">
    Learning how to use tables as
    the page layout.
  </td>
</tr>
<tr>
  <td colspan="2" class="lower">
    Copyright &copy; 2016 Internet
    Programming
  </td>
</tr>
</table>
</body>
</html>

```


This is Web Page Main title

Main Menu

- HTML
- CSS
- JavaScript

Learning how to use tables as the page layout.