Tables in HTML

A table in HTML consists of table cells inside rows and columns.

Table Cells

- Each table cell is defined by a `<td>` and a `</td>` tag.

- `td` stands for table data.

- Everything between `<td>` and `</td>` are the content of the table cell.

```
<!DOCTYPE html>
<html>
 <table>
 <tr>
  <th>Company</th>
 <th>Contact</th>
 <th>Country</th>
 </tr>
 <tr>
 <td>Robin</td>
 <td>Maria</td>
 <td>Jasmine</td>
 </tr>
 <tr>
 <td>Centro </td>
 <td>Francisco</td>
 <td>Mexico</td>
 </tr>
</table>
</html>
```

Table Rows

Each table row starts with a `<tr>` and ends with a `</tr>` tag.

`tr` stands for table row.

```
<table>
 <tr>
   <td>Mohit</td>
   <td>Rahul</td>
   <td>Rekha</td>
 </tr>
 <tr>
   <td>16</td>
   <td>14</td>
   <td>10</td>
 </tr>
</table>
```

Table Headers

- Sometimes you want your cells to be table header cells. In those cases use the <th> tag instead of the <td> tag:

- th stands for table header.

```
<table>
<tr>
 <th>Person 1</th>
 <th>Person 2</th>
 <th>Person 3</th>
</tr>
<tr>
 <td>Emil</td>
 <td>Tobias</td>
 <td>Linus</td>
</tr>
<tr>
 <td>16</td>
 <td>14</td>
 <td>10</td>
</tr>
</table>
```

HTML Table Borders

- HTML tables can have borders of different styles and shapes.

- When you add a border to a table, you also add borders around each table cell:

- To add a border, use the CSS border property on table, th, and td elements:

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

- `<head>`
- `<style>`
- table, th, td {
-   border: 1px solid black; }
- `</style>`
- `</head>`
- `<body>`
- `<h2>Table With Border</h2>`
- `<p>Use the CSS border property to add a border to the table.</p>`
- `<table style="width:100%">`
-   `<tr>`
-     `<th>Firstname</th>`
-     `<th>Lastname</th>`
-     `<th>Age</th>`
-   `</tr>`
-   `<tr>`
-     `<td>Jill</td>`
-     `<td>Smith</td>`
-     `<td>50</td>`
-   `</tr>`
-   `<tr>`
-     `<td>Eve</td>`
-     `<td>Jackson</td>`
-     `<td>94</td>`
-   `</tr>`
-   `<tr>`
-     `<td>John</td>`
-     `<td>Doe</td>`
-     `<td>80</td>`
-   `</tr>`
- `</table>`
- `</body>`

Collapsed Table Borders

- To avoid having double borders like in the example above, set the CSS border-collapse property to collapse.

- This will make the borders collapse into a single border:

table, th, td

{
 border: 1px solid black;
border-collapse: collapse;
}

Style Table Borders

- If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border:

table, th, td

```
{
 border: 1px solid white;
 border-collapse: collapse;
}
th, td {
 background-color: #96D4D4;
}
```

Round Table Borders

- With the border-radius property, the borders get rounded corners:

table, th, td
{
 border: 1px solid black;
 border-radius: 10px;
}

Round Table Borders

- Skip the border around the table by leaving out table from the css selector:

th, td

{
  border: 1px solid black;
  border-radius: 10px;
}

Dotted Table Borders

- With the border-style property, you can set the appearance of the border.

th, td

{

    border-style: dotted;

}

The following values are allowed:

- dotted
- dashed
- solid
- double
- groove
- ridge
- inset
- outset
- none
- hidden

Border Color

- With the border-color property, you can set the color of the border.

th, td

{

  border-color: #96D4D4;

}

HTML Table Sizes

- HTML tables can have different sizes for each column, row or the entire table.

- Use the style attribute with the width or height properties to specify the size of a table, row or column.

HTML Table Width

- To set the width of a table, add the style attribute to the <table> element:

- Set the width of the table to 100%:

Example

- ```html
  <table style="width:100%">
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Age</th>
    </tr>
    <tr>
      <td>Jill</td>
      <td>Smith</td>
      <td>50</td>
    </tr>
    <tr>
      <td>Eve</td>
      <td>Jackson</td>
      <td>94</td>
    </tr>
  </table>
  ```

HTML Table Column Width

- To set the size of a specific column, add the style attribute on a <th> or <td> element:

- Set the width of the first column to 70%:

Example

- ```html
  <table style="width:100%">
    <tr>
      <th style="width:70%">Firstname</th>
      <th>Lastname</th>
      <th>Age</th>
    </tr>
    <tr>
      <td>Jill</td>
      <td>Smith</td>
      <td>50</td>
    </tr>
    <tr>
      <td>Eve</td>
      <td>Jackson</td>
      <td>94</td>
    </tr>
  </table>
  ```

HTML Table Row Height

- To set the height of a specific row, add the style attribute on a table row element:

- Set the height of the second row to 200 pixels:

Example

- ```html
  <table style="width:100%">
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Age</th>
    </tr>
    <tr style="height:200px">
      <td>Jill</td>
      <td>Smith</td>
      <td>50</td>
    </tr>
    <tr>
      <td>Eve</td>
      <td>Jackson</td>
      <td>94</td>
    </tr>
  </table>
  ```

HTML Table Headers

- Table headers are defined with th elements. Each th element represents a table cell.

```
<table>
 <tr>
  <th>Firstname</th>
  <th>Lastname</th>
  <th>Age</th>
 </tr>
 <tr>
  <td>Jill</td>
  <td>Smith</td>
  <td>50</td>
 </tr>
 <tr>
  <td>Eve</td>
  <td>Jackson</td>
  <td>94</td>
 </tr>
</table>
```

Vertical Table Headers

- To use the first column as table headers, define the first cell in each row as a <th> element:

```
<table>
 <tr>
  <th>Firstname</th>
  <td>Jill</td>
  <td>Eve</td>
 </tr>
 <tr>
  <th>Lastname</th>
  <td>Smith</td>
  <td>Jackson</td>
 </tr>
 <tr>
  <th>Age</th>
  <td>94</td>
  <td>50</td>
 </tr>
</table>
```

Align Table Headers

- By default, table headers are bold and centered:

```
th {
  text-align: left;
}
```

Header for Multiple Columns

- You can have a header that spans over two or more columns.

- To do this, use the colspan attribute on the <th> element:

Example

```
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

Table Caption

- You can add a caption that serves as a heading for the entire table.

- To add a caption to a table, use the <caption> tag:

Example

```
<table style="width:100%">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

HTML Table - Cell Padding

- Cell padding is the space between the cell edges and the cell content.

- By default the padding is set to 0.

- To add padding on table cells, use the CSS padding property:

- <!DOCTYPE html>
- <html>
- <head>
- <style>
- table, th, td {
-   border: 1px solid black;
-   border-collapse: collapse;
- }
- th, td {
-   padding-top: 10px;
-   padding-bottom: 20px;
-   padding-left: 30px;
-   padding-right: 40px;
- }
- </style>
- </head>
- <body>
- <h2>Cellpadding - top - bottom - left - right </h2>
- <p>We can specify different padding for all fours sides of the cell content.</p>

- `<table style="width:100%">`
- `<tr>`
- `<th>Firstname</th>`
- `<th>Lastname</th>`
- `<th>Age</th>`
- `</tr>`
- `<tr>`
- `<td>Jill</td>`
- `<td>Smith</td>`
- `<td>50</td>`
- `</tr>`
- `<tr>`
- `<td>Eve</td>`
- `<td>Jackson</td>`
- `<td>94</td>`
- `</tr>`
- `<tr>`
- `<td>John</td>`
- `<td>Doe</td>`
- `<td>80</td>`
- `</tr>`
- `</table>`
- `</body>`
- `</html>`

HTML Table - Cell Spacing

- Cell spacing is the space between each cell.

- By default the space is set to 2 pixels.

- To change the space between table cells, use the CSS border-spacing property on the table element:

- <style>
- table, th, td {
-   border: 1px solid black;
- }
- table {
-   border-spacing: 30px;}
- </style>
- </head>
- <body>
- <h2>Cellspacing</h2>
- <p>Change the space between the cells with the border-spacing property.</p>
- <table style="width:100%">
-   <tr>
-     <th>Firstname</th>
-     <th>Lastname</th>
-     <th>Age</th>
-   </tr>
-   <tr>
-     <td>Jill</td>
-     <td>Smith</td>
-     <td>50</td>
-   </tr>
-   <tr>
-     <td>Eve</td>
-     <td>Jackson</td>
-     <td>94</td>
-   </tr>
-   <tr>
-     <td>John</td>
-     <td>Doe</td>
-     <td>80</td>
-   </tr>
- </table>

HTML Table Colspan & Rowspan

- HTML tables can have cells that span over multiple rows and/or columns.

To make a cell span over multiple columns, use the `colspan` attribute:

- ```
  <table>
   <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
   </tr>
   <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>43</td>
   </tr>
   <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>57</td>
   </tr>
  </table>
  ```
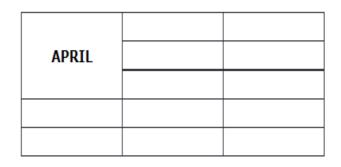
To make a cell span over multiple rows, use the `rowspan` attribute:

- ```
  <table>
   <tr>
    <th>Name</th>
    <td>Jill</td>
   </tr>
   <tr>
    <th rowspan="2">Phone</th>
    <td>555-1234</td>
   </tr>
   <tr>
    <td>555-8745</td>
   </tr>
  </table>
  ```

HTML Table Styling

- HTML Table - Zebra Stripes

- If you add a background color on every other table row, you will get a nice zebra stripes effect.

- To make vertical zebra stripes, style every other *column*, instead of every other *row*.

- To style every other table row element, use the :nth-child(even) selector like this:

- <style>
- table {
-   border-collapse: collapse;
-   width: 100%;
- }
- th, td {
-   text-align: left;
-   padding: 8px;
- }
- tr:nth-child(even) {
-   background-color: #D6EEEE;
- }
- </style>
- </head>

- <style>
- table, th, td {
-   border: 1px solid black;
-   border-collapse: collapse;
- }
- th:nth-child(even),td:nth-child(even) {
-   background-color: #D6EEEE;
- }
- </style>
- </head>
- <body>
- <table style="width:100%">
-   <tr>
-     <th>MON</th>
-     <th>TUE</th>
-     <th>WED</th>
-     <th>THU</th>
-     <th>FRI</th>
-     <th>SAT</th>
-     <th>SUN</th>
-   </tr>

Combine Vertical and Horizontal Zebra Stripes

- You can combine the styling from the two examples above and you will have stripes on every other row and every other column.

- If you use a transparent color you will get an overlapping effect.

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

- tr:nth-child(even) {
-   background-color: rgba(150, 212, 212, 0.4);
- }

- th:nth-child(even),td:nth-child(even) {
-   background-color: rgba(150, 212, 212, 0.4);
- }
- </style>

Horizontal Dividers

- If you specify borders only at the bottom of each table row, you will have a table with horizontal dividers.

- Add the border-bottom property to all tr elements to get horizontal dividers:

- `<style>`
- `table {`
-   `border-collapse: collapse;`
-   `width: 100%;`
- `}`

- `tr {`
-   `border-bottom: 1px solid #ddd;`
- `}`
- `</style>`

Hoverable Table

Use the :hover selector on tr to highlight table rows on mouse over:

- <style>
- table {
-   border-collapse: collapse;
-   width: 100%;
- }

- th, td {
-   padding: 8px;
-   text-align: left;
-   border-bottom: 1px solid #DDD;
- }

- tr:hover {background-color: #D6EEEE;}
- </style>

HTML Table Colgroup

- If you want to style the two first columns of a table, use the <colgroup> and <col> elements.

- The <colgroup> element should be used as a container for the column specifications.

- Each group is specified with a <col> element.

- The span attribute specifies how many columns that get the style.

- The style attribute specifies the style to give the columns.

- `<style>`
- `table, th, td {`
- ` border: 1px solid black;`
- ` border-collapse: collapse;`
- `}`
- `</style>`
- `</head>`
- `<body>`
- `<h2>Colgroup</h2>`
- `<p>Add the a colgroup with a col element that spans over two columns to define a style for the two columns:</p>`
- `<table style="width: 100%;">`
- `<colgroup>`
- ` <col span="2" style="background-color: #D6EEEE">`
- `</colgroup>`
- `<tr>`
- `<th>MON</th>`
- `<th>TUE</th>`