**HTML Tables**

Web developers can use HTML tables to organise data into rows and columns.

### **Example**

|  |  |  |
| --- | --- | --- |
| **Name** | **Roll No** | **Fees** |
| Aman | 101 | 10000 |
| Saransh | 102 | 9000 |
| Naman | 103 | 9500 |
| Ankit | 104 | 11000 |
| Ajit | 105 | 12000 |
| Pankaj | 106 | 6000 |

## **Define an HTML Table**

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

### **Example**

A simple HTML table:

<table>  
  <tr>  
    <th>Name</th>  
    <th>Roll No</th>  
    <th>Fees</th>  
  </tr>  
  <tr>  
    <td>Aman</td>  
    <td>101</td>  
    <td>10000</td>  
  </tr>  
  <tr>  
    <td>Ankit</td>  
    <td>102 </td>  
    <td>9000 </td>  
  </tr>  
</table>

## **Table Cells**

A <td> and a </td> tag are used to define each table cell.

Table data is abbreviated as td.

The content of the table cell is everything between <td> and </td>.

### **Example**

<table>  
  <tr>  
    <td>Naman</td>  
    <td>103 </td>  
    <td>5000</td>  
  </tr>  
</table>

**Note:** table data elements are the data containers of the table.  
They can contain all sorts of HTML elements; text, images, lists, other tables, etc.

## **Table Rows**

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

tr stands for table row.

### **Example**

<table>  
  <tr>  
    <td>Ajit</td>  
    <td>105</td>  
    <td>1000</td>  
  </tr>  
  <tr>  
    <td>Saransh</td>  
    <td>140</td>  
    <td>10050</td>  
  </tr>  
</table>

In a table, you can have as many rows as you want, as long as the number of cells in each row is the same.

## **Table Headers**

When you want your cells to be headers, instead of using the <td> tag, use the <th> tag:

### **Example**

Let the first row be table headers:

<table>  
  <tr>  
    <th>Person 1</th>  
    <th>Person 2</th>  
    <th>Person 3</th>  
  </tr>  
  <tr>  
    <td>Nitish</td>  
    <td>Raman</td>  
    <td>Pankaj</td>  
  </tr>  
  <tr>  
    <td>16</td>  
    <td>14</td>  
    <td>10</td>  
  </tr>  
</table>

By default, the text in <th> elements are bold and centered, but you can change that with CSS.

## **HTML Table Tags**

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<table>](https://www.w3schools.com/tags/tag_table.asp) | Defines a table |
| [<th>](https://www.w3schools.com/tags/tag_th.asp) | Defines a header cell in a table |
| [<tr>](https://www.w3schools.com/tags/tag_tr.asp) | Defines a row in a table |
| [<td>](https://www.w3schools.com/tags/tag_td.asp) | Defines a cell in a table |
| [<caption>](https://www.w3schools.com/tags/tag_caption.asp) | Defines a table caption |
| [<colgroup>](https://www.w3schools.com/tags/tag_colgroup.asp) | Specifies a group of one or more columns in a table for formatting |
| [<col>](https://www.w3schools.com/tags/tag_col.asp) | Specifies column properties for each column within a <colgroup> element |
| [<thead>](https://www.w3schools.com/tags/tag_thead.asp) | Groups the header content in a table |
| [<tbody>](https://www.w3schools.com/tags/tag_tbody.asp) | Groups the body content in a table |
| [<tfoot>](https://www.w3schools.com/tags/tag_tfoot.asp) | Groups the footer content in a table |

**HTML Table Borders**

HTML tables can have a variety of styles and shapes for their borders.

## **How To Add a Border**

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:

### **Example**

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

## **Collapsed Table Borders**

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

The borders will be merged into a single border as a result of this:

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

### **Example**

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

## **Style Table Borders**

You can create the illusion of an invisible border by giving each cell a different background colour and the border a white colour (the same as the document background):

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

### **Example**

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:

Shape, rectangle

Description automatically generated

### **Example**

table, 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.

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

The following values are allowed:

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

### **Example**

 th, td {  
  border-style: dotted;  
}

## **Border Color**

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

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

### **Example**

 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:

### **Example**

Set the width of the table to 100%:

<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>

**Note:** When a percentage is used as the size unit for a width, it refers to how wide this element will be in comparison to its parent element, in this case the <body> element.

## **HTML Table Column Width**

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

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

### **Example**

Set the width of the first column to 70%:

<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:

### **Example**

Set the height of the second row to 200 pixels:

<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

HTML tables can have headers for each column or row, or for many columns/rows.

|  |  |  |
| --- | --- | --- |
| **EMIL** | **TOBIAS** | **LINUS** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **MON** | **TUE** | **WED** | **THU** | **FRI** |
| **8:00** |  |  |  |  |  |
| **9:00** |  |  |  |  |  |
| **10:00** |  |  |  |  |  |
| **11:00** |  |  |  |  |  |
| **12:00** |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **8:00** |  |  |
| **9:00** |  |  |
| **10:00** |  |  |
| **11:00** |  |  |
| **12:00** |  |  |
| **13:00** |  |  |

|  |  |  |
| --- | --- | --- |
| **DECEMBER** | | |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## **HTML Table Headers**

Table headers are defined with th elements, each th element represents a table cell.

### **Example**

<table>  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Ajit</td>  
    <td>Rawat</td>  
    <td>20</td>  
  </tr>  
  <tr>  
    <td>Nitish</td>  
    <td>Kumar</td>  
    <td>21</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:

### **Example**

<table>  
  <tr>  
    <th>Firstname</th>  
    <td>Lokendra</td>  
    <td>Himanshu</td>  
  </tr>  
  <tr>  
    <th>Lastname</th>  
    <td>Kheta</td>  
    <td>Kashyap</td>  
  </tr>  
  <tr>  
    <th>Age</th>  
    <td>20</td>  
    <td>21</td>  
  </tr>  
</table>

## **Align Table Headers**

By default, table headers are bold and centered:

|  |  |  |
| --- | --- | --- |
| **Firstname** | **Lastname** | **Age** |
| Amit | Dani | 50 |
| Rahul | Rathi | 44 |

To left-align the table headers, use the CSS text-align property:

### **Example**

th {  
  text-align: left;  
}

## **Header for Multiple Columns**

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

|  |  |  |
| --- | --- | --- |
| **Name** | | **Age** |
| Lokendra | Kheta | 20 |
| Aman | Joshi | 21 |

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>Lokendra</td>  
    <td>Kheta</td>  
    <td>20</td>  
  </tr>  
  <tr>  
    <td>Aman</td>  
    <td>Joshi</td>  
    <td>21</td>  
  </tr>  
</table>

## **Table Caption**

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

|  |  |
| --- | --- |
| Monthly savings | |
| **Month** | **Savings** |
| January | $100 |
| February | $50 |

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>

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

# HTML Table Padding & Spacing

HTML tables allow you to change the padding inside the cells as well as the space between them.

HTML tables allow you to change the padding inside the cells as well as the space between them.

|  |  |  |
| --- | --- | --- |
| With Spacing | | |
| hello | hello | hello |
| hello | hello | hello |
| hello | hello | hello |

|  |  |  |
| --- | --- | --- |
| With Padding | | |
| hello | hello | hello |
| hello | hello | hello |
| hello | hello | hello |

## **HTML Table - Cell Padding**

The space between the cell edges and the cell content is known as cell padding.

Padding is set to 0 by default.

Use the CSS padding property to add padding to table cells:

### **Example**

th, td {  
  padding: 15px;  
}

To add padding only above the content, use the padding-top property.

And the others sides with the padding-bottom, padding-left, and padding-right properties:

### **Example**

th, td {  
  padding-top: 10px;  
  padding-bottom: 20px;  
  padding-left: 30px;  
  padding-right: 40px;  
}

## **HTML Table - Cell Spacing**

The distance between each cell is referred to as cell spacing.

The default value for the space is 2 pixels.

Use the CSS border-space property on the table element to change the space between table cells:

### **Example**

table {  
  border-spacing: 30px;  
}

# HTML Table Colspan & Rowspan

|  |  |  |
| --- | --- | --- |
| **NAME** | |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **APRIL** |  |  |
|  |  |
|  |  |
|  |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **2022** | | |
|  |  |  |
| **FIESTA** | |  |
|  |
|  |  |  |

## **HTML Table - Colspan**

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

### **Example**

<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>

**Note:** The value of the colspan attribute represents the number of columns to span.

## **HTML Table - Rowspan**

To make a cell span over multiple rows, use the rowspan attribute:

### **Example**

<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>

**Note:** The rowspan attribute's value specifies the number of rows to span.