

# HTML - Tables

**HTML tables** represent data, such as text, images, etc. in a structured format with rows and columns.

**HTML tables** offer a visual structure that aids in clarity and comprehension, making them a fundamental element in web development.



Product	Category	Price
Laptop	Electronics	\$800
Bookshelf	Furniture	\$150
Coffee Maker	Appliances	\$50

## Why HTML Tables are Used?

HTML tables are used for various reasons, primarily centered around organizing and presenting data effectively. Some key purposes include –

- **Structuring Data** – Tables provide a coherent structure for organizing and displaying data, making it easier for users to interpret information.
- **Comparative Presentation** – When there is a need to compare different sets of data side by side like difference between two concepts, tables offer a clear and visually accessible format.
- **Tabular Data Representation** – Information that naturally fits into rows and columns, such as schedules, statistics, or pricing tables, can be well-represented using HTML tables.

## Creating an HTML Table

You can create a table in HTML by using the **<table>** tag along with several tags that define the structure and content inside the table. The primary tags that are used with the **<table>** tag are **<tr>**, **<td>**, and **<th>**.

Creating tables in HTML involves several elements that define the structure and content. The primary tags used are **<table>**, **<tr>**, **<td>**, and **<th>**.

- **HTML <table> Tag:** This tag is used to create the table that wrap the rows and columns within it.
- **HTML <tr> Tag:** Stands for "table row" and is used to create a row within the table.

- **HTML <td> Tag:** Represents "table data" and is used to create standard cells within a row.
- **HTML <th> Tag:** Represents "table header" and is used to create header cells within a row.

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## HTML Table Structure - Rows and Columns

- **Rows:** Each row in an HTML table is defined using the `<tr>` tag. It contains a set of table cells (`<td>` or `<th>`), representing the individual elements within that row.
- **Columns:** The actual data or header information is contained within the table cells. Cells in the same position in different rows form a column.
- A table row is defined by the `<tr>` tag. To set table header, we use `<th>` tag. To insert data in table cell, use the `<td>` tag.
- A table in HTML consists of table cells inside rows and columns of the table.
- Table heading is defined by the `<th>...</th>`. Data inside the `<th>` are the headings of the column of a table.
- Each table cell is defined by a `<td>...</td>` tag. Data inside the `<td>` tag are the content of the table rows and columns.
- Each table row starts with a `<tr> ....</tr>` tag.
- We use style sheet to create border for the table.

## Example

Consider a table representing a simple list of products with their respective categories and prices. This basic table structure organizes data in a clear, tabular format, making it easy to read and understand. Here, the **border** is an attribute of `<table>` tag and it is used to put a border across all the cells. If you do not need a border, then you can use **border="0"**.

</>

Open Compiler

```
<!DOCTYPE html>
<html>
<body>
  <table border="1">
    <tr>
      <th>Product</th>
      <th>Category</th>
      <th>Price</th>
    </tr>
    <tr>
      <td>Laptop</td>
```

```

        <td>Electronics</td>
        <td>$800</td>
    </tr>
    <tr>
        <td>Bookshelf</td>
        <td>Furniture</td>
        <td>$150</td>
    </tr>
    <tr>
        <td>Coffee Maker</td>
        <td>Appliances</td>
        <td>$50</td>
    </tr>
</table>
</body>
</html>

```

## Styling HTML Tables

You can also style an HTML table using CSS properties to give it a custom appearance. Either you can create classes to apply styles on a table, or you can simply write internal CSS properties to style the table.

## Example

In the example below, we are styling the table with some CSS properties to make it stylish:

</>

Open Compiler

```

<!DOCTYPE html>
<html>
<head>
    <style>
    table {
        width: 100%;
        border-collapse: collapse;
        margin-bottom: 20px;
    }
    th, td {
        border: 1px solid #ddd;
        padding: 8px;
        text-align: left;
    }
    th {
        background-color: #f2f2f2;
    }

```

```

    }
    </style>
</head>
<body>
    <h2>HTML Table</h2>
    <p>This table is 3*3 cells including table header.
    <table>
        <tr>
            <th>Header 1</th>
            <th>Header 2</th>
            <th>Header 3</th>
        </tr>
        <tr>
            <td>Data 1</td>
            <td>Data 2</td>
            <td>Data 3</td>
        </tr>
        <tr>
            <td>Data 4</td>
            <td>Data 5</td>
            <td>Data 6</td>
        </tr>
    </table>
</body>
</html>

```

## Table Background Color and Image

You can set the background color and background image of an HTML table by using the CSS and attributes of the **<table>** tag.

### Using Attributes

The following are the attributes that can be used with **<table>** tag to set the background color and/or image:

- **bgcolor**: The **bgcolor** attribute sets the table's background color.

```
<table bgcolor="#f0f0f0">
```

- **background**: The **background** attribute sets a background image.

```
<table background="image.jpg">
```

# Using CSS Properties

Using table tag's attributes is an old (outdated) style. It is recommended that you should use CSS to style an HTML table. The **background-color** and **background-image** properties are used to set background color and image respectively.

```
table {  
  background-color: #f0f0f0;  
  background-image: url('image.jpg');  
}
```

## Example to set table's background color and image using attributes

Here we are setting background color and image for a table using the attributes of <table> tag:

</>

Open Compiler

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>HTML Table Background Color</title>  
</head>  
<body>  
  <table border="1" bordercolor="green" bgcolor="yellow"  
background="/images/test.png">  
    <tr>  
      <th>Column 1</th>  
      <th>Column 2</th>  
      <th>Column 3</th>  
    </tr>  
    <tr>  
      <td rowspan="2">Row 1 Cell 1</td>  
      <td>Row 1 Cell 2</td>  
      <td>Row 1 Cell 3</td>  
    </tr>  
    <tr>  
      <td>Row 2 Cell 2</td>  
      <td>Row 2 Cell 3</td>  
    </tr>  
    <tr>  
      <td colspan="3">Row 3 Cell 1</td>  
    </tr>  
</table>
```

```
</body>
</html>
```

## Example to set table's background color and image using CSS

Here we are setting background color and image for a table using the CSS properties:

```
</>
```

[Open Compiler](#)

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML Table Background Color</title>
  <style>
table {
  background-color: yellow;
  background-image: url('/images/test.png');
}
</style>
</head>
<body>
  <table>
    <tr>
      <th>Column 1</th>
      <th>Column 2</th>
      <th>Column 3</th>
    </tr>
    <tr>
      <td rowspan="2">Row 1 Cell 1</td>
      <td>Row 1 Cell 2</td>
      <td>Row 1 Cell 3</td>
    </tr>
    <tr>
      <td>Row 2 Cell 2</td>
      <td>Row 2 Cell 3</td>
    </tr>
    <tr>
      <td colspan="3">Row 3 Cell 1</td>
    </tr>
  </table>
</body>
</html>
```

## Table Width and Height

The table's width and height can be set using either attributes or CSS properties. These values can be defined in pixels or percentages.

## Using Attributes

The following attributes can set the width and height of a table:

- **width**: It defines the width of the table.

```
<table width="80%">
```

- **height**: It defines the height of the table.

```
<table height="200">
```

## Using CSS

The following CSS properties can set the width and height of a table:

- **width**: It defines the width of the table.

```
table { width: 80%; }
```

- **height**: It defines the height of the table.

```
table { height: 400px; }
```

## Example to set table's width and height using attributes

Here we are setting width (80%) and height (400px) of the table using the <table> tag's attributes:

</>

Open Compiler

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML Table Width/Height</title>
</head>
<body>
  <table border="1" width="80%" height="400">
    <tr>
      <th>Header 1</th>
      <th>Header 2</th>
```

```

    </tr>
    <tr>
        <td>Row 1, Column 1</td>
        <td>Row 1, Column 2</td>
    </tr>
    <tr>
        <td>Row 2, Column 1</td>
        <td>Row 2, Column 2</td>
    </tr>
</table>
</body>
</html>

```

## Example to set table's width and height using CSS

Here we are setting width (80%) and height (400px) to the table using the CSS properties:

</>

Open Compiler

```

<!DOCTYPE html>
<html>
<head>
    <title>HTML Table Width/Height</title>
    <style>
        table{
            width: 80%;
            height: 400px;
        }
    </style>
</head>
<body>
    <table border="1">
        <tr>
            <th>Header 1</th>
            <th>Header 2</th>
        </tr>
        <tr>
            <td>Row 1, Column 1</td>
            <td>Row 1, Column 2</td>
        </tr>
        <tr>
            <td>Row 2, Column 1</td>
            <td>Row 2, Column 2</td>
        </tr>
    </table>

```



```
</body>
</html>
```

## HTML Nested Tables

Nested HTML tables refer to create tables inside a table. You can create tables inside a table by using the **<table>** tag inside any **<td>** tag, it creates another table in the main table's cell.

### Example

In the following example, we are creating nested tables:

```
</>
```

[Open Compiler](#)

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML Nested Tables</title>
</head>

<body>
  <table border=1>
    <tr>
      <td> First Column of Outer Table </td>
      <td>
        <table border=1>
          <tr>
            <td> First row of Inner Table </td>
          </tr>
          <tr>
            <td> Second row of Inner Table </td>
          </tr>
        </table>
      </td>
    </tr>
    <tr>
      <td>
        <table border=1>
          <tr>
            <td> First row of Inner Table </td>
          </tr>
          <tr>
            <td> Second row of Inner Table </td>
          </tr>
        </table>
      </td>
    </tr>
  </table>
```

```
        </td>
        <td> First Column of Outer Table </td>

    </tr>
</table>
</body>

</html>
```

## Table-related Tags Reference

The following are the table-related tags. You can click on the link to read about the specific tag and click on "Try It" to practice its example:

Tag	Description	Example
<table>	It is used to create HTML table.	<a href="#">Try It</a>
<th>	This tag defines the header of the table.	<a href="#">Try It</a>
<tr>	This tag defines a table row.	<a href="#">Try It</a>
<td>	This tag is used to store table data of each cell.	<a href="#">Try It</a>
<caption>	This tag specifies the caption for the table.	<a href="#">Try It</a>
<colgroup>	This tag describes the collection of one or more columns in a table for formatting.	<a href="#">Try It</a>
<col>	This tag is used to offer information about columns.	<a href="#">Try It</a>
<thead>	This tag is used to define table header section.	<a href="#">Try It</a>
<tbody>	This tag is used to define table body section.	<a href="#">Try It</a>

**<tfoot>**

This tag is used to define the table footer section.

Try  
It