

Lesson:

HTML Table



Topics Covered

- Introduction to table tag and its Attributes
- Simple Table
- Expanding Cells
- Adding Caption
- Giving Structure to Table (thead, tfoot, tbody)

Introduction to <table> Tag

A table is a structural set of data made up of rows and columns. A table allows you to quickly and easily look up values that indicate some kind of connection between different types of data.

For example : Storing tabular data, like a person and their age, or a day of the week, or the timetable for a local swimming pool.

The HTML table tag has a lot of attributes like **bgcolor, bordercolor, cellborder, frame, rules, width, height, align, valign** etc. but majority of them are deprecated in favour of using CSS to style the table.

Simple Table

Lets understand with this one example,

Name	Age	City
John	25	New York
Jane	30	Los Angeles
Michael	22	Chicago

Suppose, we want to display the above table in HTML. To construct tables in HTML, we use **<table>, <tr>, <th>, and <td>** tags.

table.html

```
Unset
<!DOCTYPE html>
<html>
<head>
  <title>Simple HTML Table</title>
</head>
<body>
  <h1>Simple HTML Table</h1>
  <table border="1">
    <tr>
      <th>Name</th>
      <th>Age</th>
      <th>City</th>
    </tr>
    <tr>
      <td>John</td>
      <td>25</td>
      <td>New York</td>
    </tr>
  </table>

```

```
<tr>
  <td>Jane</td>
  <td>30</td>
  <td>Los Angeles</td>
</tr>
<tr>
  <td>Michael</td>
  <td>22</td>
  <td>Chicago</td>
</tr>
</table>
</body>
</html>
```

Browser Output:

Simple HTML Table

Name	Age	City
John	25	New York
Jane	30	Los Angeles
Michael	22	Chicago

In above example,

- The **<table>** element is used to create a table in HTML.
- The **<tr>** element represents a row in the table.
- The **<th>** element represents a header cell in the table, and is typically used in the first row to label the columns.
- The **<td>** element represents a data cell in the table, and is used to display the actual data in the table.

Expanding Cells

We can expand any table cells across multiple columns and rows using attributes **rowspan** and **colspan**,

Lets understand it through example,
demo.html

Unset

```
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <title>Products table</title>
    <link href="minimal-table.css" rel="stylesheet"
type="text/css">
  </head>
  <body>
    <h1>Products table</h1>
    <table border="1">
      <tr>
        <th>Product Name</th>
        <th>Brand</th>
        <th>Price</th>
      </tr>
      <tr>
        <td>Product 1</td>
        <td>Brand 1</td>
        <td>$10.00</td>
      </tr>
      <tr>
        <td>Product 2</td>
        <td>Brand 2</td>
        <td>$20.00</td>
      </tr>
      <tr>
        <td>Product 3</td>
        <td>Brand 3</td>
        <td>$30.00</td>
      </tr>
      <tr>
        <td>Product 4</td>
        <td>Brand 4</td>
        <td>$50.00</td>
      </tr>
      <tr>
        <td colspan="2">Sum</td>
        <td>$110.00</td>
      </tr>
    </table>
  </body>
</html>
```

Browser Output:

Products Data

Product Name	Brand	Price
Product 1	Brand 1	\$10.00
Product 2	Brand 2	\$20.00
Product 3	Brand 3	\$30.00
Product 4	Brand 4	\$50.00
Sum		\$110.00

In the above example, the last row 1st cell is expanded across two columns, using **colspan="2"** attribute.

Similarly we can expand any cell across multiple rows also, using **rowspan** attribute.

Adding a caption

To add a **caption** to your table, simply enclose the caption text within a `<caption>` element and place it within the **<table>** element.

Let's add a caption to our product table,

```
Unset
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <title>Products table</title>
    <link href="minimal-table.css" rel="stylesheet"
type="text/css">
  </head>
  <body>
    <h1>Products table</h1>
    <table border="1">

      <caption>
        Products Data
      </caption>

      <tr>
        <th>Product Name</th>
        <th>Brand</th>
        <th>Price</th>
      </tr>
```

```

<tr>
  <td>Product 1</td>
  <td>Brand 1</td>
  <td>$10.00</td>
</tr>
<tr>
  <td>Product 2</td>
  <td>Brand 2</td>
  <td>$20.00</td>
</tr>
<tr>
  <td>Product 3</td>
  <td>Brand 3</td>
  <td>$30.00</td>
</tr>
<tr>
  <td>Product 4</td>
  <td>Brand 4</td>
  <td>$50.00</td>
</tr>
<tr>
  <td colspan="2">Sum</td>
  <td>$110.00</td>
</tr>
</table>
</body>
</html>

```

Browser Output:-

Products Data

Product Name	Brand	Price
Product 1	Brand 1	\$10.00
Product 2	Brand 2	\$20.00
Product 3	Brand 3	\$30.00
Product 4	Brand 4	\$50.00
Sum		\$110.00

Giving Structure to Table

As your tables become more complicated in structure, it can be beneficial to provide them with additional structural definition.

One effective approach is to utilise HTML elements such as **<thead>**, **<tfoot>**, and **<tbody>**, which enable you to designate a header, footer, and body section for your table, respectively.

Let's add structure to our products table,
demo.html

```
Unset
<!DOCTYPE html>
<html lang="en-us">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <title>Products table</title>
    <link href="minimal-table.css" rel="stylesheet"
type="text/css">
  </head>
  <body>
    <table border="1">
      <caption>
        Products Data
      </caption>
      <thead>
        <tr>
          <th>Product Name</th>
          <th>Brand</th>
          <th>Price</th>
        </tr>
      </thead>
      <tfoot>
        <tr>
          <td colspan="2">Sum</td>
          <td>$110.00</td>
        </tr>
      </tfoot>
      <tbody>
        <tr>
          <td>Product 1</td>
          <td>Brand 1</td>
          <td>$10.00</td>
        </tr>
        <tr>
          <td>Product 2</td>
          <td>Brand 2</td>
          <td>$20.00</td>
        </tr>
        <tr>
          <td>Product 3</td>
          <td>Brand 3</td>
          <td>$30.00</td>
        </tr>
        <tr>
          <td>Product 4</td>
          <td>Brand 4</td>
          <td>$50.00</td>
        </tr>
      </tbody>
    </table>
  </body>
</html>
```

Browser Output:-

Products Data

Product Name	Brand	Price
Product 1	Brand 1	\$10.00
Product 2	Brand 2	\$20.00
Product 3	Brand 3	\$30.00
Product 4	Brand 4	\$50.00
Sum		\$110.00

In above example,

1. **<thead>**: This element is used to define the header section of a table, which typically contains one or more rows that serve as labels for the columns of the table.
2. **<tbody>**: This element is used to group the body content of a table, which includes the actual data rows.
3. **<tfoot>**: This element is used to define the footer section of a table, which typically contains summary or aggregate information about the data in the table.

But Wait! There is no difference in browser output after applying structural tags in the products table.

Yes, these elements do not make any semantic or visual difference, they are just used to style different parts of the table effectively.