**TABLE**

**What is HTML table?**

A table is a data structure used to organize information. Html tables are used to help web developers organize data in rows and columns. Each row represents a unique record, and each column represents a field in the record.

To create the table we will use different tags, where the main one is <table> </table>.

**Different types of Table elements:**

<tr> tag = Table row

<th> tag = header cell

<td> tag = data cell

<thead> tag = header

<tbody> tag = body

**What is <tr> tag?**

The <tr> (Table row) tag defines a row of cells in a table. The row's cells can then be established using a mix of <td> (data cell) and <th> (header cell) elements.

Example:- Syntax

<table>

<tr>

<th>Header 1</th>

<th>Header 2</th>

<!-- More header cells if needed -->

</tr>

<tr>

<td>Row 1, Cell 1</td>

<td>Row 1, Cell 2</td>

<!-- More data cells if needed -->

</tr>

<!-- More rows if needed -->

</table>

Example:-

<table>

<tr>

<th>Name</th>

<th>Age</th>

<th>Country</th>

</tr>

<tr>

<td>suraj </td>

<td>30</td>

<td>india</td>

</tr>

<tr>

<td>Aman</td>

<td>25</td>

<td>india</td>

</tr>

</table>

**What is <td> tag?**

The <td> (table data) tag defines a cell of a table that contains data. It is used inside a <tr> (table row) tag to create a data cell in the specified row.

**syntax:-**

<table>

<tr>

<td>

...........

</td>

</tr>

</table>

**Attributes:**

colspan: Defines the number of columns a cell should span

rowspan: Defines the number of rows a cell should span

headers: Defines one or more header cells a cell .

**Now lets implement the <td> tag using colspan attribute:**

Example:-

<table border="1">

<tr>

<th colspan="2">Header spanning two columns</th>

</tr>

<tr>

<td>Row 1, Column 1</td>

<td>Row 1, Column 2</td>

</tr>

<tr>

<td colspan="2">Footer spanning two columns</td>

</tr>

</table>

In the above code we have assigned the "2" as the value of colspan attribute of <th> tag & <td> tag for instructing it to span on two columns in one time for denoting the collective heading & footer line of both columns.

**Now lets implement the <td> tag using rowspan attribute:**

<table border="1">

<tr>

<td rowspan="2">Savings</td>

<td>Month 1</td>

<td>100</td>

</tr>

<tr>

<td>Month 2</td>

<td>150</td>

</tr>

</table>

In the above code we have assigned the "2" as the value of rowspan attribute for instructing it to span on two columns in one time for denoting the collective summation of savings.

Now we know how <td> tag works with attributes. Similarly you can apply other attributes to <td> tag.

**What is <th> tag?**

The <th> (table header) tag defines a cell of a table as header of a group of data cells. It is used inside a <tr> (table row) tag to create a header cell in the specified row.

**Attributes we use inside <th> tag:**

colspan: It is used for defining number of columns a header cell should span.

headers: It is used to specify one or more header cells a cell is linked to

rowspan: It is used to set / define number of rows a header cell should span

scope: It is used to specify the score of header content.

Example for learning about implementation of <th> tag:

<body>

<h2>Fruit Inventory</h2>

<table border="1">

<tr>

<th>Fruit</th>

<th>Quantity</th>

</tr>

<tr>

<td>Apple</td>

<td>50</td>

</tr>

<tr>

<td>Orange</td>

<td>30</td>

</tr>

<tr>

<td>Banana</td>

<td>20</td>

</tr>

</table>

In this example:

The table has two columns: "Fruit" and "Quantity".

The <th> tags are used in the first row to define the **column headers.**

The <td> tags are used in subsequent rows to define **the table data.**

The table is enclosed within <table> tags, and rows are defined with <tr> tags.

The table border is set to "1" for visual clarity, but you can adjust this according to your preferences.

**Now lets implement the table using colspan attribute:**

<body>

<h2>Fruit Inventory</h2>

<table border="1">

<tr>

<th colspan="2">Fruit Details</th>

</tr>

<tr>

<th>Fruit</th>

<th>Quantity</th>

</tr>

<tr>

<td>Apple</td>

<td>50</td>

</tr>

<tr>

<td>Orange</td>

<td>30</td>

</tr>

<tr>

<td>Banana</td>

<td>20</td>

</tr>

</table>

</body>

In the above code we have assigned the "2" as the value of colspan attribute for instructing it to span on two columns in one time for denoting the collective heading of both columns.

**Now lets implement the table using rowspan attribute:**

<body>

<h2>Content with Spanned Heading</h2>

<table border="1">

<tr>

<th rowspan="4">Side Heading</th>

<th>Column 1</th>

<th>Column 2</th>

<th>Column 3</th>

</tr>

<tr>

<td>Row 1, Col 1</td>

<td>Row 1, Col 2</td>

<td>Row 1, Col 3</td>

</tr>

<tr>

<td>Row 2, Col 1</td>

<td>Row 2, Col 2</td>

<td>Row 2, Col 3</td>

</tr>

<tr>

<td>Row 3, Col 1</td>

In the above code we have assigned the "4" as the value of rowspan attribute for instructing it to span on four columns (First one is heading row & another three are content row) in one time for denoting the collective side heading for whole content.

**What is <tbody> tag?**

The <tbody> tag encapsulates a set of table rows (<tr> elements), indicating that they comprise the body of the table (<table>).

<tbody> tag is used to indicate the group of body element of HTML table.

**Example for learning about implementation of <tbody> tag:**

<body>

<h2>Sample Table</h2>

<table border="1">

<thead>

<tr>

<th>Header 1</th>

<th>Header 2</th>

<th>Header 3</th>

</tr>

</thead>

<tbody>

<tr>

<td>Row 1, Col 1</td>

<td>Row 1, Col 2</td>

<td>Row 1, Col 3</td>

</tr>

<tr>

<td>Row 2, Col 1</td>

<td>Row 2, Col 2</td>

<td>Row 2, Col 3</td>

</tr>

</tbody>

</table>

</body>