

# HTML Tables Masterclass

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## 1. What is a Table?

A table is an arrangement of data in the form of **Rows** and **Columns**.

- **Row:** Horizontal direction (Left to Right).
- **Column:** Vertical direction (Top to Bottom).
- **Cell:** The smallest unit (box) in a table.

## 2. Basic Tags

| Tag Name                   | Description  |
|----------------------------|--|
| <code>&lt;table&gt;</code> | Defines the container for the table.                                 |
| <code>&lt;tr&gt;</code>    | <b>Table Row.</b> Used to create a new row.                          |
| <code>&lt;th&gt;</code>    | <b>Table Header.</b> Used for headings (bold & centered by default). |
| <code>&lt;td&gt;</code>    | <b>Table Data.</b> Used for standard cells containing data.          |

## 3. Semantic Tags (Best Practices)

To make the code readable and SEO friendly, we divide the table into 3 parts:

- **<thead>** : Contains the header rows (headings).
- **<tbody>** : Contains the main body/content of the table.
- **<tfoot>** : Contains summary or footer information (e.g., Total).

## 4. Important Attributes: Rowspan & Colspan

**Golden Rule:** If you want to expand a cell, you must count how many cells it "eats up".

### A. Rowspan (Vertical Expansion)

Used when a cell needs to stretch downwards across multiple rows.

**Syntax:** `<td rowspan="2">` (Merges 2 rows)

### B. Colspan (Horizontal Expansion)

Used when a cell needs to stretch sideways across multiple columns.

**Syntax:** `<td colspan="3">` (Merges 3 columns)

## 5. Practical Code Example

Here is an example structure combining all concepts taught by Saurabh Sir:

```
<table border="1">
  <thead>
    <tr>
      <th>Name</th>
      <th>Position</th>
      <th>Salary</th>
    </tr>
  </thead>
```

```

<tbody>
    <!-- Row 1 -->
    <tr>
        <td>Bill Gates</td>
        <td>Founder</td>
        <td>$1000</td>
    </tr>
    <!-- Row 2: Using Rowspan -->
    <tr>
        <td>Steve Jobs</td>
        <!-- This cell spans 2 rows vertically -->
        <td rowspan="2">Founder</td>
        <td>$1200</td>
    </tr>
    <!-- Row 3 -->
    <tr>
        <td>Mark</td>
        <!-- Skipped Position cell because previous row ate it -->
        <td>$1300</td>
    </tr>
</tbody>
<tfoot>
    <tr>
        <!-- Using Colspan -->
        <td colspan="2">Total Expense</td>
        <td>$3500</td>
    </tr>
</tfoot>
</table>

```

## 6. Visual Output of Above Code

This is how the above code renders in the browser:

| Name                             | Position | Salary        |
|----------------------------------|----------|---------------|
| Bill Gates                       | Founder  | \$1000        |
| <b>Total Expense (colspan=2)</b> |          | <b>\$3500</b> |

| Name                             | Position            | Salary        |
|----------------------------------|---------------------|---------------|
| Steve Jobs                       | Founder (rowspan=2) | \$1200        |
| Mark                             |                     | \$1300        |
| <b>Total Expense (colspan=2)</b> |                     | <b>\$3500</b> |

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