

# HTML TABLE

**Q1.** Explain the structure of an HTML table and the purpose of each of the following elements: <table>, <tr>, <th>, <td> and <thead>.

**ANS.** An HTML table is used to display data in a grid format rows and columns making it easy to organize and compare information.

## Purpose of elements :

**<Table> - Table Container :-**

It defines the start and end of the table. All table-related elements <tr> <th> <td> <thead> <tbody> must be inside it. Ex. <table> </table>

**<Tr> - table row :-**

Defines a single row of cells in the table. Groups together table cells <th> OR <td> horizontally.

Ex. :-

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

**<Th> - table head :-**

Defia header cell in a table. Usually appears in the first row or first column; the text inside is bold and centered by default.

Ex. :-

```
<tr>
  <th>Name</th>
  <th>Age</th>
</tr>
```

**<Td> - table data :-**

Defines a regular cell in a table containing data. Holds actual table content like text, images, links, etc..

Ex. :-

```
<tr>
  <td>John</td>
  <td>25</td>
</tr>
```

<Thead> - table head :-

Groups the header rows of the table. Helps organize and semantically separate the table's heading section from the main body.

Ex. :-

```
<thead>
  <tr>
    <th>name</th>
  </tr>
</thead>
```

**Q2.** What is the difference between colspan and rowspan in tables?  
Provide examples.

**ANS.**

**Colspan :-**

It merges cells horizontally. It is use when you want one cell to cover more than one column.

Ex. :-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Colspan</title>
</head>
<body>
  <table border="1">
```

```

<tr>
  <th colspan="2">Name</th>
  <th>Age</th>
</tr>
<tr>
  <td>John</td>
  <td>Smith</td>
  <td>25</td>
</tr>
</table>
</body>
</html>

```

### Rowspan :-

Merges cells vertically (across rows). It is used when you want one cell to cover more than one row.

Ex. :-

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Colspan</title>
</head>
<body>
<table border="1">
  <tr>
    <th rowspan="2">Name</th>
    <th>Math</th>
    <th>Science</th>
  </tr>
  <tr>
    <th>History</th>
    <th>English</th>
  </tr>
</table>
</body>

```

</html>

**Q3.** : Why should tables be used sparingly for layout purposes? What is a better alternative?

**ANS.**

**Tables should be used sparingly for layout because :**

They're meant for data, not design – Tables were created to show tabular data (like schedules, price lists, comparisons), not to arrange the look of a webpage.

They make code messy – Using tables for layout creates a lot of extra HTML tags, which makes your code harder to read, edit, and maintain.

Bad for accessibility – Screen readers and assistive technologies expect tables to have data, so when you use them for layout, it can confuse users with disabilities.

Not mobile-friendly – Tables don't adapt well to small screens. They can force horizontal scrolling or break the layout on phones.

**Better alternative :**

Use CSS (Cascading Style Sheets) with CSS grid. These are modern, responsive tools made specifically for layout, so pages look better on all devices and are easier to maintain.