

# HTML Tables

## Question 1: Structure of an HTML Table and Purpose of Elements

An HTML table is used to display data in a structured row and column format. The basic structure consists of several elements:

Main Table Elements:

- `<table>`: The main container that holds all table data.
- `<tr>` (Table Row): Represents a single row in the table.
- `<th>` (Table Header Cell): Defines a header cell, usually bold and centered by default.
- `<td>` (Table Data Cell): Defines a standard cell to hold data in a row.
- `<thead>` (Table Head Section): Groups the header rows together, improving structure and readability.

## Question 2: Difference Between `colspan` and `rowspan`

Both `colspan` and `rowspan` help merge table cells, but they do so in different directions:

- `colspan`: Expands a cell horizontally across multiple columns.
- `rowspan`: Expands a cell vertically across multiple rows.

## Question 3: Why Should Tables Be Used Sparingly for Layout?

Tables were historically used for page layout, but they come with several drawbacks:

- **Poor Accessibility**: Screen readers have difficulty interpreting table-based layouts.
- **Bad for Responsive Design**: Tables don't adapt well to different screen sizes.

- **Hard to Maintain:** Changing the layout requires modifying many `<td>` and `<tr>` elements.
- **Slower Page Load:** Extra markup increases page size and complexity.