Table Elements, Structuring, Data, Spanning, and Formatting

Table Elements

Tables are defined using the <table> tag in HTML. Within this, several elements are used to structure the table:

<table>: Defines the entire table.

<caption>: Defines a caption for the table.

<thead>: Groups the header content in a table.

<tbody>: Groups the body content in a table.

<tfoot>: Groups the footer content in a table.

<tr>: Defines a table row.

<th>: Defines a table header cell.

<td>: Defines a table data cell.

<colgroup>: Groups a set of columns within a table for styling purposes.

<col>: Specifies column properties for each column within a <colgroup> element.

Structuring a Table

A basic table structure looks like this:

HTML

<table>

<caption>My Table</caption>

<thead>

<tr>

<th>Column 1</th>

<th>Column 2</th>

</tr>

</thead>

<tbody>

<tr>

<td>Data 1</td>

<td>Data 2</td>

</tr>

<tr>

<td>Data 3</td>

<td>Data 4</td>

</tr>

</tbody>

</table>

Use code with caution.

Table Data

Table data is placed within <td> elements. You can include any HTML content within these cells, including text, images, links, and even other tables.

HTML

<table>

<tr>

<td>This is a simple text cell</td>

<td><img src="image.jpg" alt="Image"></td>

<td><a href="https://example.com">Link</a></td>

</tr>

</table>

Use code with caution.

Spanning Columns and Rows

Colspan: Merges multiple columns into a single cell.

Rowspan: Merges multiple rows into a single cell.

HTML

<table>

<tr>

<th colspan="2">Merged Header</th>

</tr>

<tr>

<td>Data 1</td>

<td>Data 2</td>

</tr>

<tr>

<td rowspan="2">Data 3</td>

<td>Data 4</td>

</tr>

<tr>

<td>Data 5</td>

</tr>

</table>

Use code with caution.

Formatting Tables

While basic styling can be achieved with HTML attributes like border, cellspacing, and cellpadding, CSS offers much more flexibility and control.

CSS

table {

border-collapse: collapse;

width: 100%;

}

th, td {

border: 1px solid black;

padding: 8px;

text-align: left;

}

Use code with caution.

Advanced Table Structuring and Formatting

Complex Table Structures: Use nested tables, colgroup and col elements for advanced layouts.

Styling with CSS: Explore CSS Grid or Flexbox for more complex table designs.

Accessibility: Ensure tables are accessible by using appropriate summary and scope attributes, as well as providing alternative content for screen readers.

Responsive Design: Use media queries to adjust table layout for different screen sizes.

Data Tables: Consider using JavaScript libraries like DataTables for interactive tables with features like sorting, filtering, and pagination.

Example of an Advanced Table

HTML

<table>

<colgroup>

<col style="width: 20%;">

<col style="width: 30%;">

<col style="width: 50%;">

</colgroup>

<thead>

<tr>

<th>Product</th>

<th>Price</th>

<th>Description</th>

</tr>

</thead>

<tbody>

<tr>

<td>Product A</td>

<td>$19.99</td>

<td rowspan="2">Lorem ipsum dolor sit amet, consectetur adipiscing elit.</td>

</tr>

<tr>

<td>Product B</td>

<td>$29.99</td>

</tr>

</tbody>

</table>

Use code with caution.

Key points to remember:

Use tables for tabular data, not for layout purposes.

Structure your tables clearly with headers and appropriate elements.

Format your tables with CSS for better control and responsiveness.

Consider accessibility when creating tables.

Explore advanced techniques for complex table layouts and interactions.

By following these guidelines, you can create well-structured, informative, and visually appealing tables.

he <colgroup> element is used to style specific columns of a table.

## HTML Table Colgroup

If you want to style the two first columns of a table, use the <colgroup> and <col> elements.

| **MON** | **TUE** | **WED** | **THU** | **FRI** | **SAT** | **SUN** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |

The <colgroup> element should be used as a container for the column specifications.

Each group is specified with a <col> element.

The span attribute specifies how many columns that get the style.

The style attribute specifies the style to give the columns.

Note: There is a very limited selection of [legal CSS properties for colgroups](https://www.w3schools.com/html/html_table_colgroup.asp#legalcss).

### Example

<table>

<colgroup>

<col span="2" style="background-color: #D6EEEE">

</colgroup>

<tr>

<th>MON</th>

<th>TUE</th>

<th>WED</th>

<th>THU</th>

...

[Try it Yourself »](https://www.w3schools.com/html/tryit.asp?filename=tryhtml_table_colgroup1)

Note: The <colgroup> tag must be a child of a <table> element and should be placed before any other table elements, like <thead>, <tr>, <td> etc., but after the <caption> element, if present.

## Legal CSS Properties

There is only a very limited selection of CSS properties that are allowed to be used in the colgroup:

[width](https://www.w3schools.com/cssref/pr_dim_width.php) property  
[visibility](https://www.w3schools.com/cssref/pr_class_visibility.php) property  
[background](https://www.w3schools.com/cssref/css3_pr_background.php) properties  
[border](https://www.w3schools.com/cssref/pr_border.php) properties

#### 

#### 

#### 