



Day 5

“Web Development + Security”

Tables:

What is a table in HTML?

In HTML, a table is used to organize data into rows and columns, like a grid. It’s created with the `<table>` tag and contains:

- `<tr>` → table row
- `<td>` → table data (cell)
- `<th>` → table header (for column titles, usually bold & centered)

Example:

```
index.html > html > body
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <table border="1">
10     <tr>
11       <th>Header 1</th>
12       <th>Header 2</th>
13     </tr>
14     <tr>
15       <td>Row 1, Cell 1</td>
16       <td>Row 1, Cell 2</td>
17     </tr>
18     <tr>
19       <td>Row 2, Cell 1</td>
20       <td>Row 2, Cell 2</td>
21     </tr>
22   </table>
23 </body>
24 </html>
```

Header 1	Header 2
Row 1, Cell 1	Row 1, Cell 2
Row 2, Cell 1	Row 2, Cell 2

Attribute / Tag	Use Case	Example
<code><table></code>	Main container for the table	<code><table border="1"></code>
<code><tr></code>	Defines a row	<code><tr> ... </tr></code>
<code><th></code>	Table header cell (bold & centered by default)	<code><th>Name</th></code>
<code><td></code>	Table data cell	<code><td>Aditya</td></code>
border (HTML) / CSS border	Adds border around table/cells (prefer CSS in modern HTML)	<code><table border="1"></code> or <code>table { border: 1px solid black; }</code>
colspan	Cell spans multiple columns	<code><td colspan="2">Merged Cell</td></code>

Attribute / Tag	Use Case	Example
rowspan	Cell spans multiple rows	<td rowspan="2">Merged Cell</td>
cellpadding	Space between cell content and border (use CSS: padding)	<table cellpadding="10">
cellspacing	Space between table cells (use CSS: border-spacing)	<table cellspacing="5">
<caption>	Adds a title/caption to the table	<caption>User Info</caption>

Example: Showing use of rowspan and colspan

The screenshot shows a code editor with the following HTML code:

```

2 <html lang="en">
8 <body>
24 <table border="1">
25 <tr>
26 <th rowspan="2">Header 1</th>
27 <th colspan="2">Header 2</th>
28 </tr>
29 <tr>
30 <td>Subheader 1</td>
31 <td>Subheader 2</td>
32 </tr>
33 <tr>
34 <td>Row 1, Cell 1</td>
35 <td>Row 1, Cell 2</td>
36 <td>Row 1, Cell 3</td>
37 </tr>
38 <tr>
39 <td>Row 2, Cell 1</td>
40 <td>Row 2, Cell 2</td>
41 <td>Row 2, Cell 3</td>
42 </tr>
43 </body>
44 </html>

```

The preview shows the rendered table:

Header 1	Header 2	
	Subheader 1	Subheader 2
Row 1, Cell 1	Row 1, Cell 2	Row 1, Cell 3
Row 2, Cell 1	Row 2, Cell 2	Row 2, Cell 3

Example: Where one required cell is missing

The screenshot shows a code editor with the following HTML code:

```

2 <html lang="en">
8 <body>
24 <table border="1">
25 <tr>
26 <th rowspan="2">Header 1</th>
27 <th colspan="2">Header 2</th>
28 </tr>
29 <tr>
30 <td>Subheader 1</td>
31 <!-- <td>Subheader 2</td> -->
32 </tr>
33 <tr>
34 <td>Row 1, Cell 1</td>
35 <td>Row 1, Cell 2</td>
36 <td>Row 1, Cell 3</td>
37 </tr>
38 <tr>
39 <td>Row 2, Cell 1</td>
40 <td>Row 2, Cell 2</td>
41 <td>Row 2, Cell 3</td>
42 </tr>
43 </body>
44 </html>

```

The preview shows the rendered table:

Header 1	Header 2	
	Subheader 1	
Row 1, Cell 1	Row 1, Cell 2	Row 1, Cell 3
Row 2, Cell 1	Row 2, Cell 2	Row 2, Cell 3

Example: showing use of caption

The screenshot shows a web browser window with a single tab titled 'index.html'. The address bar displays 'http://127.0.0.1:3000/index.html?'. The page content is a table with a caption 'Sample Table with Merged Cells'. The table has two columns: 'Header 1' and 'Header 2'. The first row contains 'Subheader 1' and 'Subheader 2'. The second row contains 'Row 1, Cell 1', 'Row 1, Cell 2', and 'Row 1, Cell 3'. The third row contains 'Row 2, Cell 1', 'Row 2, Cell 2', and 'Row 2, Cell 3'. The table is styled with a border of 1 pixel.

```
2 <html lang="en">
8 <body>
24 <table border="1">
25 <caption>Sample Table with Merged Cells</caption>
26 <tr>
27 <th rowspan="2">Header 1</th>
28 <th colspan="2">Header 2</th>
29 </tr>
30 <tr>
31 <td>Subheader 1</td>
32 <td>Subheader 2</td>
33 </tr>
34 <tr>
35 <td>Row 1, Cell 1</td>
36 <td>Row 1, Cell 2</td>
37 <td>Row 1, Cell 3</td>
38 </tr>
39 <tr>
40 <td>Row 2, Cell 1</td>
41 <td>Row 2, Cell 2</td>
42 <td>Row 2, Cell 3</td>
43 </tr>
44 </body>
45 </html>
```

Example: showing use of <thead>, <tbody> and <tfoot>

The screenshot shows a web browser window with a single tab titled 'index.html'. The address bar displays 'http://127.0.0.1:3000/index.html?'. The page content is a table with a border of 1 pixel. The table has two columns: 'Item' and 'Price'. The first row contains 'Apple' and '\$2'. The second row contains 'Banana' and '\$1'. The third row contains 'Orange' and '\$3'. The fourth row contains 'Total' and '\$6'. The table is styled with a border of 1 pixel.

```
2 <html lang="en">
10 <body>
47 <table border="1">
48 <thead>
49 <tr>
50 <th>Item</th>
51 <th>Price</th>
52 </tr>
53 </thead>
54 <tbody>
55 <tr>
56 <td>Apple</td>
57 <td>$2</td>
58 </tr>
59 <tr>
60 <td>Banana</td>
61 <td>$1</td>
62 </tr>
63 <tr>
64 <td>Orange</td>
65 <td>$3</td>
66 </tr>
67 </tbody>
68 <tfoot>
69 <tr>
70 <td>Total</td>
71 <td>$6</td>
72 </tr>
73 </tfoot>
74 </table>
75 </body>
76 </html>
```

Security Best Practices for Tables

- Always sanitize user input before showing it in <td> or <th>.
- Use semantic tags (<thead>, <tbody>, <tfoot>) to keep data structured and prevent confusion.
- Don't use tables for layout/design, only for data.
- Use HTTPS if table data is fetched from APIs (prevents tampering).
- Escape special characters (<, >, ", etc.) when inserting data into a table dynamically.

--The End--