

TECHNOLOGY



Caltech | **Center for Technology & Management Education**

Full Stack Java Developer

TECHNOLOGY



HTML

Tables in HTML



Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Create a basic structure for the website
- 👁 Understand the importance of using tables to arrange complicated information
- 👁 Learn to practice various operations on tables



Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Learn how to change the table colors using the various tags available in HTML
- 👁 Learn to insert captions in a table
- 👁 Learn to use the table tag and text wrapping to create a table in HTML



A Day in the Life of a Full Stack Developer

You have been hired as a full-stack developer to work on an employee management web application project that uses HTML and CSS. The organization stores data about its employees and the companies they work for in tables.

Your task is to display this data in the web application. To accomplish this, you need to understand how tables work in HTML.



Table Tag

Table Tag

The <table> tag is used to create a table in HTML.

Tag	Description

Header: <th>

Row: <tr>

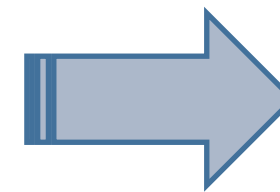
Cells: <td>

<td> tag can hold a variety of HTML elements other than text.

Table Tag

Example: Creating a table containing student details:

```
<!DOCTYPE html>
<html>
<style>
table, th, td {
border:1px solid black;      }
</style>
<body>
<h3>Student Details</h3>
<table style="width:50%">
  <tr>
    <th>Name</th>
    <th>Class</th>
    <th>Roll No</th>  </tr>
  <tr>
    <th>John</th>
    <th>XII</th>
    <th>24</th>  </tr>
</table></body> </html>
```



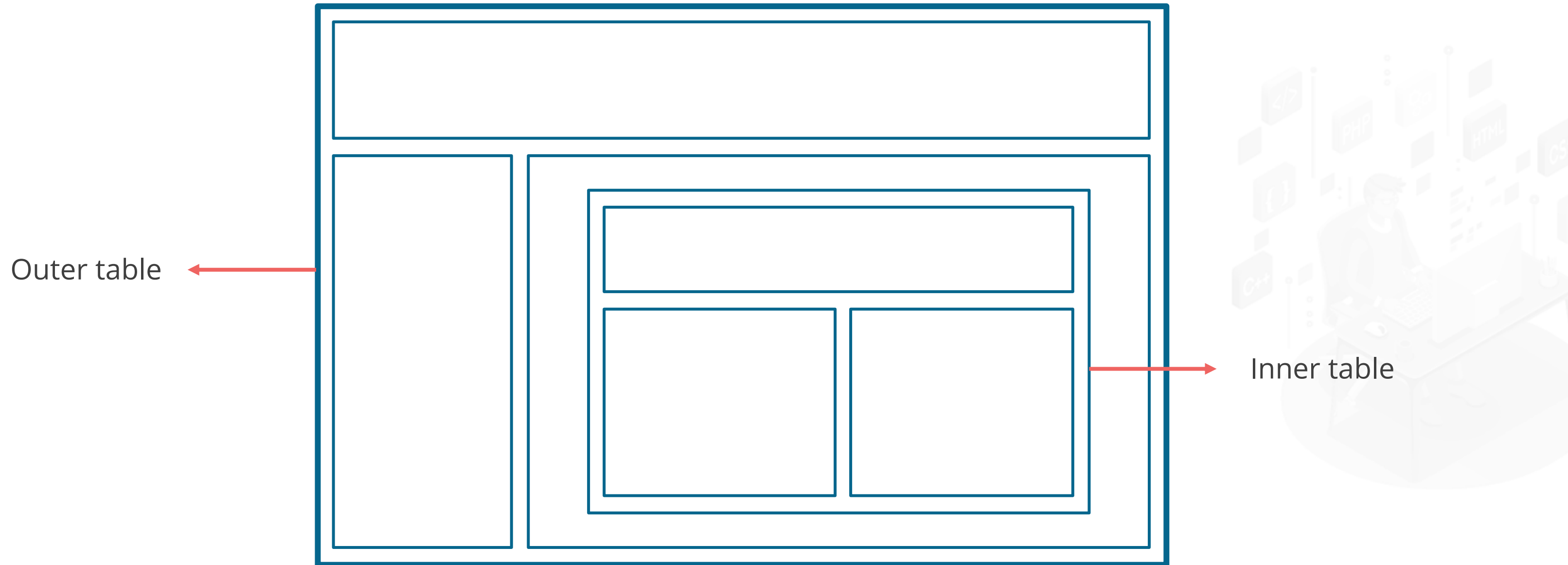
Output

Student Details

Name	Class	Roll No
John	XII	24

Table Tag

Tables help to organize content in rows and columns.

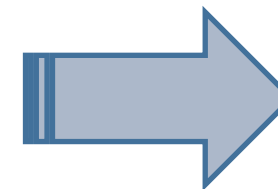


To create a nested table, build a table with the `<table>` tag.

Table Tag

Example:

```
<!DOCTYPE html>
<html>
<body>
<table border="2" bordercolor="green">
<tr>
<td>Table 1</td>
<td> Table 1
<table border="2" bordercolor="blue"> <tr>
<td>Table 2</td>
<td>Table 2</td></tr>
<tr>
<td>Table 2</td>
<td>Table 2</td></tr></table></td></tr>
<tr>
<td>Table 2</td>
<td>Table 2</td></tr></table></td></tr>
<tr>
<td> Table 1 </td>
<td> Table 1 </td>
</tr></table></body></html>
```



Output

	Table 1				
Table 1	<table><tr><td>Table 2</td><td>Table 2</td></tr><tr><td>Table 2</td><td>Table 2</td></tr></table>	Table 2	Table 2	Table 2	Table 2
Table 2	Table 2				
Table 2	Table 2				
Table 1	Table 1				

Table Background Color

Table Background Color

Cascading Style Sheets (CSS) are used to define the table background color.

It is used to change the color of a table, row, column, or even a single cell.

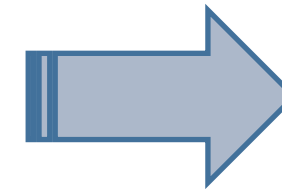
Tag	Description



Table Background Color

Example:

```
<table style="background-color:#FABEE0;">
<tr>
<th>Header</th><th>Header</th>
</tr>
<tr>
<td>Onida</td><td>BPL</td>
</tr>
<tr>
<td>LG</td><td>Samsung</td>
</tr>
</table>
```



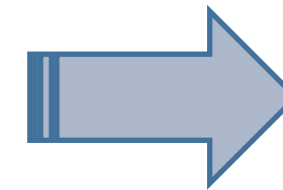
Output

Header	Header
Onida	BPL
LG	Samsung

Table Background Color

Changing the color of a row:

```
<table>
<tr style="background-
color:#BDB76B;color:#ffffff;">
<th>Header</th><th>Header</th>
</tr>
<tr>
<td>Onida</td><td>BPL</td>
</tr>
<tr>
<td>LG</td><td>Samsung</td>
</tr>
</table>
```



Output

Header	Header
Onida	BPL
LG	Samsung

Table Background Color

The `<colgroup>` and `<col>` elements are used to change the background color of a column.

It should be added after the `<caption>` element.

Tag	Description

Note

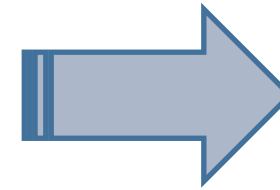
`<colgroup>` tag must be a child of a `<table>` element.



Table Background Color

Changing the color of a column:

```
<table>
  <colgroup>
    <col>
      <col style="background-color:
yellow">
    </col>
  </colgroup>
  <tr>
    <th>Header</th><th>Header</th>
  </tr>
  <tr>
    <td>Onida</td><td>BPL</td>
  </tr>
  <tr>
    <td>LG</td><td>Samsung</td>
  </tr>
</table>
```



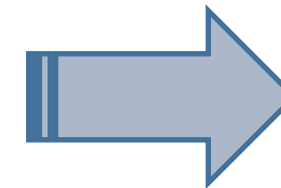
Output

Header	Header
Onida	BPL
LG	Samsung

Table Background Color

Changing the color of a cell:

```
<table>
<tr>
<th>Header</th><th>Header</th>
</tr>
<tr>
<td>Onida</td><td>BPL</td>
</tr>
<tr>
<td>LG</td><td style="background-
color:#ff0000;">Samsung</td>
</tr>
</table>
```



Output

Header	Header
Onida	BPL
LG	Samsung

Adding Caption to a Table

Adding Caption to a Table

Adding captions to a table makes it more readable.

The caption provides a description of the data in the table.



Caption

To insert a caption, use this syntax:

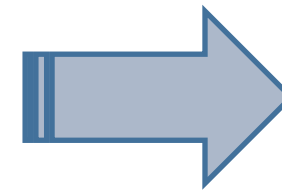
```
<table>
  <caption></caption>
  <tr> </tr>
</table>
```



Caption

Example: Using certain values:

```
<table border=1px>
  <caption>Vehicles demand monthly
basis</caption>
  <tr>
    <th scope="col">May</th>
    <th>June</th>
    <th>July</th>
    <th>August</th>
  </tr>
  <tr>
    <td>Maruti</td>
    <td>Tata</td>
    <td>Honda</td>
    <td>Toyota</td>
  </tr> </table>
```



Output

May	June	July	August
Maruti	Tata	Honda	Toyota

Merging Cells

Merging Cells

To merge table cells, the Rowspan and Colspan attributes are used.

The Colspan merges column cells.

The Rowspan links or combines the number of cells in a row.

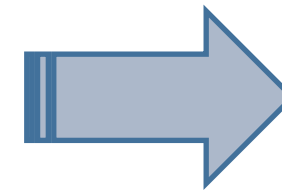
Tag	Description



Merging Cells

Example

```
<!DOCTYPE html>
<html><head><style>
    table, th, td {
        border: 1px solid red;
        width: 100px;
        height: 50px;
    } </style> </head>
<body>
    <h1>HTML Merging Cells</h1>
    <table><tr>
        <th colspan="2"></th>
        <th></th> </tr>
        <tr>
            <td></td><td></td>
            <td rowspan="2"></td></tr>
        <tr><td></td><td></td>
    </tr></table></body></html>
```



Output

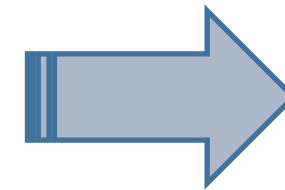
HTML Merging Cells

Text Wrapping

Text Wrapping

Text wrapping can be done with the word-wrap property.

```
<!DOCTYPE html>
<html> <head><style>
div{
width:100%;
border: 1px solid black;
}
div.a{
word-wrap: break-word;
}
</style></head>
<body>
<h3>Word - wrap example </h3>
<div class="a">Word-wrap is used for the
purpose of wrapping. </div>
</body> </html>
```



Output

Word - wrap example

Word- wrap is used only for the wrapping purpose only in this. The word-wrap property allows long words to be able to be broken and wrap onto the next line.

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Table Background Image

Table Background Image

Use background attributes to a web page or an HTML element

Set the background images inside the <td> or <tr> tags

```
<table  
background="image.jpg">  
</table>
```

Applied to the entire table

```
<tr background="image.jpg">  
</tr>
```

Applied to all cells in a row

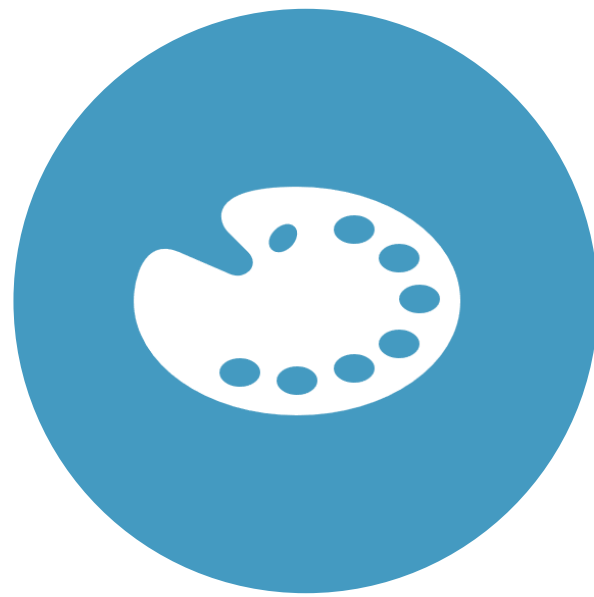
```
<td background="image.jpg">  
</td>
```

Applied to one cell

Cell Alignment

Cell Alignment

The parameters which influence the content's readability are:



Colors



Icons



Fonts



Text alignment

Content should be aligned using the valign and align attributes of the TR and TD (TH) elements.

Cell Alignment: Example

`<tr align="center" valign="top" ></tr>` : Applied to all cells in a row

`<td align="center" valign="top"></td>` : Applied to one cell

```
<!DOCTYPE html>
```

```
<html>
```

```
<head></head>
```

```
<body>
```

```
<table border="1" width="100%" height="100">
```

```
<tr>
```

```
<td align="left" width="25%">Left</td>
```

```
<td valign="top" width="50%">Top</td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

```
</html>
```

Key Takeaways

- The `<table>` tag is used to create a table in HTML.
- Cascading Style Sheets (CSS) are used to define the table background color.
- The `<colgroup>` and `<col>` elements are used to change the background color of a column.
- To merge table cells, the `rowspan` and `colspan` attributes are used.
- Text wrapping can be done with the `word-wrap` property.
- Content should be aligned using the `valign` and `align` attributes of the `TR` and `TD (TH)` elements.



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Thank You