HTML tables

A table is **a grid of rows and columns**, the intersections of which form cells. Each cell is a distinct area, into which you can place text, graphics, or even other tables.

HTML handles tables very well, and you can use them to organize and present complex data to your site visitors. For example, you could display your store's inventory in a table.

Basic Table Structure

Tables are defined with the **<table>** tag.

Tables are divided into **table rows** with the **<tr>** tag.

Table rows are divided into **table data** with the **<td>** tag.

A table row can also be divided into **table headings** with the **<th>** tag.

Edit This Code: See Result »

```
<!DOCTYPE html>
<html>
<head>
        <title>html table</title>
</head>
<body>
        <table>
                <tr>
                        <td>15</td>
                        <td>15</td>
                        <td>30</td>
                </tr>
                <tr>
                        <td>45</td>
                        <td>60</td>
                        <td>45</td>
                </tr>
                <tr>
                        <td>60</td>
                        <td>90</td>
                        <td>90</td>
                </tr>
        </table>

</body>
```

Result:

15 15 30
45 60 45
60 90 90

Html table Spanning column

chapter-06/spanning-columns.html HTML

```
<table>
  <tr>
    <th></th>
    <th>9am</th>
    <th>10am</th>
    <th>11am</th>
    <th>12am</th>
  </tr>
  <tr>
    <th>Monday</th>
    <td colspan="2">Geography</td>
    <td>Math</td>
    <td>Art</td>
  </tr>
  <tr>
    <th>Tuesday</th>
    <td colspan="3">Gym</td>
    <td>Home Ec</td>
  </tr>
</table>
```

RESULT

	9am	10am	11am	12am
Monday	Geography		Math	Art
Tuesday	Gym			Home Ec

Sometimes you may need the entries in a table to stretch across more than one column.

The **colspan attribute** can be used on a **<th>** or **<td>**element and indicates how many columns that cell **should run across (merging cells)**

In the example on the right you can see a **timetable with five columns**; the first column contains the **heading for that row (the day), the remaining four represent one-hour time slots.**

If you look at the table cell that contains the words **'Geography'** you will see that the value of the colspan attribute is 2, which indicates that the cell should run **across two columns.**

In the **third row, 'Gym' runs across three columns.**

Html table Spanning rows

HTML chapter-06/spanning-rows.html

```
<table>
  <tr>
    <th></th>
    <th>ABC</th>
    <th>BBC</th>
    <th>CNN</th>
  </tr>
  <tr>
    <th>6pm - 7pm</th>
    <td rowspan="2">Movie</td>
    <td>Comedy</td>
    <td>News</td>
  </tr>
  <tr>
    <th>7pm - 8pm</th>
    <td>Sport</td>
    <td>Current Affairs</td>
  </tr>
</table>
```

RESULT

	ABC	BBC	CNN
6pm - 7pm	Movie	Comedy	News
7pm - 8pm		Sport	Current Affairs

You may also need entries in a table to stretch down across more than one row.

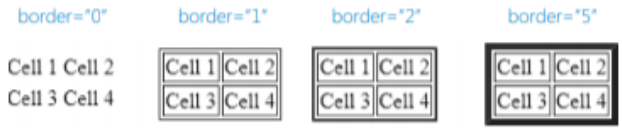
- **The row span attribute** can be used on a<td> or<td> element to indicate **how many rows a cell should span down the table.**
- In the example on the left you can see that **ABC Tv** is showing a movie from 6pm - 8pm, whereas the **BBC and CNN** channels **are both showing two programs** during this time period **(each of which lasts one hour).**
- If you look at the last element, it only contains three elements even though there **are four columns in the result below.** This is because the movie in the**<tr>** element **above it uses the**

Applying Borders by Using Attributes

By default, **a table has no border**. To add a one-pixel border around both the table as a whole and around each individual cell, you can add this attribute to the **<table>** tag

<table border =”1”>

As shown in the following examples, increasing the number increases the width of the outer border around the whole table, but not the inner borders:



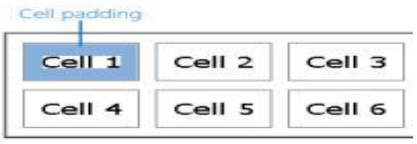
Difference between Border and padding

- **Border** –Border is Space outside padding. has no space inside cell?
- **Padding**- space inside the **border**

Changing Cell Padding, Spacing, and Alignment

Cell padding, cell spacing, and cell alignment are ***three*** different ways you can control how cell content appears on a page.

- **Cell Padding** -refers to the amount of space between an **element’s content** and **its outer edge.** For a table cell, padding refers to space between the cell border and the text or graphic within it.



padding represented in the shaded region space between border and the text.

- **Cell Spacing –** refers to the amount of space between the outside of an element and the adjacent element. For a table cell, spacing refers to the space between the border of one cell and the border of the adjacent cell.

- **Alignment** -refers to the placement of the content within its allotted area, either vertically or horizontally. For normal paragraphs (not in a table), alignment refers only to horizontal placement between the margins. For a table

cell, however, there are separate settings for vertical and horizontal alignment.

Styling HTML table even and odd cell

```
<!DOCTYPE>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
    border-collapse: collapse;
}
th, td {
    padding: 10px;
}
table#alter tr:nth-child(even) {
    background-color: #eee;
}
table#alter tr:nth-child(odd) {
    background-color: #fff;
}
table#alter th {
    color: white;
    background-color: gray;
}
</style>
</head>
<body>

<table id="alter">
<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>
<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>
<tr><td>James</td><td>William</td><td>80</td></tr>
<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>
<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>
</table>
</body>
</html>
```

Output

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

What does nth-child mean?

- **It means select the siblings for styling alternate table row** `<tr>`, **Table alter tr: nth-child(odd)** but only the odd number among all siblings, from the perspective **of their parent element.**

HTML blocks

HTML Block and Inline Elements

Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline.

A block-level Elements `using <div> tag`

A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).

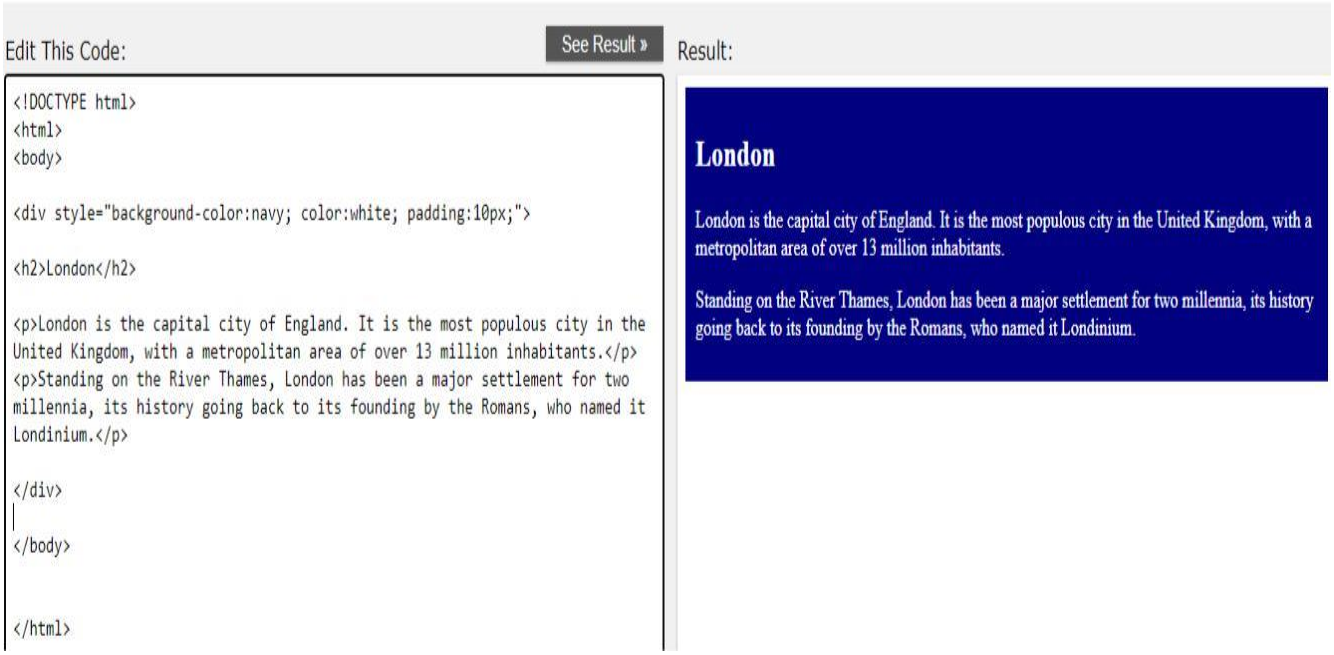
The ** ** element is a block-level element.

Examples of block-level elements:

-
- <h1> - <h6>
- <p>
- <form>

The element has no required attributes, but **style** and **class** are common.

When used together with CSS, the element can be used to style blocks of content:



Inline Elements using tag

An inline element does not start on a new line and only takes up as much width as necessary.

This is `an inline <span> element inside` a paragraph.

Examples of inline elements:

-
- <a>
- <img>

The element is an **inline element** that is often used as a container for some text.

HTML Grouping Summary Tags

Tag	Description
	Defines a section in a document (block-level)
	Defines a section in a document (inline)

HTML Id and classes

HTML Id Attribute NB: * very important subtopic to learn and understand in web development

The **id attribute** is used to specify the unique ID for an element of the HTML document. **It allocates the unique identifier which is** *used by the* **CSS** *and the* **JavaScript** *for performing certain tasks.*

Note: In the Cascading Style sheet (CSS), we can easily select an element with the specific id by using the # symbol followed by id.

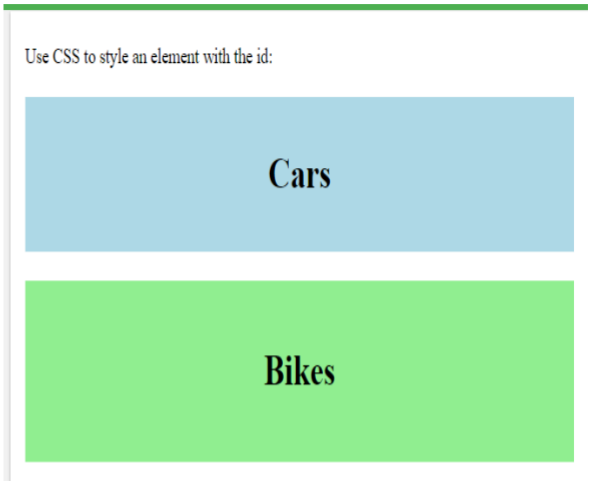
Note: JavaScript can access an element with the given ID by using the getElementById () method.

Syntax: <tag id="value">

Example illustrating Html Id

```
<!DOCTYPE html>
<html>
<head>
<title>
Example of Id attribute in CSS
</title>
<style>
#Cars {
padding: 40px;
background-color: lightblue;
color: black;
text-align: center;
}

#Bikes
{
padding: 50px;
background-color: lightGreen;
text-align: center;
}
</style>
</head>
<body>
<p> Use CSS to style an element with the id: </p>
<h1 id="Cars"> Cars </h1>
<h1 id="Bikes"> Bikes </h1>
</body>
</html>
```

output



Points to remember

When using id in CSS (cascading style sheet)

- ID Its detonated with # symbol
- Two different color defining **cars** and **bikes** represents the **uniqueness of id**

HTML Classes

Class Attribute in HTML

The HTML class attribute is used to specify a single or multiple class names for an HTML element.

A class attribute can be defined **within <style> tag or in separate file using the (.)** character.

In an HTML document, **we can use the same class attribute name with different elements.**

Example:

```
<head>
   <style>
      .headings{
         color: lightgreen;
         font-family: cursive;
         background-color: black; }
   </style>
</head>
```

Applying class attribute using the **style tag** at Html head section and **using (.) character** to represent class attribute.

Example 1 using class attribute. (same color to all headings using class (.) character, to select multiple headings **at once** you control all using Class Element)

Run ▶ Online Code Editor

```
<!DOCTYPE html>
<html>
<head>
        <style>
                .headings{
                        color: lightgreen;
                        font-family: cursive;
                        background-color: black; }
        </style>
</head>
<body>
<h1 class="headings">This is first heading</h1>
<h2 class="headings">This is Second heading</h2>
<h3 class="headings">This is third heading</h3>
<h4 class="headings">This is fourth heading</h4>
</body>
</html>
```

When should I use class or ID? – ***id is used for single elements*** *that appear on the page for only once* (e.g. header, footer, menu etc).

Whereas class is used for single or multiple elements that appear on the page **for once or more than once** (e.g paragraph, links, buttons, input boxes)

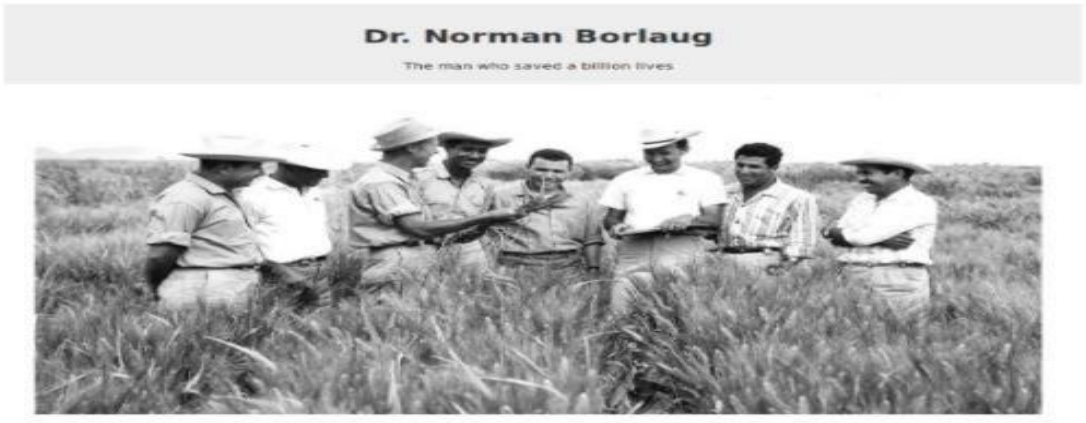
Another Example with different class name

Let's use a class name "Fruit" with CSS to style all elements.

```
<style>
.fruit {
    background-color: orange;
    color: white;
    padding: 10px;
}
</style>

<h2 class="fruit">Mango</h2>
<p>Mango is king of all fruits.</p>

<h2 class="fruit">Orange</h2>
<p>Oranges are full of Vitamin C.</p>

<h2 class="fruit">Apple</h2>
<p>An apple a day, keeps the Doctor away.</p>
```

Assignment

1. A TRIBUTE PAGE



Write a tribute of someone you admire and publish as a webpage. This project will involve working with adding image, nav, links, lists and paragraphs. This project will require knowledge of HTML to create. However, you can use a bit of CSS to make the project look better. Use HTML page layout format.