THE TABULAR DATA

- HTML table allows you to arrange data in tabular form (rows * columns).

- These are commonly used to display tabular data like product listings, customer's details, financial reports, and so on.

- We can create a table using the **`<table>`** element. Inside the **`<table>`** element, you can use the **`<tr>`** elements to create rows, and to create columns inside a row you can use the **`<td>`** elements.

- You can also define a cell as a header for a group of table cells using the **`<th>`** element.

- The following example demonstrates the most basic structure of a table.

```html
<table>
 <tr>
  <th>No.</th>
  <th>Name</th>
  <th>Age</th>
 </tr>
 <tr>
  <td>1</td>
  <td>Peter Parker</td>
  <td>16</td>
 </tr>
 <tr>
  <td>2</td>
  <td>Clark Kent</td>
  <td>34</td>
 </tr>
</table>
```

Output:

No.	Name	Age
1	Peter Parker	16
2	Clark Kent	34
3	Harry Potter	11

- Tables do not have any borders by default. There are two ways to specify border for HTML tables.

  1. By border attribute of table in HTML.
  2. By border property in CSS (We will go through this, while we discuss about CSS).

```html
<table border="2" cellpadding="10">
 <tr>
        <th>No.</th>
        <th>Name</th>
        <th>Age</th>
 </tr>
 <tr>
        <td>1</td>
        <td>Peter Parker</td>
        <td>16</td>
 </tr>
 <tr>
        <td>2</td>
        <td>Clark Kent</td>
        <td>34</td>
 </tr>
</table>
```

Output:

No.	Name	Age
1	Peter Parker	16
2	Clark Kent	34
3	Harry Potter	11

Spanning Multiple Rows and Columns

- Spanning allow you to extend table rows and columns across multiple other rows and columns.

- We can use the **rowspan** or **colspan** attributes to span multiple rows or columns in a table.

- Let's try out the following example to understand how **colspan** basically works:

```html
<table border="2" cellpadding="10"
cellspacing="0">
 <tr>
     <th>Name</th>
     <th colspan="2">Phone</th>
 </tr>
 <tr>
     <td>John Carter</td>
     <td>5550192</td>
     <td>5550152</td>
  </tr>
</table>
```

Output:

Name	Phone	
John Carter	5550192	5550152

- Similarly, you can use the **rowspan** attribute to create a cell that spans more than one row. Let's try out an example to understand how row spanning basically works:

```html
<table border="2" cellpadding="10"
cellspacing="0">
 <tr>
     <th>Name:</th>
     <td>John Carter</td>
 </tr>
 <tr>
     <th rowspan="2">Phone:</th>
     <td>55577854</td>
 </tr>
 <tr>
     <td>55577855</td>
 </tr>
</table>
```

Output:

Name:	John Carter
Phone:	55577854
	55577855

Adding Captions to Tables

- We can specify a caption (or title) for your tables using the **<caption>** element.

- The **<caption>** element must be placed directly after the opening <table> tag. By default, caption appears at the top of the table. We can change that using CSS.

```html
<table border="2" cellpadding="10"
cellspacing="0">
  <caption>Users Info</caption>
 <tr>
     <th>No.</th>
     <th>Name</th>
     <th>Age</th>
 </tr>
 <tr>
     <td>1</td>
     <td>Peter Parker</td>
     <td>16</td>
 </tr>
 <tr>
     <td>2</td>
     <td>Clark Kent</td>
     <td>34</td>
 </tr>
</table>
```

Output:

Users Info

No.	Name	Age
1	Peter Parker	16
2	Clark Kent	34

Defining a Table Header, Body, and Footer

- HTML provides a series of tags **`<thead>`**, **`<tbody>`**, and **`<tfoot>`** that helps you to create more structured table, by defining header, body and footer regions, respectively.

```html
<table>
    <thead>
        <tr>
            <th>Items</th>
            <th>Expenditure</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>Stationary</td>
            <td>2,000</td>
        </tr>
        <tr>
            <td>Furniture</td>
            <td>10,000</td>
        </tr>
    </tbody>
    <tfoot>
        <tr>
            <th>Total</th>
            <td>12,000</td>
        </tr>
    </tfoot>
</table>
```

Tip: Do not use tables for creating web page layouts. Table layouts are slower at rendering, and very difficult to maintain. It should be used only to display tabular data.