

HTML Tables and their Attributes

Theory:

Tables are very important to beautify as well as to depicts many concepts on your web page. To create a timetable for the web page, you can write the following tags:

- Tables are defined with the <table> tag.
- A table is divided into rows (with the <tr> tag),
- Each row is divided into data cells (with the <td> tag).
- td stands for "table data," and holds the content of a data cell.
- A <td> tag can contain text, links, images, lists, forms, other tables, etc.

If you do not specify a border attribute, the table will be displayed without borders.

Sometimes this can be useful, but most of the time, we want the borders to show.

The <marquee> tag is a container tag of HTML is implemented for creating scrollable text or images within a web page from either left to right or vice versa, or top to bottom or vice versa. But this tag has been deprecated in the new version of HTML, i.e., HTML 5. The different attributes of <marquee> tag is shown in Table 1.

Table 1: Shows the attributes of <marquee> tag

Attribute	Description
width	provides the width or breadth of a marquee. For example, width="10" or width="20%"
height	provides the height or length of a marquee. For example, height="20" or height="30%"
direction	provides the direction or way in which your marquee will allow you to scroll. The value of this attribute can be: left, right, up or down
scrolldelay	provides a feature whose value will be used for delaying among each jump.
scrollamount	provides value for speeding the marquee feature
behavior	provides the scrolling type in a marquee. That scrolling can be like sliding, scrolling or alternate
loop	provides how many times the marquee will loop
bgcolor	provides a background color where the value will be either the name of the color or the hexadecimal color-codes.
vspace	provides a vertical space and its value can be like: vspace="20" or vspace="30%"
Hspace	provides a horizontal space and its value can be like: vspace="20" or vspace="30%"

Procedure:

Open Notepad or another text editor to create a basic HTML document. Do the following examples:

- **Scroll (Up or down or right or left):** Do a basic example of a scroll of a text line.

```
<marquee width="No.%" direction="Up or down or right or left" height="No.
px"> text </marquee>
```

- **Scrolling speed:** Marquee speed can be changed using the "scrollamount" attribute. For example, if you are using scrollamount="1" then it sets the marquee to scroll very slowly, and as you increase the "scrollamount," the scrolling speed will also increase. Do a simple example HTML code for a scroll speed with different speed, as shown in figure 1.

```
<html>
<head>
  <title>Example for HTML Marquee Tag</title>
</head>
<body>
  <marquee behavior="scroll" direction="up" scrollamount="1">Slow
  Scrolling</marquee>
  <marquee behavior="scroll" direction="right" scrollamount="12">Little
  Fast Scrolling</marquee>
  <marquee behavior="scroll" direction="left" scrollamount="20">Fast
  Scrolling</marquee>
  <marquee behavior="scroll" direction="right" scrollamount="50">Very
  Fast Scrolling</marquee>
</body>
</html>
```

Figure 1: Shows the use of scroll speed

- **Blinking text within marquee:** Do a simple example for blinking text within marquee, as shown in figure 2.

```
<html>
<head>
  <title>Example of a blinking text using CSS within a marquee</title>
  <style>
    .blink {
      animation: blinker 1.5s linear infinite;
      color: red;
      font-family: sans-serif; }
    @keyframes blinker {
      50% {
        opacity: 0;
      } }
  </style>
</head>
<body>
  <marquee class="blink">This is an example of blinking text using CSS
  within a marquee.</marquee>
</body>
</html>
```

Figure 2: Shows the use of blinking text using CSS within a marquee

- Open Notepad or another text editor to create a basic HTML document by using a *table* tag with different situations. Do the following examples:

1- Create table header: You can create a table header by using the following procedure, as shown in the following figure 3.

```
<html>
<body>
<h4>Table headers:</h4>
<table border="1">
  <tr>
    <th>Name</th>
    <th>Telephone</th>
    <th>Telephone</th>
  </tr>
  <tr>
    <td>Bill Gates</td>
    <td>555 77 854</td>
    <td>555 77 855</td>
  </tr>
</table>
</body>
</html>
```

Figure 3: Shows the creation of a table header

This will produce following result that is shown in the figure 4.

Name	Telephone	Telephone
Bill Gates	555 77 854	555 77 855

Figure 4: Shows the execution result of using of a table tag

2- Using a span to split cell in a table: You can split a cell in a table in the direction of a row or a column by using a *span* attribute, as shown in the figure 5.

```
<html>
<body>
<h4>Cell that spans two columns:</h4>
<table border="1">
<tr>
<th>Name</th>
<th colspan="2">Telephone</th>
</tr>
<tr>
<td>Bill Gates</td>
<td>555 77 854</td>
<td>555 77 855</td>
</tr>
</table>
<h4>Cell that spans two rows:</h4>
<table border="1">
<tr> <th>First Name:</th>
<td>Bill Gates</td>
</tr>
<tr>
<th rowspan="2">Telephone:</th>
<td>555 77 854</td>
</tr>
<tr>
<td>555 77 855</td>
</tr>
</table>
</body>
</html>
```

Figure 5: Shows the use of captions for table

This will produce the result that is shown in the figure 6.

Cell that spans two columns:

Name	Telephone	
Bill Gates	555 77 854	555 77 855

Cell that spans two rows:

First Name:	Bill Gates
Telephone:	555 77 854
	555 77 855

Figure 6: Shows the execution result of using the span attributes

- 3- Background color for whole table:** In HTML, table background color is defined using Cascading Style Sheets (CSS). Specifically, you use the **background-color** property to define background color. You can apply this property against the whole table, a row, or a single cell. Figure 7 shows the use of a background-color.

```
<table style="background-color:#FFFFE0;">
<tr>
<th>Table Header</th><th>Table Header</th>
</tr>
<tr>
<td>Table cell 1</td><td>Table cell 2</td>
</tr>
<tr>
<td>Table cell 3</td><td>Table cell 4</td>
</tr>
</table>
```

Figure 7: Shows the use of the background-color

This will produce the result that is shown in figure 8.

Table Header	Table Header
Table cell 1	Table cell 2
Table cell 3	Table cell 4

Figure 8: Shows the execution result of using the background-color

- 4- Background color for table row:** You can add a different background color to the first row, which happens to be the table header row. Therefore, you have one background color for the table, and a different background color for the table header row. Note that you also change the text color for the table header - this makes it easier to read., as shown in the figure 9.

```
<table style="background-color:#FFFFE0;">
<tr style="background-color:#BDB76B;color:#ffffff;">
<th>Table Header</th><th>Table Header</th>
</tr>
<tr>
<td>Table cell 1</td><td>Table cell 2</td>
</tr>
<tr>
<td>Table cell 3</td><td>Table cell 4</td>
</tr>
</table>
```

Figure 9: Shows the use of the background color for a table row

This will produce the result that is shown in figure 10.

Table Header	Table Header
Table cell 1	Table cell 2
Table cell 3	Table cell 4

Figure 10: Shows the execution result of using the background color for a table row

5- Background color for table cell: You can also change the background color of an individual table cell. To do this, simply apply the styles against the <td> tag of the table cell in question, as shown in figure 11.

```
<table style="background-color:#FFFFE0;">
<tr style="background-color:#BDB76B;color:#ffffff;">
<th>Table Header</th><th>Table Header</th>
</tr>
<tr>
<td>Table cell 1</td><td>Table cell 2</td>
</tr>
<tr>
<td>Table cell 3</td><td style="background-
color:#ff0000;">Table cell 4</td>
</tr>
</table>
```

Figure 11: Shows the use of the background color for a table cell

This will produce the result that is shown in figure 12.

Table Header	Table Header
Table cell 1	Table cell 2
Table cell 3	Table cell 4

Figure 12: Shows the execution result of using the background color for a table cell

6- The <caption> Element: The <caption> tag defines a table caption. The <caption> tag must be inserted immediately after the <table> tag. By default, a table caption will be center-aligned above a table. However, the CSS properties text-align and caption-side can be used to align and place the caption, as shown in the figure 13.

```
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
}
</style>
</head>
<body>
<h1>The caption element</h1>
<table>
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
</body>
</html>
```

Figure 13: Shows the use of the caption tag with CSS style

This will produce the result that is shown in figure 14.

The caption element	
Monthly savings	
Month	Savings
January	\$100
February	\$50

Figure 14: Shows the execution result of using the caption tag with CSS style

7- Position table captions (with CSS): You can specify the position of table captions by using the CSS attributes, as shown in the figure 15.

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
    border: 1px solid black;
}
</style>
</head>
<body>
<table>
    <caption style="text-align:right">My savings</caption>
    <tr>
        <th>Month</th>
        <th>Savings</th>
    </tr>
    <tr>
        <td>January</td>
        <td>$100</td>
    </tr>
</table>
<br>
<table>
    <caption style="caption-side:bottom">My savings</caption>
    <tr>
        <th>Month</th>
        <th>Savings</th>
    </tr>
    <tr>
        <td>January</td>
        <td>$100</td>
    </tr>
</table>
</body>
</html>
```

Figure 15: Shows the use of the position table captions (with CSS)

This will produce the result that is shown in the figure 16.

My savings	
Month	Savings
January	\$100
Month	Savings
January	\$100
My savings	

Figure 16: Shows the execution of using the position table captions (with CSS)

Discussion:

- 1- Write a simple HTML program using the same procedure that was mentioned in step 1 of a procedure, with table border values (0, 2, 3, 4, and 5).
- 2- Write a simple HTML program using the same procedure that was mentioned in step 3 of a procedure, with green background color for a whole table.
- 3- Write a simple HTML program using the same procedure that was mentioned in step 4 of a procedure, with gray background color for the 1st table row.
- 4- Write a simple HTML program using the same procedure that was mentioned in step 5 of a procedure, with blue background color for a table cell.
- 5- Write a simple HTML program using the same procedure that was mentioned in step 5 of a procedure, with conditional background color for table cells, (assume that the two cells lies in the same row, the color of one of them is red, and the other is blue).
- 6- Write a simple HTML program using the same procedure that was mentioned in step 7 of a procedure, with conditional position table captions, (assume that the caption's position of two tables lie bottom – left).
- 7- Write a simple HTML program using the same procedure that was mentioned in step 1 of a procedure, with width = 80%, and height = 80%.
- 8- Write a simple HTML program using the same procedure that was mentioned in step 2 of a procedure, with width = 100px, and height = 50px.

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- 9- Write a simple HTML program using the same procedure that was mentioned in step 3 of a procedure, with scrolling text “***This is a sample scrolling text that has scrolls texts to right***” must be appeared in Bold-Italic red color.
 - 10- Write a simple HTML program using the same procedure that was mentioned in step 4 of a procedure, with scrolling text “**This is a sample scrolling text that has scrolls texts to right**” must be appeared in Bold-Arial green color
 - 11- Write a simple HTML program using the same procedure that was mentioned in step 5 of a procedure, with scrollmount = 90 for all directions