

Exercise 2. HTML Tables, Forms and Frames

- a. Write a HTML program, to explain the working of tables. (use tags: and attributes: border, rowspan, colspan)

HTML table attributes

- <table>
- <tr> (table row)
- <th> (table header cell)
- <td> (table data cell)

◆ 1. <table> Tag Attributes

Attribute	Description	Example
border	Specifies the width of the table's outer and inner borders. A value of 1 shows a border.	<table border="1">
cellpadding	(Deprecated) Adds space between the cell content and the cell border (inside padding). Use CSS padding instead.	<table cellpadding="10">
cellspacing	(Deprecated) Sets the space between cells (outside spacing). Use CSS border-spacing instead.	<table cellspacing="5">
width	Specifies the width of the table. Can use pixels or percent.	<table width="100%">
height	Specifies the height of the table. Rarely used.	<table height="200px">
align	Aligns the entire table on the page. (Deprecated)	<table align="center">
bgcolor	Sets background color of the table. (Deprecated)	<table bgcolor="lightblue">

◆ 2. <tr> Tag Attributes (Table Row)

Attribute	Description	Example
align	Aligns all content in the row horizontally: left, center, or right. (Deprecated)	<tr align="center">
valign	Aligns all content in the row vertically: top, middle, bottom. (Deprecated)	<tr valign="middle">

Attribute	Description	Example
bgcolor	Sets the background color of the entire row. <i>(Deprecated)</i>	<tr bgcolor="yellow">

◆ 3. **<th>** and **<td>** Tag Attributes

Attribute	Description	Example
colspan	Merges the current cell horizontally across multiple columns.	<td colspan="2">Merged</td>
<td>Merges the current cell vertically across multiple rows.</td> <td><td rowspan="3">Merged</td></td>	Merges the current cell vertically across multiple rows.	<td rowspan="3">Merged</td>
align	Horizontal alignment: left, center, or right. <i>(Deprecated)</i>	<td align="center">
valign	Vertical alignment: top, middle, or bottom. <i>(Deprecated)</i>	<td valign="top">
width	Sets the width of the cell.	<td width="100px">
height	Sets the height of the cell.	<td height="50px">
bgcolor	Background color of the individual cell. <i>(Deprecated)</i>	<td bgcolor="pink">

Program:

```

<!DOCTYPE html>

<html>
  <head>
    <title>HTML Table with rowspan and colspan</title>
  </head>
  <body>

    <h2>Sample Table: Exam Results</h2>
    <table border="1">
      <tr>
        <th rowspan="2">S.No</th>
        <th rowspan="2">Name</th>
        <th colspan="3">Subjects</th>
      </tr>
      <tr>
        <th>Maths</th>
        <th>Science</th>
        <th>English</th>
      </tr>
      <tr>
        <td>1</td>
        <td>John Doe</td>
        <td>85</td>
        <td>90</td>
        <td>88</td>
      </tr>
      <tr>
        <td>2</td>
        <td>Jane Smith</td>
        <td>78</td>
        <td>82</td>
        <td>85</td>
      </tr>
      <tr>
        <td>3</td>
        <td>Mike Johnson</td>
        <td>88</td>
        <td>92</td>
        <td>89</td>
      </tr>
      <tr>
        <td>4</td>
        <td>Sarah Lee</td>
        <td>75</td>
        <td>80</td>
        <td>83</td>
      </tr>
      <tr>
        <td>5</td>
        <td>David Wilson</td>
        <td>82</td>
        <td>88</td>
        <td>86</td>
      </tr>
    </table>
  </body>
</html>

```

```
</tr>

<tr>

    <th>Math</th>
    <th>Science</th>
    <th>English</th>

</tr>

<tr>

    <td>1</td>
    <td>Alice</td>
    <td>90</td>
    <td>85</td>
    <td>88</td>

</tr>

<tr>

    <td>2</td>
    <td>Bob</td>
    <td>80</td>
    <td>78</td>
    <td>82</td>

</tr>

</table>

</body>

</html>
```

- b. Write a HTML program, to explain the working of tables by preparing a timetable.
(Note: Use tag to set the caption to the table & also use cell spacing, cell padding, border, rowspan, colspan etc.).**

```
<!DOCTYPE html>
<html>
<head>
    <title>Class Timetable</title>
</head>
<body>

    <h2>College Weekly Timetable</h2>

    <table border="1" cellspacing="2" cellpadding="10">
        <caption><strong>B.Tech CSE - I Year Timetable</strong></caption>
        <tr>
            <th>Day</th>
            <th>9:00 - 10:00</th>
            <th>10:00 - 11:00</th>
            <th>11:00 - 11:15</th>
            <th>11:15 - 12:15</th>
            <th>12:15 - 1:15</th>
            <th>1:15 - 2:00</th>
            <th>2:00 - 3:00</th>
            <th>3:00 - 4:00</th>
        </tr>

        <tr>
            <td>Monday</td>
            <td>Math</td>
            <td>English</td>
            <td rowspan="6">Break</td>
            <td>Physics</td>
            <td>C Programming</td>
            <td rowspan="6">Lunch</td>
            <td colspan="2">Lab (C Programming)</td>
        </tr>

        <tr>
            <td>Tuesday</td>
            <td>English</td>
            <td>Math</td>
            <td>Chemistry</td>
            <td>EVS</td>
            <td colspan="2">Lab (Physics)</td>
        </tr>
```

```
<tr>
    <td>Wednesday</td>
    <td>Physics</td>
    <td>Chemistry</td>
    <td>English</td>
    <td>Math</td>
    <td colspan="2">Workshop</td>
</tr>

<tr>
    <td>Thursday</td>
    <td>C Programming</td>
    <td>EVS</td>
    <td>Math</td>
    <td>Physics</td>
    <td colspan="2">Library</td>
</tr>

<tr>
    <td>Friday</td>
    <td>Math</td>
    <td>Chemistry</td>
    <td>English</td>
    <td>C Programming</td>
    <td colspan="2">Seminar</td>
</tr>

<tr>
    <td>Saturday</td>
    <td colspan="2">Sports</td>
    <td colspan="2">Mentor Meeting</td>
    <td colspan="2">Club Activities</td>
</tr>
</table>

</body>
</html>
```

- c. Write a HTML program, to explain the working of forms by designing Registration form.
(Note: Include text field, password field, number field, date of birth field, checkboxes, radio buttons, list boxes using & tags, and two buttons ie: submit and reset. Use tables to provide a better view).

◆ **<form>**

- Container for input elements.
- Attributes:
 - action: URL to send form data.
 - method: HTTP method (get or post).
 - target: Where to display the response (_self, _blank).
 - autocomplete: Enables/disables browser autofill.

◆ **<label>**

- Defines a label for an input.
- Improves accessibility.
- Use for="id" to link to an input field.

◆ **<input>**

- Creates interactive fields.
- Common type values:
 - text: Single-line text.
 - password: Obscured text.
 - email: Valid email.
 - number: Numeric input.
 - date: Date picker.
 - checkbox: Multiple options.
 - radio: One selection from a group.
 - submit: Submit form.
 - reset: Clear form.
 - file: Upload file.
 - hidden, color, range, etc.

◆ **<select>**

- Creates a dropdown menu.
- Must be used with <option> tags.
- Attributes:
 - name: Field name.
 - multiple: Allows multiple selections.
 - size: Number of visible options.

Program:

```
<!DOCTYPE html>
<html>
<head>
<title>Registration Form</title>
```

```

</head>
<body>
    <h2 align="center">Student Registration Form</h2>
    <form action="#" method="post">
        <table border="1" align="center" cellpadding="10" cellspacing="0">
            <tr>
                <td><label for="fname">First Name:</label></td>
                <td><input type="text" id="fname" name="fname" required></td>
            </tr>
            <tr>
                <td><label for="lname">Last Name:</label></td>
                <td><input type="text" id="lname" name="lname" required></td>
            </tr>
            <tr>
                <td><label for="password">Password:</label></td>
                <td><input type="password" id="password" name="password" required></td>
            </tr>
            <tr>
                <td><label for="age">Age:</label></td>
                <td><input type="number" id="age" name="age" min="1" max="100"></td>
            </tr>
            <tr>
                <td><label for="dob">Date of Birth:</label></td>
                <td><input type="date" id="dob" name="dob"></td>
            </tr>
            <tr>
                <td>Gender:</td>
                <td>
                    <input type="radio" id="male" name="gender" value="Male" > <label for="male">Male</label>
                    <input type="radio" id="female" name="gender" value="Female" > <label for="female">Female</label>
                </td>
            </tr>
            <tr>
                <td>Languages Known:</td>
                <td>
                    <input type="checkbox" name="lang[]" value="English" > English
                    <input type="checkbox" name="lang[]" value="Telugu" > Telugu
                    <input type="checkbox" name="lang[]" value="Hindi" > Hindi
                </td>
            </tr>
            <tr>
                <td><label for="course">Select Course:</label></td>
                <td>
                    <select name="course" id="course">
                        <option value="B.Tech">B.Tech</option>
                        <option value="M.Tech">M.Tech</option>

```

```

        <option value="MBA">MBA</option>
        <option value="MCA">MCA</option>
    </select>
</td>
</tr>
<tr>
    <td colspan="2" align="center">
        <input type="submit" value="Submit">
        <input type="reset" value="Reset">
    </td>
</tr>
</table>
</form>
</body>
</html>

```

- d. d) Write a HTML program, to explain the working of frames, such that page is to be divided into 3 parts on either direction. (Note: first frame→ image, second frame →paragraph, third frame→ hyperlink. And also make sure of using “no fram” attribute such that frames to be fixed).

What is <frameset>?

- In **HTML 4.x**, <frameset> was used instead of <body> to **divide the browser window into multiple frames**, each displaying a different HTML document.
- **Frames** are separate browsing contexts inside one window.
- **Deprecated in HTML5**— replaced by <iframe> and CSS layouts — but still useful for learning older HTML layouts.

html

```

<frameset rows="..." cols="..." frameborder="..." border="..." framespacing="...">
    <frame src="file1.html">
    <frame src="file2.html">
</frameset>

```

<frameset> Attributes

Attribute	Purpose	Example
rows	Divides the page horizontally into frames. Accepts pixels (px), percentages (%), or * for flexible space.	rows="50%,50%" → top & bottom equal halves
cols	Divides the page vertically into frames.	cols="30%,70%" → left narrow column, right wide column
border	Thickness of the frame borders (in pixels).	border="5"
frameborder	Show or hide frame borders (1 = show, 0 = hide).	frameborder="1"
framespacing	Space between frames (in pixels). Works in Internet Explorer/Netscape.	framespacing="10"
onload	JavaScript to execute when frameset is loaded.	onload="alert('Frameset loaded')"

<frame> Attributes (Inside <frameset>)

Attribute	Purpose	Example
src	URL of the document to display.	src="header.html"
name	Name of the frame, used with target in links.	name="main"
scrolling	Controls scrollbars (yes, no, auto).	scrolling="no"
noresize	Prevents frame from being resized.	noresize
marginwidth	Left/right margin inside the frame.	marginwidth="10"
marginheight	Top/bottom margin inside the frame.	marginheight="10"

frameset.html (Main Page)

```

<!DOCTYPE html>

<html>
  <head>
    <title>Frames Example</title>
  </head>
  <!-- Dividing the screen into three vertical parts -->
  <frameset cols="33%,34%,33%">
```

```
<frame src="image.html" name="frame1">
<frame src="paragraph.html" name="frame2">
<frame src="link.html" name="frame3">
<noframes>
  <body>
    <p>Your browser does not support frames. Please update your browser.</p>
  </body>
</noframes>
</frameset>
</html>
```

image.html (First Frame — Image)

```
<!DOCTYPE html>
<html>
<head>
  <title>Image Frame</title>
</head>
<body style="text-align:center;">
  <h2>Image Frame</h2>
  
</body>
</html>
```

paragraph.html (Second Frame — Paragraph)

```
<!DOCTYPE html>
<html>
<head>
  <title>Paragraph Frame</title>
</head>
<body>
  <h2>Paragraph Frame</h2>
```

```
<p>
```

```
    HTML frames allow you to divide the browser window into multiple sections,  
    each of which can load a separate HTML document. This example shows how  
    an image, text, and a hyperlink can be displayed side by side using frames.
```

```
</p>
```

```
</body>
```

```
</html>
```

link.html (Third Frame — Hyperlink)

```
<!DOCTYPE html>  
  
<html>  
  
<head>  
  
    <title>Link Frame</title>  
  
</head>  
  
<body>  
  
    <h2>Link Frame</h2>  
  
    <a href="https://www.rgmctc.edu.in" target="_blank">Visit RGMCTC</a>  
  
</body>  
  
</html>
```