

MULTIPLICATION TABLE GENERATOR

Create a exercise to generate a multiplication table using for loop, while loop and do while loop using java script.

Instruction: -

- **For Loop** → Generates multiplication for numbers 1 to 5.
- **While Loop** → Continues from 6 to 10.
- **Do-While Loop** → Ensures at least one iteration, generating numbers from 11 to 15.

Code: -

```
1. <!DOCTYPE html>
2. <html>
3. <head>
4.     <title>Multiplication Table</title>
5.     <style>
6.         body
7.         {
8.             font-family: Arial, sans-serif;
9.             text-align: center;
10.            margin: 50px;
11.        }
12.        input, button
13.        {
14.            margin: 10px;
15.            padding: 10px;
16.            font-size: 16px;
17.        }
18.        table {
19.            margin: auto;
20.            border-collapse: collapse;
21.            width: 50%;
22.        }
23.        th, td {
24.            border: 1px solid black;
25.            padding: 10px;
26.        }
27.    </style>
28. </head>
29. <body>
30.     <h2>Multiplication Table Generator</h2>
31.     <p>Enter a number to generate its multiplication table:</p>
32.
33.     <input type="number" id="number" placeholder="Enter a number">
34.     <button onclick="generateTable()">Generate Table</button>
35.
36.     <h3>Multiplication Table:</h3>
37.     <table id="table"></table>
38.
```

```
39.     <script>
40.         function generateTable()
41.         {
42.             let num =
parseInt(document.getElementById("number").value);
43.             let table = document.getElementById('table');
44.             table.innerHTML = "";
45.
46.             if (isNaN(num) || num <= 0)
47.             {
48.                 table.innerHTML = "<tr><td>Please enter a valid
number</td></tr>";
49.                 return;
50.             }
51.
52.             let row = table.insertRow();
53.             row.innerHTML = `<th>Multiplication Table of ${num}</th>`;
54.
55.             // Using For Loop
56.             for (let i = 1; i <= 5; i++)
57.             {
58.                 let row = table.insertRow();
59.                 row.innerHTML = `<td>${num} x ${i} = ${num * i}</td>`;
60.             }
61.
62.             // Using While Loop
63.             let i = 6;
64.             while (i <= 10)
65.             {
66.                 let row = table.insertRow();
67.                 row.innerHTML = `<td>${num} x ${i} = ${num * i}</td>`;
68.                 i++;
69.             }
70.
71.             // Using Do-While Loop
72.             let j = 11;
73.             do {
74.                 let row = table.insertRow();
75.                 row.innerHTML = `<td>${num} x ${j} = ${num * j}</td>`;
76.                 j++;
77.             } while (j <= 15);
78.         }
79.     </script>
80. </body>
81. </html>
82.
```