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| Roll no: 42112 | Name: Shreyas Chandolkar |
| Division: 5 | Batch: P5 |

Practical No: 2 Write a JavaScript program to generate the multiplication table of a given number.

Code:

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Multiplication Table Generator</title>

</head>

<body>

<h1>Multiplication Table Generator</h1>

<label for="number">Enter a number:</label>

<input type="number" id="number" />

<button id="generateBtn">Generate Table</button>

<div id="tableContainer"></div>

<script src="script.js"></script>

</body>

</html>

**Script.js**

function generateTableFor(number) {

let table = '<table border="1">';

for (let i = 1; i <= 10; i++) {

table += '<tr>';

table += `<td>${number}</td>`;

table += `<td>x</td>`;

table += `<td>${i}</td>`;

table += `<td>=</td>`;

table += `<td>${number \* i}</td>`;

table += '</tr>';

}

table += '</table>';

return table;

}

function generateTableWhile(number) {

let table = '<table border="1">';

let i = 1;

while (i <= 10) {

table += '<tr>';

table += `<td>${number}</td>`;

table += `<td>x</td>`;

table += `<td>${i}</td>`;

table += `<td>=</td>`;

table += `<td>${number \* i}</td>`;

table += '</tr>';

i++;

}

table += '</table>';

return table;

}

function generateTableDoWhile(number) {

let table = '<table border="1">';

let i = 1;

do {

table += '<tr>';

table += `<td>${number}</td>`;

table += `<td>x</td>`;

table += `<td>${i}</td>`;

table += `<td>=</td>`;

table += `<td>${number \* i}</td>`;

table += '</tr>';

i++;

} while (i <= 10);

table += '</table>';

return table; }

const numberInput = document.getElementById('number');

const generateBtn = document.getElementById('generateBtn');

const tableContainer = document.getElementById('tableContainer');

generateBtn.addEventListener('click', () => {

const number = parseInt(numberInput.value);

if (!isNaN(number)) {

const tableHTMLFor = generateTableFor(number);

const tableHTMLWhile = generateTableWhile(number);

const tableHTMLDoWhile = generateTableDoWhile(number);

tableContainer.innerHTML = `

<h5>Multiplication Table (for loop)</h5>

${tableHTMLFor}

<h5>Multiplication Table (while loop)</h5>

${tableHTMLWhile}

<h5>Multiplication Table (do while loop)</h5>

${tableHTMLDoWhile}

`;

} else {

tableContainer.innerHTML = 'Please enter a valid number.';

}

});

Output:



