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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>
```

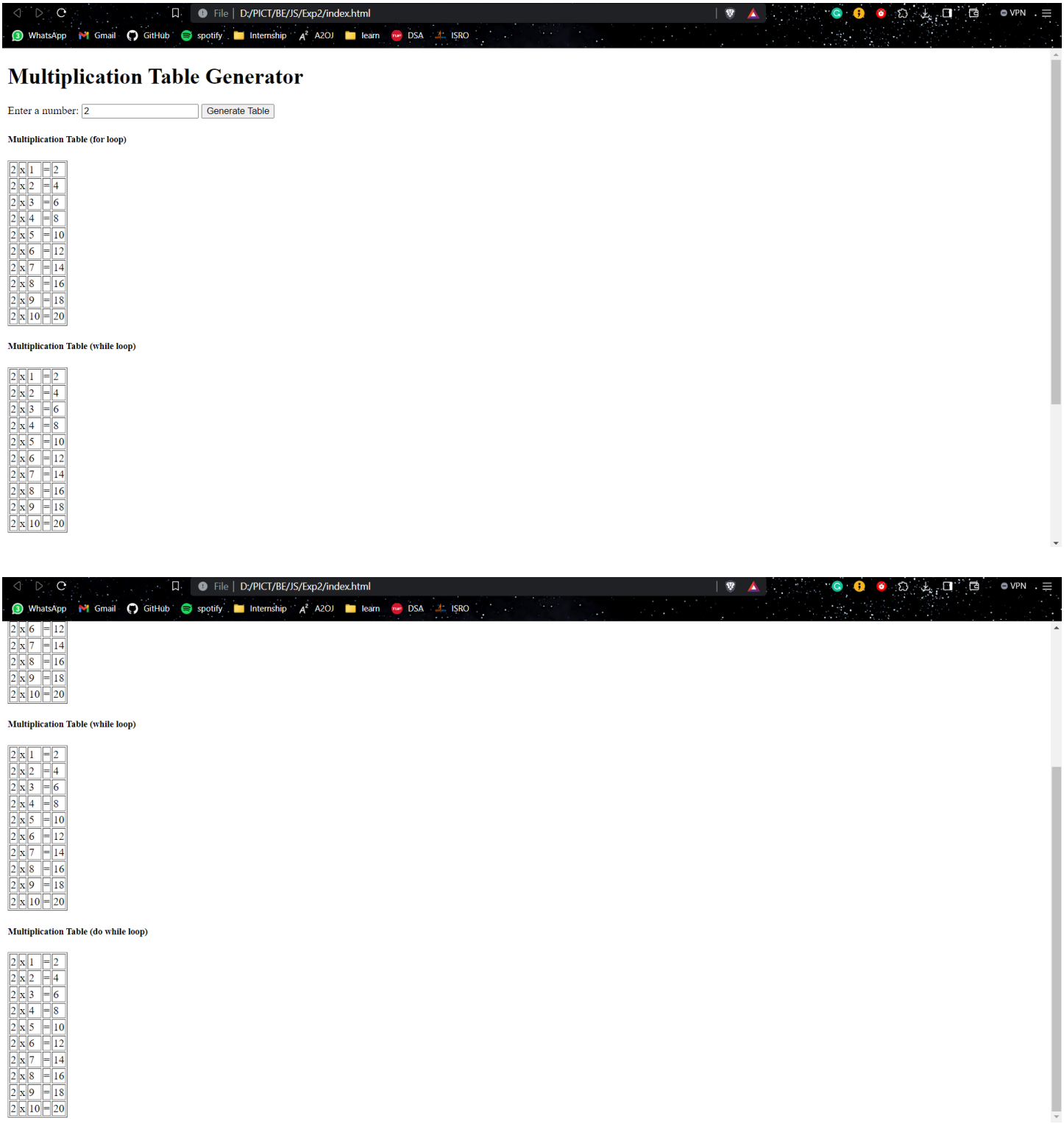
Script.js

```
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:


File | D:/PICT/BE/JS/Exp2/index.html
WhatsApp
Gmail
GitHub
spotify
Internship
A2OJ
learn
DSA
ISRO
VPN
Multiplication Table Generator
Enter a number: 2
Generate Table
Multiplication Table (for loop)
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
Multiplication Table (while loop)
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20

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2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
Multiplication Table (while loop)
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
Multiplication Table (do while loop)
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20