

Assignment No 4

HTML page –

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Simple Calculator</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <div class="calculator">
    <h2>Simple Calculator</h2>
    <input type="text" id="display" disabled>

    <div class="buttons">
      <button onclick="clearDisplay()">C</button>
      <button onclick="promptNumber()">🕒 </button>
      <button onclick="squareNumber()">x2</button>
      <button onclick="appendOperator('/')">÷</button>

      <button onclick="appendNumber(7)">7</button>
      <button onclick="appendNumber(8)">8</button>
      <button onclick="appendNumber(9)">9</button>
      <button onclick="appendOperator('*')">×</button>

      <button onclick="appendNumber(4)">4</button>
      <button onclick="appendNumber(5)">5</button>
      <button onclick="appendNumber(6)">6</button>
      <button onclick="appendOperator('-')">-</button>

      <button onclick="appendNumber(1)">1</button>
      <button onclick="appendNumber(2)">2</button>
      <button onclick="appendNumber(3)">3</button>
      <button onclick="appendOperator('+')">+</button>

      <button onclick="appendNumber(0)">0</button>
      <button onclick="appendOperator('.')">.</button>
      <button onclick="calculateResult()">=</button>
    </div>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

Style.css page –

```
body {
  font-family: Arial, sans-serif;
  display: flex;
  justify-content: center;
  align-items: center;
```

```

    height: 100vh;
    background-color: #f4f4f4;
}

.calculator {
    background: white;
    padding: 20px;
    border-radius: 10px;
    box-shadow: 0px 0px 10px gray;
    text-align: center;
    width: 250px;
}

#display {
    width: 100%;
    height: 50px;
    text-align: right;
    font-size: 20px;
    border: none;
    outline: none;
    padding: 10px;
    background: #eee;
    border-radius: 5px;
    margin-bottom: 10px;
}

.buttons {
    display: grid;
    grid-template-columns: repeat(4, 1fr);
    gap: 5px;
}

button {
    width: 100%;
    height: 50px;
    font-size: 18px;
    border: none;
    background: #3498db;
    color: white;
    border-radius: 5px;
    cursor: pointer;
}

button:hover {
    background: #2980b9;
}

```

script.js page –

```

let display = document.getElementById("display");

// Append numbers to input field
function appendNumber(num) {
    display.value += num;
}

// Append operators (+, -, *, /, .)
function appendOperator(operator) {

```

```
let lastChar = display.value.slice(-1);
if (["+","-", "*", "/", "."].includes(lastChar)) {
    alert("Invalid Operator Placement!");
    return;
}
display.value += operator;
}
```

```
// Clear the display
function clearDisplay() {
    display.value = "";
}
```

```
// Perform calculation
function calculateResult() {
    try {
        display.value = eval(display.value);
    } catch {
        alert("Invalid Expression!");
        clearDisplay();
    }
}
```

```
// Square of number
function squareNumber() {
    let value = display.value;
    if (isNaN(value) || value === "") {
        alert("Enter a valid number first!");
        return;
    }
    display.value = Math.pow(parseFloat(value), 2);
}
```

```
// Prompt user for number input
function promptNumber() {
    let input = prompt("Enter a number:");
    if (input === null || input.trim() === "") {
        alert("Input is empty!");
        return;
    }
    if (isNaN(input)) {
        alert("Invalid Number!");
        return;
    }
    display.value = input;
}
```

OUTPUT –

