

# **WEEK-7 ASSIGNMENT**

## simple calculator

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Simple Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      background-color: #f4f4f4;
      margin: 0;
    }
    .calculator {
      width: 320px;
      padding: 20px;
      background-color: #fff;
      box-shadow: 0 0 10px rgba(0, 0, 0, .1);
      border-radius: 10px;
    }
    #display {
      width: 100%;
      height: 50px;
      margin-bottom: 10px;
      font-size: 24px;
      text-align: right;
      padding-right: 10px;
      box-sizing: border-box;
    }
    .buttons {
      display: grid;
      grid-template-columns: repeat(4, 1fr);
      gap: 10px;
    }
    button {
      padding: 20px;
      font-size: 20px;
      background-color: #a6d66e;
      border: none;
```

```

        cursor: pointer;
        border-radius: 5px;
        transition: background-color 0.3s ease;
    }
    button:hover {
        background-color: #ddd;
    }
</style>
</head>
<body>
    <div class="calculator">
        <input type="text" id="display" disabled>
        <div class="buttons">
            <button onclick="clearDisplay()">C</button>
            <button onclick="deleteLast()">DEL</button>
            <button onclick="appendToDisplay('%')">%</button>
            <button onclick="appendToDisplay('/')">/</button>
            <button onclick="appendToDisplay('7')">7</button>
            <button onclick="appendToDisplay('8')">8</button>
            <button onclick="appendToDisplay('9')">9</button>
            <button onclick="appendToDisplay('*')">*</button>
            <button onclick="appendToDisplay('4')">4</button>
            <button onclick="appendToDisplay('5')">5</button>
            <button onclick="appendToDisplay('6')">6</button>
            <button onclick="appendToDisplay('-')">-</button>
            <button onclick="appendToDisplay('1')">1</button>
            <button onclick="appendToDisplay('2')">2</button>
            <button onclick="appendToDisplay('3')">3</button>
            <button onclick="appendToDisplay('+')">+</button>
            <button onclick="appendToDisplay('00')">00</button>
            <button onclick="appendToDisplay('0')">0</button>
            <button onclick="appendToDisplay('.')">.</button>
            <button onclick="calculateResult()">=</button>
        </div>
    </div>
    <script>
        const display = document.getElementById("display");

        function clearDisplay() {
            display.value = "";
        }

        function deleteLast() {
            display.value = display.value.slice(0, -1);
        }

        function appendToDisplay(value) {

```

```

        if (display.value.replace(/^[^d]/g, "").length >= 4 &&
!isOperator(value)) {
            alert("The calculator does not accept more than four
digits.");
            return;
        }
        if (!isValidInput(value)) {
            alert("Invalid input. Only numbers and basic operators are
allowed.");
            return;
        }
        display.value += value;
    }

    function isValidInput(value) {
        const validCharacters = /^[0-9.\+\-\*\/%]$/;
        return validCharacters.test(value);
    }

    function isOperator(value) {
        const operators = ['+', '-', '*', '/', '%'];
        return operators.includes(value);
    }

    function calculateResult() {
        try {
            if (display.value) {
                display.value = eval(display.value);
            }
        } catch (error) {
            alert("Invalid operation.");
        }
    }
}
</script>
</body>
</html>

```

