Shri Vile Parle Kelavani Mandal's

INSTITUTE OF TECHNOLOGY

DHULE (M.S.)

DEPARMENT OF COMPUTER ENGINEERING

Subject : Web technology Lab

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Class : SY Comp **Batch :** S4 **Division:** B

Expt. No. :03 **Date :** 10/03/2025

Title : Write a JavaScript to design a simple calculator to perform the following operations:sum, product, difference and quotient.

Remark

Signature

Code

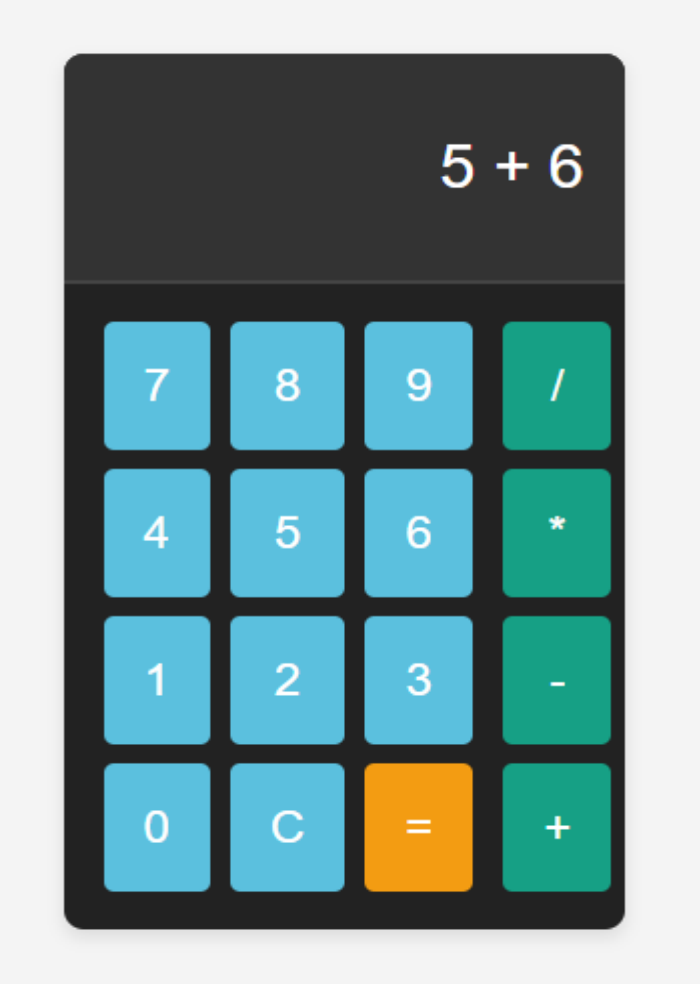
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Simple Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      margin: 0;
    }

    .calculator {
      background-color: #222;
      color: white;
      border-radius: 10px;
      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
      overflow: hidden;
      width: 280px;
    }

    .display {
```

```
  background-color: #333;

  padding: 20px;
  text-align: right;
  font-size: 2em;
  height: 80px;
  display: flex;
  justify-content: flex-end;
  align-items: center;
  border-bottom: 2px solid #444;
}

.button-container {
  display: grid;
  grid-template-columns: repeat(4, 1fr);
  gap: 10px;
  padding: 20px;
}

.button {
  background-color: #5bc0de;  /* Light Blue */
  border: none;
  padding: 20px;
  font-size: 1.5em;
  color: white;
  border-radius: 5px;
  cursor: pointer;
  transition: background-color 0.3s ease;
}

.button:hover {
  background-color: #31a3c4;
}

.button:active {
  background-color: #2697b7;
}

.equal {
  background-color: #f39c12;
  color: white;
}

.clear {
  background-color: #e74c3c;
  color: white;
}

.operator {
  background-color: #16a085;
  margin-right: 5px;  /* Add margin to the right of operator buttons */
```

```
    }

    .button-container .button:nth-child(4n),
    .button-container .button:nth-child(4n-1) {
      margin-right: 5px;  /* Extra margin to the right of operator buttons */
    }
  </style>
</head>
<body>

<div class="calculator">
  <div class="display" id="display">0</div>
  <div class="button-container">
    <!-- Number Buttons -->
    <button class="button" onclick="appendToDisplay('7')">7</button>
    <button class="button" onclick="appendToDisplay('8')">8</button>
    <button class="button" onclick="appendToDisplay('9')">9</button>
    <button class="button operator" onclick="setOperation('/')">/</button>

    <button class="button" onclick="appendToDisplay('4')">4</button>
    <button class="button" onclick="appendToDisplay('5')">5</button>
    <button class="button" onclick="appendToDisplay('6')">6</button>
    <button class="button operator" onclick="setOperation('*')">*</button>

    <button class="button" onclick="appendToDisplay('1')">1</button>
    <button class="button" onclick="appendToDisplay('2')">2</button>
    <button class="button" onclick="appendToDisplay('3')">3</button>
    <button class="button operator" onclick="setOperation('-')">-</button>

    <button class="button" onclick="appendToDisplay('0')">0</button>
    <button class="button" onclick="clearDisplay()">C</button>
    <button class="button equal" onclick="calculateResult()">=</button>
    <button class="button operator" onclick="setOperation('+')">+</button>
  </div>
</div>

<script>
  let currentInput = '0';
  let previousInput = '';
  let operator = '';
  let expression = ''; // Holds the full expression

  function appendToDisplay(value) {
    if (currentInput === '0' && value !== '.') {
      currentInput = value;
    } else {
      currentInput += value;
    }
    expression += value;
    updateDisplay();
  }
```

```
function setOperation(op) {
  if (operator !== '') {
    calculateResult();
  }
  previousInput = currentInput;
  currentInput = '0';
  operator = op;
  expression += ' ' + op + ' ';
  updateDisplay();
}

function clearDisplay() {
  currentInput = '0';
  previousInput = '';
  operator = '';
  expression = '';
  updateDisplay();
}

function calculateResult() {
  let result;
  const prev = parseFloat(previousInput);
  const current = parseFloat(currentInput);

  if (operator === '+') {
    result = prev + current;
  } else if (operator === '-') {
    result = prev - current;
  } else if (operator === '*') {
    result = prev * current;
  } else if (operator === '/') {
    if (current === 0) {
      result = 'Cannot divide by zero';
    } else {
      result = prev / current;
    }
  } else {
    result = currentInput;
  }

  // If the result is a decimal, show it with a reasonable amount of precision
  if (typeof result === 'number') {
    result = result.toFixed(6);  // Show up to 6 decimal places
  }

  currentInput = result.toString();
  operator = '';
  previousInput = '';
  expression = currentInput; // Show result as the expression now
  updateDisplay();
```

```
  }

  function updateDisplay() {
    document.getElementById('display').textContent = expression || currentInput;
  }
</script>


</body>
</html>
```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