**WEB DEVELOPMENT TASK**

**CALCULATOR**

**Index.html**

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

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

**<title>Calculator</title>**

**<link rel="stylesheet" href="styles.css">**

**</head>**

**<body>**

**<script src="https://app.zenclass.in/sheets/v1/js/zen/suite/bundle.js"></script>**

**<h1 id="title">Calculator</h1>**

**<p id="description">This is a simple calculator with basic arithmetic and memory functions. Use it to perform calculations with ease!</p>**

**<div class="calculator">**

**<input type="text" id="result" class="display" readonly value="0">**

**<div class="buttons">**

**<button onclick="clearDisplay()" class="btn-clear" id="clear">C</button>**

**<button onclick="backspace()" class="btn-backspace">←</button>**

**<button class="memory" onclick="memorySubtract()">M-</button>**

**<button class="memory" onclick="memoryClear()">MC</button>**

**<button class="memory" onclick="memoryAdd()">M+</button>**

**<button onclick="appendNumber(7)" id="7">7</button>**

**<button onclick="appendNumber(8)" id="8">8</button>**

**<button onclick="appendNumber(9)" id="9">9</button>**

**<button class="operation" onclick="chooseOperation('\*')" id="multiply">\*</button>**

**<button class="operation" onclick="chooseOperation('÷')" id="divide">÷</button>**

**<button onclick="appendNumber(4)" id="4">4</button>**

**<button onclick="appendNumber(5)" id="5">5</button>**

**<button onclick="appendNumber(6)" id="6">6</button>**

**<button class="operation" onclick="chooseOperation('-')" id="subtract">-</button>**

**<button></button>**

**<button onclick="appendNumber(1)" id="1">1</button>**

**<button onclick="appendNumber(2)" id="2">2</button>**

**<button onclick="appendNumber(3)" id="3">3</button>**

**<button class="operation" onclick="chooseOperation('+')" id="add">+</button>**

**<button></button>**

**<button onclick="appendNumber(0)" id="0">0</button>**

**<button onclick="appendNumber('00')" id="00">00</button>**

**<button onclick="appendDecimal()" id="decimal">.</button>**

**<button class="operation" onclick="calculate()" id="equal">=</button>**

**<button class="operation" onclick="calculatePercentage()" id="percentage">%</button>**

**</div>**

**</div>**

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

**</body>**

**</html>**

**Styles.css**

**body {**

**display: flex;**

**justify-content: center;**

**align-items: center;**

**flex-direction: column;**

**height: 100vh;**

**background-color: #f0f0f0;**

**margin: 0;**

**}**

**h1#title {**

**font-size: 2.5em;**

**margin-bottom: 0.5em;**

**color: #333;**

**}**

**p#description {**

**font-size: 1.2em;**

**margin-bottom: 1em;**

**color: #666;**

**text-align: center;**

**max-width: 600px;**

**}**

**.calculator {**

**border: 1px solid #ccc;**

**border-radius: 10px;**

**overflow: hidden;**

**box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);**

**background-color: #fff;**

**}**

**.display {**

**background-color: #e0e0e0;**

**padding: 20px;**

**font-size: 2em;**

**text-align: right;**

**border-bottom: 1px solid #ccc;**

**}**

**.buttons {**

**display: grid;**

**grid-template-columns: repeat(5, 1fr);**

**gap: 10px;**

**padding: 10px;**

**}**

**.buttons button {**

**padding: 20px;**

**font-size: 1.5em;**

**border: 1px solid #ccc;**

**background-color: #fff;**

**cursor: pointer;**

**}**

**.buttons button.operation {**

**background-color: #f9a825;**

**}**

**.buttons button.memory {**

**background-color: #ffcc80;**

**}**

**.buttons button.btn-clear {**

**background-color: red;**

**color: white;**

**}**

**.buttons button.btn-backspace {**

**background-color: orange;**

**color: white;**

**}**

**script.js**

**// Ensure that the script.js file is properly linked in the HTML**

**let display = document.getElementById('result');**

**let currentOperand = '';**

**let previousOperand = '';**

**let operation = null;**

**let memory = localStorage.getItem('memory') || 0;**

**function clearDisplay() {**

**currentOperand = '';**

**previousOperand = '';**

**operation = null;**

**updateDisplay();**

**}**

**function backspace() {**

**currentOperand = currentOperand.toString().slice(0, -1);**

**updateDisplay();**

**}**

**function appendNumber(number) {**

**if (number === '00' && currentOperand === '') return;**

**currentOperand = currentOperand.toString() + number.toString();**

**updateDisplay();**

**}**

**function appendDecimal() {**

**if (currentOperand.includes('.')) return;**

**currentOperand = currentOperand.toString() + '.';**

**updateDisplay();**

**}**

**function chooseOperation(op) {**

**if (currentOperand === '') return;**

**if (previousOperand !== '') {**

**calculate();**

**}**

**operation = op;**

**previousOperand = currentOperand;**

**currentOperand = '';**

**}**

**function calculate() {**

**let result;**

**const prev = parseFloat(previousOperand);**

**const current = parseFloat(currentOperand);**

**if (isNaN(prev) || isNaN(current)) return;**

**switch (operation) {**

**case '÷':**

**result = prev / current;**

**break;**

**case '\*':**

**result = prev \* current;**

**break;**

**case '-':**

**result = prev - current;**

**break;**

**case '+':**

**result = prev + current;**

**break;**

**default:**

**return;**

**}**

**currentOperand = result.toString();**

**operation = null;**

**previousOperand = '';**

**updateDisplay();**

**}**

**function updateDisplay() {**

**display.value = currentOperand || '0';**

**}**

**function memoryAdd() {**

**memory = parseFloat(memory) + parseFloat(currentOperand || 0);**

**localStorage.setItem('memory', memory);**

**displayMemory();**

**}**

**function memorySubtract() {**

**memory = parseFloat(memory) - parseFloat(currentOperand || 0);**

**localStorage.setItem('memory', memory);**

**displayMemory();**

**}**

**function memoryClear() {**

**memory = 0;**

**localStorage.setItem('memory', memory);**

**displayMemory();**

**}**

**function displayMemory() {**

**currentOperand = memory.toString();**

**updateDisplay();**

**}**

**function calculatePercentage() {**

**if (currentOperand === '') return;**

**currentOperand = (parseFloat(currentOperand) / 100).toString();**

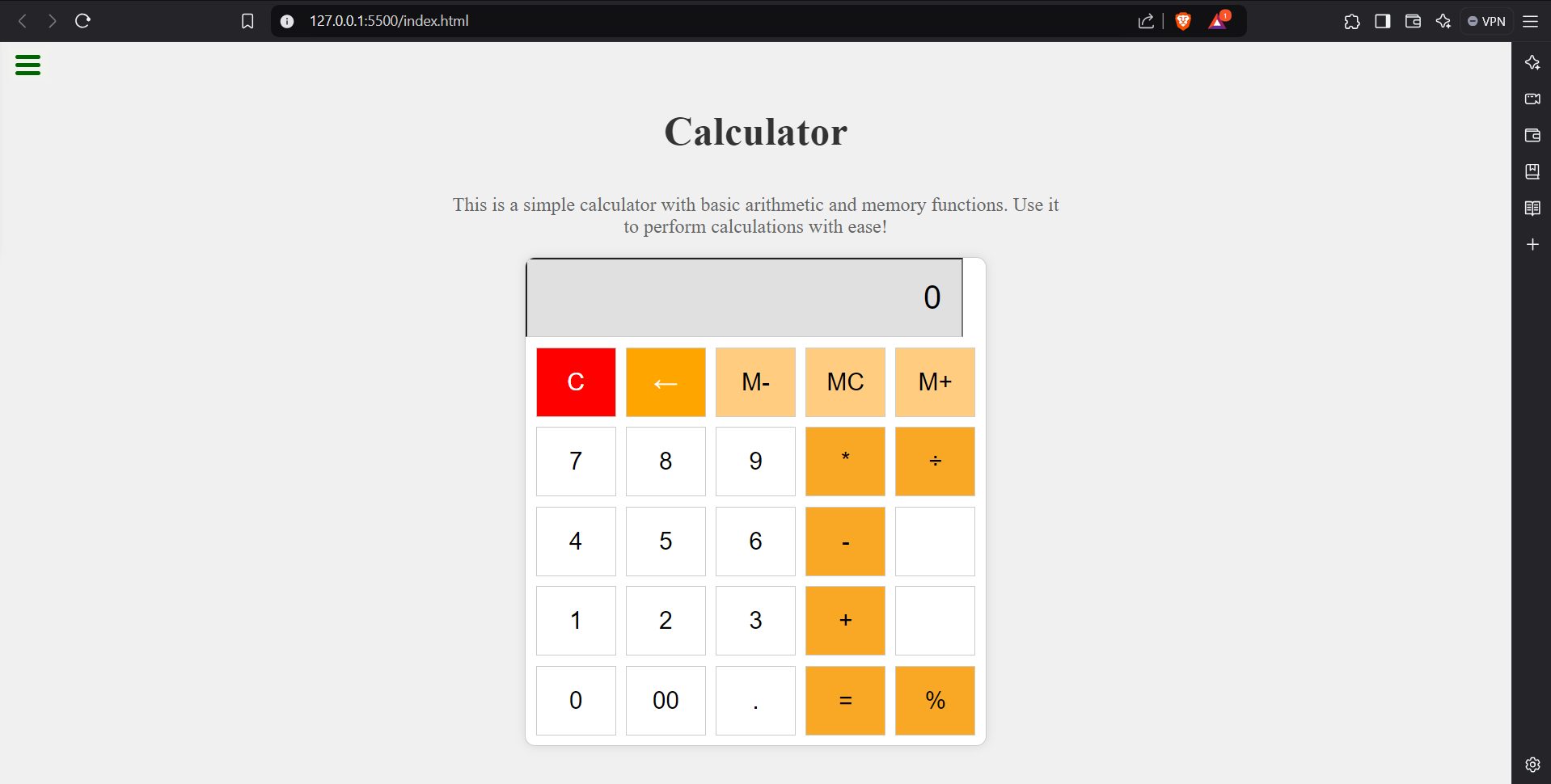
**updateDisplay();**

**operation = null; // Clear operation to allow next operation**

**}**

**// Ensure that the functions are correctly loaded by the browser**

**OUTPUT:**

****