Lab 5: Design a calculator using JS.

Source Code:

Index.html:

index.html × | script.js | styles.css

index.html > html > body > div.calculator > button.clear

```
<!DOCTYPE html>
<html>
  <head>
    <title>Simple Calculator</title>
    <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <div class="calculator">
      <input type="text" class="screen" disabled><br>
      <button class="number" onclick="buttonClicked('7')">7</button>
      <button class="number" onclick="buttonClicked('8')">8</button>
      <button class="number" onclick="buttonClicked('9')">9</button>
      <button class="operator" onclick="buttonClicked('/')">/</button><br>
      <button class="number" onclick="buttonClicked('4')">4</button>
      <button class="number" onclick="buttonClicked('5')">5</button>
      <button class="number" onclick="buttonClicked('6')">6</button>
      <button class="operator" onclick="buttonClicked('*')">*</button><br>
      <button class="number" onclick="buttonClicked('1')">1</button>
      <button class="number" onclick="buttonClicked('2')">2</button>
      <button class="number" onclick="buttonClicked('3')">3</button>
      <button class="operator" onclick="buttonClicked('-')">-</button><br>
      <button class="number" onclick="buttonClicked('0')">0</button>
      <button class="number" onclick="buttonClicked('.')">.</button>
      <button class="equal" onclick="buttonClicked('=')">=</button>
      <button class="operator" onclick="buttonClicked('+')">+</button><br>
      <button class="clear" onclick="buttonClicked('C')">Clear</button>
    </div>
    <script src="script.js"></script>
  </body>
</html>
```

styles.css:

index.html | script.js | # styles.css ●

styles.css > ...

```css
.calculator {
  display: flex;
  flex-wrap: wrap;
  width: 300px;
  margin: 0 auto;
  border: 1px solid #ccc;
  border-radius: 5px;
  padding: 10px;
}

.screen {
  width: 100%;
  height: 50px;
  margin-bottom: 10px;
  font-size: 20px;
  text-align: right;
}

button {
  width: 50px;
  height: 50px;
  margin: 5px;
  font-size: 20px;
  border-radius: 5px;
  cursor: pointer;
}

.number {
  background-color: #eee;
  color: #333;
}
```

index.html | script.js | # styles.css ●

styles.css > ...

```css
.operator {
  background-color: #f1f1f1;
  color: #333;
}

.equal {
  background-color: #007bff;
  color: #fff;
}

.clear {
  background-color: #f44336;
  color: #fff;
}
```

script.js:

index.html | script.js | styles.css

script.js > updateScreen

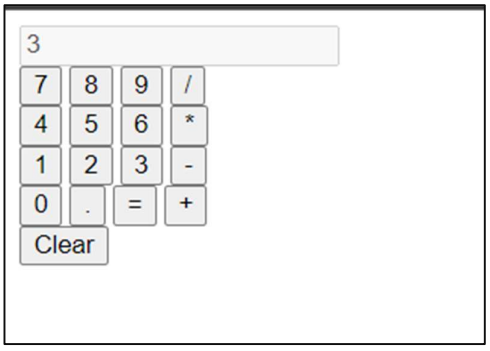
```
let currentVal = '';
let memoryVal = '';
let operator = '';

function buttonClicked(btnVal) {
  switch (btnVal) {
    case 'C':
      currentVal = '';
      memoryVal = '';
      operator = '';
      updateScreen('0');
      break;
    case '+':
    case '-':
    case '*':
    case '/':
    case '=':
      if (operator === '') {
        memoryVal = currentVal;
        operator = btnVal;
        currentVal = '';
      } else {
        let result = calculate(parseFloat(memoryVal), parseFloat(currentVal), operator);
        updateScreen(result);
        memoryVal = result;
        operator = btnVal;
        currentVal = '';
      }
      break;
      default:
        currentVal += btnVal;
        updateScreen(currentVal);
        break;
      }
    }
    function calculate(num1, num2, op) {
      let result = 0;
      switch (op) {
      case '+':
      result = num1 + num2;
      break;
      case '-':
      result = num1 - num2;
      break;
      case '*':
      result = num1 * num2;
      break;
      case '/':
      result = num1 / num2;
      break;
      case '=':
      result = num2;
      break;
      }
      return result;
      }

      function updateScreen(val) {
      let screen = document.querySelector('.screen');
      screen.value = val;
      }
```

Output:


Simple Calculator
File | D:/Program/Web%20Technologies/Lab%205/index.html
3
7 8 9 /
4 5 6 *
1 2 3 -
0 . = +
Clear


3
7 8 9 /
4 5 6 *
1 2 3 -
0 . = +
Clear