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**Branch & Sem: CSE-A IV Sem**

**Batch: A-2**

**Practical No. 5**

**Aim :**

Design a calculator to perform basic operations using JavaScript. Add two buttons : Clear , +/- (to represent positive and negative number)

**Code** :

Calculator.html

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />

    <meta http-equiv="X-UA-Compatible" content="IE=edge" />

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

    <link href="style.css" rel="stylesheet" />

    <title>Calculator</title>

  </head>

  <body>

    <h2>Calculator</h2>

    <div class="cal">

      <textarea rows="5" cols="25" name="space" class="txt"> </textarea>

      <button href="#">7</button>

      <button href="#">8</button>

      <button href="#">9</button>

      <button href="#" class="op" class="key--operator" data-action="divide">

        /

      </button>

      <button href="#">4</button>

      <button href="#">5</button>

      <button href="#">6</button>

      <button href="#" class="op" class="key--operator" data-action="multiply">

        \*

      </button>

      <button href="#">1</button>

      <button href="#">2</button>

      <button href="#">3</button>

      <button href="#" class="op" class="key--operator" data-action="subtract">

        -

      </button>

      <button

        href="#"

        style="background-color: rgb(218, 11, 11)"

        data-action="clear"

      >

        AC

      </button>

      <button href="#">0</button>

      <button

        href="#"

        style="background-color: rgb(218, 11, 11)"

        class="key--equal"

        data-action="calculate"

      >

        =

      </button>

      <button href="#" class="op" class="key--operator" data-action="add">

        +

      </button>

    </div>

  </body>

</html>

<script>

  const calculator = document.querySelector(".cal");

  const buttons = calculator.querySelectorAll("button");

  buttons.forEach((button) => {

    button.addEventListener("click", () => {

      const buttonValue = button.textContent;

      switch (button.dataset.action) {

        case "clear":

          textarea.value =

          break;

        case "calculate":

          calculate();

          break;

        default:

          textarea.value += buttonValue;

      }

    });

  });

  function calculate() {

    try {

      const expression = textarea.value;

      const result = eval(expression);

      textarea.value = result;

    } catch (error) {

      textarea.value = "Error";

    }

  }

</script>

Style.css

\* {

  margin: 0;

  padding: 0;

}

h2 {

  text-align: center;

  margin: 20px;

}

body {

  background: linear-gradient(to right, #cbce91ff, #ea738dff);

}

.cal {

  display: grid;

  grid-template-columns: 1fr 1fr 1fr 1fr;

  grid-template-rows: 2fr 1fr 1fr 1fr 1fr;

  gap: 10px;

  background-color: steelblue;

  padding: 40px;

  border-radius: 20px;

  width: 30%;

  margin: 20px 33%;

  height: 300px;

  justify-content: center;

  border: 2px solid black;

}

button {

  width: 80px;

  border-radius: 10px;

  /\* background-color:; \*/

  box-shadow: 20px;

}

button:hover {

  transform: scale(1.1);

}

.txt {

  grid-column: 1/5;

  width: 435px;

  background-color: bisque;

  border: 2px solid black;

  font-size: 25px;

  text-align: end;

  text-align: bottom;

}

.txt:active {

  border: none;

}

.op {

  background-color: coral;

}

**Output :**

**A calculator with buttons

Description automatically generated with low confidence**

**A screenshot of a calculator

Description automatically generated**

**A screenshot of a calculator

Description automatically generated**

**Result :**

Implemented a Fully functioning calculator using HTML , CSS and Javascript .