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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() {
```

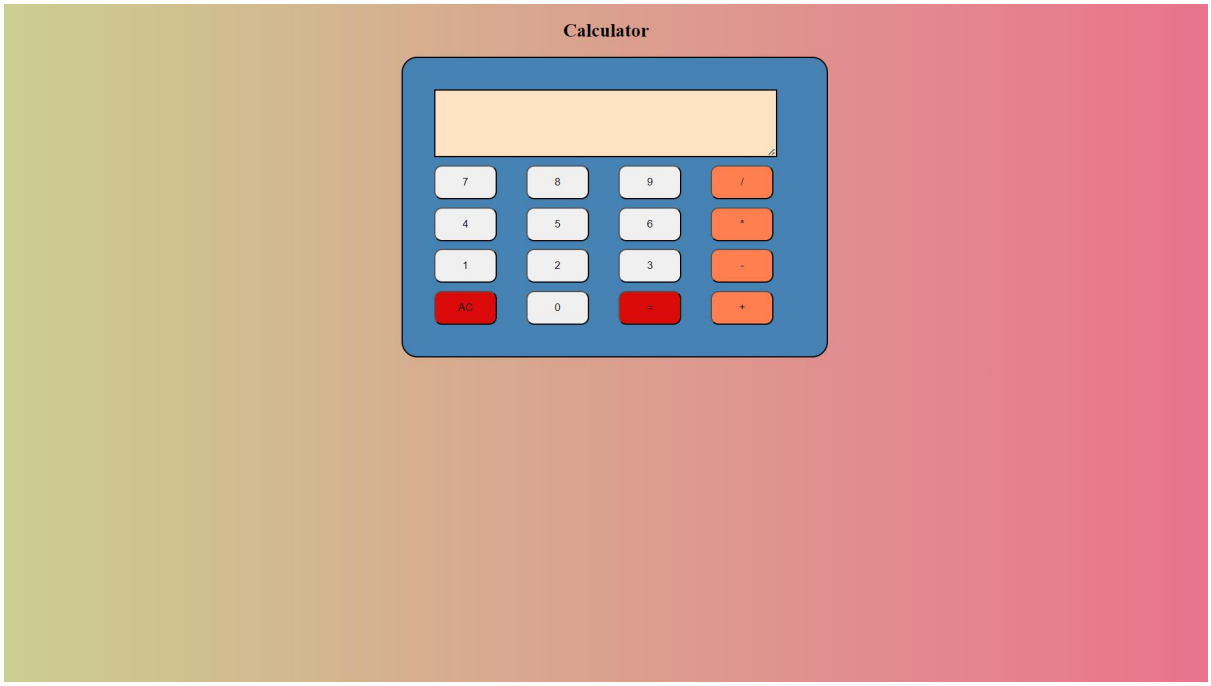
```
    try {
      const expression = textarea.value;
      const result = eval(expression);

      textarea.value = result;
    } catch (error) {
      textarea.value = "Error";
    }
  }
</script>
```

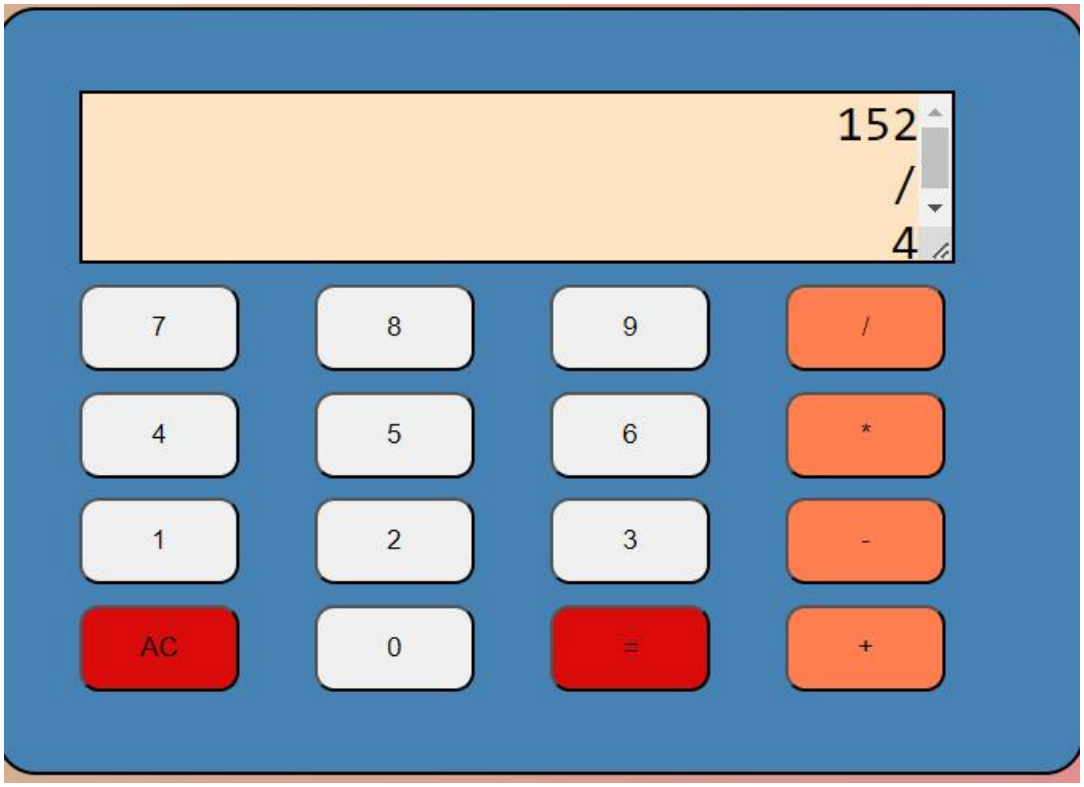
Style.css

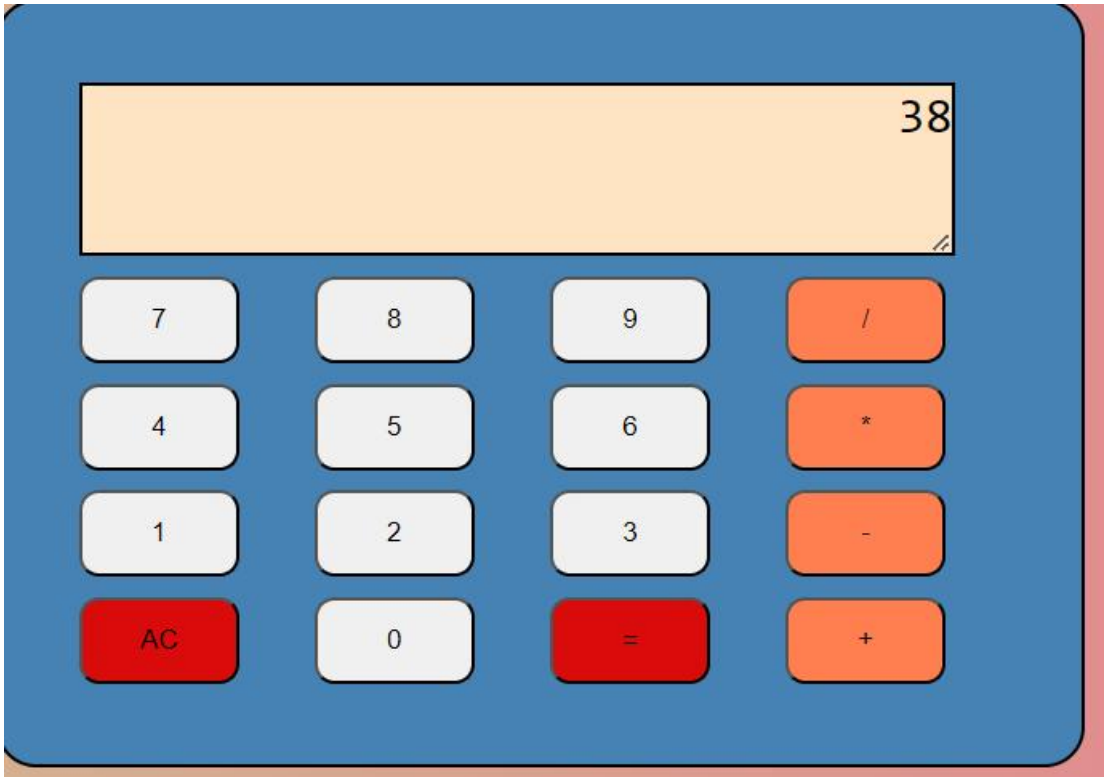
```
* {
  margin: 0;
  padding: 0;
}
h2 {
  text-align: center;
  margin: 20px;
}
body {
  background: linear-gradient(to right, #cbce91ff, #ea738dff);
}
.cal {
  display: grid;
  grid-template-columns: 1fr 1fr 1fr 1fr;
  grid-template-rows: 2fr 1fr 1fr 1fr 1fr;
  gap: 10px;
  background-color: steelblue;
  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);
}
```

```css
.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 :







Result :

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