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//Roll No: 404B002

//EXP-9

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="style.css">

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

</head>

<body>

    <div class="calculator">

        <input type="text" id="output" disabled>

        <div class="buttons">

            <button onclick="clearOutput()">C</button>

            <button onclick="appendToOutput('7')">7</button>

            <button onclick="appendToOutput('8')">8</button>

            <button onclick="appendToOutput('9')">9</button>

            <button onclick="appendToOutput('/')">/</button>

            <button onclick="appendToOutput('4')">4</button>

            <button onclick="appendToOutput('5')">5</button>

            <button onclick="appendToOutput('6')">6</button>

            <button onclick="appendToOutput('*')">*</button>

            <button onclick="appendToOutput('1')">1</button>

            <button onclick="appendToOutput('2')">2</button>

            <button onclick="appendToOutput('3')">3</button>

            <button onclick="appendToOutput('-')">-</button>

            <button onclick="appendToOutput('0')">0</button>
```

```
        <button onclick="calculateResult()">=</button>
        <button onclick="appendToOutput('+')">+</button>
        <button onclick="appendToOutput('%')">%</button>
    </div>
</div>
</body>
</html>
```

style.css

```
body {
    font-family: Arial, sans-serif;
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
    background-color: #f0f0f0;
}

.calculator {
    border: 1px solid #ccc;
    padding: 20px;
    border-radius: 10px;
    background-color: white;
}

input {
    width: 100%;
    height: 40px;
    text-align: right;
    margin-bottom: 10px;
}

.buttons {
    display: grid;
    grid-template-columns: repeat(4, 1fr);
```

```
        gap: 10px;
    }
    button {
        padding: 20px;
        font-size: 18px;
    }
}
```

script.js

```
function appendToOutput(value) {
    const output = document.getElementById('output');
    output.value += value;
}

function clearOutput() {
    document.getElementById('output').value = '';
}

function calculateResult() {
    const output = document.getElementById('output');
    const expression = output.value;
    if (!isValidExpression(expression)) {
        alert('Invalid input');
        clearOutput();
        return;
    }
    try {
        const result = eval(expression);
        output.value = result;
    } catch (error) {
        alert('Error in calculation');
        clearOutput();
    }
}

function isValidExpression(expression) {
```

```
const validChars = /^[0-9+\-*/%() ]*$/;
return validChars.test(expression);
}
```

OUTPUT:

