**Assignment 1 Total Marks :2**

**Submission Deadline 14th Nov 2025**

This simple calculator demonstrates the functional component of  React without Hook.

```
import './App.css';
import React from 'react';

function Calculator() {
  // Function to handle calculation
  function calculate() {
    const num1 = parseFloat(document.getElementById('num1').value);
    const num2 = parseFloat(document.getElementById('num2').value);
    const operator = document.getElementById('operator').value;
    let result = 0;

    switch (operator) {
      case '+':
        result = num1 + num2;
        break;
      case '-':
        result = num1 - num2;
        break;
      case '*':
        result = num1 * num2;
        break;
      case '/':
        result = num2 !== 0 ? num1 / num2 : 'Cannot divide by zero';
        break;
      default:
        result = 'Invalid Operation';
    }

    document.getElementById('result').innerText = `Result: ${result}`;
  }
  return (
    <div style={{ padding: '20px', border: '8px solid #ccc', width:
'300px',background: 'lightgreen' }  } className="App">
      <h2>Simple Calculator</h2>
      <input type="number" id="num1" placeholder="First Number" style={{
width: '100%', marginBottom: '10px' }} />
      <select id="operator" style={{ width: '100%', marginBottom: '10px' }}>
        <option value="+">Add</option>
        <option value="-">Subtract</option>
        <option value="*">Multiply</option>
        <option value="/">Divide</option>
```

```
      </select>
      <input type="number" id="num2" placeholder="Second Number" style={{
width: '100%', marginBottom: '10px' }} />
      <button onClick={calculate} style={{ width: '100%', padding: '10px',
marginBottom: '10px' }}>
        Calculate
      </button>
      <p id="result" style={{ fontWeight: 'bold', fontSize: '16px'
}}>Result:</p>
    </div>
  );
}

export default Calculator;
```

**Save the above code in SimpleCalculator.js**

Explanation of the Code:

The **`calculate`** function performs the actual calculation when the "Calculate" button is clicked. Here's a breakdown:

- **Retrieve Input Values**: **`document.getElementById`** is used to get the values of the two input fields and the operator dropdown.
    - `num1` and `num2` are converted to numbers using `parseFloat` to ensure they're treated as numbers rather than strings.
    - `operator` is retrieved directly as it's a string (`+`, `-`, `*`, `/`).
- **Initialize Result**: We initialize variable `result` to zero, which will store the result of our calculation based on the selected operator.

The **`switch`** statement handles the arithmetic operations based on the selected operator:

- **Addition (`+`)**: `result` is set to `num1 + num2`.
- **Subtraction (`-`)**: `result` is set to `num1 - num2`.
- **Multiplication (`*`)**: `result` is set to `num1 * num2`.
- **Division (`/`)**: If `num2` is zero, `result` is set to a custom message ("Cannot divide by zero") to prevent a divide-by-zero error.
- **Default Case**: If an invalid operator somehow gets selected, `result` is set to "Invalid Operation."

The button triggers the **`calculate` function on click.**

- **`onClick={calculate}`**: Sets up an event handler so that clicking the button calls the `calculate` function.
- **Inline Styling**: Full width, padded, and spaced for a good user experience.

# How to use this Component

You can use this `Calculator` component in an by writing following code in index. Js

## Note  You must  import the Calculator function form SimpleCalculator in your index.js file using the import command

## You should be using the `< Calculator/>` under the React.Render in index.js

```
import Calculator from './SimpleCalculator'
const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>

     < Calculator/>

  </React.StrictMode>
);
```

## What to submit

This assignment is worth **two marks and should be submitted on  the 14th Nov Friday** Your task is to compile the provided calculator program, run it, and demonstrate that it performs all the calculator functions (addition, subtraction, multiplication, and division).

1. **Execute the Program**: Compile and run the calculator program. Test each operation to ensure it functions correctly.
2. **Capture Screenshots**: Take clear screenshots showing the results of each operation performed by the calculator.
3. **Document the Results**: Create a PDF document that includes the following:
    - A short paragraph explaining how the code works, including the name of the functional component and how you executed it.
    - Your **name**
    - Your **student ID**
4. **Submit Your Work**: Upload the Word document to the submission link provided for your respective lab group.