## App.js: -

import React, { useState } from "react";

import calculatorImage from "./calculator.png";

import "./App.css";

function App() {

  const [firstNumber, setFirstNumber] = useState("");

  const [secondNumber, setSecondNumber] = useState("");

  const [finalResult, setFinalResult] = useState("");

  const [showFinalResult, setShowFinalResult] = useState(false);

  const handleSum = () => {

    const result = parseFloat(firstNumber) + parseFloat(secondNumber);

    setFinalResult(result);

    setShowFinalResult(true);

  };

  const handleMultiply = () => {

    const result = parseFloat(firstNumber) \* parseFloat(secondNumber);

    setFinalResult(result);

    setShowFinalResult(true);

  };

  const handleDivide = () => {

    const result = parseFloat(firstNumber) / parseFloat(secondNumber);

    setFinalResult(result);

    setShowFinalResult(true);

  };

  return (

    <>

      {/\* Task 1 \*/}

      <div className="calculator-container">

        <h1>Calculator Testing</h1>

        <input

          type="number"

          className="calculator-input"

          name="first"

          id="first"

          placeholder="First Number"

          value={firstNumber}

          onChange={(e) => setFirstNumber(e.target.value)}

        />

        <input

          type="number"

          className="calculator-input"

          name="second"

          id="second"

          placeholder="Second Number"

          value={secondNumber}

          onChange={(e) => setSecondNumber(e.target.value)}

        />

        <br />

        <button type="button" className="calculator-button" onClick={handleSum}>

          SUM

        </button>

        <button

          type="button"

          className="calculator-button"

          onClick={handleMultiply}

        >

          MULTIPLY

        </button>

        <button

          type="button"

          className="calculator-button"

          onClick={handleDivide}

        >

          DIVIDE

        </button>

        <br />

        {showFinalResult && (

          <input

            type="text"

            className="calculator-input"

            name="finalResult"

            id="finalResult"

            placeholder="Final Result"

            readOnly

            value={finalResult}

          />

        )}

      </div>

      <br />

      <br />

      {/\* Task 2 \*/}

      {/\* <div className="App">

        <header>

          <h1>Calculator Testing</h1>

          <img src={calculatorImage} alt="Calculator" />

        </header>

        <main>

          <h2 name="h2">Enter Numbers</h2>

          <input type="number" placeholder="Enter First Number" />

          <input type="number" placeholder="Enter Second Number" />

        </main>

        <footer>

          <h3 name="h3">Operation Buttons</h3>

          <button type="button">SUM</button>

          <button type="button">MULTIPLY</button>

          <button type="button">DIVIDE</button>

        </footer>

      </div>

      <br />

      <br /> \*/}

      {/\* Task 3 \*/}

      {/\* <input type="number" id="fid" name="first" placeholder="Enter 2 Number" />

      <input

        type="number"

        id="sid"

        name="second"

        placeholder="Enter 3 Number"

      />

      <input type="number" id="tid" name="third" placeholder="Enter 4 Number" />

      <input

        type="number"

        id="foid"

        name="forth"

        placeholder="Enter 5 Number"

      />

      <input

        type="number"

        id="userid"

        name="username"

        placeholder="Enter 1 Number"

      />

      <input

        type="number"

        id="fiid"

        name="fivth"

        placeholder="Enter 6 Number"

      />

      <input

        type="number"

        id="siid"

        name="sixth"

        placeholder="Enter 7 Number"

      />

      <input

        type="number"

        id="seid"

        name="seventh"

        placeholder="Enter 8 Number"

      /> \*/}

    </>

  );

}

export default App;

## Tast.js: -

// Task 1

import React from "react";

import { render, screen, fireEvent } from "@testing-library/react";

import App from "./App";

describe("Calculator App", () => {

  test("sums two numbers correctly", () => {

    render(<App />);

    const firstInput = screen.getByPlaceholderText("First Number");

    const secondInput = screen.getByPlaceholderText("Second Number");

    const sumButton = screen.getByText("SUM");

    fireEvent.change(firstInput, { target: { value: "5" } });

    fireEvent.change(secondInput, { target: { value: "7" } });

    fireEvent.click(sumButton);

    expect(screen.getByPlaceholderText("Final Result").value).toBe("12");

  });

  test("multiplies two numbers correctly", () => {

    render(<App />);

    const firstInput = screen.getByPlaceholderText("First Number");

    const secondInput = screen.getByPlaceholderText("Second Number");

    const multiplyButton = screen.getByText("MULTIPLY");

    fireEvent.change(firstInput, { target: { value: "5" } });

    fireEvent.change(secondInput, { target: { value: "7" } });

    fireEvent.click(multiplyButton);

    expect(screen.getByPlaceholderText("Final Result").value).toBe("35");

  });

  test("divides two numbers correctly", () => {

    render(<App />);

    const firstInput = screen.getByPlaceholderText("First Number");

    const secondInput = screen.getByPlaceholderText("Second Number");

    const divideButton = screen.getByText("DIVIDE");

    fireEvent.change(firstInput, { target: { value: "10" } });

    fireEvent.change(secondInput, { target: { value: "2" } });

    fireEvent.click(divideButton);

    expect(screen.getByPlaceholderText("Final Result").value).toBe("5");

  });

});

// Task 2

// import React from 'react';

// import { render, screen } from '@testing-library/react';

// import App from './App';

// describe('UI Elements', () => {

//   test('renders h1 tag with correct text', () => {

//     render(<App />);

//     const h1Element = screen.getByText('Calculator Testing');

//     //const h1Element = screen.getByHTML("h1");

//     expect(h1Element).toBeInTheDocument();

//   });

//   test('renders h2 tag with correct text', () => {

//     render(<App />);

//     const h2Element = screen.getByText('Enter Numbers');

//     expect(h2Element).toBeInTheDocument();

//   });

//   test('renders h3 tag with correct text', () => {

//     render(<App />);

//     const h3Element = screen.getByText('Operation Buttons');

//     expect(h3Element).toBeInTheDocument();

//   });

//   test('renders img tag with correct alt attribute', () => {

//     render(<App />);

//     const imgElement = screen.getByAltText('Calculator');

//     expect(imgElement).toBeInTheDocument();

//   });

// });

// Task 3

// import React from 'react';

// import { render, screen } from '@testing-library/react';

// import App from './App';

// describe('Input Boxes', () => {

//   test('renders input boxes with correct attributes and placeholders', () => {

//     render(<App />);

//     const firstInput = screen.getByPlaceholderText('Enter 1 Number');

//     expect(firstInput).toBeInTheDocument();

//     expect(firstInput).toHaveAttribute('type', 'number');

//     expect(firstInput).toHaveAttribute('id', 'userid');

//     expect(firstInput).toHaveAttribute('name', 'username');

//     const secondInput = screen.getByPlaceholderText('Enter 2 Number');

//     expect(secondInput).toBeInTheDocument();

//     expect(secondInput).toHaveAttribute('type', 'number');

//     expect(secondInput).toHaveAttribute('id', 'fid');

//     expect(secondInput).toHaveAttribute('name', 'first');

//     const thirdInput = screen.getByPlaceholderText('Enter 3 Number');

//     expect(thirdInput).toBeInTheDocument();

//     expect(thirdInput).toHaveAttribute('type', 'number');

//     expect(thirdInput).toHaveAttribute('id', 'sid');

//     expect(thirdInput).toHaveAttribute('name', 'second');

//   });

// });

// Task 4

## Output: -



