NAVODAYA INSTITUTE OF TECHNOLOGY

REACT LAB (BCSL657B)

PROGRAM – 3

Create a Counter Application using React that demonstrates state management with the useState hook. Display the current value of the counter prominently on the screen. Add buttons to increase and decrease the counter value. Ensure the counter updates dynamically when the buttons are clicked. Use the useState hook to manage the counter's state within the component. Prevent the counter from going below a specified minimum value (e.g., 0). Add a "Reset" button to set the counter back to its initial value. Include functionality to specify a custom increment or decrement step value.

Step 1: Create a new React app

First, you need to create a new React app using below command. Open your terminal and run:

create-react-app counter-app

cd counter-app

Step 2: Modify the App.js File

App.js

```jsx
import React, { useState } from 'react';
import './App.css';

function App() {
  const [counter, setCounter] = useState(0);
  const [step, setStep] = useState(1);
  const minValue = 0;
  const handleIncrement = () => {
    setCounter(prevCounter => prevCounter + step);
  };
  const handleDecrement = () => {
    if (counter - step >= minValue) {
```

```
      setCounter(prevCounter => prevCounter - step);
    }
  };
  const handleReset = () => {
    setCounter(0);
  };
  const handleStepChange = (event) => {
    setStep(Number(event.target.value));
  };
  return (
    <div style={{ textAlign: 'center', marginTop: '50px' }}>
      <h1>Counter Application</h1>
      <div style={{ fontSize: '48px', margin: '20px' }}>
        <span>{counter}</span>
      </div>


      <div>
        <button onClick={handleIncrement}>Increase by {step}</button>
        <button onClick={handleDecrement}>Decrease by {step}</button>
        <button onClick={handleReset}>Reset</button>
      </div>
      <div style={{ marginTop: '20px' }}>
        <label>
          Set Increment/Decrement Step:
          <input
            type="number"
            value={step}
            onChange={handleStepChange}
            min="1"
            style={{ marginLeft: '10px' }}
          />
        </label>
```

```
        </div>
    </div>
  );
}


export default App;
```

Step 4: Start the Development Server

npm start

OUTPUT

Counter Application

0

[Increase by 1]   [Decrease by 1]   [Reset]

Set Increment/Decrement Step: [1]