DEVOPS AND FULLSTACK

LAB-09(2/2/26)

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BATCH-04

LAB PRACTICAL-9

Scenario: Counter Application (Understanding State)
Scenario Description: You are developing a simple **Counter Application** to understand **React state**. The application should allow users to **increment, decrement, and reset** a counter value.

Task Instructions
Setup
- Create a React project using create-react-app.
- Start the development server.

Implementation Tasks
- Create a Counter component.
- Initialize state using useState().
- Add buttons for:
  - Increment
  - Decrement
  - Reset
- Update the counter value using state setters.

Bonus Challenge
- Prevent the counter from going below zero.
- Display a message when a certain value is reached.

Expected Output
- Counter value updates dynamically.
- Proper usage of React state.
- Re-rendering on state change.

CODE:

<!DOCTYPE html>

<html lang="en">

```html
<head>
  <meta charset="UTF-8">
  <title>Counter App</title>

  <script src="https://unpkg.com/react@18/umd/react.development.js"></script>
  <script src="https://unpkg.com/react-dom@18/umd/react-dom.development.js"></script>
  <script src="https://unpkg.com/@babel/standalone/babel.min.js"></script>

  <style>
    body {
      text-align:  center;
      margin-top:  50px;
      font-family: Arial;
    }
    button {
      margin: 5px;
```

```
      padding: 10px 20px;

      font-size: 16px;

    }

  </style>

</head>

<body>


<div id="root"></div>


<script type="text/babel">

  function Counter() {

    const [count, setCount] = React.useState(0);


    const increment = () => {

      setCount(count + 1);

    };


    const decrement = () => {

      if (count > 0) {

      setCount(count - 1);
```

```jsx
  }
};

const reset = () => {
  setCount(0);
};

return (
  <div>
    <h1>Count: {count}</h1>

    <button
onClick={increment}>Increment</button>
    <button
onClick={decrement}>Decrement</button>
    <button onClick={reset}>Reset</button>

    {/* Message when certain value is reached */}
    {count === 5 && <p>🎉You reached 5!</p>}
  </div>
```

```
    );
  }

ReactDOM.createRoot(document.getElementById("root"))
    .render(<Counter />);
</script>

</body>
</html>
```

OUTPUT:

Count: 5

[Increment] [Decrement] [Reset]

🎉 You reached 5!