

# DEVOPS AND FULLSTACK

LAB-09(2/2/26)

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BATCH-01

## 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.

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#### **Task Instructions**

##### **Setup**

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

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##### **Implementation Tasks**

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

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##### **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">

```
<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;

  }

</style>
```

```
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);  
    }  
  };  
}</script>
```

```
    }  
};
```

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

```
return (  
  <div>
```

```
    <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"))
```

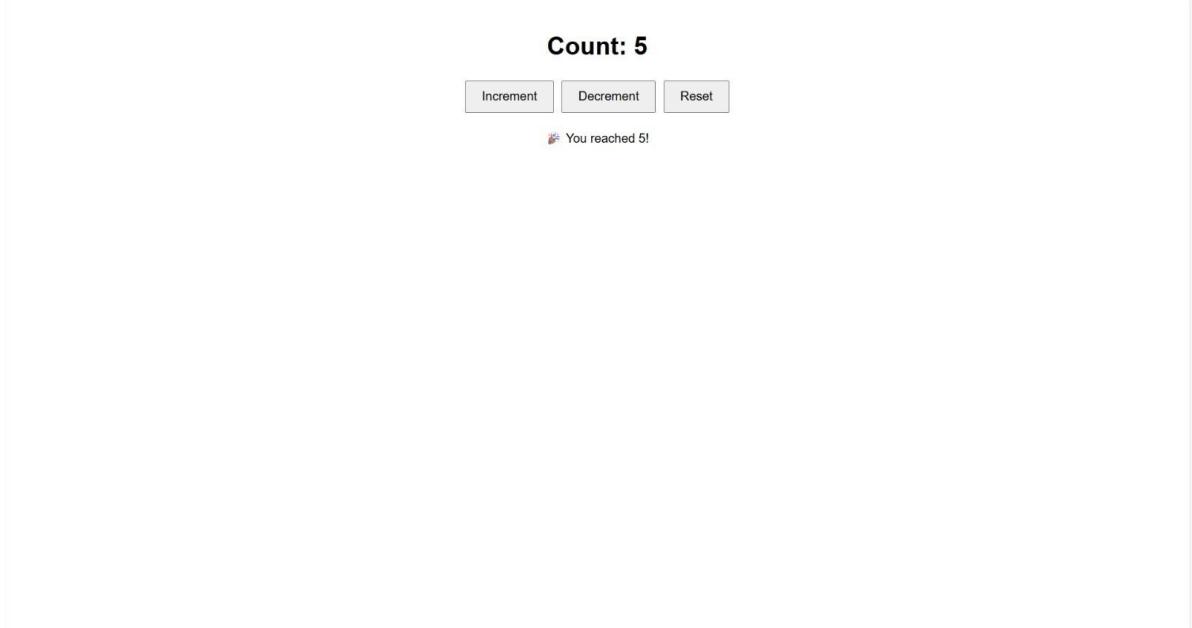
```
.render(<Counter />);
```

```
</script>
```

```
</body>
```

```
</html>
```

OUTPUT:



Count: 5

Increment Decrement Reset

🎉 You reached 5!