

# 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.

### 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">
```

<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);
    }
  };
}
```

```
}  
};
```

```
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:

