


## Internship Report – Week 6, Day 3

 **Name:** Hamza Rafique

 **Organization:** ProSensia

 **Topics Covered:**

### 1. React State Management using useState Hook

Today, I explored how React handles dynamic data within functional components using the useState hook. I learned to initialize, update, and use state variables to make components interactive.

- Practiced creating state for counters, toggles, and form inputs.
- Understood how React re-renders components upon state changes.
- Learned best practices such as keeping state minimal and avoiding direct mutations. This helped me realize how local state is crucial in building responsive UIs that respond to user input in real time.

### 2. Event Handling in React

I also dived into handling events in React, which is quite different from traditional JavaScript.

- Used event listeners like onClick, onChange, and onSubmit in JSX.
- Understood the concept of **synthetic events** and their cross-browser consistency.
- Practiced passing event handlers as props and updating state based on user interaction.
- Built simple examples like button click counters and live input updates.

 **Key Takeaways:**

- useState makes it easy to manage local state in React components.
- Event handling in React is declarative and integrates smoothly with JSX.
- Understanding how state and events work together is essential for building real-world React applications.

I'm gaining more confidence in React's core concepts and excited to build more interactive UI components in the coming days.