📄 **ProSensia Internship Report**

Week 6 – Day 4
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Topics Covered:
• **Conditional Rendering in React**
• **Lists and Rendering with .map()**

✅ **1. Conditional Rendering in React**

Conditional rendering is a core concept in React that allows components to render different outputs based on certain conditions. It enhances UI flexibility by showing or hiding elements depending on state, props, or other logic.

Common Methods:

- **if/else statements**

- **Ternary operator**

jsx

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{isLoggedIn ? <LogoutButton /> : <LoginButton />}

- **Logical AND (&&) operator**

jsx

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{hasAccess && <AdminPanel />}

This makes the UI dynamic and responsive to user actions and data.

🔁 **2. Lists and Rendering with .map()**

When working with arrays of data, .map() is used to generate JSX elements dynamically. This is helpful when displaying lists such as user profiles, products, or posts.

Example:

jsx

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```
const fruits = ["Apple", "Banana", "Cherry"];

return (

 <ul>

  {fruits.map((fruit, index) => (

    <li key={index}>{fruit}</li>

  ))}

 </ul>

);
```

Important Notes:

- Each child in a list should have a unique key prop.

- The key helps React identify which items changed, are added, or removed.

🔚 **Conclusion:**

In today's session, I learned how to control component rendering based on conditions and how to dynamically display lists using .map(). These concepts are essential for building interactive and scalable front-end applications using React.