**1. Explain About Conditional Rendering in React**

* **Conditional rendering** allows you to display different UI content depending on certain conditions (like user actions, state values, etc.).
* It works like JavaScript conditions — using if, ternary (? :), &&, or switch.

**Examples:**

**Using if statement:**

if (isLoggedIn) {

return <h1>Welcome!</h1>;

} else {

return <h1>Please log in</h1>;

}

**Using ternary operator:**

return (

<div>

{isLoggedIn ? <Dashboard /> : <LoginForm />}

</div>

);

**Using logical AND &&:**

{isAdmin && <AdminPanel />}

**2. Define Element Variables**

* Element variables are used to **store JSX** elements in a variable so you can render them conditionally or based on logic.
* It helps keep JSX clean and readable.

**Example:**

let message;

if (isLoggedIn) {

message = <h1>Welcome back!</h1>;

} else {

message = <h1>Sign up now!</h1>;

}

return <div>{message}</div>;

**3. Explain How to Prevent Components from Rendering**

* You can **prevent rendering** in React by returning null from the component.
* This means the component renders nothing (not even an empty div), and React ignores it in the DOM.

**Example:**

function WarningBanner(props) {

if (!props.showWarning) {

return null; // Prevent rendering

}

return <div className="warning">Warning!</div>;

}

Use case: hiding banners, modals, error messages, etc.