**1. Conditional Rendering in React**

**Conditional rendering** means showing different UI output based on certain conditions (like user actions, login status, or variable values).

* In React, you use JavaScript expressions like if, the **ternary operator** (condition ? value1 : value2), or && to decide *what* to show.
* This makes the UI dynamic—buttons, messages, and sections can appear/disappear as needed.

**2. Element Variables in React**

**Element variables** are JavaScript variables that store JSX elements. You can use them to select which part of the UI to render, or to store pieces you want to insert later.

* They make code cleaner—especially when choosing between multiple render options before your return.

**Example:**

**let** button;

**if** (isLoggedIn) {

button = <button onClick={logout}>Logout</button>;

} **else** {

button = <button onClick={login}>Login</button>;

}

**return** (

<div>

{button}

</div>

);

**3. Preventing Components from Rendering**

Sometimes, you want to **not render** (display) a component at all—so it doesn’t appear in the UI.

* The simplest way: **Return null** from your component. React will skip rendering it.
* Returning null means “render nothing,” not even an empty <div>.

**Example:**

**function** WarningBanner(props) {

**if** (!props.warn) {

**return** **null**; *// Nothing rendered if warn is false*

}

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

}