## Explain about conditional rendering in React

Conditional rendering in React means showing or hiding UI elements (like components, elements, messages, etc.) based on certain conditions, such as state, props, or logic. It is used to:

* toggle components (e.g., login/logout buttons)
* show messages (e.g., “No results found”)
* render UI based on user roles, input, or state

## Define element variables

Element variables are variables that store JSX elements, which can then be conditionally rendered or reused inside a component’s return block. Example:

function Greeting({ isLoggedIn }) {

let message;

if (isLoggedIn) {

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

} else {

message = <h1>Please log in.</h1>;

}

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

}

## Explain how to prevent components from rendering

In React, sometimes we may want to stop a component from rendering based on a condition—such as when data is loading, a user isn’t authenticated, or a feature is toggled off.

Common Ways to Prevent Rendering:

* Return null from the Component
* Use Conditional Rendering in Parent JSX