## Explain various ways of conditional rendering

Conditional rendering means deciding what to show in the UI based on conditions—like whether a user is logged in, data is loaded, or a feature is active. Some ways:

* Using if...else Statements
* Using the Ternary Operator (? :)
* Using the Logical AND (&&) Operator
* Using the Logical OR (||) Operator
* Element Variables

## Explain how to render multiple components

In React, rendering multiple components simply means displaying more than one JSX element or custom component together in the output of your return statement. Example:

function Header() {

return <h1>Header</h1>;

}

function Footer() {

return <p>Footer</p>;

}

function App() {

return (

<div>

<Header />

<Footer />

</div>

);

}

## Define list component

A List Component is a reusable React component that renders a collection of items, typically using .map() to loop through an array and generate a list of JSX elements.

## Explain about keys in React applications

In React, keys are special string attributes you must include when creating lists of elements using .map(). They help React identify which items have changed, been added, or removed — improving performance during rendering. Example:

<ul>

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

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

))}

</ul>

## Explain how to extract components with keys

When we are rendering a list of items in React, it's good practice to extract each item into its own component — for better readability, reusability, and maintainability.

However, when doing this, we must pass the key prop to the extracted component properly — or React will throw a warning and lose the performance benefits of its virtual DOM diffing.

## Explain React Map, map() function

In React, the map() function is commonly used to render lists of elements or components dynamically from arrays. It comes from JavaScript, not React itself — but it’s one of the most used methods when building UIs in React.

map() is an array method that loops through an array and returns a new array by transforming each element: