**WEEK 7**

**13.REACTJS-HOL**

**1. Explain various ways of conditional rendering**

**React supports several ways to conditionally render:**

* **if-else statements**
* **Ternary operator: {condition ? <A /> : <B />}**
* **Logical && operator: {condition && <Component />}**
* **Element variables to hold conditional JSX**

**2. Explain how to render multiple components**

* **Grouping inside a parent element (like <div>)**
* **Using React Fragments (<>...</>)**

**<>**

**<Header />**

**<Footer />**

**</>**

**3. Define list component**

**A list component in React is a component that renders a collection of items using the map() function to generate elements dynamically from an array.**

**const items = [1, 2, 3];**

**const list = items.map(item => <li>{item}</li>);**

**4. Explain about keys in React applications**

**Keys are unique identifiers used by React to track list items and optimize rendering. They help React know which items changed, added, or removed.**

**<li key={id}>Item</li>**

**5. Explain how to extract components with keys**

**When rendering a list of components, extract each item into a separate child component and pass the key to the component's parent:**

**function User({ user }) {**

**return <li>{user.name}</li>;**

**}**

**users.map(user => <User key={user.id} user={user} />);**

**6. Explain React Map, map() function**

**The map() function is a JavaScript array method used in React to render lists:**

**array.map((item) => <Component key={item.id} data={item} />)**

**It creates and returns a new array of JSX elements.**