

## **Module 9) React**

### **Routing in React (React Router)**

**Question 1: What is React Router? How does it handle routing in single-page applications?**

**Answer:**React Router is a library in React that lets you create navigation between different pages without reloading the whole website. In single-page applications (SPAs), it updates the URL and shows different components based on the route, without refreshing the page. This gives a smooth and fast user experience just like a normal multi-page website.

**Question 2: Explain the difference between BrowserRouter, Route, Link, and Switch components in React Router.**

**Answer:****BrowserRouter** is the main component that sets up routing in your app using the browser's history. **Route** is used to define a path and the component to show for that path. **Link** is used to create clickable navigation links without page reload. **Switch** (in older versions) makes sure only the first matching route is shown, but in React Router v6, it is replaced by **Routes**.