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

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

**Ans. React Router** is a library for handling **routing** in React applications. It allows developers to build a **single-page application (SPA)** with navigation between different views or components without requiring a page reload. React Router manages the browser's URL and renders components based on the current path.

**How React Router Handles Routing in SPAs**

In a **single-page application (SPA)**, React Router:

1. **Uses the Browser's History API**:
   * It listens for changes in the browser's URL (via the History API or hash).
   * Updates the displayed components without a full-page reload.
2. **Renders Components Dynamically**:
   * Based on the current URL path, React Router determines which component to render.
3. **Provides Navigation Tools**:
   * Includes components like <Link> and <NavLink> for navigation without refreshing the page.
   * Allows programmatic navigation using hooks like useNavigate.