

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

- **BrowserRouter:** The router that uses the HTML5 history API to keep the UI in sync with the URL. It's used to wrap the entire application to enable routing.
- **Route:** A component that defines a path and the component that should render when the path matches the URL. Each route has a path prop and a component or element prop to define which component to render.
- **Link:** A component used for navigation. It renders an anchor (<a>) tag that enables users to navigate to a different route without reloading the page, updating the URL.
- **Switch:** A component that ensures only one route is rendered at a time. It renders the first matching <Route> inside it. It's typically used to group routes together, making sure that only one route is displayed at a time.