

React Js Assignment

Routing in React (React Router)

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

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React Router is a library for managing navigation in React single-page applications. It uses components like Route, Link, and BrowserRouter to handle dynamic routing without page reloads, allowing the app to respond to URL changes by rendering the appropriate components. It provides declarative routing and supports nested routes, making navigation seamless.

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

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- **BrowserRouter:** It wraps the entire application and uses the HTML5 History API to keep the UI in sync with the URL. It's typically placed at the root of the app.
- **Route:** It defines a mapping between a URL path and a component to render. When the URL matches the path prop, the corresponding component is displayed.
- **Link:** It is used for navigation within the app, replacing traditional <a> tags. It updates the URL without causing a page reload.
- **Switch:** It renders the first Route that matches the current URL. It ensures that only one route is displayed at a time, preventing multiple routes from being rendered simultaneously.