Routing using React Router | Cheat Sheet

Concepts in Focus

* Web Apps
* React Router
* Routing Example

1. Web Apps

Web Apps are of two types, based on how we get content:

* Multi-page application (MPA)
* Single-page application (SPA)

1.1 Multi-page application (MPA)

* Every URL is associated with corresponding resources (HTML, CSS, JS).
* The browser downloads these resources when you access them or navigate between URLs.

1.2 Single-page application (SPA)

* All URLs are associated with a single HTML page.
* On navigating we only get the additional content (Component - HTML, CSS, JS).

1.2.1 Advantages of using Single-page application (SPA)

* Faster Page loading - since they load only necessary Component (HTML, CSS, JS) resources on subsequent requests.
* React is mainly used to build Single-page applications.

2. React Router

In React, we build Single-page applications using React Router.

To implement routing, React Router provides various components:

* BrowserRouter
* Link
* Route
* Switch

2.1 BrowserRouter

To add routing wrap all the Components with BrowserRouter.

Syntax:

<BrowserRouter>

<Component 1>

<Component 2>

...

</BrowserRouter>

2.2 Link

Link Component creates hyperlinks that allows to navigate around in application.

Syntax:

<Link to="Path"> Display Text</Link>

The to prop specifies absolute path.

2.3 Route

The Route component renders specific UI component when path matches current URL.

<Route path="Path" component={Component} />

2.3.1 Exact

Renders the route if path matches exactly the current url

<Route exact path="Path1" component={Component1} />

note: If user enters undefined Path, the Component won’t be rendered

2.3 Switch

The Switch component will only render the first route that matches the path. If no path matches, it renders the Not Found component.

<Switch>

<Route path="Path1" component={Component1} />

<Route path="Path2" component={Component2} />

<Route component={NotFound} />

</Switch>

3. Routing Example

File: src/App.js

import { BrowserRouter, Route, Switch } from "react-router-dom"

import NotFound from "./components/NotFound";

...

const App = () => (

<BrowserRouter>

<Header />

<Switch>

<Route exact path="/" component={Home} />

<Route exact path="/about" component={About} />

<Route exact path="/contact" component={Contact} />

<Route component={NotFound} />

</Switch>

</BrowserRouter>

)

export default App

File: src/components/Header/index.js

import { Link } from "react-router-dom";

...

const Header = () => (

...

<ul className="nav-menu">

<li>

<Link className="nav-link" to="/">Home</Link>

</li>

<li>

<Link className="nav-link" to="/about">About</Link>

</li>

<li>

<Link className="nav-link" to="/contact">Contact</Link>

</li>

</ul>

...

)