



React and Node Integration

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There are two main approaches to create React applications on Node

- HTML approach
 - Write react code in HTML
 - Return the HTML file in response when a request URL contains .html
 - The react code will be executed by the browser
- React App approach
 - Execute react code at server end
 - Steps to follow:
 1. `npx create-react-app <myapp>` (myapp is the app name to be given)
 2. `cd <myapp>`
 3. `npm start`
 4. Modify `src/App.js` to create your own app

React Router is a standard library for routing in React applications, allowing you to navigate between different views or pages without refreshing the page.

It helps manage navigation and URL handling within single-page applications (SPAs).

Server side Route

- By clicking on a link, which in turn will request a new page from the server. A whole new document is served to the user.
- A server-side request causes the whole page to refresh. This is because a new GET request is sent to the server which responds with a new document, completely discarding the old page altogether.

Client-side Route

- When a user clicks on a link, the URL changes but the request to the server is prevented.
- A client-side route happens when the route is handled internally by the JavaScript that is loaded on the page.

- SPA (Single Page Applications) need fewer reload of pages, faster page speeds so that it leads to better User Experience
- Traditionally, regular applications used the `<a>` tag to enable navigation from one page to another. This resulted in server requests and hence called server side routing
- With React Router, we achieve client side routing using the `<Link>` and `<Route>` component.
- As you click around on the different `<Link>`s, the router renders the matching `<Route>`

```
import {BrowserRouter as Router, Route, Link} from 'react-router-dom';
```

```
<Router>
```

```
  <Link to="/">Home</Link>
```

```
  <Link to="/contact">Contact</Link>
```

```
  <Link to="/about">About Us</Link>
```

```
  <Routes>
```

```
    <Route path="/" element={<Home/>}/>
```

```
    <Route path="/about" element={<About/>} />
```

```
    <Route path="/contact" element={<Contact/>} />
```

```
  </Routes>
```

```
</Router>
```

App.js

```
import {StyledLink} from './styles.js';  
<Router>  
  <StyledLink to="/">Home</StyledLink>  
  ...  
</Router>
```

styles.js

```
import styled from 'styled-components';  
import {NavLink} from 'react-router-dom';  
  
export const StyledLink = styled(NavLink)`  
  margin-right: 5px;  
`;  
export default StyledLink;
```



THANK YOU

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