

REACT ROUTER

Declarative routing for React

REVIEW

NOT SINGLE PAGE APPLICATION



Server



index.html

GET /



User clicks on link . . .



Server



settings.html

GET /settings



NOT SINGLE PAGE APPLICATIONS

- **Views stored on the server, served up as HTML pages.**
- **When user goes to a new page, the browser navigates in totality, navigating, refreshing and retrieving a brand new HTML.**
- **Each page, since it is a new page, retrieves stylesheets, script files, etc.**

SINGLE PAGE APPLICATION (SPA)



Server



index.html

GET /



User clicks on link . . .



Server

```
{  
  "billingInfo": {},  
  "notifyMe": true  
}
```

GET /user/1/settings



Display settings view

SINGLE PAGE APPLICATIONS

- On page change, a new page is not loaded. The front-end JavaScript replaces elements on existing DOM to update view.
- **AJAX** plays a big part to fill in the data
- **Two options for dealing with the url bar:**
 - Use the **HTML5 Browser History API**, OR
 - Manipulate the **Document Fragment Identifier (#)**



WHAT IS REACT-ROUTER?

- **React Router keeps your UI in sync with the URL.**
- **Ties into URL and history to allow for easy navigation to and between different parts of your application.**
- **Easily integrates nesting of components.**

INGREDIENTS

INGREDIENT LIST

- **A Router (either HashRouter or BrowserRouter)**
- **Routes**
- **Links**

“ROUTER” (HASHROUTER OR BROWSER ROUTER)

ROUTER

- **Answers simple question: *Use the BrowserHistory API, or abuse the Document Fragment Identifier (#)***
- ***Needs to be the parent of almost everything***
 - *Why? Because whenever the url changes, it's the Router component that changes its state, which causes everything beneath it to re-render*

```
import {HashRouter as Router} from 'react-router-dom'
```

```
import {HashRouter as Router} from 'react-router-dom'

const Main = () => {
  return (
    <Router>
      {/* basically everything else */}
    </Router>
  )
}
```

ROUTE = PATH + COMPONENT

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```
<Route path='/somePath' component={SomeComponent} />
```


**WHEN THE URL BAR MATCHES THE ONE
SPECIFIED IN THE ROUTE, REACT-ROUTER
CAUSES THAT COMPONENT'S RENDER
FUNCTION TO EXECUTE**

**THIS MATCHING IS
"FUZZY" (THINK "JUST LIKE
APP.USE!")**

LINK

LIKE AN "A" TAG BUT BETTER

LINK

```
<Link to='somePath'>Go to SomePath</Link>
```

