Front End Workshops

React Router

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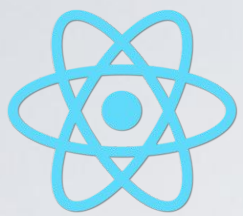
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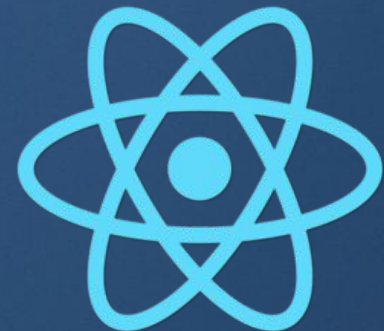
React Router
Client side navigation

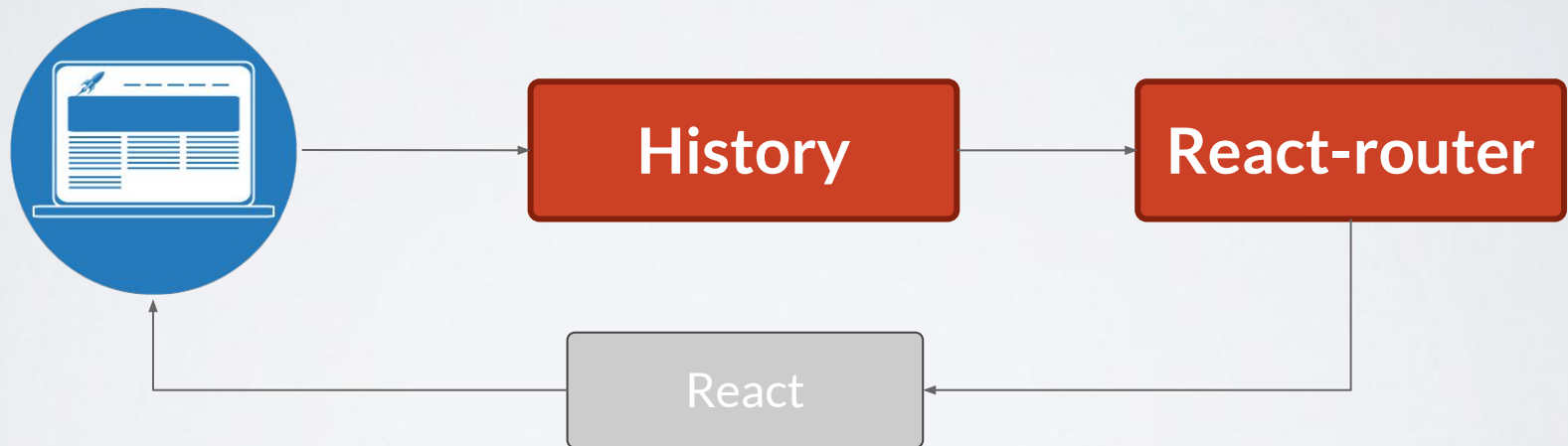# Introduction

Inspired by **Ember.js** router

How does a router work?

Browser → **History** → **React-router** → **React** → Browser

*See alternative data management libraries at https://github.com/facebook/react/wiki/Complementary-Tools#model-management
*See alternative routing libraries at https://github.com/facebook/react/wiki/Complementary-Tools#routing

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Histories

A **history** knows how to listen to the browser's address bar for changes

Different flavors are available…

browserHistory ⟹ http://example.com/some/path

hashHistory ⟹ http://example.com/#/some/path

createMemoryHistory

…but you can build your custom history (if you dare)!

Routing basics (1 of 2)

From...

```
ReactDOM.render(
  <App />,
  document.querySelector('.container')
);
```

to...

```
ReactDOM.render(
  <Router history={browserHistory}>
    <Route path="/" component={App} />
  </Router>,
  document.querySelector('.container')
);
```

A more practical example...

```
ReactDOM.render(
  <Router history={browserHistory}>
    <Route path="/" component={App} />
    <Route path="/about" component={About} />
    <Route path="/contact" component={Contact} />
    <Route path="*" component={NotFound} />
  </Router>,
  document.querySelector('.container')
);
```

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Routing basics (2 of 2)

A more scalable way of specifying the routes

Same example using the routes prop...

```
// routes.js
export default (
  <Route path="/" component={App} />
  <Route path="/about" component={About} />
  <Route path="/contact" component={Contact} />
  <Route path="*" component={NotFound} />
);
```

```
import routes from './routes';
ReactDOM.render(
  <Router history={browserHistory} routes={routes} />,
  document.querySelector('.container')
);
```

*For more advanced usage, see https://github.com/reactjs/react-router/blob/master/docs/guides/DynamicRouting.md

Route nesting

```
ReactDOM.render(
  <Router history={browserHistory}>
    <Route path="/" component={App}>
      <IndexRoute component={Home} />
      <Redirect from="home" to="/" />
      <Route path="contact" component={Contact} />
      <Route path="*" component={NotFound} />
    </Route>
  </Router>,
  document.querySelector('.container')
);
```
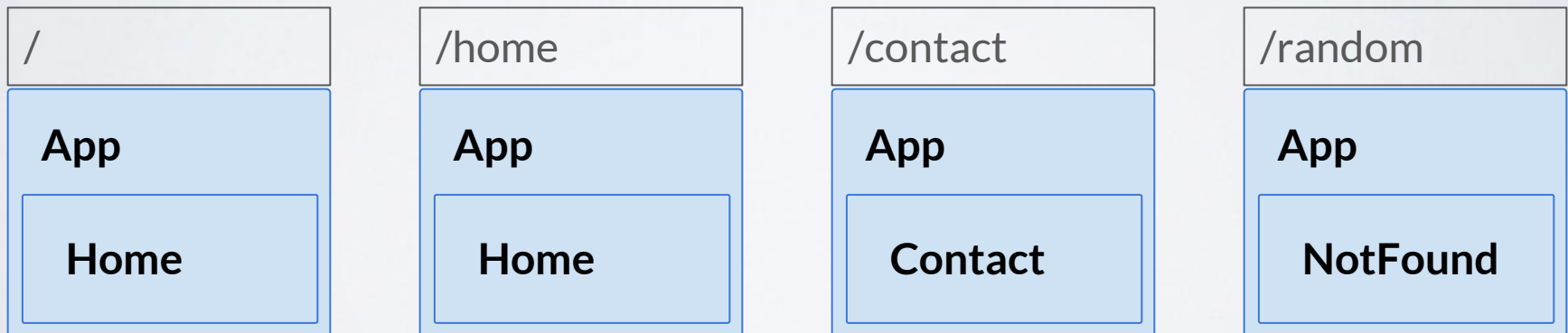
Don't forget to **render** the children components inside their parent!

`{this.props.children}`

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/
App
Home

/home
App
Home

/contact
App
Contact

/random
App
NotFound

Dynamic routing

In the **route** you can define **dynamic segments**

```
<Route path="/users/:userId" component={UserItem} />
```

In the **component** you can use `this.props.params.<param_name>`

Define an **optional param** by wrapping it between parenthesis

```
<Route path="/contact(/:mode)" component={Contact} />
```

In the **component** you can use `this.props.params.<param_name>`

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Navigation links

Link

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

```
<Link to={"/users/" + user.id} activeStyle={{ color: red }}>User details</Link>
```

```
<Link to={"/users/" + user.id} activeClassName="active">User details</Link>
```

IndexLink

```
<IndexLink to="/">Contact us</IndexLink>
```

Query params

```
<Link to={{ pathname: "/user/bob", query: { showAge: true } }}>Bob</Link>
```

```
In the component you can use this.props.location.query.<param_name>
```

Navigation within components

The router instance can be made accessible through the **contextTypes**

Invoke router **push('<target_url>')** or **replace('<target_url>')** methods to navigate programmatically

```
class CoolButton extends Component {
  static contextTypes = { router: PropTypes.object };
  onButtonClick() {
    this.context.router.push('/cool');
  }
  render() {
    return <button onClick={this.onButtonClick.bind(this)}>Navigate</button>;
  }
}
```

Not the recommended way since react-router 2.4.0*

*See https://github.com/reactjs/react-router/blob/master/upgrade-guides/v2.0.0.md#changes-to-thiscontext

Thanks for your time!

Do you have any questions?

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