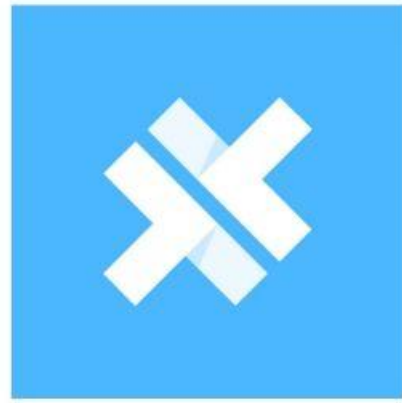
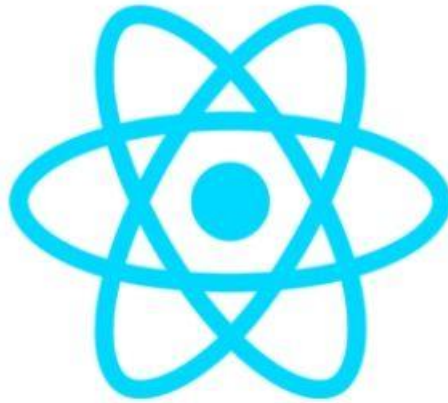




IonicConf 2020 - State Management with Context API
Aaron K. Saunders CEO Clearly Innovative Inc

LEARN TO BUILD MOBILE APPS WITH IONIC FRAMEWORK, REACTJS AND CAPACITOR



ME

- Over thirty years software development experience - Ionic since 2014
- Started Clearly Innovative Inc, 10 years ago
- Teach Ionic with Angular, Vue & React thru #TheFutureIsWrittenInCode Tech Initiative
- Run 8k sq ft Innovation Space focused on Black & Underrepresented communities to increase exposure to Technology & Entrepreneurship (@In3DC)

React State Management

- How do I pass data between tabs?
- How do I get the email address in the side-menu?
- How do I hide the side-menu when I am not logged in?
- How to I manage the Login Page vs Home Page Showing?
- WTF is Redux???

React Context API

- Context provides a way to pass data through the component tree without having to pass props down manually at every level.
- You can have multiple context for specific functionality
- You can use Context API with Redux or other state management solutions

When To Use React Context API

- Context is designed to share data that can be considered “global” for a tree of React components, such as the current authenticated user, theme, or preferred language.
- That's what we are going to do

When To Use React Context API

- Context is designed to share data that can be considered “global” for a tree of React components, such as the current authenticated user, theme, or preferred language.
- That's what we are going to do

React Context API

- **Context:** Has all the data.
- **Provider:** Allows consuming components to subscribe to context changes.

React Context API - User Auth, User Info & Routing

- Keep user information & logged in state
- Function to login and logout
- Using state for access to routes
- Using state information to display user information without passing props around
- <https://github.com/aaronksaunders/state-io-niconf>

CODE WALKTHRU

<https://github.com/aaronksaunders/state-ionicconf>

React Context API - Context

```
3  // create the context
4  export type IAuthContext = {
5      authInfo: {
6          loggedIn: boolean;
7          user: {
8              email: string;
9              id: string;
10         };
11     };
12     logOut: any;
13     logIn: any;
14 };
15 const AuthContext = React.createContext<any>(undefined);
```

React Context API - Context Provider

```
6 import { AuthProvider } from "../AuthContext";  
7  
8 ReactDOM.render(  
9   <AuthProvider>  
10     <App />  
11   </AuthProvider>,  
12   document.getElementById("root")  
13 );
```

React Context API - Accessing Context Values

```
export const useAuth = () => React.useContext(AuthContext) as IAuthContext;
```

React Context API - Accessing Context Values - App.tsx

```
31  
32   import { useAuth } from "../AuthContext";  
33  
34   const App: React.FC = () => {  
35  
36     const {authInfo} = useAuth();  
37
```

React Context API - Accessing Context Values - App.tsx

```
41 {authInfo?.user?.email ? (  
42   <IonSplitPane contentId="main">  
43     <Menu />  
44     <IonRouterOutlet id="main">  
45       <Route path="/page/:name" component={Page} exact />  
46       <Redirect from="/" to="/page/Inbox" exact />  
47     </IonRouterOutlet>  
48   </IonSplitPane>  
49 ) : (  
50   <>  
51     <Route path="/login-page" component={LoginPage} exact />  
52     <Redirect from="/" to="/login-page" exact />  
53   </>  
54 )}
```


React Context API - Accessing Context Functions - App.tsx

```
17   import { useAuth } from "../AuthContext";
18
19   const LoginPage: React.FC = () => {
20
21     const { logIn } = useAuth();
22
23     const doLogin = async () => {
24       await logIn(email, "password");
25       history.replace("/page/Inbox");
26     };
```

Links

<http://www.clearlyinnovative.com>

<http://www.fiwic.com>

<https://dev.to/aaronksaunders>

Podcast: #In3Talks Series

YouTube: www.youtube.com/c/AaronSaundersCI

Twitter: [@aaronksaunders](https://twitter.com/aaronksaunders)