

Creating Protected Routes With React Router V6



Dennis Ivy · Follow

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Since React Router moved from version 5 to version 6 I've been meaning to update any articles and videos I have on this subject to show you the new ways of making protected routes in React. So, here it goes.

[Source code](#)

Video tutorial

I want to start with the old way of doing things to give you some context. Maybe you used a different method but this is how I used to do it.

The old way (React Router V5)

I would start by creating a component called `<PrivateRoute>` and then use this component to check a users permissions and authentication status.

This component would essentially extend the `<Route>` component to give it some extra functionality and then return back a `<Route>` with all our parameters and some extra rules on how to handle things.

For simplicity I stripped down the user to a token value of true or false.

```
import { Route, Redirect } from 'react-router-dom'

const PrivateRoute = ({children, ...rest}) => {
  let auth = {'token':false}
  return(
    <Route {...rest}>
      {!auth.token
        ?
        <Redirect to="/login" />
        :
        children}
    </Route>
  )
}
```

We would then take this component and use it just like we would a `<Route>` inside of our root component (`<App>`).

```
function App() {
  return (
```

```
<div className="App">
  <Router>
    <PrivateRoute component={HomePage} path="/" exact/>
    <Route component={LoginPage} path="/login"/>
  </Router>
</div>
```

So depending on the status of “auth.token” we would render the component passed in or redirect a user.

Why we cant do this anymore

With react router 6 there were some key changes that will affect this structure.

For one, `<Redirect>` is now `<Navigate>`.

Next, `<Routes>` was added so we no longer use `<Switch>`. With this change `<Route>` must always be a child to `<Routes>` which throws out the option of being able to extend our `<Route>`. The job of the `<Routes>` component is to look through all the `<Route>` components and find a match to render to the UI. If we used `<PrivateRoute>` here it would be ignored by `<Routes>`. So that's that.

So what do we do now?

With React Router V6 we now have a component called `<Outlet>`. The `<Outlet>` component can be used in a parent `<Route>` element to render out child elements. So the solution would be to nest private routes inside of a

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This new approach is actually very clean and makes our component much simpler. With this we will call now `<PrivateRoute>` “PrivateRoutes”, with an “s”, because we can pass in more than one route inside of this component.

```
import { Navigate, Outlet } from 'react-router-dom'

const PrivateRoutes = () => {
  let auth = {'token':true}

  return (
    auth.token ? <Outlet/> : <Navigate to='/login'/>
  )
}
```

Now to use it we would simply pass in `<PrivateRoute>` to a `<Route>`, and then nest all the components that we want to be private inside of this route.

```
import { BrowserRouter as Router, Routes, Route } from 'react-router-dom'
...
function App() {
  return (
    <Router>
      <Routes>
        <Route element={<PrivateRoutes/>}>
          <Route path='/' element={<Users/>} />
          <Route path='/products' element={<Products/>} />
        </Route>

        <Route path='/login' element={<Login/>} />
      </Routes>
    </Router>
  );
}
```

That's it!



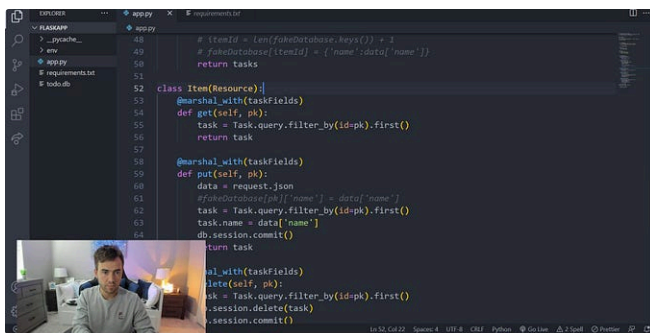
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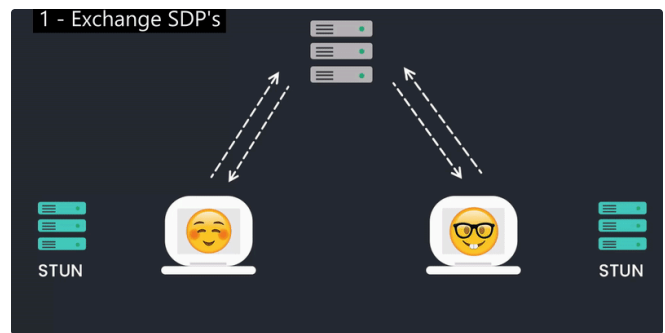
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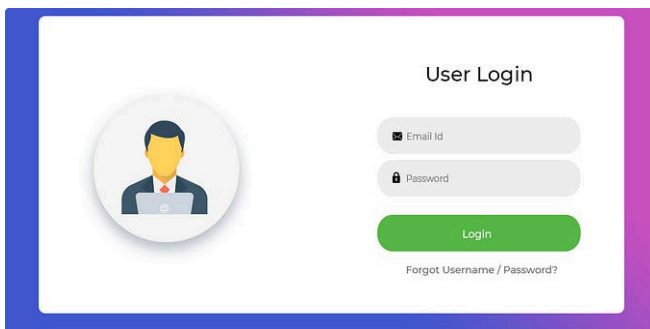
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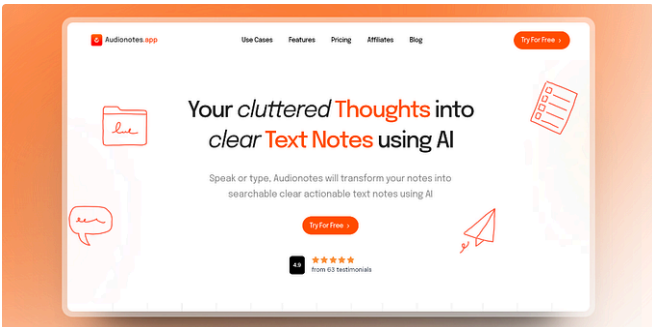


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