Training Day 17 Report

Date: 15 July 2025

Project: MERN Notes App

Topic Covered: Protected Routes in React using JWT

On the seventeenth day, we secured the frontend by restricting access to certain pages (e.g., Notes Dashboard) only to logged-in users. We implemented **Protected Routes** with React Router and token checks.

Concepts Learned

- How to use React Router for navigation and route protection.

- Checking `localStorage` for saved user info and JWT tokens.

- Redirecting unauthenticated users to the Login page.

Protected Route Component

We created a wrapper for protected routes in `src/components/ProtectedRoute.js`:

Listing 1: ProtectedRoute.js

```
1  import React from 'react';
2  import { Navigate } from 'react-router-dom';
3
4  function ProtectedRoute({ children }) {
5    const userInfo = JSON.parse(localStorage.getItem('userInfo'));
6
7    if (!userInfo) {
8      return <Navigate to="/login" replace />;
9    }
10
11   return children;
12 }
13
14 export default ProtectedRoute;
```

Using Protected Routes in App.js

In `src/App.js`, we integrated the `ProtectedRoute`:

Listing 2: App.js with protected notes route

```
1  import { BrowserRouter as Router, Routes, Route } from 'react-router-
     dom';
2  import Login from './screens/Login';
3  import Signup from './screens/Signup';
4  import Notes from './screens/Notes';
5  import ProtectedRoute from './components/ProtectedRoute';
6
```

```
7   function App () {
8     return (
9       <Router >
10        <Routes >
11          <Route path ="/ login" element ={<Login />} />
12          <Route path ="/ signup" element ={<Signup />} />
13          <Route
14            path ="/ notes"
15            element ={
16              <ProtectedRoute >
17                <Notes />
18              </ProtectedRoute >
19            }
20          />
21        </Routes >
22      </Router >
23    );
24  }
25
26  export default App ;
```

Behavior of Protected Routes

- If a user tries to access /notes without logging in, they are redirected to /login.

- If logged in (valid token saved in localStorage), the Notes page loads normally.

Testing the Flow

- Cleared localStorage $\rightarrow$ visiting /notes redirected to Login.

- Logged in $\rightarrow$ successfully navigated to Notes Dashboard.

- Logged out (removed userInfo) $\rightarrow$ /notes again redirected to Login.

Outcome of the Day

- Implemented frontend route protection with React Router.

- Ensured only authenticated users can access Notes pages.

- Completed the authentication flow (Login $\rightarrow$ Token $\rightarrow$ Protected Routes).