

Industrial Training Daily Diary

MERN Stack Training

Company: Sensation Software Solutions

Student Name: Tajinder Kaur

Training Duration: 6 Months

Day: 27

Day 27 – React Router Advanced: Protected Routes, Redirects, Nested Routes

Objective of the Day

The objective of Day 27 was to learn **advanced routing concepts in React**, including **protected routes**, **redirects**, and **nested routes** to enhance user navigation and security in applications.

Recap of Basic React Routing

Trainer reviewed:

- BrowserRouter, Route, Link, NavLink
- useHistory/useNavigate for programmatic navigation
- Basic routing between Home, Registration, and Success pages

This recap helped set the foundation for advanced routing.

Protected Routes

Protected routes allow access to certain pages only if a user meets specific conditions, such as being logged in.

Key points:

- Creating a ProtectedRoute component
- Checking authentication status using Redux state or Context API
- Redirecting unauthorized users to login page

Example: Dashboard page accessible only after login.

Redirects

Trainer explained how to redirect users programmatically:

- Using `useNavigate` hook in React Router v6
- Redirecting after form submission or login/logout actions
- Conditional redirects based on state

Nested Routes

Nested routes allow rendering of child routes within parent components.

Key points:

- Using `Outlet` component for nested routes
- Creating multiple levels of routing for complex UIs
- Managing layout components with nested routing

Example: Profile page with nested routes for Account, Settings, and Activity.

Practical Work Done

During lab session:

- Implemented `ProtectedRoute` component for Dashboard and Profile
- Redirected users to login page if not authenticated
- Created nested routes inside Profile component
- Tested programmatic navigation after form submission

Hands-on practice ensured understanding of real-world routing patterns.

Weekly Task – Week 7 (Continued)

Tasks assigned:

- Implement protected routes in React application
- Use redirects after login/logout
- Create nested routes for multi-level navigation
- Update diary and push code to GitHub Pages

Importance in MERN Stack Development

Advanced routing ensures secure access to pages, proper navigation flow, and maintainable structure in MERN applications.

Conclusion of Day 27

Day 27 provided practical experience with protected routes, redirects, and nested routing. I can now manage secure and complex navigation structures in React applications.

Outcome of the Day:

- Protected routes implemented
- Redirects configured based on user state
- Nested routes created for multi-level navigation
- Week 7 tasks progressed and documented