

Industrial Training Daily Diary

MERN Stack Training

Company: Sensation Software Solutions

Student Name: Gurvinder Singh

Training Duration: 6 Months

Day: 15

Day 15 – React Router: Routing & Navigation

Objective of the Day

The objective of Day 15 was to understand **client-side routing in React** using **React Router**. Routing is an important concept for building Single Page Applications (SPA) where navigation happens without reloading the page.

Introduction to React Router

The trainer explained that **React Router** is a standard library used for handling routing in React applications. It allows different components to be displayed based on the URL path.

Key points discussed:

- SPA navigation
 - BrowserRouter usage
 - Route-based component rendering
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BrowserRouter vs Router

We learned that **BrowserRouter** is commonly used in modern React applications because it uses the HTML5 history API for clean URLs.

The Router component acts as a wrapper for the entire application.

Route Component

The **Route component** was explained as the main building block for routing. It maps a URL path to a specific component.

Topics covered:

- path attribute
 - element/component rendering
 - Exact route matching
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Link and NavLink

The trainer demonstrated **Link** and **NavLink** components used for navigation without page refresh.

NavLink was explained with its active class feature, which helps in styling the active route.

Route Parameters

We learned how to pass dynamic values through the URL using **route parameters** and how to access them inside components.

This is useful for displaying dynamic content such as user profiles or product details.

Practical Work Done

During the practical session, we:

- Created a multi-page React application
 - Implemented React Router
 - Added navigation menu using Link and NavLink
 - Created dynamic routes using parameters
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Weekly Task – Week 3

As part of the weekly task, we were assigned to:

- Create a React application with at least 3 routes
- Implement navigation menu
- Use dynamic routing
- Push project and diary updates to GitHub Pages

Importance in MERN Stack Development

React Router plays a crucial role in frontend navigation and is widely used in professional MERN stack projects.

Conclusion of Day 15

Day 15 helped me understand how routing works in React and how to build smooth navigation in Single Page Applications.

Outcome of the Day:

- Understanding of React Router
- Ability to create multi-page SPAs
- Practical routing implementation
- Completion of Week 3 task