INTERNSHIP REPORT

WEEK 7 DAY 1

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React.js Advanced

Topics: React Router (pages, navigation)

Objective

To understand and implement client-side routing in a React application using react-router-dom, enabling navigation between multiple pages (Home, About, Contact, and 404 Not Found) without reloading the entire page.

Tasks Completed:

1. Installed React Router DOM:

- Ran the command: npm install react-router-dom

- Verified installation via package.json

2. Configured Routing in React:

- Wrapped the <App /> component in <BrowserRouter> in index.js

- Used <Routes> and <Route> components in App.js to define routes

3. Created Multiple Page Components:

- Home.js: Displayed welcome message

- About.js: Displayed information about the app or company

- Contact.js: Displayed contact information

- NotFound.js: Displayed a 404 error for unknown routes

4. Set Up Navigation with NavLink:

- Used <NavLink> in App.js to allow users to navigate between pages

- Added inline styling to distinguish links
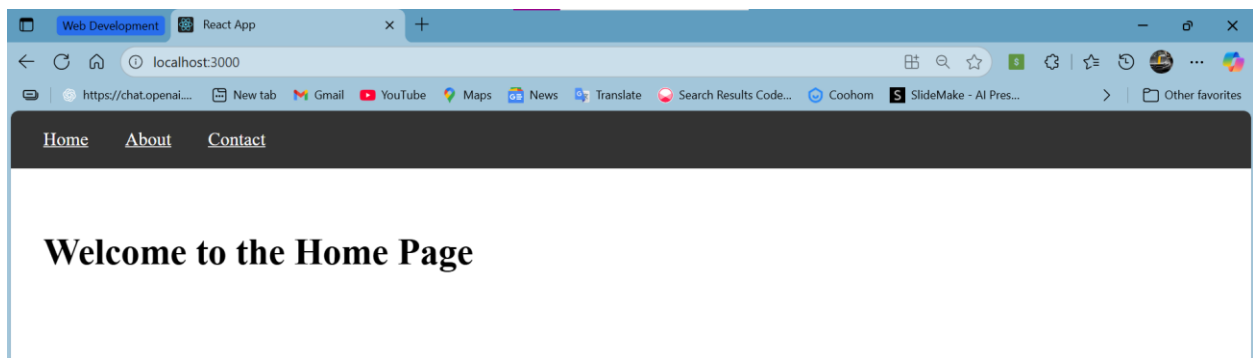
5. Tested All Routes:

- / → Home Page

- /about → About Page

- /contact → Contact Page

- /xyz → NotFound (404)

6. Handled Errors:

- Resolved issues related to file naming, case sensitivity, and blank screen

- Cleaned cache and reinstalled packages when needed

Key Learnings:

- React Router enables SPA (Single Page Application) behavior with multiple route paths.
- <NavLink> adds auto active styling and improves navigation UX.
- File names and paths must match exactly to avoid "blank screen" or import errors.
- Routing structure separates concerns and keeps the project organized.

Code Sample Used in App.js:

```
<Routes>
 <Route path="/" element={<Home />} />
 <Route path="/about" element={<About />} />
 <Route path="/contact" element={<Contact />} />
 <Route path="*" element={<NotFound />} />
</Routes>
```

CONCUSLION:

Today's task helped me understand how routing works in React applications. It improved my understanding of how to manage multiple pages using components and react-router-dom, allowing for dynamic navigation without page reloads.