

React Router

React Router is a standard **routing library** for React that enables **navigating between different views or pages** in a single-page application (SPA), **without reloading the page**.

Why React Router?

By default, React renders one page — but most apps need multiple pages (like Home, About, Contact, etc.). React Router handles this by mapping **URL paths to components**, keeping the user experience seamless and fast.

Step 1

```
npm create vite@latest react-router-demo --template react
cd react-router-demo
npm install
```

Create pages

- ☐ Home (/)
- ☐ About (/about)
- ☐ Contact (/contact)
- ☐ Not Found (*)

Step 2: Install React Router

Already done in previous steps, but in case you missed:

```
npm install react-router-dom
```

Step 3: Wrap Your App with BrowserRouter in main.jsx

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App.jsx';
import { BrowserRouter } from 'react-router-dom';

ReactDOM.createRoot(document.getElementById('root')).render(
  <BrowserRouter>
    <App />
  </BrowserRouter>
);
```

BrowserRouter enables routing in your application using the browser's history API.

Step 4: Create Navbar.jsx

```
import { Link } from 'react-router-dom';

export default function Navbar() {
  return (
    <nav style={{ padding: '1rem', background: '#eee' }}>
      <Link to="/" style={{ marginRight: 10 }}>Home</Link>
      <Link to="/about" style={{ marginRight: 10 }}>About</Link>
      <Link to="/contact">Contact</Link>
    </nav>
  );
}
```

Step 5: Create App.jsx

```
import { Routes, Route } from 'react-router-dom';
import Home from './pages/Home';
import About from './pages/About';
import Contact from './pages/Contact';
import NotFound from './pages/NotFound';
import Navbar from './components/Navbar';

export default function App() {
  return (
    <div>
      <Navbar />

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