

## For adding Routing in React Application

1. Add following entry in package.json and then give command npm install,

```
"react-scripts": "5.0.1",
"web-vitals": "^2.1.4",
"react-router-dom": "^6.3.0",
"bootstrap": "^4.6"
}
```

2. Wrap `<App>` entry inside `BrowserRouter` component in `index.js`  
import `reportWebVitals` from `'./reportWebVitals'`;

```
import {BrowserRouter} from 'react-router-dom'
```

```
const root = ReactDOM.createRoot(document.getElementById('root'));
```

```
root.render(
```

```
<React.StrictMode>
```

```
<BrowserRouter>
```

```
<App />
```

&lt;/BrowserRouter&gt;

&lt;/React.StrictMode&gt;

$$);$$

3. In App.js add Header, Footer and MainNavBar components entries. And also add the components

```
function App() {
```

```
return (
```

```
<div className="App">
```

<Header></Header>

```
<MainNavBar></MainNavBar>
```

<Footer></Footer>

$$);$$

}

4. Create MainNavBar.js , copy some navbar from bootstrap library, change the menu options, and replace anchor tag with NavLink, and href with to property

```
import React from 'react'
import { NavLink } from 'react-router-dom'
export default function MainNavBar() {
  return (
```

```

<div>
  <nav className="navbar navbar-expand-lg navbar-light bg-light">
    <a className="navbar-brand" href="#">Navbar</a>
    <button className="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
      <span className="navbar-toggler-icon"></span>
    </button>

    <div className="collapse navbar-collapse" id="navbarSupportedContent">
      <ul className="navbar-nav mr-auto">
        <li className="nav-item active">
          <NavLink className="nav-link" to="/home">Home <span className="sr-
only">(current)</span></NavLink>
        </li>
        <li className="nav-item">
          <NavLink className="nav-link" to="/table">Table</NavLink>
        </li>
        <li className="nav-item">
          <NavLink className="nav-link" to="/list">List</NavLink>
        </li>
        <li className="nav-item">
          <NavLink className="nav-link" to="/form">form</NavLink>
        </li>

        <li className="nav-item">
          <NavLink className="nav-link disabled">Disabled</NavLink>
        </li>
      </ul>

    </div>
  </nav></div>
)
}

```

5. Add Routes entry and all components import entries in App.js, create HomeComponent, ProductTable, ProductList, ProductForm as basic function components

```

import logo from './logo.svg';
import './App.css';
import "bootstrap/dist/css/bootstrap.min.css"
import Header from './components/Header';
import Footer from './components/Footer';
import MainNavBar from './components/MainNavBar';
import HomeComponent from './pages/HomeComponent';
import ProductTable from './pages/ProductTable';
import ProductForm from './pages/ProductForm';
import ProductList from './pages/ProductList';
import {Navigate} from 'react-router-dom';

```

```

function App() {
  return (
    <div className="App">
      <Header></Header>
      <MainNavBar></MainNavBar>
      <Footer></Footer>
      <Routes>
        <Route path="/" element={<Navigate replace to="/home"></Navigate>}></Route>
        <Route path="/home" element={<HomeComponent></HomeComponent>}></Route>
        <Route path="/table" element={<ProductTable></ProductTable>}></Route>
        <Route path="/list" element={<ProductList></ProductList>}></Route>
        <Route path="/form" element={<ProductForm></ProductForm>}></Route>
      </Routes>
    </div>
  );
}

```

```
export default App;
```

6. To add child route in table . change the ProductTable.js as follows

```
import React from 'react'
```

```
import { Outlet,Link} from 'react-router-dom'
```

```
export default function ProductTable() {
```

```
  return (
```

```
    <div>
```

```
    { /* Link component will change the url to /form after you click on the button */ }
```

```
    <Link to="/form">
```

```
      <button type="button" name="btn" id="btn">Add new product</button>
```

```
    </Link>
```

```
    <ul>
```

```
      <li>
```

```
        <Link to="/table/p1">
```

```
          Product 1
```

```
        </Link>
```

```
      </li>
```

```
      <li>
```

```
        <Link to="/table/p2">
```

```
          Product 2
```

```
        </Link>
```

```
      </li>
```

```
      <li>
```

```
        <Link to="/table/p3">
```

```
          Product 3
```

```
        </Link></li>
```

```
    </ul>
```

```
    <div>
```

```
    { /* It is place holder to display child component */ }
```

```

        <Outlet></Outlet>
      </div>
    </div>
  )
}

```

7. Add ProductDetails component as follows

```

import React from 'react'
import { useParams } from 'react-router-dom';
export default function ProductDetails() {
  const params=useParams();
  return (
    <div>
      <h1>ProductDetails</h1>
      <h3>{params.id}</h3>
    </div>
  )
}

```

8. Add following entries in App.js

```

import logo from './logo.svg';
import './App.css';
import "bootstrap/dist/css/bootstrap.min.css"
import Header from './components/Header';
import Footer from './components/Footer';
import MainNavBar from './components/MainNavBar';
import HomeComponent from './pages/HomeComponent';
import ProductTable from './pages/ProductTable';
import ProductForm from './pages/ProductForm';
import ProductList from './pages/ProductList';
import ProductDetails from './pages/ProductDetails';
import {Navigate,Routes,Route} from 'react-router-dom';
function App() {
  return (
    <div className="App">
      <Header></Header>
      <MainNavBar></MainNavBar>
      <Footer></Footer>
      <Routes>
        <Route path="/" element={<Navigate replace to="/home"></Navigate>}></Route>
        <Route path="/home" element={<HomeComponent></HomeComponent>}></Route>
        <Route path="/table" element={<ProductTable></ProductTable>}>
          <Route path=":id" element={<ProductDetails></ProductDetails>}></Route>
        </Route>
        <Route path="/list" element={<ProductList></ProductList>}></Route>
        <Route path="/form" element={<ProductForm></ProductForm>}></Route>
      </Routes>
    </div>
  )
}

```

```
    </div>  
  );  
}
```

```
export default App;
```