**React Task 3**

1. App.js

import React from "react";

import "bootstrap/dist/css/bootstrap.min.css";

// Higher-Order Component (HOC) to wrap a component with a Bootstrap table

const withTable = (WrappedComponent, columns) => {

 return ({ data }) => (

 <div className="container mt-4">

 <h3>{WrappedComponent.name} Table</h3>

 <table className="table table-bordered table-striped">

 <thead className="table-dark">

 <tr>

 {columns.map((col, index) => (

 <th key={index}>{col}</th>

 ))}

 </tr>

 </thead>

 <tbody>

 <WrappedComponent data={data} />

 </tbody>

</table>

 </div>

 );

};

// Product List Component

const ProductList = ({ data }) => {

 return data.map((product) => (

 <tr key={product.id}>

<td>{product.id}</td>

<td>{product.name}</td>

 <td>{product.price}</td>

 </tr>

 ));

};

// Employee List Component

const EmployeeList = ({ data }) => {

return data.map((employee) => (

<tr key={employee.id}>

<td>{employee.id}</td>

 <td>{employee.name}</td>

 <td>{employee.department}</td>

 </tr>

 ));

};

// Define column headers

const productColumns = ["ID", "Name", "Price"];

const employeeColumns = ["ID", "Name", "Department"];

// Wrap components with the HOC

const ProductTable = withTable(ProductList, productColumns);

const EmployeeTable = withTable(EmployeeList, employeeColumns);

// Main App Component

const HOCList = () => {

 const products = [

{ id: 1, name: "Laptop", price: "$1200" },

{ id: 2, name: "Phone", price: "$800" },

{ id: 3, name: "Tablet", price: "$500" },

];

const employees = [

{ id: 1, name: "Alice", department: "HR" },

{ id: 2, name: "Bob", department: "Engineering" },

{ id: 3, name: "Charlie", department: "Marketing" },

];

return (

<div>

<ProductTable data={products} />

 <EmployeeTable data={employees} />

 </div>

 );

};

export default HOCList;

1. App.js

import logo from './logo.svg';

import './App.css';

function App() {

  return (

    <div className="App">

      <header className="App-header">

        <img src={logo} className="App-logo" alt="logo" />

        <p>

          Edit <code>src/App.js</code> and save to reload.

        </p>

        <a

          className="App-link"

          href="https://reactjs.org"

          target="\_blank"

          rel="noopener noreferrer"

        >

          Learn React

        </a>

      </header>

    </div>

  );

}

export default App;

ProductComponent.js

import React, { useState, useEffect } from 'react';

const ProductComponent = () => {

  const [products, setProducts] = useState([]);

  const [loading, setLoading] = useState(true);

  const [error, setError] = useState(null);

  useEffect(() => {

    fetch('http://localhost:8082/product') // Replace with your Spring Boot endpoint

      .then((response) => {

        if (!response.ok) {

          throw new Error('Network response was not ok');

        }

        return response.json();

      })

      .then((data) => {

        setProducts(data);

        setLoading(false);

      })

      .catch((error) => {

        setError(error.message);

        setLoading(false);

      });

  }, []);

  if (loading) return <p>Loading...</p>;

  if (error) return <p>Error: {error}</p>;

  return (

    <div>

      <h2>Product List</h2>

      <table className="table table-striped">

        <thead>

          <tr>

            <th>ID</th>

            <th>Name</th>

          </tr>

        </thead>

        <tbody>

          {products.map((product) => (

            <tr key={product.id}>

              <td>{product.id}</td>

              <td>{product.name}</td>

            </tr>

          ))}

        </tbody>

      </table>

    </div>

  );

};

export default ProductComponent;

Index.js

import React from 'react';

import ReactDOM from 'react-dom/client';

import 'bootstrap/dist/css/bootstrap.min.css';

import ProductComponent from './ProductComponent';

import reportWebVitals from './reportWebVitals';

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

root.render(

  <React.StrictMode>

    <ProductComponent /> {/\* Render the ProductComponent \*/}

  </React.StrictMode>

);

reportWebVitals();

3.App.js

import React from "react";

import { BrowserRouter as Router, Routes, Route } from "react-router-dom";

import HomePage from "./components/HomePage";

import LoginComponent from "./components/LoginComponent";

import SignupComponent from "./components/SignupComponent";

const App = () => {

return (

<Router>

<Routes>

<Route path="/" element={<HomePage />} />

<Route path="/login" element={<LoginComponent />} />

<Route path="/signup" element={<SignupComponent />} />

</Routes>

</Router>

);

};

export default App;

Components:

HomePage.js

import React from "react";

const HomePage = () => {

    return <h1>Welcome to the Home Page</h1>;

};

export default HomePage

LoginComponent.js

import React from "react";

const LoginComponent = () => {

    return <h1>Login Page</h1>;

};

export default LoginComponent;

SignupComponent.js

import React from "react";

const SignupComponent = () => {

    return <h1>Signup Page</h1>;

};

export default SignupComponent;