**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;

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;