**2. ReactJS-HOL**

import React, { useState } from 'react';

// Home Component

// This component displays the welcome message for the home page.

const Home = () => {

return (

<div className="p-8 bg-white rounded-lg shadow-md">

<h2 className="text-3xl font-bold text-gray-800">

Welcome to the Home page of Student Management Portal

</h2>

<p className="mt-4 text-gray-600">

This is the main landing page. Navigate to other sections using the buttons above­­\_\_.

</p>

</div>

);

};

// About Component

// This component displays the welcome message for the about page.

const About = () => {

return (

<div className="p-8 bg-white rounded-lg shadow-md">

<h2 className="text-3xl font-bold text-gray-800">

Welcome to the About page of the Student Management Portal

</h2>

<p className="mt-4 text-gray-600">

Learn more about our mission and the team behind this portal.

</p>

</div>

);

};

// Contact Component

// This component displays the welcome message for the contact page.

const Contact = () => {

return (

<div className="p-8 bg-white rounded-lg shadow-md">

<h2 className="text-3xl font-bold text-gray-800">

Welcome to the Contact page of the Student Management Portal

</h2>

<p className="mt-4 text-gray-600">

Have questions? Reach out to us through our contact channels.

</p>

</div>

);

};

// Main App Component

// This is the root component that renders the entire application.

// It uses state to manage which page (Home, About, or Contact) is currently visible.

export default function App() {

// 'page' state variable holds the name of the component to display.

// It defaults to 'Home'.

const [page, setPage] = useState('Home');

// This function renders the component based on the current 'page' state.

const renderPage = () => {

switch (page) {

case 'Home':

return <Home />;

case 'About':

return <About />;

case 'Contact':

return <Contact />;

default:

return <Home />;

}

};

// Style for the navigation buttons

const getButtonClass = (buttonPage) => {

return `px-6 py-3 rounded-lg font-semibold text-white transition-transform transform hover:scale-105 shadow-md ${

page === buttonPage ? 'bg-indigo-600' : 'bg-indigo-400 hover:bg-indigo-500'

}`;

};

return (

<div className="min-h-screen bg-gray-100 font-sans">

<header className="bg-white shadow-md">

<nav className="container mx-auto px-6 py-4 flex justify-between items-center">

<div className="text-2xl font-bold text-gray-800">

Student Portal

</div>

<div className="flex space-x-4">

{/\* Buttons to switch between pages \*/}

<button onClick={() => setPage('Home')} className={getButtonClass('Home')}>

Home

</button>

<button onClick={() => setPage('About')} className={getButtonClass('About')}>

About

</button>

<button onClick={() => setPage('Contact')} className={getButtonClass('Contact')}>

Contact

</button>

</div>

</nav>

</header>

<main className="container mx-auto p-8">

{/\* Render the currently selected page \*/}

{renderPage()}

</main>

<footer className="text-center py-4 text-gray-500 text-sm">

<p>Copyright © 2024 Student Management Portal. All Rights Reserved.</p>

</footer>

</div>

);

}





