**2. React JS – HOL**

• **Explain React Components**

React components are reusable building blocks that define how a UI should appear and behave.  
They manage their own state and can be nested to create complex interfaces.

• **Identify the Differences Between Components and JavaScript Functions**

React components return JSX and manage state/lifecycle, while regular JS functions perform logic or calculations.  
Components are used for UI rendering; functions are used for general-purpose tasks.

• **Identify the Types of Components**

React has two main types of components: **Class Components** and **Function Components**.  
Class components use lifecycle methods; function components use hooks for state and effects.

• **Explain Class Component**

A class component is a React component defined using ES6 classes and extends React.Component.  
It supports lifecycle methods and manages state via this.state.

• **Explain Function Component**

Function components are simpler React components defined using JavaScript functions.  
They use hooks like useState and useEffect to manage state and side effects.

• **Define Component Constructor**

The constructor is a method in class components used to initialize state and bind methods.  
It’s called before the component mounts and is defined using super(props).

• **Define render() Function**

The render () function returns the JSX that defines the component’s UI.  
It’s required in class components and is called whenever the component updates.

**About.js**

import React, { Component } from 'react';

class About extends Component {

render() {

return (

<div>

<h3 align = 'center'>Welcome to the About page of the Student Management Portal</h3>

</div>

);

}

}

export default About;

**Contact.js**

import React, { Component } from 'react';

class Contact extends Component {

render() {

return (

<div>

<h3 align = 'center'>Welcome to the Contact Page of Student Management Portal</h3>

</div>

);

}

}

export default Contact;

**Home.js**

import React, { Component } from 'react';

class Home extends Component {

  render() {

    return (

      <div>

        <h3 align = 'center' >Welcome to the Home Page of Student Management Portal</h3>

      </div>

    );

  }

}

export default Home;

**App.js**

import logo from './logo.svg';

import './App.css';

import Home from './Components/Home';

import Contact from './Components/Contact';

import About from './Components/About';

function App() {

  return (

   <div className="container">

    <Home/>

    <About/>

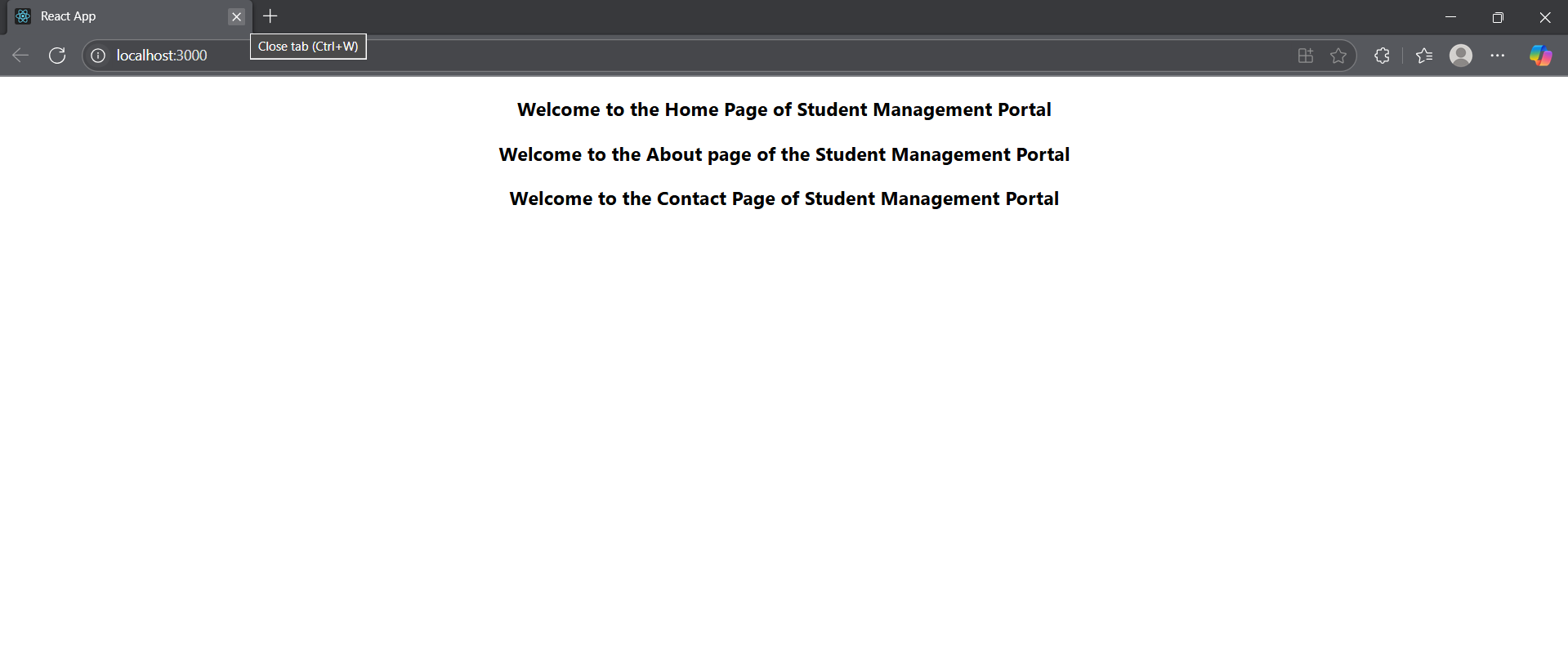
    <Contact/>

   </div>

  );

}

export default App;

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