React Hands-on Lab – Student Management Portal

# Objective:

Create a React app named "StudentApp" and develop three components – Home, About, and Contact – to display messages on respective pages.

# Conceptual Objectives:

* • Explain React components
* • Identify the differences between components and JavaScript functions
* • Identify the types of components
* • Explain class component
* • Explain function component
* • Define component constructor
* • Define render() function

# Prerequisites:

- Node.js  
- npm  
- Visual Studio Code

# Steps to Complete the Hands-on Lab:

## Step 1: Create a React App

In Visual Studio Code terminal, run the following command:  
  
npx create-react-app StudentApp

## Step 2: Create a Components Folder

Navigate to the "src" folder and create a new folder named "Components".

## Step 3: Create Home Component

Inside Components folder, create a file named "Home.js" with the following code:  
  
import React from 'react';  
  
function Home() {  
 return (  
 <div>  
 <h2>Welcome to the Home page of Student Management Portal</h2>  
 </div>  
 );  
}  
  
export default Home;

## Step 4: Create About Component

Inside Components folder, create a file named "About.js" with the following code:  
  
import React from 'react';  
  
function About() {  
 return (  
 <div>  
 <h2>Welcome to the About page of the Student Management Portal</h2>  
 </div>  
 );  
}  
  
export default About;

## Step 5: Create Contact Component

Inside Components folder, create a file named "Contact.js" with the following code:  
  
import React from 'react';  
  
function Contact() {  
 return (  
 <div>  
 <h2>Welcome to the Contact page of the Student Management Portal</h2>  
 </div>  
 );  
}  
  
export default Contact;

## Step 6: Edit App.js

Open "src/App.js" and replace its content with:  
  
import React from 'react';  
import Home from './Components/Home';  
import About from './Components/About';  
import Contact from './Components/Contact';  
  
function App() {  
 return (  
 <div>  
 <Home />  
 <About />  
 <Contact />  
 </div>  
 );  
}  
  
export default App;

## Step 7: Run the Application

In terminal, navigate to the StudentApp directory and run:  
  
npm start

## Step 8: View in Browser

Open your browser and go to:  
http://localhost:3000

# Output:

On visiting http://localhost:3000, the following output will be rendered sequentially on the page:  
  
Welcome to the Home page of Student Management Portal  
Welcome to the About page of the Student Management Portal  
Welcome to the Contact page of the Student Management Portal