**WEEK-6**

**React JS Handson - 2**

1. Explain React components

React components are small, reusable pieces of code that return HTML. They are like building blocks of a React application. Each component works like a function that tells what should appear on the screen.

2. Identify the differences between components and JavaScript functions

A JavaScript function just performs a task or calculation and returns a value. But a React component returns JSX (HTML-like code) and is used to display UI on a web page. Also, React components can have state and lifecycle methods, which normal functions do not.

3. Identify the types of components

There are two types of components in React:

* Class components
* Function components

Both can be used to show content, but class components have more features like state and lifecycle methods.

4. Explain class component

A class component is a React component written using the class keyword. It can hold its own state and has access to lifecycle methods like componentDidMount. These components must include a render() method which returns JSX.

5. Explain function component

A function component is a simple JavaScript function that returns JSX. It does not have its own state unless you use React hooks like useState. These components are easier to write and are now more commonly used in modern React.

6. Define component constructor

The constructor is a special method in a class component. It is used to initialize state and bind methods. It runs once when the component is created and helps set up the component's behavior.

7. Define render() function

The render() function is used in class components. It returns the JSX (HTML-like code) that tells React what to display on the screen. Every class component must have a render() method.

* First, I created a new React app called StudentApp using Visual Studio Code terminal.
* Inside the src folder, I created a new folder called Components to keep all component files organized.
* I created a file named Home.js inside the Components folder and wrote code to display the message:  
  “Welcome to the Home page of Student Management Portal.”
* Similarly, I created another file named About.js inside the Components folder to display:  
  “Welcome to the About page of the Student Management Portal.”
* Then I added a third file called Contact.js in the same folder and wrote a message:  
  “Welcome to the Contact page of the Student Management Portal.”
* After creating all three components, I went to App.js file inside src folder and imported all three components.
* I called the Home, About, and Contact components one after the other inside the return block of the App component.
* I saved all the files and made sure there were no syntax or import errors.
* Then, I ran the application using the terminal to launch the development server.
* Finally, I opened the browser and visited localhost:3000, and I could see all three messages from the components displayed on the screen.



