**React Handson 3**

**1. Explain React components**

React components are independent, reusable pieces of UI. Each component returns a React element describing what should appear on the screen. Components help in building large-scale applications by breaking the UI into smaller, manageable parts.

**2. Identify the differences between components and JavaScript functions**

| **JavaScript Function** | **React Component** |
| --- | --- |
| Returns a value | Returns JSX (UI) |
| Does not use React lifecycle | Can use lifecycle methods (in class) |
| No JSX rendering | Used to render UI using JSX |
| Not specific to React | Specially designed for building React UI |

**3. Identify the types of components**

There are two main types of React components:

* **Class Components** – Use ES6 class syntax and support lifecycle methods.
* **Function Components** – Use plain JavaScript functions. With hooks, they can handle state and side effects.

**4. Explain class component**

A class component is a React component defined using a JavaScript class that extends React.Component. It can hold and manage its own state and includes lifecycle methods like componentDidMount(), render(), etc.

Example:

js

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class MyComponent extends React.Component {

render() {

return <h1>Hello from class component</h1>;

}

}

**5. Explain function component**

A function component is a JavaScript function that returns JSX. It's a simpler way to write components. React hooks like useState and useEffect allow them to use state and side effects.

Example:

js

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function MyComponent() {

return <h1>Hello from function component</h1>;

}

**6. Define component constructor**

The constructor in a class component is used to initialize state and bind methods. It’s called once when the component is created.

Example:

js

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constructor(props) {

super(props);

this.state = { count: 0 };

}

**7. Define render() function**

The render() function is a required method in class components. It returns the JSX that defines the UI layout of the component.

Example:

js

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render() {

return <div>Hello World</div>;

}

**8.Codes**

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**9.Output**

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