**Objectives**

**• Explain React components:**  
React components are small, reusable blocks of code that return a part of the UI.  
Think of components like LEGO blocks or building blocks- you put them together to build your app.  
Each component has its own logic and UI, and it can be reused in different places.  
For example, a button, a header, or a form can all be separate components we can use them all over the project while writing only once.

**• Identify the differences between components and JavaScript functions:**  
Both components and JavaScript functions use the function keyword.  
But React components return JSX (which looks like HTML) and are used to show UI.  
JavaScript functions return simple values (like numbers or strings) and don’t display anything on screen.  
Also, React components follow some rules like starting with a capital letter, while java script mainly focuses on the logic.

**• Identify the types of components:**  
There are mainly two types of React components:

1. **Class Components** – Written using ES6 classes.
2. **Function Components** – Written using JavaScript functions.

In modern React, function components are used more often because they are simpler and support hooks and class components are very old and hard to use.

**• Explain class component:**  
A class component is created using the class keyword in JavaScript.  
It must extend React.Component and must have a render() method.  
It can also have a constructor and can hold its own state.

Example:

class MyComponent extends React.Component {

render() {

return <h2>Hello from a class component</h2>;

}

}

**• Explain function component:**  
A function component is a simple JavaScript function that returns JSX.  
It does not use a class and is easier to write and read.  
Function components can use React hooks to add more features.

Example:

function MyComponent() {

return <h2>Hello from a function component</h2>;

}

**• Define component constructor:**  
The constructor is a special method used only in class components.  
It is used to set up the initial state and bind methods.  
It runs once when the component is created or the react project in started.

Example:

constructor(props) {

super(props);

this.state = { name: "React" };

}

**• Define render() function:**  
The render() function is used in class components to tell React what to show on the screen.  
Whatever is returned inside the render() will be displayed in the browser.  
It returns JSX and is called automatically when the component is loaded or updated.

Example:

render() {

return <h1>Welcome to React</h1>;

}