1. Explain React Components

React components are reusable building blocks of a UI. Each component returns a portion of the user interface, written using JSX.

2. Difference Between Components and JavaScript Functions

Feature React Component JavaScript Function

Purpose Defines UI logic and rendering Performs a task or computation

Return Type Returns JSX Returns primitive/objects/void

React Integration Can have lifecycle, state, props Cannot use React features directly

3. Types of React Components

- Class Components (older but powerful): Use class syntax and lifecycle methods.
- Function Components (modern standard): Use hooks for managing state and lifecycle.

4. Explain Class Component

A class component is a JavaScript class that extends React.Component. It has a render() method that returns JSX.

```
js
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class Welcome extends React.Component {
  render() {
    return <h1>Hello, World!</h1>;
  }
}
```

5. Explain Function Component

Function components are simpler and don't use this. They return JSX directly.

js

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```
function Welcome() {
  return <h1>Hello, World!</h1>;
```

6. Define Component Constructor

Constructor is used in class components to initialize state and bind methods.

```
js
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constructor(props) {
  super(props);
  this.state = { message: "Hello" };
}
```

7. Define render() Function

It's a required method in class components. It returns JSX that will be rendered on the UI.