REACT COMPONENTS: STATEFUL VS STATELESS

1. STATELESS COMPONENTS (FUNCTIONAL COMPONENTS)

Stateless components, also known as functional components, are the simplest form of React components. They don't manage or use any internal state. Instead, they receive data through props and render it. They are mainly responsible for the UI and do not have any lifecycle methods.

Advantages:

- Simplicity and readability.
- Performance optimizations with React hooks.
- Easier to test.

Example:

```
function Welcome(props) {
  return <h1>Hello, {props.name}</h1>;
}
```

2. STATEFUL COMPONENTS (CLASS COMPONENTS)

Stateful components, also known as class components, can manage their own state and have access to React's lifecycle methods. They are more complex than stateless components but offer more features.

Advantages:

- Can manage their own state.
- Access to lifecycle methods.
- Suitable for more complex logic.

Example:

```
class Welcome extends React.Component {
  constructor(props) {
    super(props);
    this.state = { count: 0 };
  }
```

```
  render() {
    return (
      <div>
        <h1>Hello, {this.props.name}</h1>
        <button onClick={() => this.setState({ count:
this.state.count + 1 })}>
          Clicked {this.state.count} times
        </button>
      </div>
    );
  }
}
```