# ReactJS-HOL-2

## Source Code: [Here](#)

## Q/A

1. **Explain React components**

   React components are the building blocks of a React application. They are reusable, self-contained pieces of code that describe part of the user interface (UI). Each component can contain its own logic, structure (JSX), and styling. When combined, components form a complete React app.

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

   React components are functions or classes used to build the user interface in a React application. They return JSX and can handle state, props, and lifecycle methods. In contrast, regular JavaScript functions are used for logic or calculations and return basic values like numbers or strings. They don't manage UI, state, or have access to React features like hooks. While both use similar syntax, React components are specifically designed for rendering and managing UI, whereas JavaScript functions are general-purpose.

3. **Identify the types of components**

   There two main types of React Components:
   - Class Components
   - Function Components

4. **Explain class component**

   A **class component** is a component defined using ES6 JavaScript classes. It can manage its own state and use lifecycle methods like `componentDidMount`, `componentDidUpdate`, and `componentWillUnmount`.

5. **Explain function component**

   A **function component** is a simpler way to write components using JavaScript functions. With React Hooks (like `useState`, `useEffect`), function components can also manage state and side effects.

6. **Define component constructor**

> The **constructor** is a special method in a class component. It is called before the component is mounted. It's mainly used to:
> - Initialize state
> - Bind event handlers

7. **Define render() function**

> The `render()` function is a required method in class components. It returns the JSX (UI structure) that should be displayed on the screen.

# Lab

## Source Code

```
import { About } from "./About"
import { Contact } from "./Contact"
import { Home } from "./Home"

function App() {
  return (
    <div style={{ display: 'flex', justifyContent: 'center', flexDirection:
'column', flex: 1, textAlign: 'center' }}>
      <Home />
      <About />
      <Contact />
    </div>
  )
}

export default App
```

```
import { Component } from "react";

export class Home extends Component {
    render() {
        return (
            <div>
                <h3>Welcome to Home Page of Student Management Portal</h3>
            </div>
        );
    }
}
```

```
import { Component } from "react";
```

```
export class About extends Component {
    render() {
        return (
            <div>
                <h3>Welcome to About Page of Student Management Portal</h3>
            </div>
        );
    }
}
```

```
import { Component } from "react";

export class Contact extends Component {
    render() {
        return (
            <div>
                <h3>Welcome to Contact Page of Student Management
Portal</h3>
            </div>
        );
    }
}
```

## Output



Welcome to Home Page of Student Management Portal

Welcome to About Page of Student Management Portal

Welcome to Contact Page of Student Management Portal