**1. Explain the need and benefits of component life cycle:**  
The component lifecycle helps manage **how a React component is created, updated, and destroyed**.  
It allows developers to perform specific actions (like fetching data, setting timers, or cleaning up resources) at precise points, making applications **efficient, predictable, and easier to debug**.

**2. Identify various lifecycle hook methods:**  
In **class components**, lifecycle methods include:

* constructor()
* componentDidMount()
* shouldComponentUpdate()
* componentDidUpdate()
* componentWillUnmount()

In **function components**, these are handled using **React Hooks**, such as:

* useEffect()
* useState()
* useLayoutEffect()

**3. List the sequence of steps in rendering a component:**  
For **class components**, the typical sequence is:

1. constructor()
2. render()
3. componentDidMount()

During updates:

1. shouldComponentUpdate()
2. render()
3. componentDidUpdate()

During unmount:

1. componentWillUnmount()

For **functional components**, useEffect() can be used to simulate all lifecycle stages.