❖ Explain life cycle in class component and functional component with hooks.

**• 1. Class Components:**

**• Mounting Phase:**

**▪ constructor():**Called when an instance of the component is being created.

**▪ render():** Renders JSX.

▪ **componentDidMount():** Called after the component is rendered to the DOM. . Ideal for fetching data.

**• Updating Phase:**

**▪ shouldComponentUpdate()**: Returns true or false based on whether the component should re-render or not.

**▪ componentWillUpdate():** Deprecated. Called just before rendering when new props or state are being received.

**▪ render():** Renders updated JSX.

▪ **componentDidUpdate():** Called after the component's updates are flushed to the DOM.

**• Unmounting Phase:**

▪ **componentWillUnmount():** Called just before the component is unmounted from the DOM.

**2. Functional Components with Hooks:**

**• Mounting Phase:**

o **useState():** Initializes state.

o **useEffect():** Acts similarly to componentDidMount(). It runs after every render and is used for handling side effects.

**• Updating Phase:**

o **useState():** Updates state.

o **useEffect():** Runs when specific dependencies change.

**• Unmounting Phase:**

**o useEffect():** Cleanup function can be specified within ‘useEffect()’ to handle unmounting tasks