

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

- 1. Class Components:

- Mounting Phase:

- `constructor()`: Initializes state and binds event handlers.
 - `componentWillMount()`: Deprecated. Called before rendering, mainly used for setting up subscriptions and starting API requests.
 - `render()`: Renders JSX.
 - `componentDidMount()`: Called after the component is rendered to the DOM. Used for making AJAX requests and setting up subscriptions.

- 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. Used for cleanup tasks like cancelling network requests or removing event listeners.

2. Functional Components with Hooks:

- Mounting Phase:

- `useState()`: Initializes state.
 - `useEffect()`: Acts similarly to `componentDidMount()` and `componentDidUpdate()`. It runs after every render and is used for handling side effects.

- Updating Phase:

- `useState()`: Updates state.
 - `useEffect()`: Runs again after every update.

- Unmounting Phase:

- `useEffect()`: Cleanup function can be specified within 'useEffect()' to handle unmounting tasks.