Module 10 : List and Hooks

(1) Explain Life cycle in Class component and Functional Component with Hooks.

Ans :- Mounting phase :

Constructor() : The constructor is called before the component is mounted. It is used for initializing state and building even handlers.

Componentwillmount() : This method is called right before the component will be mounted into the DOM.it is considered deprecated and should be avoided.

render() : The render method is called to render the component’s Jsx to the DOM.

ComponentDidMount() : This method is called immediately after the component has been added to the DOM.

Updating Phase :

Shouldcomponentupdate : This method is called before rendering when new props or state are received. It allows you to determine if the component should re-render by returning true or false.

render() :Again the render method is called to re-render the component with updated props and state.

Unmounting phase :

the component is removed from the DOM. It's used for cleaning up resources like event listeners.

Functional Component with Hooks Lifestyle :

Functional components with hooks introduced a more straightforward way of managing component lifecycles using the useEffect hook:

useEffect(callback,dependencies) :The useEffect hook allows you to perform side effects in a functional component. The Callback function is executed after the component renders. You can specify an array of dependencies that determine when the effect should run. If the dependencies change between renders, the effect is re-run. If the dependencies are empty, the effect runs after every render.

Mounting and updating : By default, useEffect runs after the initial render and after every update (similar to componentdidmount and componentDidupdate.

Unmounting : To mimic ComponentWillunmount, you can return a cleanup function from the effect. This cleanup function runs when the component unmounts.

For example :-

import React, { useEffect } from 'react';

function MyComponent() {

useEffect(() => {

// This code runs after the component is mounted

return () => {

// This code runs when the component is unmounted (cleanup)

};

}, []); // Empty dependency array means it runs only on mount and unmount

// JSX rendering

return (

// ...

);

}