**Module – 18 React Applying Redux**

**Statement Management [Redux, Redux-Toolkit or Recoil]: -**

1. **What is Redux, and why is it used in React applications? Explain the core concepts of actions, reducers, and the store.**

* Redux is a state management library used to manage and share the state of an application across multiple components in a predictable way.
* **Why is Redux used in React: -**

1. Centralized State – Keeps application state in a single store.
2. Predictability – State Updates are consistent and easy to debug.
3. Easier State Sharing – Simplifies passing data between deeply nested components.

* **Core Concepts: -**

1. **Actions: -** 
   * + Specify the type of state change (e.g. increment, decrement).
     + Plain JavaScript Objects describing what should happen.
2. **Reducers: -**

* Functions that determine how the state should change based on an action.
* Take the current state and action, and return a new state.

1. **Store: -**

* The Centralized place where the state lives.
* Holds the state and allows updates through actions.

1. **How does Recoil simplify state management in React compared to Redux?**

* Recoil is a state management library for react that simplifies handling state by integrating seamlessly with react modern features like hooks.
* Recoil state management by eliminating much of the boilerplate code required in Redux, making it easier to set up and use.