**MODULE: 13 React – Applying Redux**

(1)What is Redux?

* Redux is an open-source javascript library used to manage application state. React uses redux for building the user interface.
* React-Redux is the official React binding for Redux. It allows React component to read data from redux store & dispatch actions to the store to update data.
* Redux helps apps to scale by providing a sensible way to manage state through a unidirectional data flow model.
* React redux is conceptually simple. It subscribes to the redux store, checks to see if the data which your component wants have changed & re-render your component.

(2)what is Redux Thunk used for?

* Redux middleware called thunk. It allows us to return functions instead of objects from redux actions.
* Plain redux doesn’t allow complex logic inside action functions, you can only perform simple synchronous updates by dispatching actions. This middleware extends its ability & lets you write complex logic that interacts with the store.
* Thunk doesn’t interfere with action until it returns functions. Thunk allow us to dispatch action manually, which gives us the power to incorporate some logic or run some asynchronous code before dispatching an action.
* The function returned from action is called a thunk function which is called with two arguments:

(1) dispatch: It is a method used to dispatch actions, that can be received by reducers.

(2) getState: It gives access to store inside the thunk function.

(3) What is Pure Component? When to use Pure Component over Component?

* Pure component is similar to component but is skips re-renders for same props & state.
* Pure component class compares current state & props with new state & props to decide whether the react component should re-render itself or not.

(4) What is the second argument that can optionally be passed tosetState and what is its purpose?

* The second argument that can optionally be passed to setState is a callback function which gets called immediately after the setState is completed & the components get re-rendered.
* If you want your program to update the value of a state using setState and then perform certain actions on the updated value of state then you must specify those actions in a function which should be the second argument of the setState. If we would not do so then those actions will be performed on the previous value of state because of asynchronous nature of setState.