

# Redux, Redux toolkit

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

**ANS:** Redux is a state management library used in React application to manage global state in a predictable way.

- It helps when an app has a lot of components that need to share data.
- Data is usually passed from a parent to child components using props.
- But as the app grows, managing state across multiple components becomes complicated.
- Redux provides a centralized store where all components can access the necessary data without passing props manually.

The components of redux architecture

### **Action:**

- It is like a message that tells Redux what to do.
- It is just a simple JavaScript object with a “type” property and sometimes extra data(payload)

### **Reducer:**

- A reducer is a function that decides how the state should change when an action happens.
- It takes the current state and an action, then returns the new state.

### **Store:**

- Store is like a big storage room that holds the entire state of the app.
- All components that need data can get it from the store instead of relying on props.