**WEEK 7**

**14.REACTJS-HOL**

**1. Explain the need and Benefits of React Context API**

**Need:  
React Context API is used to avoid "prop drilling", i.e., passing props through many levels of components just to reach deeply nested ones.**

**Benefits:**

* **Centralized state or data sharing**
* **Cleaner and easier code maintenance**
* **Useful for themes, user auth, language settings, etc.**

**2. Working with createContext()**

* **createContext() is used to create a Context object.**
* **It includes:**
  + **Provider: Supplies the data to components**
  + **Consumer: Accesses the data (or use useContext() in functional components)**

**Example:**

**const MyContext = React.createContext();**

**<MyContext.Provider value={value}>**

**<Component />**

**</MyContext.Provider>**

**3. List the types of Router Components (React Router v6)**

* **BrowserRouter – Uses HTML5 history API for clean URLs**
* **HashRouter – Uses URL hash (e.g., /home#about)**
* **Routes – Replaces Switch to group route definitions**
* **Route – Defines a single route path and its component**
* **Link – Used for navigation without page reload**
* **NavLink – Like Link, but with styling for active links**
* **Outlet – Used for nested routing**
* **Navigate – Programmatically navigate to a route**