**JS Framework**

React JS is third party UI Component library.

Angular Framework :

Vue JS framework :

Framework vs library

SPA :Single page application.

MPA

DOM

Angular internally follow MVC : Model view controller.

React JS only focus only view technologies rather than model and controller.

React JS is a component base library

UI Component: Component is use to control the view or part of the view page.

Using react we can create component which help to create user defined tags. Each component return JSX (dom elements).

<p>Hello</p>

In react we can create the component using 3 ways

1. Function style ES5
2. Class style ES6
3. Arrow style ES6

Hooks

**State and props**

Both are type of variable in react component.

State is use to describe the component behaviour. Using **useState()** hook we can create state variable in function component. with setVariableName we can change the state variable. state is mutable variable.

let [name,setName]=useState(“Akash”);

setName(“Akash Kale”);

Props :is a type of variable which help to pass the value from one component to another component with their relationship. Props can’t be change. props is known as immutable property.

<div>

<h1></h1>

<p></p>

</div>

<Parent> user 🡪 admin (state)

<Child1></Child1>

<Child2></Child2>

</Parent>

function Parent() {

let [user,setUser]=useState(“Admin”); // local to Parent component

return(

<div>

<p>Name is {user}</p>

<Child1 name={user}></Child1>

<Child2></Child2>

</div>

)

}

1. Parent to child 🡪 props
2. Child to parent 🡪 props with callback function
3. Child1 to child2 🡪 child1 pass the value to parent using props with callback and parent pass the value to child2 using props.

React Context API:

Redux core:

Redux toolkit:

**Component communication**

**Context API**

Parent admin user

Child1 Child2 Child3

Child4 Child5 Child6 Child7

Child8 Child9 Child10

**createContext()**

**useContext()**

**Limitation of Context API**

Small application.

Data send from parent to children not child to parent.

Context API is a part of react.

Redux is state management tool. Which help to make local state variable as a global variable using redux store.

Reducer :reducer is normal JavaScript function which takes 2 parameter. 1st parameter is state and 2nd parameter is action. Base upon action it will do the changes on state variable part of store.

Store : if variable is part of store it is consider as global variable.

Dispatch : dispatch is use to dispatch the action to reducer to do the changes on state variable part of store. Base upon action it will do the changes.

State : these variable part of store.

Create new project

>npm create vite@latest react-with-redux

**cd react-with-redux**

npm install redux react-redux

npm install

npm run dev