**REACT INTERVIEW**

1. **How to pass data from one component to another components?**

So we can use props to pass one component to another but we have a multiple component suppose A, B, C, D and we pass the data from A to D in this case we can use the useContext and we can keep the data in global store and we can access from global store by using context.

* So there are three things in useContext to send the data

1. Create Context b) Provide the context c) consuming the context

Example: Will create the context in main component suppose we want to pass the value as name and age so we will create a context for those values and Provide the that values suppose name.provider and will that value as props and will import that A component inside of name.provider and after that we will import that create context values in the C component and will keep those value inside of useContext and then pass it.

1. **How can we handle situation in suppose want to pass data from A to anywhere? How to handle it?**

In our projects we use the context and keeping the state or whatever settled functions directly in the context and this context will be available in all the components. So we can directly pass to the child.

1. **What is Props drilling?**

Props drilling means passing the same data to all components while some components event don’t need like this but we still passing it. This can make code details un-maintainable as well because it’s difficult to track like this. What is going. In production application like there are so many components and all.

1. **What is better to use context API or redux?**

So basically both are used for state management but context API use for smaller project and redux uses for larger and complex application. For example the theme of website that doesn’t change very often right so we can use context and suppose we have cart state which change is very often and every step and changes like products adding and discount added so to handle this situation we can use redux.

1. **What are limitation of React?**

React is not a framework it’s a library it does not come hard and fast rules to do this things you can do any base like you can api call wherever you want. You don’t have any follow structure. For example angular is that is framework that brings own rules that defined the services here and call the services this way only. But react brings doesn’t like this. So this was advantage of react. It is easy to learn.

And limitation of react

1. Lack of proper documentation b) development speed c) JSX complexity and Problem with SEO.
2. **Controlled and Uncontrolled components in the react?**

So basically **controlled component**, that is form data handled by the react. And **Uncontrolled components** that form data is handled by the DOM itself. Suppose we want to handle the form data of input so we can use onChange function to handle this but in **uncontrolled component** we can use useRef hooks and ref instead of onchange to handle this. That is called controlled and uncontrolled components.

1. **Tell me the optimize the React app performance what are ways?**

So, In the class component we had use of Pure component to boost the performance but in the function component we can use UseMemo and useCallback function to the boost the performance of the application because React.Memo and UseCallback won’t re-render the component. It will work as memorization in the application. Object and arrays we can use UseMemo and for the function we can use UseCallback . Because they will take the value from Cache.

And we can use lazy loading: it’s a technique used to reduce initial load time of react app. Lazy loading helps reduce the risk of web app performance to minimal.

1. **Error boundaries in React?**

So keeping the error boundaries in whole app, for example if the API or UI fail then it will show like its not available, something went wrong some error message like that. Change the API completely, Unmount the app and mount the error boundaries. So in the class component we can handle by **ComponentDidCatch** to handle and remove the particular error from component or DOM. If we are using a function component then we can use one NPM package which is **react-error-boundary** to catch the error from component and remove that error.

So we can use the backup and loggers like what the errors are coming.

1. **What was the challenging situation that you faced in the last project in react application.**

No, I was never challenged for any such kind of position or things in my life. I expect it.

1. **Advantages and disadvantages of React js?**

**Advantages**

* React is faster and It takes less time. So react js much faster than vanilla js.
* Easy to learn. Proper documentation.
* So most important advantage of react Virtual DOM makes faster to react JS. So virtual DOM is a copy of real DOM. So whenever any changes into the component or state so that would be change from the virtual DOM and from the real dom. This is the whole process name is reconciliation. So this technique makes faster to the react.

**Disadvantages**

* So React js is not a Framework it is a library. Because we need to install the packages like react-router, state management like redux and all. Because in next JS have the routing at there.
* Other disadvantage of SEO problem.

1. **What is style component in react JS?**

Styled-components is a library that allows you to write CSS in JS while building custom components in Reacts.

1. **What is the reconciliation in the react JS?**

Virtual Dom is concept where a virtual representation of UI that is kept in browser memory and sync with real dom with the library ReactDOM. So whenever any change in the react component for the UI part, so react create a virtual copy of that previously already have created a copy of that whenever the change happened then recreates a new copy of that with the help of most optimized approach creates a new DOM structure it only changes that part where the changes happened so it’s not re-render entire original DOM structure but the changes in specific part with the help of some optimization technique which react uses in the backend so this whole process called reconciliation.

1. **What is difference between CSR and SSR?**

**In the client side rendering** whenever user makes request server sends the bundles of JavaScript file and along with minimal html document file where the content is almost empty on the server side but once it is pushed on the client side where the whole creation of html document is with the help of JavaScript and from there whole html is created and then it is passed by the browser.

**In the server side rendering** the entire html document is created for by the server which is send to the client. But they have there off side and down side. So if you love me then I can explain it. So in this case of server side rendering the SEO will be more optimized because once we are sending to the client side the entire documents already created so that will help the SEO to scan throw the HTML and take up the content where the website is rendered. But in the case of client side we are sending the only empty HTML so that will not be optimized for the seos. So for the advantage of server side rendering.

1. **What are limitation of error boundaries?**

Error boundaries can not catch all the errors because they can’t detects the mistakes in event handlers, asynchronous programming or the server side rendering. We can use in class base component by using **componentDidCatch(error, errorInfo)** but we can’t use directly in function component so we can use third party libraries like **useErrorBoundary** by npm.

1. **Suppose do you have large amount of data like 10000 emp data if you render the data on browser then the browser will be crashed. So how can you manage it in the react?**

So there is a technique that is called virtualization so there is a library in the react called **react.window** so React window works by only rendering part of a large data set without crashing a browser.