**Angular Vs React**

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| **Angular** | **React** |
| Framework | library |
| One way data binding and two way data binding | One way data binding only |
| Based on typescript | Based on javascript and uses JSX for component templates |
| More structured and has build in library for routing | Not as structured as angular and doesn’t have build in routing functionality uses the react-router package for routing |

**useRef ->** used to directly access DOM element

-> allows you to persist value betn renders.

**useMemo ->** The useMemo and useCallback Hooks are similar. The main difference is that useMemo returns a memorized value so that it does not need to be recalculated and **useCallback** returns a memorized function.

-> only runs when one of its dependencies update.

**Props Type ->** String, boolean, array, object, number, symbol, function

**React Life Cycle**

Phases:

1. **Initial Phase** - only occurs once, birth phase

getDefaultProps()

getInitialState()

2. **Mounting Phase**

componentWillMount()

componentDidMount()

3**. Updating Phase**

4. **Unmounting Phase**

**React Router** -> To enable routing in react apps using the react router package

It uses Link element to navigate inside the application. It can also use anchor tag but it will refresh the full page When the change was really small.

<Switch>

<Route path="/" component={Home}/>

**What is State in react?**

State is a react object which contain information about the component. Whenever the state changes the component rerenders.

As functional components are stateless that to manage and use state using the useState hook.

**What are props in react?**

Props in react are objects which are used to pass data or values from parent to child.

Props are pretty much similar to function arguments in JavaScript.

**How does data flow react?**

Parent to child

**How to pass data from child to parent?**

React provides only one-way data binding, however, we can pass data from a child

to parent by passing callback methods to components as props.

**What is lazy loading in React?**

lazy loading is also referred to as code splitting or data fetching.

It means the component would only load when it is required.

**Diff between controlled and uncontrolled components.**

 Controlled components refer to components that have their state and behavior controlled by the parent component. These components rely on props passed down from the parent component to update their state and behavior. Uncontrolled components refer to components that manage their state internally.

The **useReducer** Hook returns the current state and a dispatch method. The useReducer Hook is used to store and update states.

If you find yourself keeping track of multiple pieces of state that rely on complex logic, useReducer may be useful.

**What does a module bundler do?**

Module bundlers are the way to organize and combine many files of JavaScript code into one file.

A JavaScript bundler can be used when your project becomes too large for a single file or when

you're working with libraries that have multiple dependencies.

**Higher order components in react?**

In React, a higher-order component is a function that takes a component as an argument and returns a new component that wraps the original component.

It basically provides reusability.

**Functional component and class-based components**

Functional components are simpler and faster compared to class-based components we need to transform class-based components into functional components first and then pass them to the browser hence the functional components are simpler and they are very similar to javascript functions so they are easy to understand also.

**useEffect**

The useEffect Hook allows you to perform side effects in your components. Some examples of side effects are: fetching data, directly updating the DOM, and timers. useEffect accepts two arguments. useEffect(<function>, <dependency>)

**What is React Fragment? ​**

React Fragment is a feature in React that allows you to return multiple elements from a React component by allowing you to group a list of children without adding extra nodes to the DOM.