1. **pros and cons between using promise and callback?**

Promise: deal asyc with await single object produce the value in the future. Three states: Pending, reject, resolve; promise chaining => .then().catch(/\*when it’s reject\*/)

Callback: HOC, pass a function in another function as parameter

1. **difference between Call, apply and bind**

call, apply, bind to change “this”

call, and apply execute the function immediately, bind execute the function whenever its needed. C for comma, A for array.

1. **1 + ‘3’ = ?,** //’13’

**3 - ‘2’ = ?,** //1

**33 + ‘5’ - ‘4’ + ’55’ - 0?** // 33155

1. **How do u implement the shallow copy and deep copy?**

shallow copy :[…state, state] copy only the first layer of the object, spared operator , slice(). Assign()

Deep copy: idk copy no matter how much data there is. JSON.parse(JSON.stringify(obj))

1. **What is diff between null and undefined? console.log(typeof null)? console.log(typeof undefined)?**

Null: has a value null.

Undefined: empty value

console.log(typeof null) //object

console.log(typeof undefined) //undefined

1. **list all primitive data type and reference data type? Diff between Primitive data type and reference data type?**

primitive data: number, Boolean, string, null, undefined, bitint, symbol. (sinlge value)

reference: object

one has reference(address), one doesn’t.

1. **New features in the ES6**

Let, const, Promise, Class, Arrow function(don’t have its own “this” and “parameter”, hoisting), Set and Map, `$` back tip, import, export, spared operator,

1. **What are the main features of the react?**

Lifecyle: mounting, update, unmounting

One way data flow

reusable

Accessibility

Component

1. **Walk me through all the knowledge of jsx u know?**

Browser cannot recognize JSX

JSX has only one parents

CamalCase

Component name must have capital letter

1. **Tell me all the lifecycle u familiar with?**

Mounting: constructor, GetDerivedStatefromProps, Render, Componentdidmount

Updating: GetDerivedStatefromSate, shouldComponentUpdate, Render, getSnapShotBeforeupdate, ComponentDidUpdate,

Unmount: ComponentWillUnmount (don’t do setState)

1. **Give me a example of how can u embed(引入) two or more components into one?**

Import

1. **What are diffs between the state and props?**

States store the data, props has to be declared

State is mutable, can be accessed by its owner component only.

share data to lower component use only props, props is read only, immutable.

1. **Why should not update the state directly?**

everything is object, only change the value, not the reference(address) which won’t cause retender

1. **What are HOC? What can u do with HOC?**

Higher order component, used for asyc component, making sure to call one component after another component.

A wrapper, pass a component to another component, 套娃, can add additional functionality or something, reusable

1. **Explain me what lifting state up in react?**

Handle event, pass the state to its parent

Transfer data between siblings

1. **Why do we prefer using id as keys than the index?**

Key is unique

Let’s say there are index [0, 1, 2, 3], if the values in index[2] is deleted, then the index 2 is still there, only the values of it has change to index[3], the original index[3] is deleted instead of index 2

1. **What are different between controlled component and uncontrolled components**

All for form (表单元素) (input, select)

Controlled by ref is uncontrolled components

1. **Explain me the redux data flow?**

When user did an action to the web, an action is trigged, this action is dispatched to reducer, if the action exists in the reducer, then copy the state and make the change. Render the change to the view/component.

Action: object{action:; payload:;}

1. **Walk me through all the knowledge u know about actions and reducer?**

Pure function, copy state.

Every action has a payload which tells what change should be made, in the reducers, If the action id found in the reducer, make the change to the store.

1. **How virtual Dom update the real Dom?**

Whenever there is change to virtual DOM, it will generate a new virtual DOM. then compare the ne virtual DOM to the old one. Find the different between them. Render the difference to the real dom.