HW7: React Hooks

0. Leetcode

https://leetcode.com/problem-list/oizxjoit/

每天1-3道题，需要用JavaScript或者TypeScript

1. 问答练习(八股）

准备以下八股题目答案, 写在 `note.md` 里

1. How do we do prop types check?

2. What is Prop drilling?

3. How are we going to render a variable as a react component?

4. What is *HOC* and why we need it?

5. How to properly render an SVG element as a react component?

6. What is lazy loading and what does it help?

7. List several react hooks that you use most and what do they do?

8. what is `useState` and what value we should pass in as prop?

9. what is the hook `useEffect` and why we need it?

10. What is dependency array in `useEffect` ?

11. What is the lifecycle method `componentDidUpdate` equivalent hook?

12. What is the lifecycle method `componentDidMount` equivalent hook?

13. What is the lifecycle method `componentWillUnmount` equivalent hook?

14. What's the difference between `useCallback` and `useMemo` ?

15. What is `useContext` and the difference between `useContext` and `useState` ?

小组间Peer Mock，录音并上传

2. Coding

Write a `functional component` with React hooks:

1. Fetches a **random dog image** from a public API

2. Render the dog image base on API response

3. Build a **"Get Another Dog"** button to fetch a new image

4. have a **loading** state while API is loading

5. use `fetch()` method to make API request

6. should properly handle failure API requests

7. Extra Credit: Instead of using `fetch()`, use `Axios` with `Factory` design pattern to make the API request

8. Bonus: Make you App look pretty by using 3rd party CSS components like MUI/tailwindCSS

Note: use following API with GET method `https://dog.ceo/api/breeds/image/random` (https://dog.ceo/dog-api/)

Sample payload:

```
{

  "message": "https://images.dog.ceo/breeds/terrier-norfolk/n02094114_3240.jpg",

  "status": "success"

}
```