1. Install nodejs and npm, show 2503 and 2502 error.

Solution:

Go to C:\Windows\temp, right click the folder. Select security, click edit, select users(….), click full control.

A screenshot of a social media post

Description automatically generated

1. Fix a vulnerable npm package in package-lock.json:

npm audit fix, npm will install latest version of package automatically.

不要隨便用，npm start后，會出現下面的error,

*npm ERR! code ELIFECYCLE*

*npm ERR! errno 1*

*npm ERR! react-demo@0.1.0 start: `webpack-dev-server --mode development --hot --open --history-api-fallback`*

*npm ERR! Exit status 1*

*npm ERR!*

*npm ERR! Failed at the react-demo@0.1.0 start script.*

*npm ERR! This is probably not a problem with npm. There is likely additional logging output above.*

*npm ERR! A complete log of this run can be found in:*

*npm ERR! C:\Users\fphwp\AppData\Roaming\npm-cache\\_logs\2019-11-16T20\_17\_37\_176Z-debug.log*

可以用npm update ... (e.g. npm update react)

1. SetState is not a function: 原因是没有bind function. 比如，原来是onClick={handleLogout}, 变成{this.handleLogout}即可解决
2. Indent: Ctrl k + ctrl f
3. ComponentDidMount is after render. The order is constructor, render,componentDidMount.
4. Difference between Component and pureComponent: component doesn’t implement *shouldComponentUpdate()* by default. On the other hand, purecomponent does implement it and perform a shallow comparison on react state and props values.

It increases app performance. Shallow comparison is comparing scala values and references when comparing object.

1. Name Is missing in props validation:

class Greeting extends React.PureComponent {

  render() {

    return <h1>Hi there, my name is {this.props.name}!</h1>;

  }

}

Add following code:

Greeting.propTypes = {

  name: PropTypes.string

};

Greeting後面的是小寫p開頭,name後面的是大寫P開頭

1. Sass: you can use variables and other sass function
2. Promise: A good rule of thumb is to always either return or terminate promise chains, and as soon as you get a new promise, return it immediately, to flatten things.

From <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Using_promises>

JS is single threaded, meaning that two bits of script cannot run at the same time. They have to run one after another.

<https://developers.google.com/web/fundamentals/primers/promises>

1. React-scroll: 随着scroll down, navigation menu的标题随着变色
2. React-parallax-tilt: when mouse move on the image, animation spears.
3. State an props: state is equivalent to local variables in a function. Props, on the other hand, is equivalent to function parameters.

Class SampleFunc extends React.Component{

Render(){

Return <div>Hello {this.props.name}</div>

}

}

<SampleFunc name = “Joni ” />

1. Async function always return a promise, whether you use await or not. That promise resolves with whatever the async function returns, or rejects with whatever the async function throws.

<https://developers.google.com/web/fundamentals/primers/async-functions>

fetch(url).then… equals to await fetch(url).

1. Hook: they are functions that let you hook into React state and lifecycle features from function components. With Hook, you can use state in function, which previously you had to convert it to a class.

useEffect: similar to componentDidMount and componentDidUpdate.

1. Bem: [https://codeburst.io/understanding-css-bem-naming-convention-a8cca116d252#targetText=BEM%20stands%20for%20Block%2C%20Element](https://codeburst.io/understanding-css-bem-naming-convention-a8cca116d252" \l "targetText=BEM stands for Block, Element)

<https://medium.com/fed-or-dead/battling-bem-5-common-problems-and-how-to-avoid-them-5bbd23dee319>

B: block, E: elements, M:modifier, cannot name element inside another element.

1. Sass: Mix are sass functions that group css declarations together. We can use it in any class with @include command. SCSS is Sass version 3. In sass, & take the place of the parent ‘s name.
2. Update set-value and meme in package-lock.json: use

npm install set-value and npm install mem

1. React template: <https://nndou.netlify.com/>
2. Multi lingual react: <https://medium.com/@ricklee_10931/react-multi-lingual-with-react-i18next-57879f986168>
3. Bootstrap: navbar-expand-lg讓nav menu排在一行
4. Bootstrap：mr-auto to force sibling columns away from one another.