Rapport du Lab 3

Le lien de l'ennoncé

- Lab link

Vous retrouverez dans ce rapport les différentes explications des exercices ansi que les réponses des exercices.

Nous avons recopier l'énoncée.

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Vue project setup

Question 1

> That is the main difference between local installation and global installation of packages with npm? What kind of packages do you generally install locally? What kind is generally installed globally?

The main difference between local installation and global installation of packages with npm is that the local installation is only available for the project where it is installed. The global installation is available for all projects on the computer. The same parameters are used for both installations.

Exercise 1

> Create a new Vue project (called vue-oauth-microsoft-graph). Opt for the Vue3 recipe that relies on webpack and babel for the build chain.

```
npm install -g @vue/cli
# verification que vue est intallée
vue --version
# creation du projet
vue create vue-oauth-microsoft-graph
```

Question 2

> Webpack is internally used by the Vue CLI. Why is it required to deal with both multiple JavaScript files and special extensions like .vue?

Webpack is required to deal with both multiple JavaScript files and special extensions like .vue because it allows to bundle all the files into one file. It also allows to use the latest JavaScript features and to use a modular approach.

Question 3

> What is the role of babel and how browserslist may configure its output?

Babel is a JavaScript compiler. It allows to use the latest JavaScript features and to use a modular approach. Browserslist is a configuration file that allows to specify the browsers that the project must support. Babel will then compile the code to be compatible with the specified browsers.

Question 4

> What is eslint and which set of rules are currently applied? The eslint configuration may be defined in a eslint.config.js or in package.json depending on the setup.

Eslint is a tool that allows to find and fix problems in JavaScript code. The rules that are currently applied are the ones defined in the file .eslintrc.js.

Exercise 2

> Run npm run serve and open the app in your browser. Remember that npm looks at the package.json file (specially the scripts object) to find which command to execute.

```
npm run serve
```

Exercice 3

> The newly generated project contains a few placeholders. Cleanup your project so it does not contain neither useless assets, nor the hello world. In other words, delete HelloWorld.vue, its related assets and all its references. As at the end of each exercise, the vue cli should not report any error or warning.

to do that we have to delete the HelloWorld.vue file and the reference to it in the App.vue file.

Exercise 4

> Create the HomePage component inside the right folder. Do not spend too much time on the template content, as it could be a simple sentence. Import it inside App.vue.

So you can find a file named HomePage.vue in the pages folder. I have also added a reference to it in the App.vue file. HomePage.vue

Base layout

Exercise 5

> Let’s begin with the root component, formally App (in src/App.vue). Replace its template with the following content and create the missing components. Add some content to the header (ex. fake home link, fake user name…) and legal credits to the footer. Eventually, polish the looks and feels with scoped CSS.

So we create 2 more file nammed baseFooter.vue and baseHeader.vue in the components folder. We also add a reference to them in the App.vue file.

Questions 5

> What is the difference between scoped and non-scoped CSS?

The difference between scoped and non-scoped CSS is that scoped CSS is only applied to the component where it is defined. Non-scoped CSS is applied to all the components.

Exercise 6

> In order to keep the root component App as simple as possible, extract everything related to the layout into a BaseLayout component. Using the slot API, allow

> BaseLayout to receive children (to be rendered between the header and the footer).

So we worte a new file in baseContent to group the baseheader and the baseFooter.

Question 6

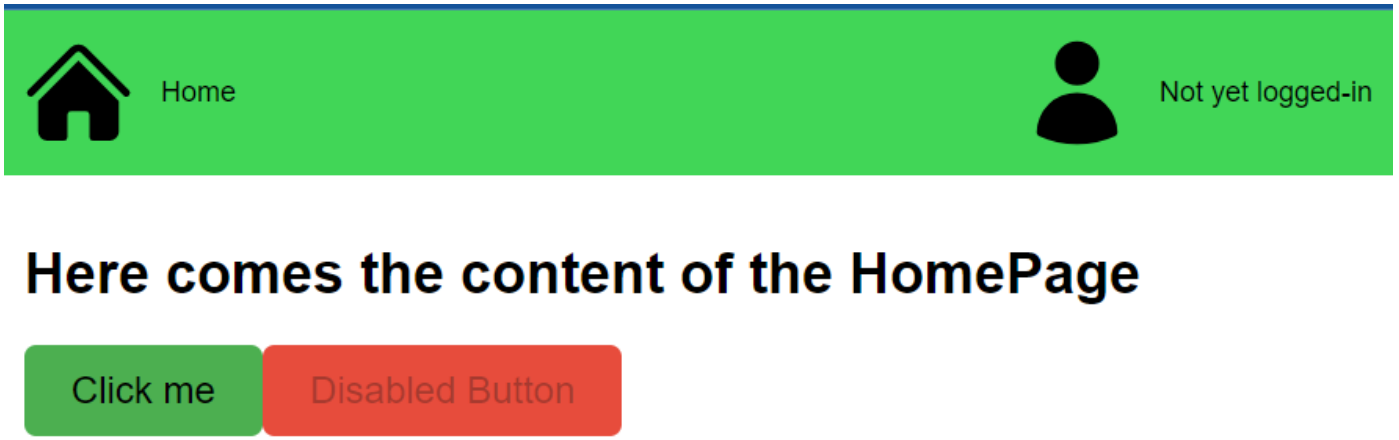
> How behaves non-prop attributes passed down to a component, when its template has a single root element? **Tips** : it is well documented by vue, but you can also try it youself by passing the `style` attribute with a straight visual effect.

The non-prop attributes passed down to a component are added to the root element of the component. If the template has a single root element, the non-prop attributes are added to this element. If the template has multiple root elements, the non-prop attributes are added to the first root element.

Exercice 7

> Implement such a BaseButton, animated on hover and focus. Do not forget the disabled state. You may try these buttons on your HomePage for now.

We wrote a new file in baseButton and we added a reference to it in the HomePage.vue file.

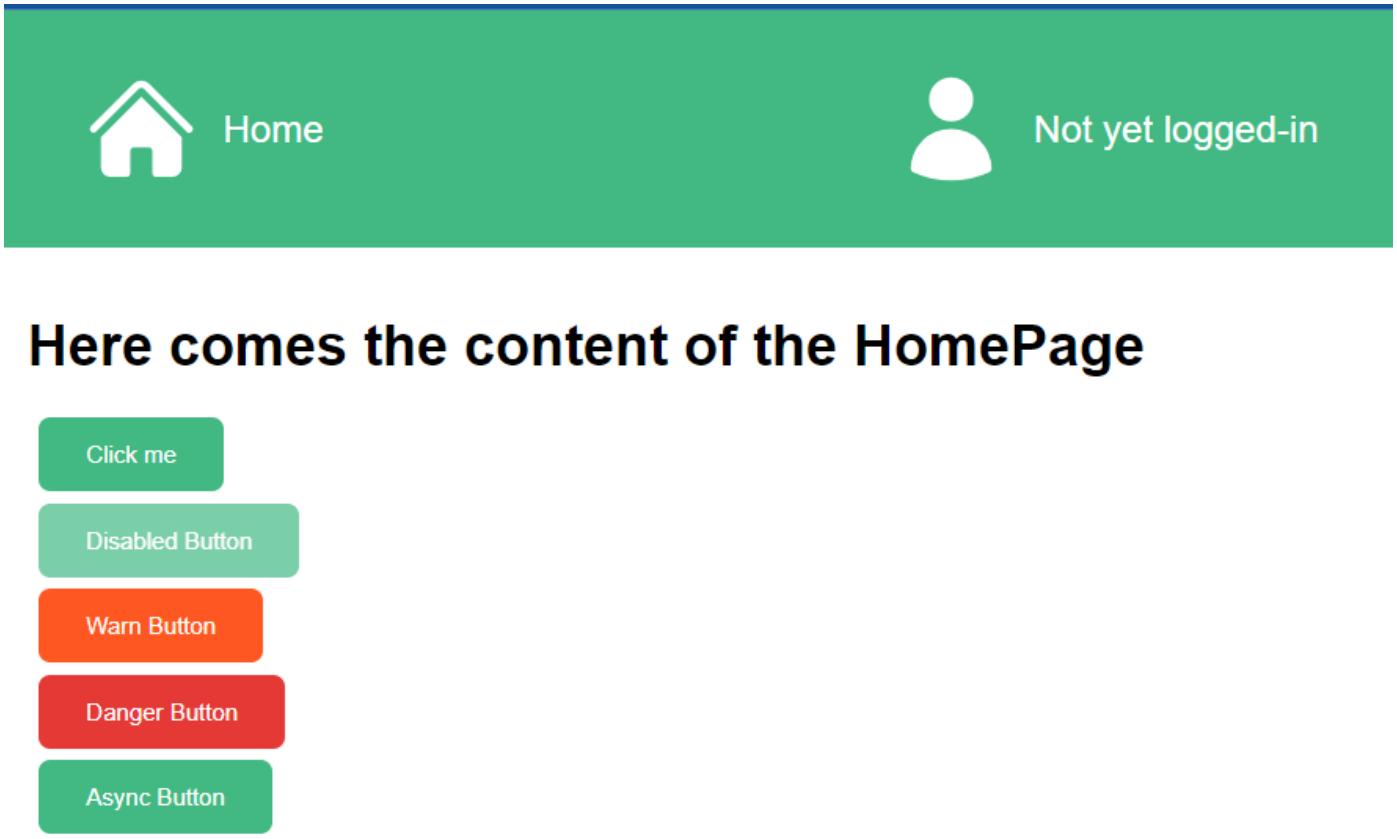


Exercice 8

> Add the color prop to BaseButton. This prop accepts one of 'primary', 'warn' or 'danger' values. It defaults to primary and you should validate the given value

> matches the enum. Then, dynamically apply styles to the button based on that prop.

We modify the baseButton file to add the color prop and to apply the style based on the prop.



Exercice 9

> Add a button to the HomePage that is disabled for 2 seconds each time it is clicked. According to the above code, this just means the @click event listener attached to the instance of AsyncComponent instance returns a Promise that waits for 2 seconds before resolving. You can create such a Promise using its constructor and a setTimeout. Also, please write the event handler inside a dedicated method since at is a bit complex.

So we create a AsynButton in the HomePage file. With this code :

```
handleClick() {
      setTimeout(() => {
        this.isPending = !this.isPending;
      }, 2000);
      this.isPending = !this.isPending;
    },
```

Normal	Quand on appuie sur le bouton

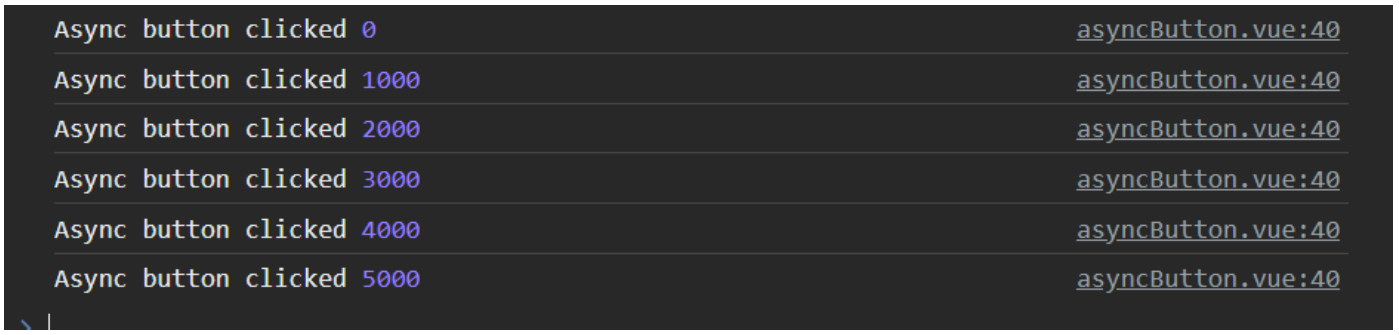
Exercice 10

> Change the behaviour of the previous button, so its waiting time increases by one second each it is clicked. Because AsyncButton waits for any promise, whatever how long it takes to resolve, you do not need and you should not change it. Instead, keep trace of the number of clicks in the internal state (data) of the HomePage component (see the counter app example) and use it while forging new promises.

To do this we modify the AsynButton in the HomePage file. With this code :

```
    handleClick() {
        console.log("Async button clicked", this.timer);

        // Create a new promise with the current timer value
        const asyncOperation = new Promise((resolve) => {
          setTimeout(() => {
            resolve();
          }, this.timer);
        });

        // Update timer for the next click
        this.timer += 1000;

        // Toggle isPending when promise resolves
        asyncOperation.then(() => {
          this.isPending = !this.isPending;
```

```
      });

      // Toggle isPending immediately
      this.isPending = !this.isPending;
    },
```



Question 7

> Analyse how works the AsyncButton. How the child component is aware of the returned Promise by the parent onClick handler? When is executed the callback passed to .finally()? Why use .finally() instead of .then()? Etc.

The child component is aware of the returned Promise by the parent onClick handler because the parent component is passing the promise to the child component. The callback passed to .finally() is executed when the promise is resolved or rejected. We use .finally() instead of .then() because .finally() is executed when the promise is resolved or rejected.

Question 8

> Which bug is introduced if inheritAttrs: false is missing or set to true in AsyncButton? Why?

If inheritAttrs: false is missing or set to true in AsyncButton, the button will have the attributes of the parent component. This is a bug because the button will have the attributes of the parent component and not the attributes of the button.