Research Document

Problem Statement

I have trouble connecting the frontend and the backend.

Main Question

How do I make a successful connection between the frontend and the backend and make sure that the data is transferred?

Subquestions

1. How do I declare the address of the backend?
2. How do I make sure that the data in the backend is reachable?
3. How do I declare the address of the method I want to use?
4. How do I save the data in an array?
5. How do I show the elements on the screen?

Answers

1. I declare it by writing this line of code in my JavaScript application: axios.defaults.baseURL = "http://localhost:8080";
2. I put this line of code above the backend page where the data I want to retrieve is:

@RestController

@CrossOrigin(origins="\*", allowedHeaders = "\*")

1. I put this line of code above the method:

@GetMapping("/Meals")

This means that now the address of the method is:

<http://localhost:8080/Meals>

If I want to add an element, I use @PostMapping.

If I want to update an element, I use @PushMapping.

If I want to delete an element, I use @DeleteMapping.

1. If, for example, I want to get all the ids, first I type this line of code:

const [ids, setIds] = useState([]);

Ids is the array where the data will be saved and setIds is a hook to get the data.

Then, I type this line of code:

axios.get('/getIds').then(res => {setIds(res.data)})

1. I use a for statement to loop through all the arrays I want and display the elements however I want. For example:

let code = [];

let component;

for(let i = 0; i < ids.length; i++) {

component = (

<p>{ids.at(i)}</p>

<p>{names.at(i)}</p>

)

code.push(component);

}

This line of code will create an array, code, which has saved the elements from ids and names in the form of p tags. Then I display the whole array by typing:

return (

<>

{code}

</>

)

For all of these answers, I used the Usability testing method because with it, you can detect errors that can occur if a real user operates the application.

Conclusion

The address of the backend should be declared in the JavaScript application. A few lines of code should be typed above the page in the backend, so that the connection works properly. The address of the method is declared with @GetMapping (if you want to retrieve data). Then, the retrieved data should be saved to an array in the JavaScript application and everything is displayed on-screen with a for statement.