

Valispace: Full-stack challenge

This is a code challenge to evaluate your skills as full-stack developer. You should be able to finish this task in less than 1 day (although we will not monitor the time). You can use any external libraries to resolve this problem.

The challenge consists in creating a database of mathematical functions and a solver that can calculate the numerical result of any of the functions specified by the user.

Path '/admin'

This path will enable the user to add, edit and remove functions from a database.

Requirements:

- The names of the functions should be unique and they can be changed at any moment without breaking the previous definitions. They also should be restricted to the format `[\w-_]+`

Example:

NAME		FUNCTION
f1	=	f2 + f5
f2	=	5 - f4
f3	=	f1 * f2
f4	=	7
f5	=	90 + 1

Path '/'

On this path we should be able to write a function on a input field and press enter to execute.

Requirements:

- The calculation should run on the server and present the data on the frontend;

Example:

```
-----
| f1 + f2 + 5                | | Calculate |
-----
```

Checklist

- () You have met the requirements;
- () All data is saved on the backend;
- () Although you can use external libraries, you managed to get it to work by yourself;
- () Keen eye for UX and details;
- () You have thought about possible problems and find a solutions for them.

Take the time you need to complete the task. During the process you are always welcome to get back to us with any questions or doubts you might have and we will guide you in the right direction. We are looking forward to seeing your work!