DE VINCI INNOVATION CENTER

Operating System And Programming

Project: The FUSE Library

Now that you have seen how to create programs in C and manipulate memory, and you have seen what a pseudo-filesystem is, we will look at a famous library for making your own pseudo-filesystem: The FUSE library: https://github.com/libfuse/libfuse

The goal of the project is to write an application that uses the FUSE library to interact with your computer.

Handing out a project by the given deadline that respects all the points in “Project Requirements” guarantees a > 10 grade. The number in “Project Roadmap” before each point represents the scale of the question and how many points they grant above 10.

Project Requirements

- Your project must use the FUSE library and expose at least 1 file.
- You must write a documentation explaining how to use your project. (How to mount your file system).
- You must write your project in the C language.
- Your project must be handed out in a git repository. (On Github, gitlab…)

Project Roadmap

- *+1* Use fuse to expose a single file always containing “Hello”
- *+1* Use fuse to expose a single file that outputs what’s written to it in the console.
- *+1* Use fuse to expose a single file that shutdown the computer when written to.
- *+2* Use fuse to expose a file where you can write to and that saves what is written to it in an actual file somewhere on your disk.
- *+2* Use fuse to expose a folder containing files: one to shutdown, one to suspend the computer when written to.
- *+3* Expose a file that shows the results of the **sudo apt update** command when wanting to read from it.