



UFAZ - Bachelor of Computer Science

System Programming

PW04 : Files

For each exercise, we expect the student to write a program, compile it and run it without errors of several examples. Test sets and comments are as important as the code itself.

Exercise 1

We want to implement a new version of the standard library dealing with I/O using system calls.

1. Define a new data-structure `MYFILE`. Do not forget to take into account buffering of I/O.
2. Write a function `my_open`, which works the same of `fopen`. To make things easier, we focus on the opening modes "r" and "w".
3. Redo exercise 3 of PW03 to write a function `my_getc`, which will be similar to `getc`.
4. Write a function `my_putc`, similar to `putc` (which bufferizes the output like `getc` bufferizes the input).
5. Write a function `my_close`, similar to `fclose`.
6. To test all these functions, write a function `main` which opens 2 files `foo1` and `foo2` in read-only mode, then reads characters one by one in both files and outputs them to the standard output. Your loop shall stop when it reaches the end of the first file.