System Programming Homework 1

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Requirement Check:

a) ./hw1 ‘/str1/str2/‘ inputFilePath (DONE)

b) ./hw1 ‘/str1/str2/i‘ inputFilePath (DONE)

d) ./hw1 ‘/[zs]tr1/str2/‘ inputFilePath (DONE)

e) ./hw1 ‘/^str1/str2/‘ inputFilePath (DONE)

f) ./hw1 ‘/str1$/str2/‘ inputFilePath (DONE)

Combinations of the above (DONE)

And finaly i use file lock with fcntl, one process starts working after other one completes it’s job.(DONE)

How i solved this problem?

These are the steps that i applied:

1- Arguments are checked in main, if there is a problem program returns.
2- 2- If arguments are normal, i check the strings to see if we have multiple commands. I count the ; sign and hold how many commands we have.
3- I made changes on the buffer I got with the read command, I didn't use a temp file.
4- Parsed as ^ , $, i , [zS], str1 and str2.
5- The checked arguments were processed on the state machine.
6- Changes on the buffer are written back to the file, with the write call

Design Decisions:

- I preferred to use dynamic memory for strings that may come in different lengths.

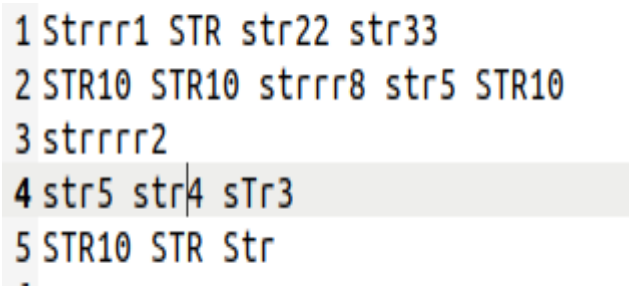
-I read the file line by line using lseek. This allowed me to move freely on the array.

-I sorted the processes in order of priority.

-I could not complete the c and g cases due to some errors in the design.

Test;

1)



2)