Andrea Fanti 235808

Lab 2 exercise 2

The program `myWC` counts the number of words of the input file by counting the number of successful `fscanf` that can be performed on the file before reaching the end.

The commands to be done in the second point are:

- `cp main.c ../test`
- `cp main.c ../test/script`
- `cp main.c ../test/result`
- `less main.c`
- `rm main.c ../test/main.c ../test/script/main.c ../test/result/main.c`
- `cd ..`
- `cp src/main.c ./`
- `less main.c`
- `rm main.c`

`cp`, `ln` and `mv` are different in how they handle files:

- `cp` copies a file into another one, thus creating a new inode and allocating new disk space to memorize the file copy.
- `ln` creates a new directory entry that points to the destination file, in the case of a soft link also an inode is created.
- `mv` moves a directory entry from one directory to another.

After compiling with `make`, we can check the existence of the executable as well as its permissions with the `ls -l myWC` command, that in my case it outputs:
`-rwxr--r-- 1 andrea andrea 16800 20 oct 14.08 myWC`
As we can see the file owner - user andrea - has all the permissions set.

We can remove execution permission from the file with `chmod -x myWC`.
After this the file can't be executed (trying to launch it outputs a "Permission denied" error).
We can restore the previous permissions with `chmod 744 myWC`.

The file can be finally moved to the `bin` directory by executing `mv myWC ../bin`.