I did not attack a make file because I ran the code using gcc -g simple-shell.c

I attached 2 files simple-shell and simple-shell.c because I did not have the time to check the code due to many changes but I guess the 2 are the same so simple-shell should work perfectly.

Then this creates a file called a.out which we run by ./a.out

In this project we implemented a simple shell which have five features.

Execute normal command either alone or with the & operator,Have a history, redirecting input and outputs from and to a file.

I learned few things in this project, and I got a lot better in C.

My code could have been more modular, but I faced some problems in passing the parameters.

For example, I tried to make a function and passed to it args. The function only saw the first element of args. That’s why my code is in the main.

I still need to figure out functions in C.

So my code works fine in the first 4 features. But in the fourth feature the input or output file should be already in the directory otherwise it will not work.

The & command works but the osh message does not get printed if we used & once

The fifth feature code is written but sometimes it works and sometimes it crashes the whole system.

In this project I got a deeper understanding of the file systems, dup2() which changes our input and output streams and I partially understood how pipes should work and fully understood pipes theoretically. Also I got to understand fork() process more and even tried to debug it but failed.

I also gained the experience of running unix c code in windows using clion debugger and gdb on the unix command

I attached 2 files with this project in which input.txt we can use on it the command sort < input.txt

And we will see the results on the screen

While the other out.txt have some of the attempts of my commands outputted in a file