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CS 433

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Assignment 2 report

The included files in **novak009\_n\_torre129** are:

* Makefile - Our makefile
* Assignment2.o - The executable, as generated by the Makefile
* stack.C - A stack class -- used for history
* stack.h - The header for the stack class
* mysh.c - The shell class -- used for interpreting and executing commands
* mysh.h - The shell header
* main.c - The client file

We re-used the stack class from CS 311, but otherwise everything was made uniquely for this assignment.

To run our program, type **make** and that will execute the Makefile. The result will be **Assignment2.o**, so type **./Assignment2.o** to execute the program.

When inside, type in commands like you would for the terminal normally.

* A command terminated with an ampersand such as “**cat mysh.c &**” will make it run in the background.
* The command **history** will bring up a list of the last 10 commands performed.
* The command **!!** will perform the last-used command, or **!n**, where n is a number, will perform the nth command in history.

There are no features missing from the assignment.

The biggest difficulty we had was in working with character pointer arrays -- which neither of us had done before, since the previous classes have been with c++ and we could just use strings in there. In retrospect, we should have gone with what we knew, but we didn’t think at the start that it would cause so many difficulties.

We used a stack to hold the history, because that seemed like the most reasonable way. A future improvement would be to try using a stack of char pointer arrays, rather than of strings, to avoid the conversion we ended up using.

We spent a lot of time looking at error detection/handling, and we covered it all pretty well.

The handling of background processes is iffy, though. It seems like they are running in the background, but we aren’t always entirely sure.