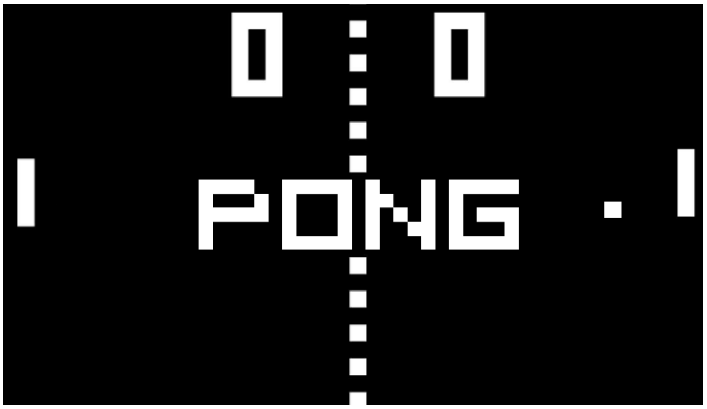
B1 - Shell Programming

B-PSU-110

minishell1

to the 42sh and beyond...



2.0

minishell1

binary name: mysh
repository name: PSU_minishell1_$ACADEMICYEAR
repository rights: ramassage-tek
language: C
compilation: via Makefile, including re, clean and fclean rules

- The totality of your source files, except all useless files (binary, temp files, obj files,...), must be included in your delivery.
- All the bonus files (including a potential specific Makefile) should be in a directory named *bonus*.
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).

You have to program a **UNIX command interpreter**.
The interpreter is expected to display a prompt ($> , for example) and then wait for you to write a command line, which must be validated by a newline.

The prompt must be displayed again only after the command execution.
Only basic command lines are expected to executed; no pipes, redirections or any other advanced features.
The executables should be those found in the path, as indicated in the PATH variable.

If the executable cannot be found, you must display an error message and display the prompt again.
Errors must be dealt with and must display the appropriate message on the error output.

You must correctly handle the PATH and the environment (by copying and restoring the initial env).
You must implement the following builtins: **cd, setenv, unsetenv, env, exit**.

Your **env** builtin hasn't to take any argument. Your **unsetenv** builtin hasn't to support the **"*"** wildcard.

The reference shell is TCSH

Read man pages

Authorized Functions

- malloc, free, exit, opendir, readdir, closedir, getcwd, chdir, getline
- fork, stat, lstat, fstat, open, close, getline
- read, write, execve, access, isatty, wait, waitpid
- wait3, wait4, signal, kill, getpid, strerror, perror, strsignal