CSCI.4210 Operating Systems
Fall, 2008
Programming Assignment 2

This assignment will be done in Unix only. You are to write a simple shell which can execute commands

Your program should have an infinite loop which gets commands from the user and executes them. Commands will consist of a single executable followed by zero or more arguments. The user has the option of appending an ampersand at the end, which means that the program should run in background. Your program should display a prompt (>) indicating that your shell is ready for the next command.

Your shell should have two internal commands.

history displays a list of all of the commands that have been executed by the shell, in order.

quit terminates the program.

Note that by convention (and thus, for this assignment), argv[0] is the actual command, and you will have to fill this in. If the user enters `ps -a -f`, when you execute the command, `argv[0]` would be `ps`, `argv[1]` would be `-a`, `argv[2]` would be `-f` and `argv[3]` would be NULL.

To find commands, your program should first search the current working directory, and if it cannot find the command there, it should search each directory in the environment variable MYPATH. This will consist of a series of directories delimited by dollar signs. You can set the value of MYPATH in your environment with the export command

```
export MYPATH=/bin$/usr/local/bin$/usr/local/sbin
```

As always, your program should have good error handling facilities because it will be easy for the user to make mistakes.

Note that a real shell, such as bash, would have many more features, but your shell should only execute commands. In fact, you will lose points if it does more than what is asked for here. In future assignments you will be asked to add features to your shell.

This project is due at 11:59PM on Friday, Sept 26.