Assignment 3 – Simple Shell

Description:
This assignment is about implementing a simple shell that will run on top of the regular command-line interpreter for Linux.

The simple shell made will read lines of user input, then parse and execute the commands by forking/creating new processes.

Approach / What I Did:

The assignment was short and simple. Like always, I modify and fill up fields to reflect my Name, Student ID, Github ID, project name and filename in GitHub. After that, I finished editing my Makefile in github as well. These are the things that I always begin doingI do any coding.

Once my files are set up and ready, I clone my repository to the desktop using VS Code. After that, I create my main.c file and proceed creating my code to answer the requirements of the assignment.

I tried something different here than my previous assignments. Instead of processing the arguments as a parameter for my main function, I processed them using a function readCommand.

Issues and Resolutions:

Note that since I am coding in Windows, and running the code in Linux, there are things that might not run while coding, but will run during runtime. One of the things that was really weird for me was importing libraries like unistd.h which would give me an error while coding in VS Code. However, when I run the code in Ubuntu Linux, it doesn't give me any code because it is a Unix library.

Other than that, I think that I was able to complete the assignment with ease. It was short and quick and I did not have that much issues completing it.

Analysis: (If required for the assignment)
Screen shot of compilation:

```
ejay@The-Kraken:/mnt/c/Users/EJ Cenario/Desktop/csc415-assignment3-simpleshell-kurtina09$ make
gcc -c -o cenario_edeljhon_HW3_main.o cenario_edeljhon_HW3_main.c -g -I.
gcc -o cenario_edeljhon_HW3_main cenario_edeljhon_HW3_main.o -g -I. -l pthread
```

Screen shot(s) of the execution of the program:

```
ejay@The-Kraken:/mnt/c/Users/EJ Cenario/Desktop/csc415-assignment3-simpleshell-kurtina09$ make run
./cenario_edeljhon_HW3_main "Prompt> "
Prompt$ ls -l
total 48
-rwxrwxrwx 1 ejay ejay  1839 Sep 19 19:42 Makefile
-rwxrwxrwx 1 ejay ejay  5193 Sep 19 18:58 README.md
-rwxrwxrwx 1 ejay ejay 16536 Sep 19 20:04 cenario_edeljhon_HW3_main
-rwxrwxrwx 1 ejay ejay  2714 Sep 19 19:38 cenario_edeljhon_HW3_main.c
-rwxrwxrwx 1 ejay ejay  9248 Sep 19 20:04 cenario_edeljhon_HW3_main.o
-rwxrwxrwx 1 ejay ejay    48 Sep 19 18:58 commands.txt
Child ID: 45, Exit Error ID: 0
Prompt$ ls foo
ls: cannot access 'foo': No such file or directory
Child ID: 46, Exit Error ID: 2
Prompt$ exit
```

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