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/*****
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* Project: Assignment 3 – SimpleShell
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* File: HW3_WRITEUP
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This simple shell reads lines of user input, parses and executes the commands by forking/creating new processes. I started out this program by getting into a while loop. First it prompts the user for a command, then checks if the user enters exit. Then the tokenizing process begins and breaks up the user input line and stores the substrings in an array that holds the commands. After the commands are correctly added to the command array, the forking process begins. Before calling exec in the child process, wait was called on the parent process and the full path was created by copying the environment path variable to the full path and concatenated with the command elements in the command array. Once the full path is created, it is then passed into execvp when the child process executes. Upon entering exit, the program exits accordingly.

Execution output:

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student@student-VirtualBox:~/assignment-3-simple-shell-kimbucha$ ./nguyen_kim_HW3_main
prompt$: ls -l
total 36
-rw-r--r-- 1 student student 1729 Sep 23 11:50 Makefile
-rwxr-xr-x 1 student student 13032 Sep 25 11:16 nguyen_kim_HW3_main
-rw-r--r-- 1 student student 2582 Sep 25 11:16 nguyen_kim_HW3_main.c
-rw-r--r-- 1 student student 724 Sep 23 15:08 nguyen_kim_HW3_main.c.save
-rw-r--r-- 1 student student 4857 Sep 21 16:41 README.md
Child 3045, exited with 0
prompt$: ls foo
ls: cannot access 'foo': No such file or directory
Child 3046, exited with 2
prompt$: exit
student@student-VirtualBox:~/assignment-3-simple-shell-kimbucha$

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