

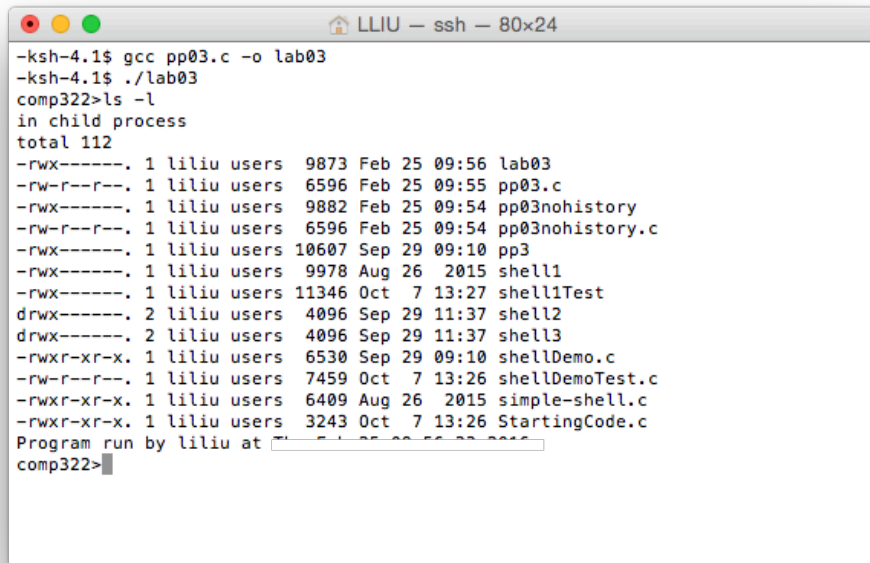
Lab 3 Instruction

In this project, you will learn how to design a C program to serve as a shell interface that accepts user commands and then executes each command in a separate process. Your program should parse the command that is entered by a user including arguments of a command. For example, "ls" is the command "-l" is an argument of "ls" command. Separate tokens can be stored in an array of character strings (args in Figure 3.36). You can find the description of this programming project on Page 157 (Part1) and an extended start code at the bottom of the page if you want to use.

Submission Instruction:

1. Replace osh> prompt illustrated in the textbook with comp322> prompt. (5 pts)
2. Run pwd command after comp322> prompt and take a screenshot. (5 pts)
3. Run ls -l command after comp322> prompt and take a screenshot. (10 pts)
4. Implement a print statement which shows this line after each run of your program. "Program run by userID at currentTime" (Refer to Programming Project 1 for how to retrieve userID and currentTime). (5 pts)
5. Substitute the file name with yourCSUNID.c, compile and execute the shell (change the file name in your makefile if you decide to use make). (5 pts)

Here is an example,



```
-ksh-4.1$ gcc pp03.c -o lab03
-ksh-4.1$ ./lab03
comp322>ls -l
in child process
total 112
-rwx-----. 1 liliu users 9873 Feb 25 09:56 lab03
-rw-r--r--. 1 liliu users 6596 Feb 25 09:55 pp03.c
-rwx-----. 1 liliu users 9882 Feb 25 09:54 pp03nohistory
-rw-r--r--. 1 liliu users 6596 Feb 25 09:54 pp03nohistory.c
-rwx-----. 1 liliu users 10607 Sep 29 09:10 pp3
-rwx-----. 1 liliu users 9978 Aug 26 2015 shell1
-rwx-----. 1 liliu users 11346 Oct 7 13:27 shell1Test
drwx-----. 2 liliu users 4096 Sep 29 11:37 shell2
drwx-----. 2 liliu users 4096 Sep 29 11:37 shell3
-rwxr-xr-x. 1 liliu users 6530 Sep 29 09:10 shellDemo.c
-rw-r--r--. 1 liliu users 7459 Oct 7 13:26 shellDemoTest.c
-rwxr-xr-x. 1 liliu users 6409 Aug 26 2015 simple-shell.c
-rwxr-xr-x. 1 liliu users 3243 Oct 7 13:26 StartingCode.c
Program run by liliu at 2015-09-29 15:23:22
comp322>
```

Upload .c file and the PDF file.

The .c file should be named as yourCSUNID.c.

The PDF file comprising your screenshots needs to be named following this format, K200LoginName_YourLastName.pdf

Both files need to be submitted here in Moodle.

Submission failed to meet the submission requirement will not be graded. Grade may be forfeited.