COMP 2560 Winter 2024— Lab 5

Please note the different submission deadlines for different questions.

Understand how the function "fork(..)" works

Please watch the **video** posted which explains how the "fork(...)" function works in the sample code "q1.c" (we briefly discussed it in class).

Question 1

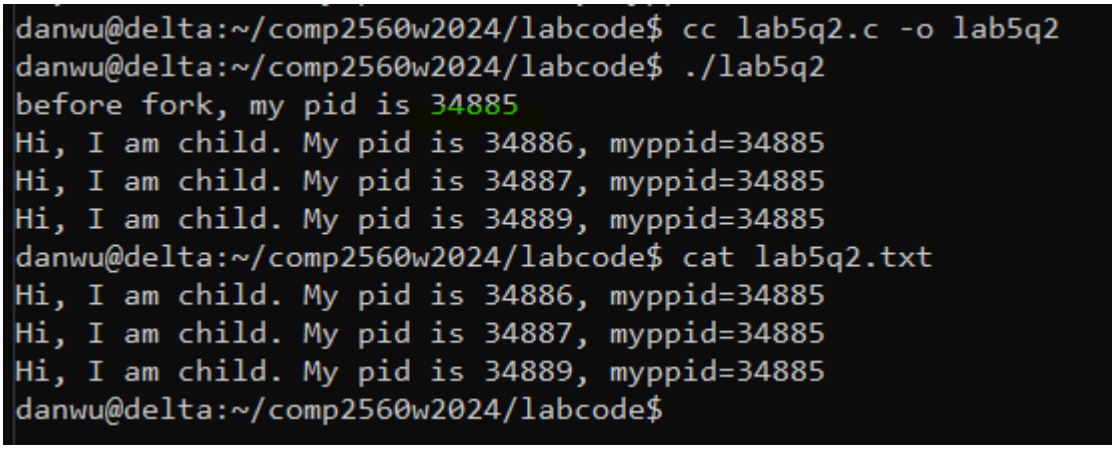
We also showed the code "q2.c" in class. However, we did not run/explain its output. Write a short document or record a short video to explain the output of "q2.c" in a similar fashion as in my video.

Question 2

Write a C program such that the parent process generates exactly 3 child processes. Each child process prints its pid and its parent's pid to the terminal and also writes what prints to the terminal to a file shared by all the processes. Please put comments in your code so that markers can understand your code. You could also put in sleep(...) function if necessary to make sure the child process terminates before the parent process.

Hint: If you fully understand how "q2.c", you will realize you only need to add one line of code to "q2.c" to create exactly 3 child processes. Also, take a look at the sample code "fork3.c" discussed in class to see how different processes write to the same file (you may consider using the dprintf(…) function for writing to a file descriptor).

The screenshot below shows a sample output.



Submission Requirement

1. The shareable link to the video you created for question 1 or the document you created to explain the output of "q2.c" **before 11:59 PM, Feb. 16.**
2. The source code of Question 2 **at the end of your lab session** (whatever you have completed) and 11:59 PM, Feb. 16 if have you an updated version.
3. The shareable link to a short video showing you compile and run your Question 2 program **before 11:59 PM, Feb. 16**.