

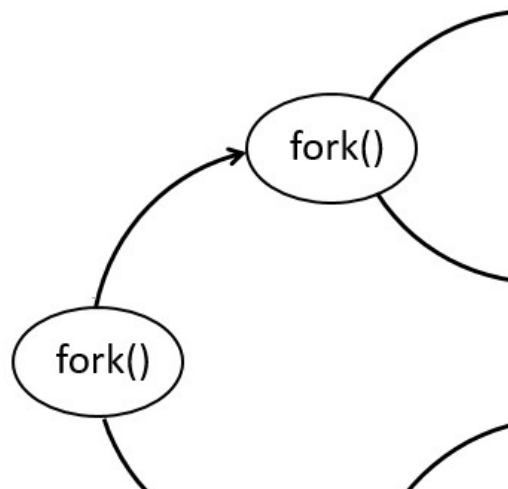
Fitchburg State University
CSC 7132 Operating Systems and Networking
Instructor: Nguyen Thai
Due: 3/24/2017 at 11 PM
Student: Lina Mi

CSC 7132 Assignment 2: Create Processes

The purpose of this lab is to learn how to create processes in Linux.

As you work through the lab be sure to answer all questions (type your answers into this document) and take all screenshots as requested (copy them into the document). For the screenshots, you can use the Snipping Tool that is built-in to Windows to capture the important parts of the lab as highlighted in the document below. **Do not delete the contents of this file.** When finished, you will submit the document, source code file and associated data files to the instructor via Blackboard. **DO NOT SUBMIT ZIP FILES OR INDIVIDUAL IMAGES.** If you have any questions or need any clarification, see the instructor *before* the deadline.

1. Write a C program called *createProcesses.c* to implement the following diagram:



2. Document your program logic here.

Ans: the root process use the first `fork()` function to create a child process of first generation (one of the branch in the diagram), then the parent process uses the second `fork()` function to create a child process of second generation; in the child process of first generation, it uses third `fork()` function to create a child process of second generation, the child process of first generation itself becomes the parent process of second generation; therefore there are four processes in the program, root process (parent process of first generation), the child process of second generation created by root process, the parent process of second generation(also the child process of first generation), and the child process of second generation created by child process of first generation.

3. Submit this document and your source code to Blackboard for grading.