

COMP-8567 ASP

Section -1

Fall 2022

In-Class Lab 3 (Process Control)

- a. In the main program, invoke the `fork()` system call. The child process must display the Process ID and the parent ID 30 times (with a gap of 1 sec between each printing). This should be followed by the appropriate `exit()` system call.
- b. The parent process must **wait** for the child process to complete execution and then print the status of the child's termination using the bit manipulation macros in `sys/wait.h` (`WIFEXITED()`, `WIFSIGNALED()` etc.)
- c. You are required to check the output in two scenarios and print appropriate messages related to the execution status of the child process (terminated/signaled)
 - i. When the child process completes its execution (Prints 30 times with one sec gaps)
 - ii. When you kill the child process while it is running using `$ kill -9 pid` (pid of the child process can be obtained using `$ ps -u` (You need to output the signal no of the signal associated with the termination of the child process)