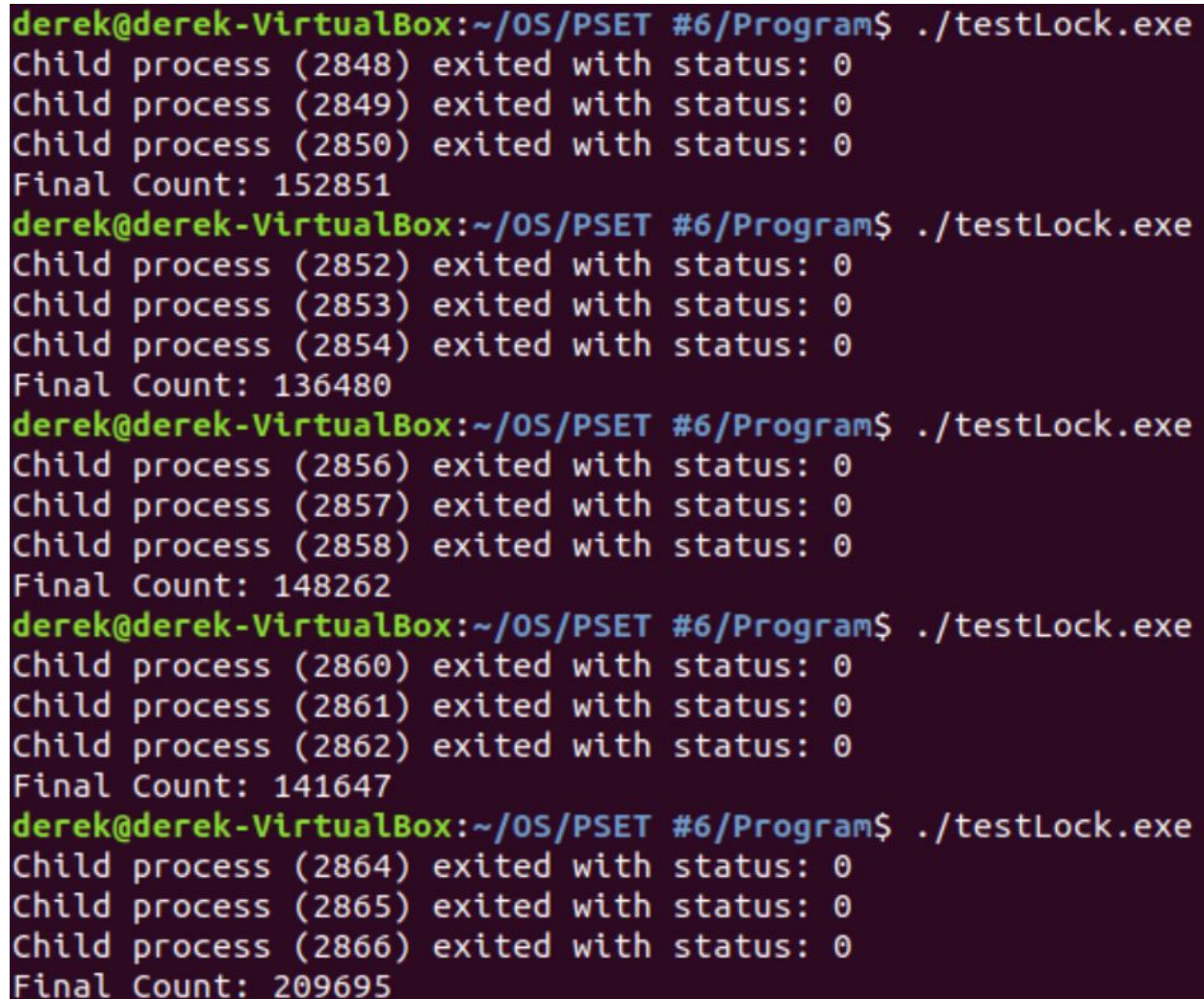# Problem 2a Sample Runs

I.   Running testLock.exe without Mutex locking

```
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2848) exited with status: 0
Child process (2849) exited with status: 0
Child process (2850) exited with status: 0
Final Count: 152851
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2852) exited with status: 0
Child process (2853) exited with status: 0
Child process (2854) exited with status: 0
Final Count: 136480
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2856) exited with status: 0
Child process (2857) exited with status: 0
Child process (2858) exited with status: 0
Final Count: 148262
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2860) exited with status: 0
Child process (2861) exited with status: 0
Child process (2862) exited with status: 0
Final Count: 141647
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2864) exited with status: 0
Child process (2865) exited with status: 0
Child process (2866) exited with status: 0
Final Count: 209695
```

Figure 1. When running as-intended, the "Final Count" value should be 300,000. As can be seen above, without Mutex locking the Final Count varies from 136,480 to 209,695 (although in theory, any integer between 100,000 and 300,000 can be obtained).

II. Running testLock.exe with Mutex Locking

```
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2683) exited with status: 0
Child process (2684) exited with status: 0
Child process (2685) exited with status: 0
Final Count: 300000
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2687) exited with status: 0
Child process (2688) exited with status: 0
Child process (2689) exited with status: 0
Final Count: 300000
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2691) exited with status: 0
Child process (2692) exited with status: 0
Child process (2693) exited with status: 0
Final Count: 300000
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2695) exited with status: 0
Child process (2696) exited with status: 0
Child process (2697) exited with status: 0
Final Count: 300000
derek@derek-VirtualBox:~/OS/PSET #6/Program$ ./testLock.exe
Child process (2699) exited with status: 0
Child process (2700) exited with status: 0
Child process (2701) exited with status: 0
Final Count: 300000
```

Figure 2. When running as-intended, the "Final Count" value should be 300,000. As can be seen above, with Mutex locking the Final Count consistently reaches 300,000.