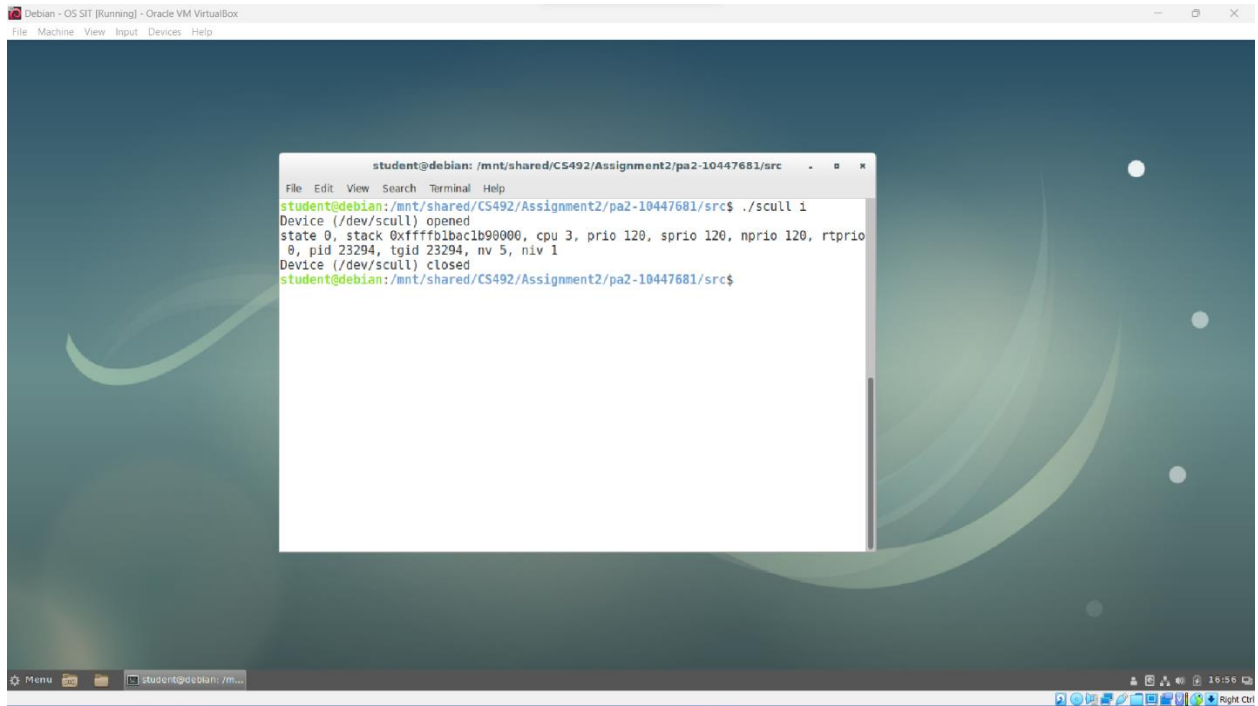


Aidan Fischer

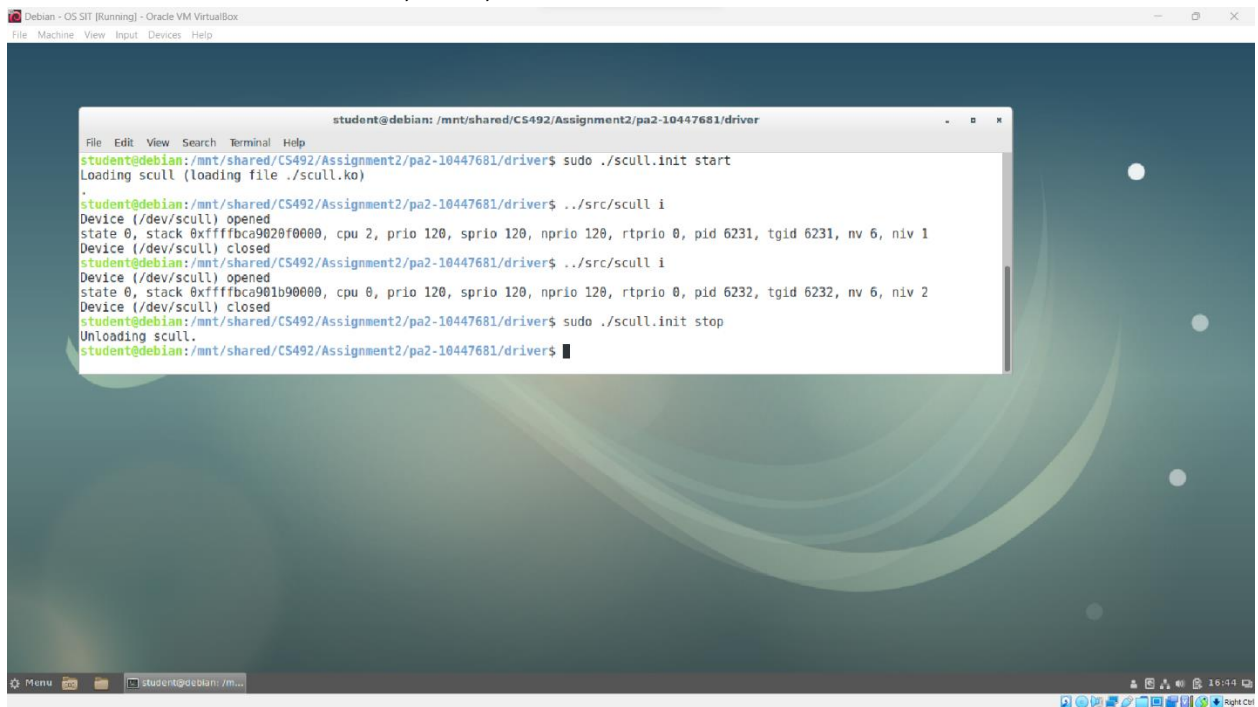
I pledge my honor that I have abided by the Stevens Honor System

Part E: SCULL_IOCQUANTUM, scull i command



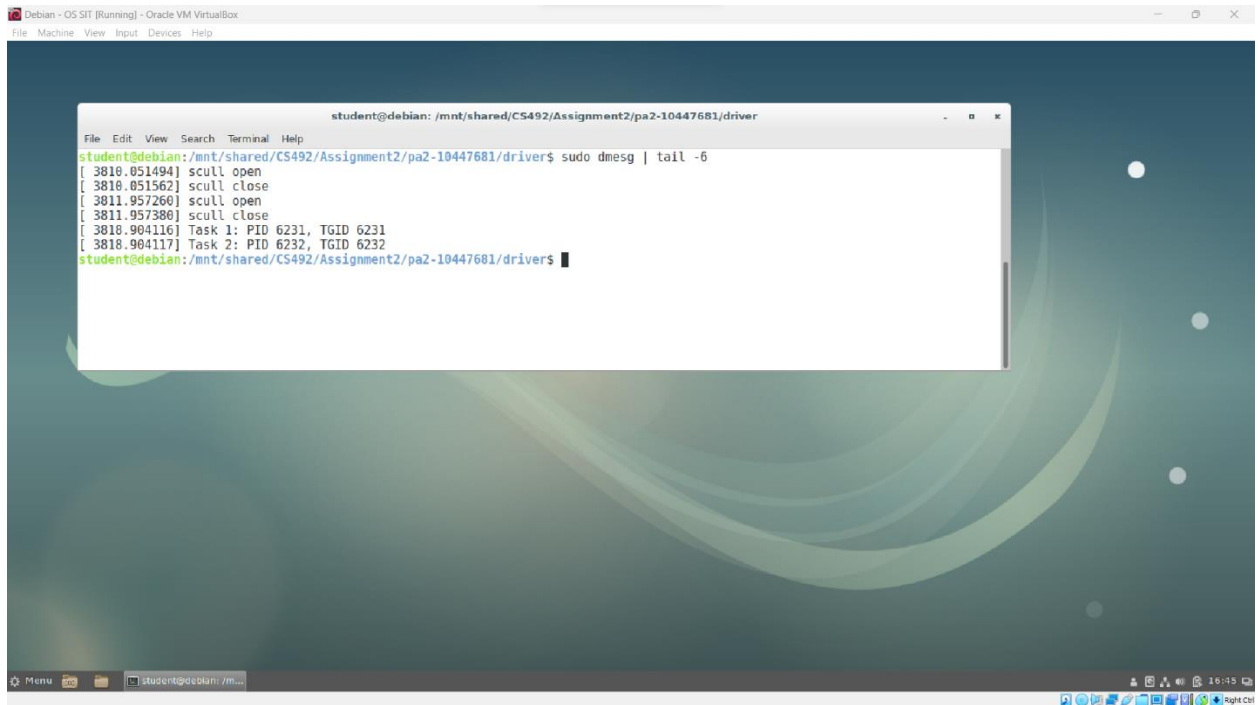
```
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffb1b0c1b90000, cpu 3, prio 120, sprio 120, nprio 120, rtprio
0, pid 23294, tgid 23294, nv 5, niv 1
Device (/dev/scull) closed
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/src$
```

Part F: Linked List IOCIQUANTUM, scull l, command runs



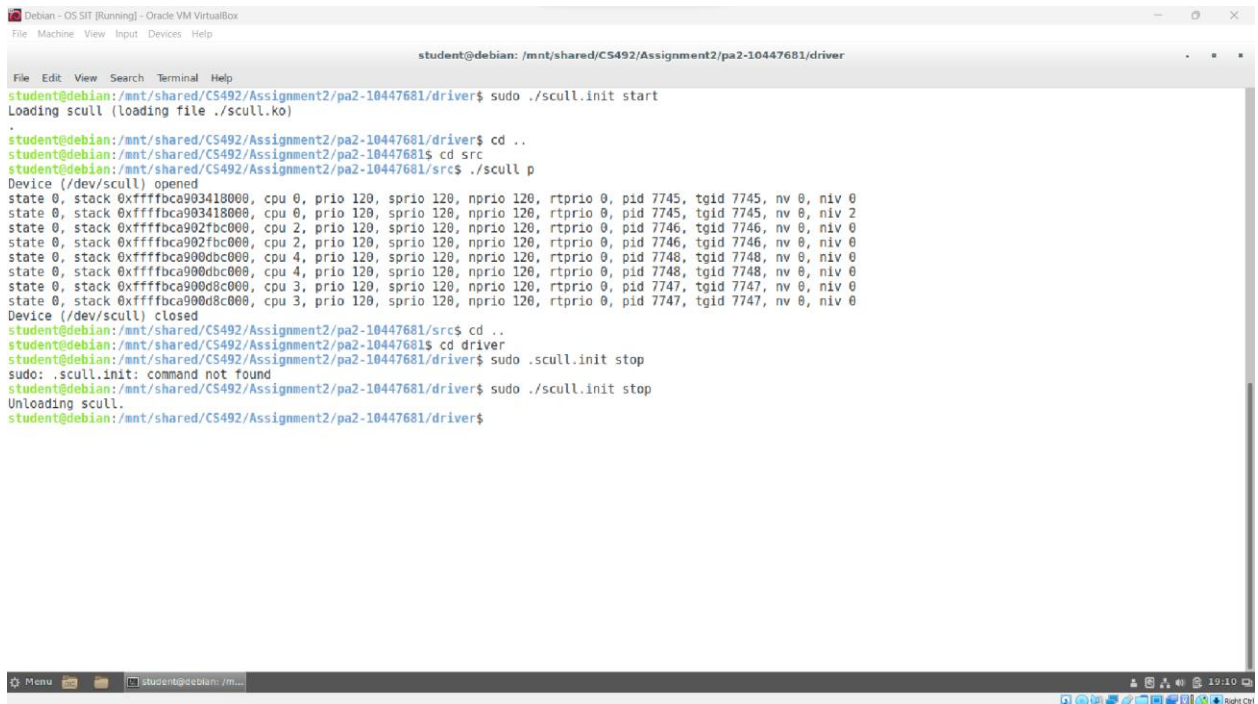
```
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init start
Loading scull (loading file ./scull.ko)
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ ./src/scull l
Device (/dev/scull) opened
state 0, stack 0xffffbca9020f0000, cpu 2, prio 120, sprio 120, nprio 120, rtprio 0, pid 6231, tgid 6231, nv 6, niv 1
Device (/dev/scull) closed
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ ./src/scull l
Device (/dev/scull) opened
state 0, stack 0xffffbca901b90000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 6232, tgid 6232, nv 6, niv 2
Device (/dev/scull) closed
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init stop
Unloading scull.
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```

Part F: Linked List IOCIQUANTUM, scull I, kernel log



```
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver
File Edit View Search Terminal Help
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo dmesg | tail -6
[ 3818.051494] scull open
[ 3818.051562] scull close
[ 3811.957260] scull open
[ 3811.957380] scull close
[ 3818.904116] Task 1: PID 6231, TGID 6231
[ 3818.904117] Task 2: PID 6232, TGID 6232
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```

Part G1: Processes version (scull p), command run



```
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver
File Edit View Search Terminal Help
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init start
Loading scull (loading file ./scull.ko)
.
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ cd ..
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681$ cd src
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/src$ ./scull p
Device (/dev/scull) opened
state 0, stack 0xffffbca903418000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 7745, tgid 7745, nv 0, niv 0
state 0, stack 0xffffbca903418000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 7745, tgid 7745, nv 0, niv 2
state 0, stack 0xffffbca902fbc000, cpu 2, prio 120, sprio 120, nprio 120, rtprio 0, pid 7746, tgid 7746, nv 0, niv 0
state 0, stack 0xffffbca902fbc000, cpu 2, prio 120, sprio 120, nprio 120, rtprio 0, pid 7746, tgid 7746, nv 0, niv 0
state 0, stack 0xffffbca900dbc000, cpu 4, prio 120, sprio 120, nprio 120, rtprio 0, pid 7748, tgid 7748, nv 0, niv 0
state 0, stack 0xffffbca900dbc000, cpu 4, prio 120, sprio 120, nprio 120, rtprio 0, pid 7748, tgid 7748, nv 0, niv 0
state 0, stack 0xffffbca900dbc000, cpu 3, prio 120, sprio 120, nprio 120, rtprio 0, pid 7747, tgid 7747, nv 0, niv 0
state 0, stack 0xffffbca900dbc000, cpu 3, prio 120, sprio 120, nprio 120, rtprio 0, pid 7747, tgid 7747, nv 0, niv 0
Device (/dev/scull) closed
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/src$ cd ..
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681$ cd driver
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init stop
sudo: ./scull.init: command not found
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init stop
Unloading scull.
student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```

Part G1: Processes version (scull p), kernel log

```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver

File Edit View Search Terminal Help
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo dmesg | tail -6
[12553.407042] scull open
[12553.407589] scull close
[12575.644788] Task 1: PID 7745, TGID 7745
[12575.644789] Task 2: PID 7746, TGID 7746
[12575.644790] Task 3: PID 7748, TGID 7748
[12575.644790] Task 4: PID 7747, TGID 7747
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```

Part G2: Threads version (scull t), command run

```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver

File Edit View Search Terminal Help
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init start
Loading scull (loading file ./scull.ko)
.
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$ cd ../src
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/src$ ./scull.t
bash: ./scull.t: No such file or directory
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/src$ ./scull t
Device (/dev/scull) opened
state 0, stack 0xffffbca990d2c008, cpu 3, prio 120, sprio 120, nprio 120, rtprio 0, pid 8856, tgid 8855, nv 2, niv 0
state 0, stack 0xffffbca990d2c008, cpu 3, prio 120, sprio 120, nprio 120, rtprio 0, pid 8856, tgid 8855, nv 7, niv 0
state 0, stack 0xffffbca990e24008, cpu 5, prio 120, sprio 120, nprio 120, rtprio 0, pid 8858, tgid 8855, nv 7, niv 0
state 0, stack 0xffffbca991148008, cpu 6, prio 120, sprio 120, nprio 120, rtprio 0, pid 8859, tgid 8855, nv 7, niv 0
state 0, stack 0xffffbca990cfc008, cpu 4, prio 120, sprio 120, nprio 120, rtprio 0, pid 8857, tgid 8855, nv 9, niv 0
state 0, stack 0xffffbca991148008, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 8859, tgid 8855, nv 12, niv 0
state 0, stack 0xffffbca990e24008, cpu 5, prio 120, sprio 120, nprio 120, rtprio 0, pid 8858, tgid 8855, nv 13, niv 1
state 0, stack 0xffffbca990cfc008, cpu 4, prio 120, sprio 120, nprio 120, rtprio 0, pid 8857, tgid 8855, nv 14, niv 0
Device (/dev/scull) closed
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/src$ cd ../driver
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo ./scull.init stop
Unloading scull.
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```

Part G2: Threads version (scull t), kernel log

```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

student@debian: /mnt/shared/CS492/Assignment2/pa2-10447681/driver

File Edit View Search Terminal Help
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$ sudo dmesg | tail -6
[15345.398786] scull open
[15345.402722] scull close
[15359.016115] Task 1: PID 8856, TGID 8855
[15359.016116] Task 2: PID 8858, TGID 8855
[15359.016117] Task 3: PID 8859, TGID 8855
[15359.016118] Task 4: PID 8857, TGID 8855
student@debian:/mnt/shared/CS492/Assignment2/pa2-10447681/driver$
```