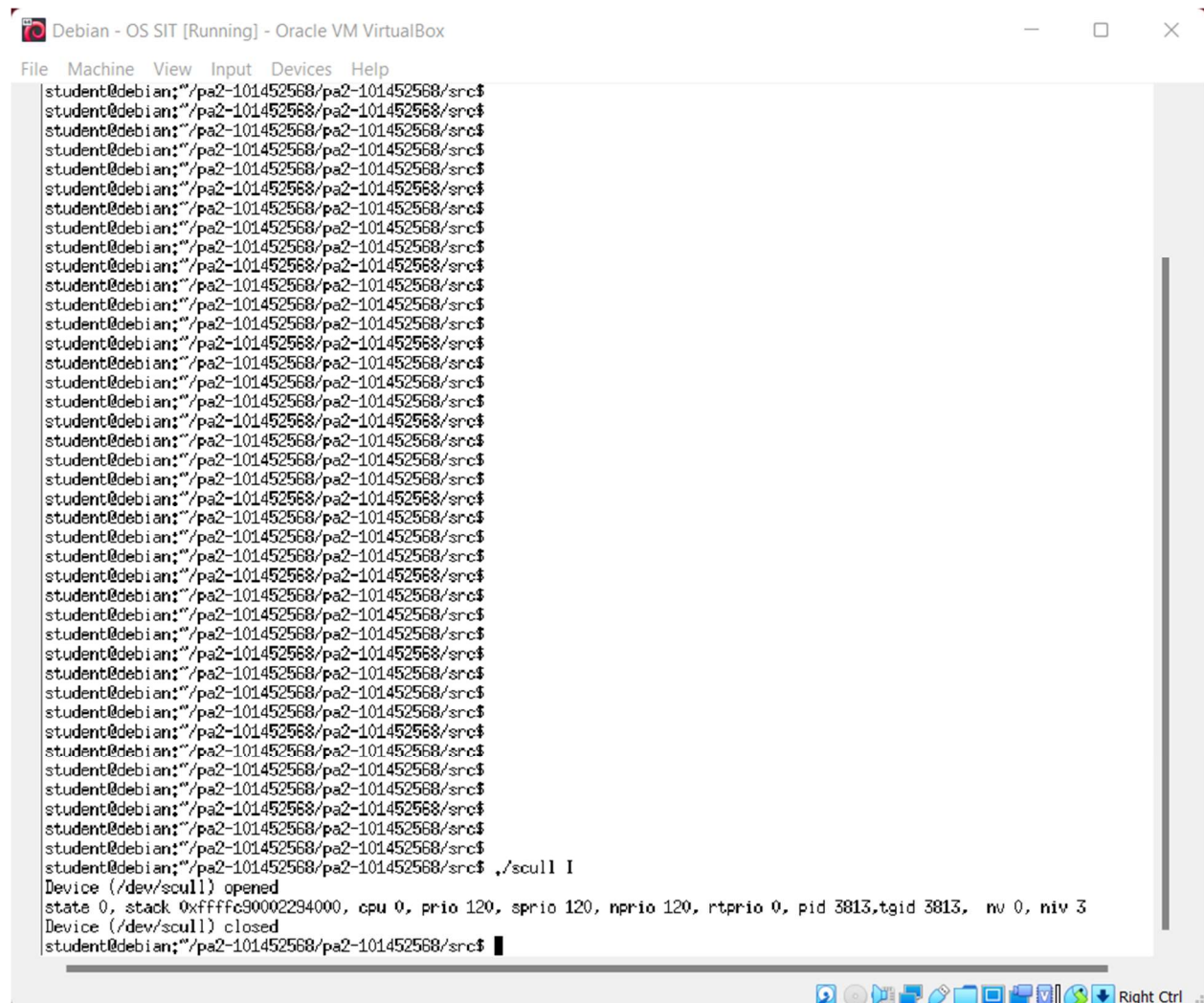


Nidhi Parekh

I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh



```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffc90002294000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3813, tgid 3813, nv 0, niv 3
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$
```

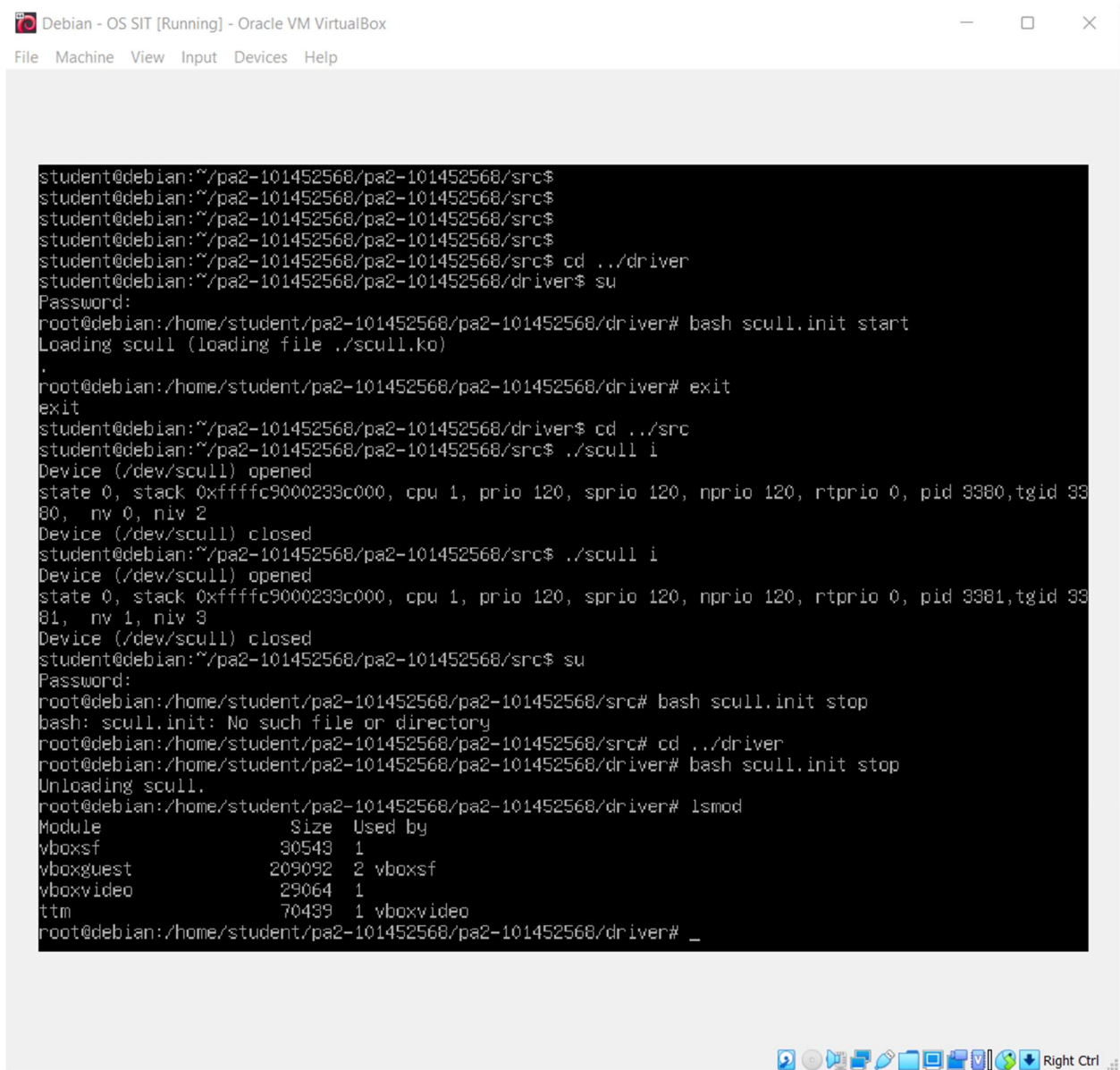
Part E (./scull i) SCREENSHOT

- Having permissions problems :/ (please be kind (:)

Nidhi Parekh

I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh

f.1 SCREENSHOT – load, ./scull i, unload



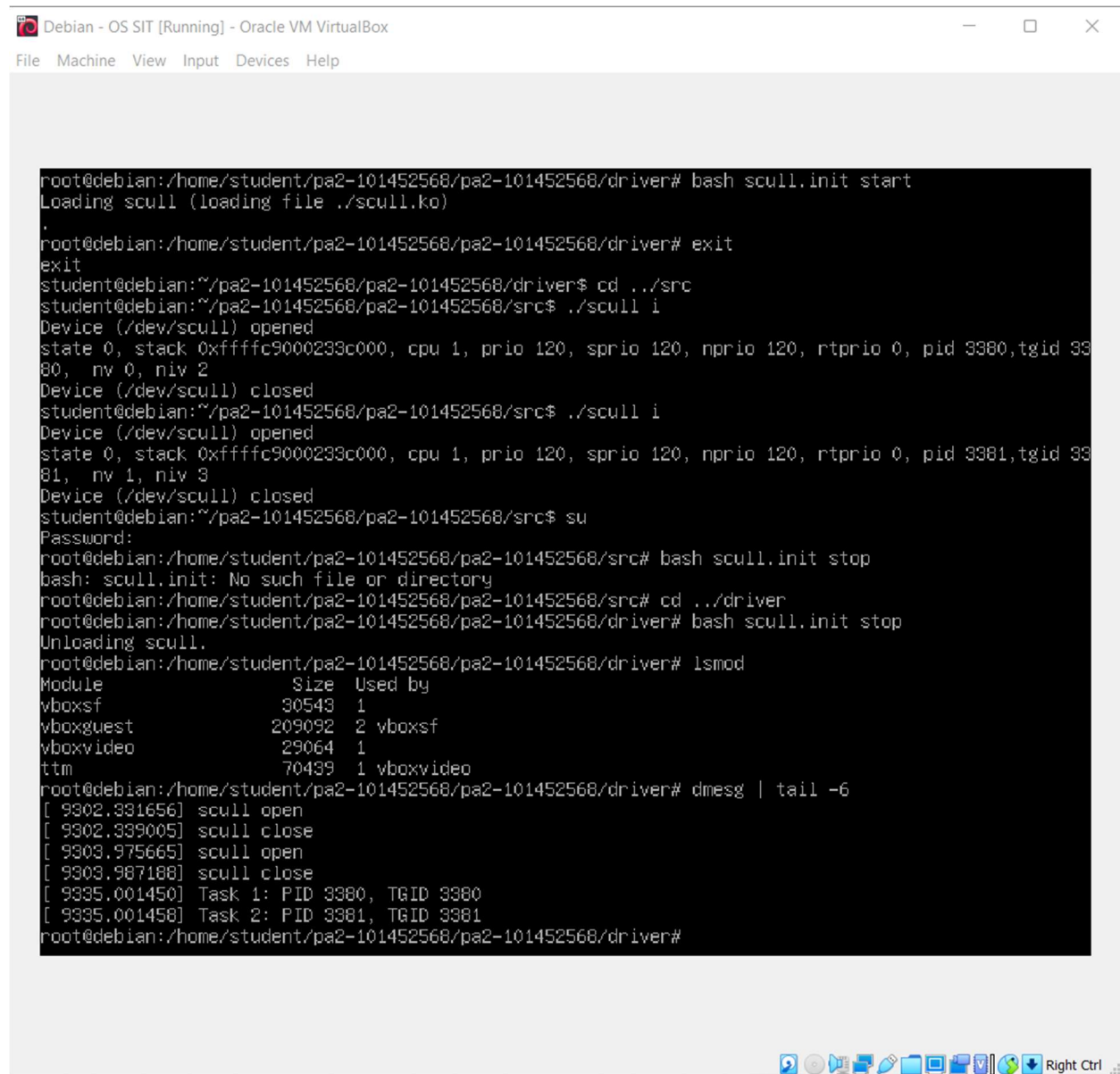
```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$
student@debian:~/pa2-101452568/pa2-101452568/src$ cd ../driver
student@debian:~/pa2-101452568/pa2-101452568/driver$ su
Password:
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init start
Loading scull (loading file ./scull.ko)
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/driver$ cd ../src
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffc9000239c000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3380, tgid 3380, nv 0, niv 2
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffc9000239c000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3381, tgid 3381, nv 1, niv 3
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ su
Password:
root@debian:/home/student/pa2-101452568/pa2-101452568/src# bash scull.init stop
bash: scull.init: No such file or directory
root@debian:/home/student/pa2-101452568/pa2-101452568/src# cd ../driver
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init stop
Unloading scull.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# lsmod
Module                Size  Used by
vboxsf                 30543   1
vboxguest             209092   2 vboxsf
vboxvideo              29064   1
ttm                    70439   1 vboxvideo
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# _
```

Nidhi Parekh

I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh

FINAL f.2 SCREENSHOT – DMESG | TAIL -6



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

root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init start
Loading scull (loading file ./scull.ko)
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/driver$ cd ../src
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffc9000293c000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3380, tgid 3380, nv 0, niv 2
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull i
Device (/dev/scull) opened
state 0, stack 0xffffc9000293c000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3381, tgid 3381, nv 1, niv 3
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ su
Password:
root@debian:/home/student/pa2-101452568/pa2-101452568/src# bash scull.init stop
bash: scull.init: No such file or directory
root@debian:/home/student/pa2-101452568/pa2-101452568/src# cd ../driver
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init stop
Unloading scull.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# lsmod
Module                Size  Used by
vboxsf                 30543  1
vboxguest              209092  2 vboxsf
vboxvideo              29064  1
ttm                    70439  1 vboxvideo
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# dmesg | tail -6
[ 9302.331656] scull open
[ 9302.339005] scull close
[ 9303.975665] scull open
[ 9303.987188] scull close
[ 9335.001450] Task 1: PID 3380, TGID 3380
[ 9335.001458] Task 2: PID 3381, TGID 3381
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
```

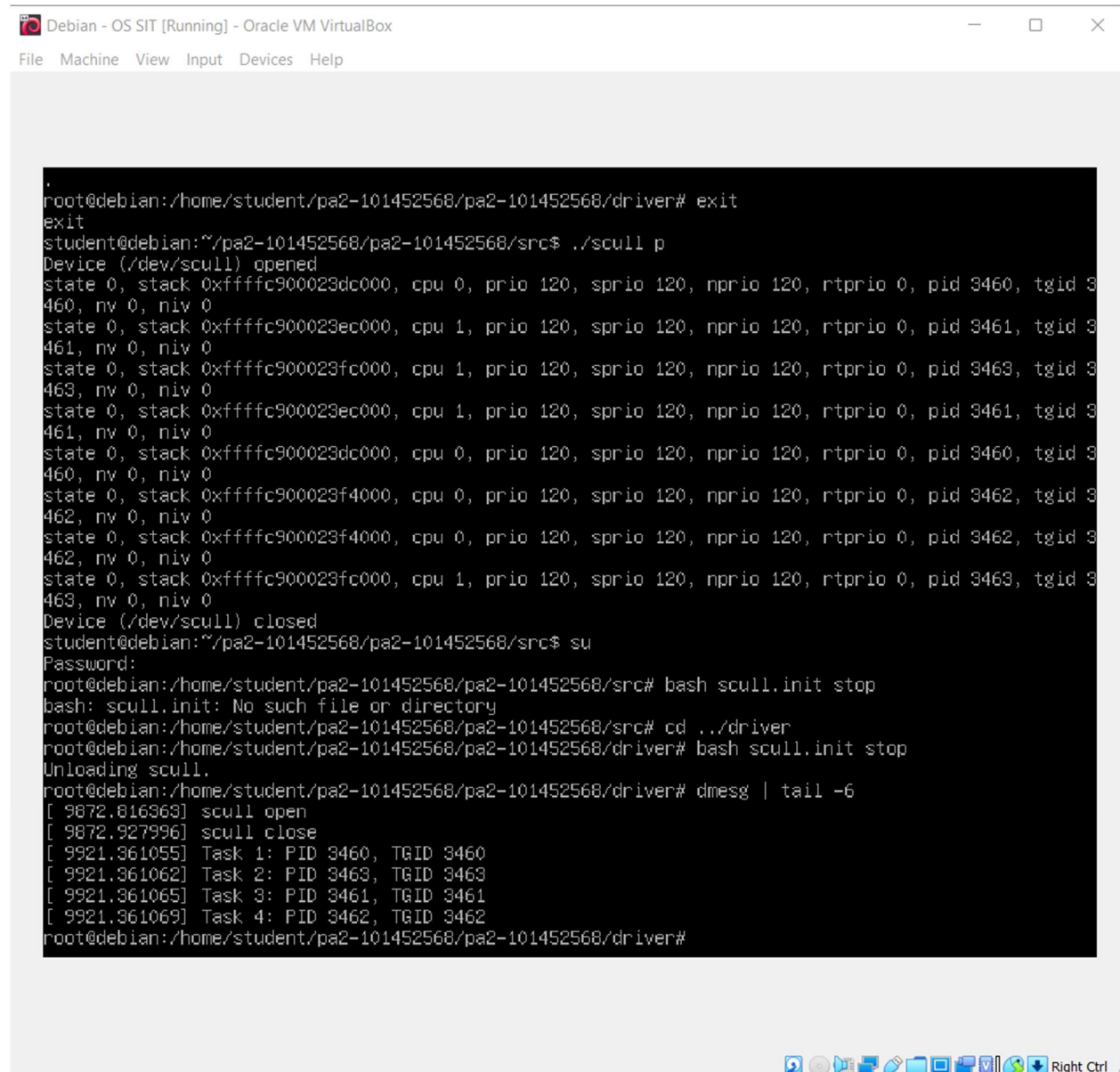
I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh

```

root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init start
Loading scull (loading file ./scull.ko)
.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull p
Device (/dev/scull) opened
state 0, stack 0xffffc900023dc000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3460, tgid 3460, nv 0, niv 0
state 0, stack 0xffffc900023ec000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3461, tgid 3461, nv 0, niv 0
state 0, stack 0xffffc900023fc000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3463, tgid 3463, nv 0, niv 0
state 0, stack 0xffffc900023ec000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3461, tgid 3461, nv 0, niv 0
state 0, stack 0xffffc900023dc000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3460, tgid 3460, nv 0, niv 0
state 0, stack 0xffffc900023f4000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3462, tgid 3462, nv 0, niv 0
state 0, stack 0xffffc900023f4000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3462, tgid 3462, nv 0, niv 0
state 0, stack 0xffffc900023fc000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3463, tgid 3463, nv 0, niv 0
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$

```

G 1) ./scull p – dmesg SCREENSHOT



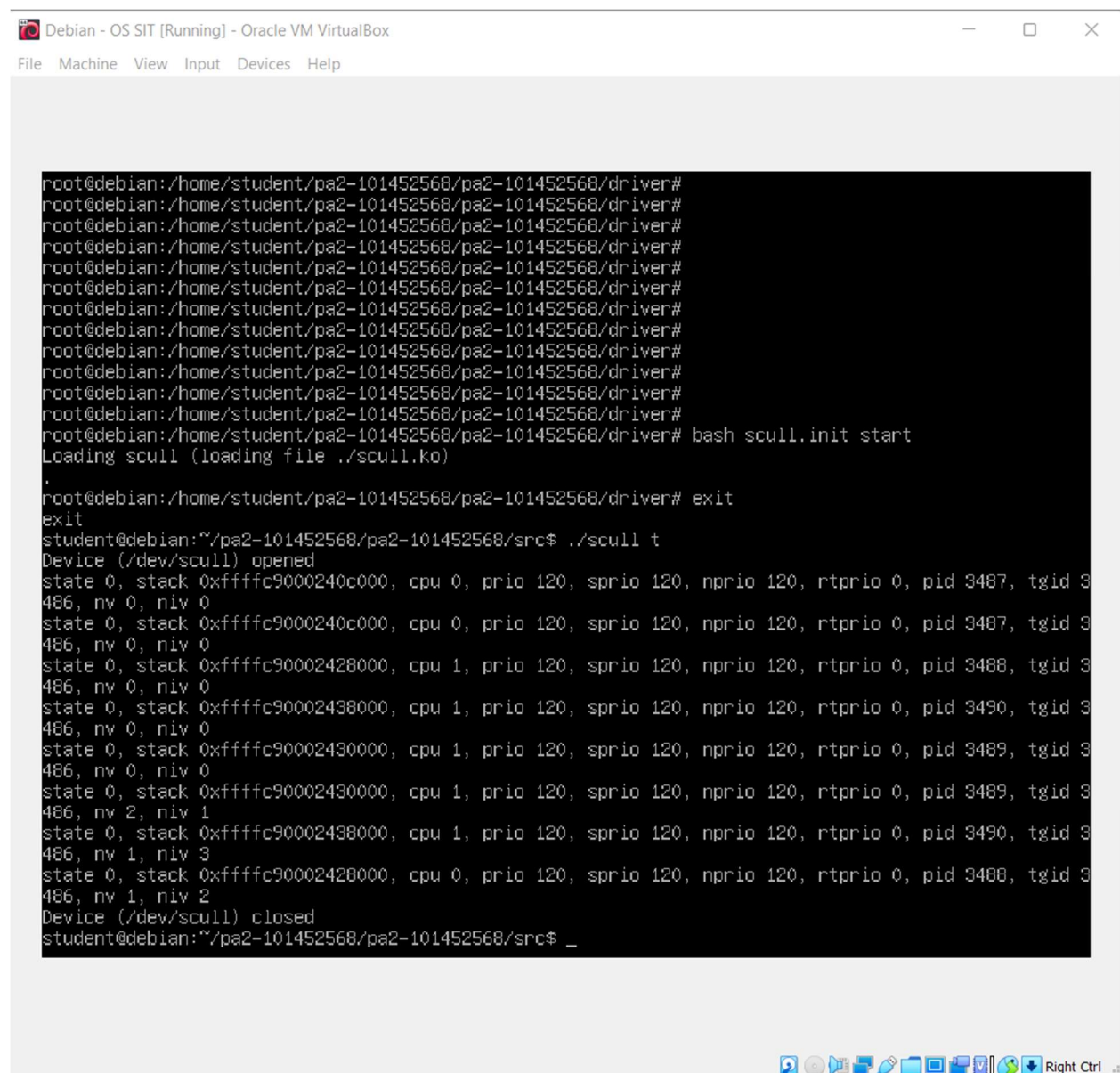
```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull p
Device (/dev/scull) opened
state 0, stack 0xffffc900023dc000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3460, tgid 3
460, nv 0, niv 0
state 0, stack 0xffffc900023ec000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3461, tgid 3
461, nv 0, niv 0
state 0, stack 0xffffc900023fc000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3463, tgid 3
463, nv 0, niv 0
state 0, stack 0xffffc900023ec000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3461, tgid 3
461, nv 0, niv 0
state 0, stack 0xffffc900023dc000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3460, tgid 3
460, nv 0, niv 0
state 0, stack 0xffffc900023f4000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3462, tgid 3
462, nv 0, niv 0
state 0, stack 0xffffc900023f4000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3462, tgid 3
462, nv 0, niv 0
state 0, stack 0xffffc900023fc000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3463, tgid 3
463, nv 0, niv 0
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ su
Password:
root@debian:/home/student/pa2-101452568/pa2-101452568/src# bash scull.init stop
bash: scull.init: No such file or directory
root@debian:/home/student/pa2-101452568/pa2-101452568/src# cd ../driver
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init stop
Unloading scull.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# dmesg | tail -6
[ 9872.816363] scull open
[ 9872.927996] scull close
[ 9921.361055] Task 1: PID 3460, TGID 3460
[ 9921.361062] Task 2: PID 3463, TGID 3463
[ 9921.361065] Task 3: PID 3461, TGID 3461
[ 9921.361069] Task 4: PID 3462, TGID 3462
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
```

Nidhi Parekh

I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh

G 2.) ./scull t – user screenshot



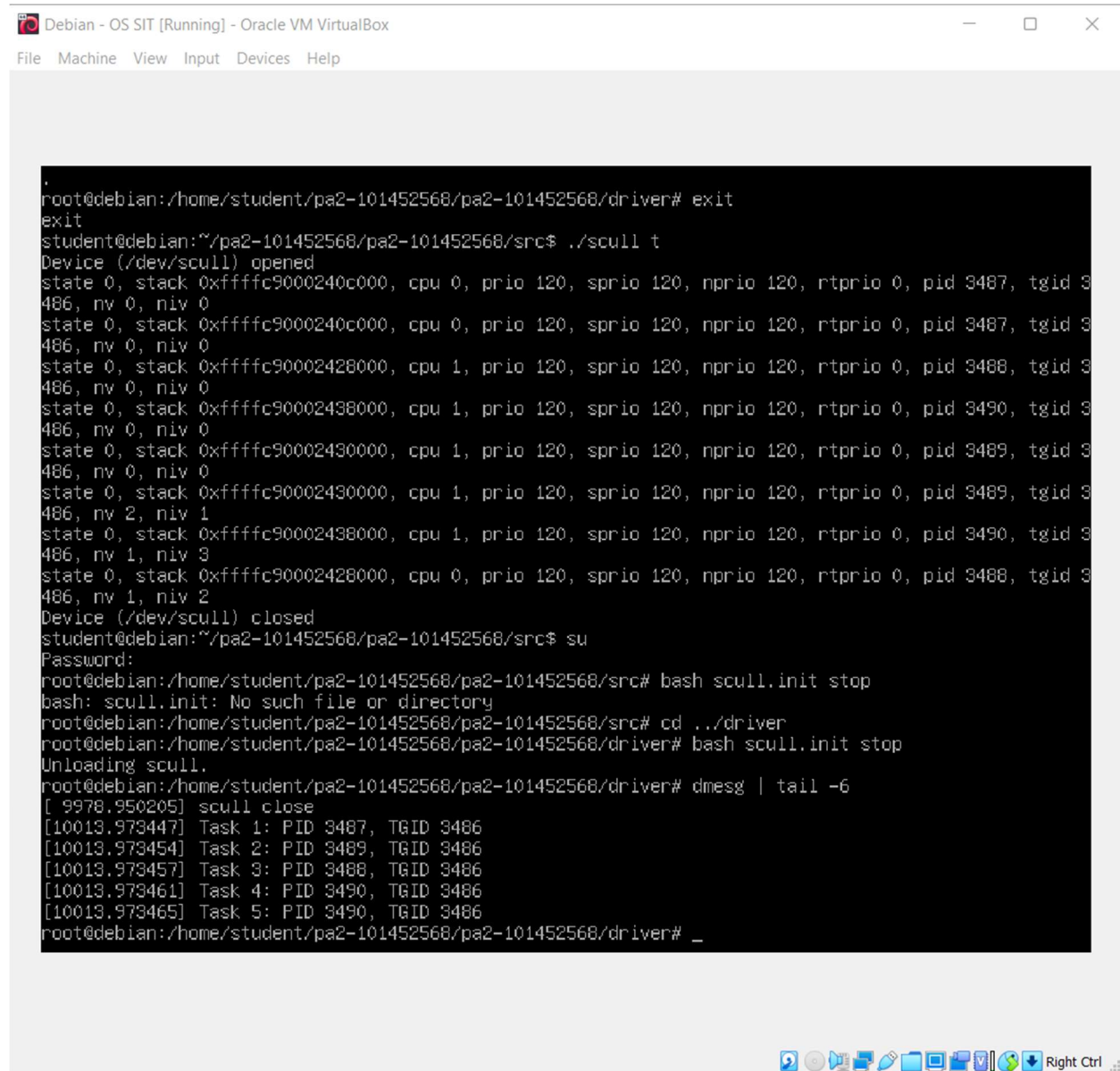
```
Debian - OS SIT [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver#
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init start
Loading scull (loading file ./scull.ko)
.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull t
Device (/dev/scull) opened
state 0, stack 0xffffc9000240c000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3487, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc9000240c000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3487, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002428000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3488, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002438000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3490, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002430000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3489, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002430000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3489, tgid 3486, nv 2, niv 1
state 0, stack 0xffffc90002438000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3490, tgid 3486, nv 1, niv 3
state 0, stack 0xffffc90002428000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3488, tgid 3486, nv 1, niv 2
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ _
```


Nidhi Parekh

I pledge my honor that I have abided by the Stevens Honor System. – Nidhi Parekh

G 2) ./scull t – dmesg



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

root@debian:/home/student/pa2-101452568/pa2-101452568/driver# exit
exit
student@debian:~/pa2-101452568/pa2-101452568/src$ ./scull t
Device (/dev/scull) opened
state 0, stack 0xffffc9000240c000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3487, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc9000240c000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3487, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002428000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3488, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002438000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3490, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002430000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3489, tgid 3486, nv 0, niv 0
state 0, stack 0xffffc90002430000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3489, tgid 3486, nv 2, niv 1
state 0, stack 0xffffc90002438000, cpu 1, prio 120, sprio 120, nprio 120, rtprio 0, pid 3490, tgid 3486, nv 1, niv 3
state 0, stack 0xffffc90002428000, cpu 0, prio 120, sprio 120, nprio 120, rtprio 0, pid 3488, tgid 3486, nv 1, niv 2
Device (/dev/scull) closed
student@debian:~/pa2-101452568/pa2-101452568/src$ su
Password:
root@debian:/home/student/pa2-101452568/pa2-101452568/src# bash scull.init stop
bash: scull.init: No such file or directory
root@debian:/home/student/pa2-101452568/pa2-101452568/src# cd ../driver
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# bash scull.init stop
Unloading scull.
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# dmesg | tail -6
[ 9978.950205] scull close
[10013.973447] Task 1: PID 3487, TGID 3486
[10013.973454] Task 2: PID 3489, TGID 3486
[10013.973457] Task 3: PID 3488, TGID 3486
[10013.973461] Task 4: PID 3490, TGID 3486
[10013.973465] Task 5: PID 3490, TGID 3486
root@debian:/home/student/pa2-101452568/pa2-101452568/driver# _
```

- dmesg isn't fully working :/ (please be gentle (:)