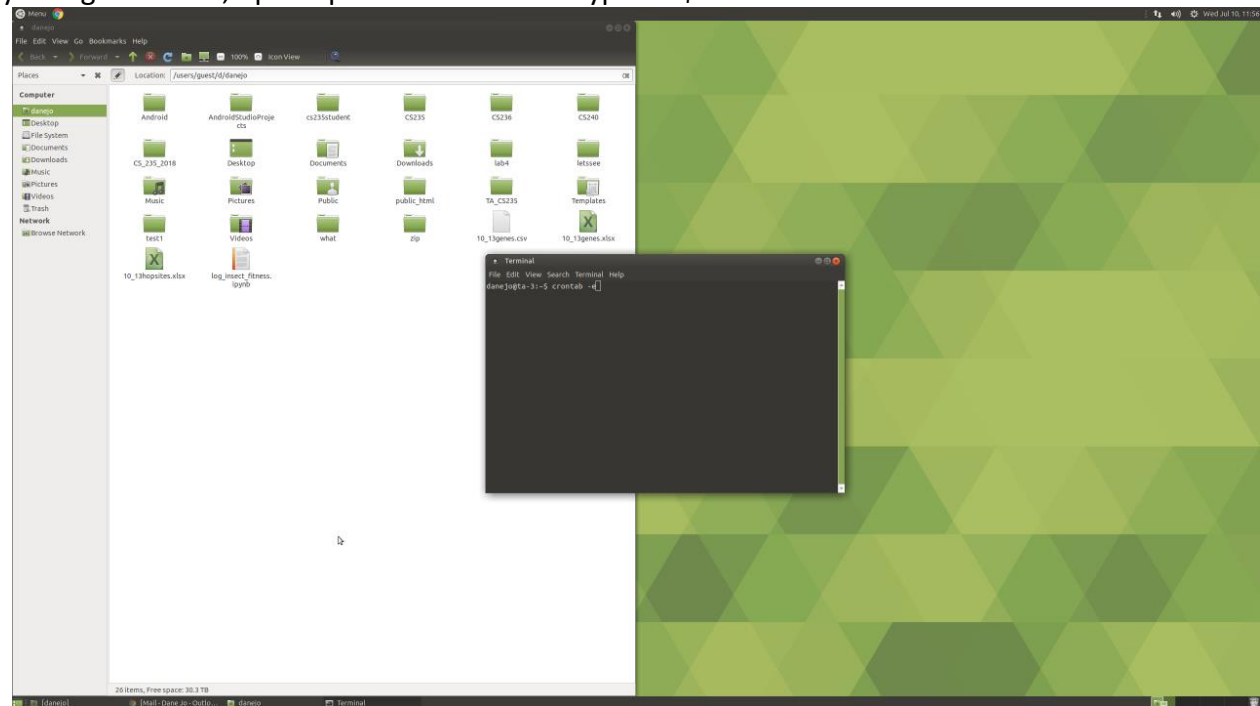


Introduction

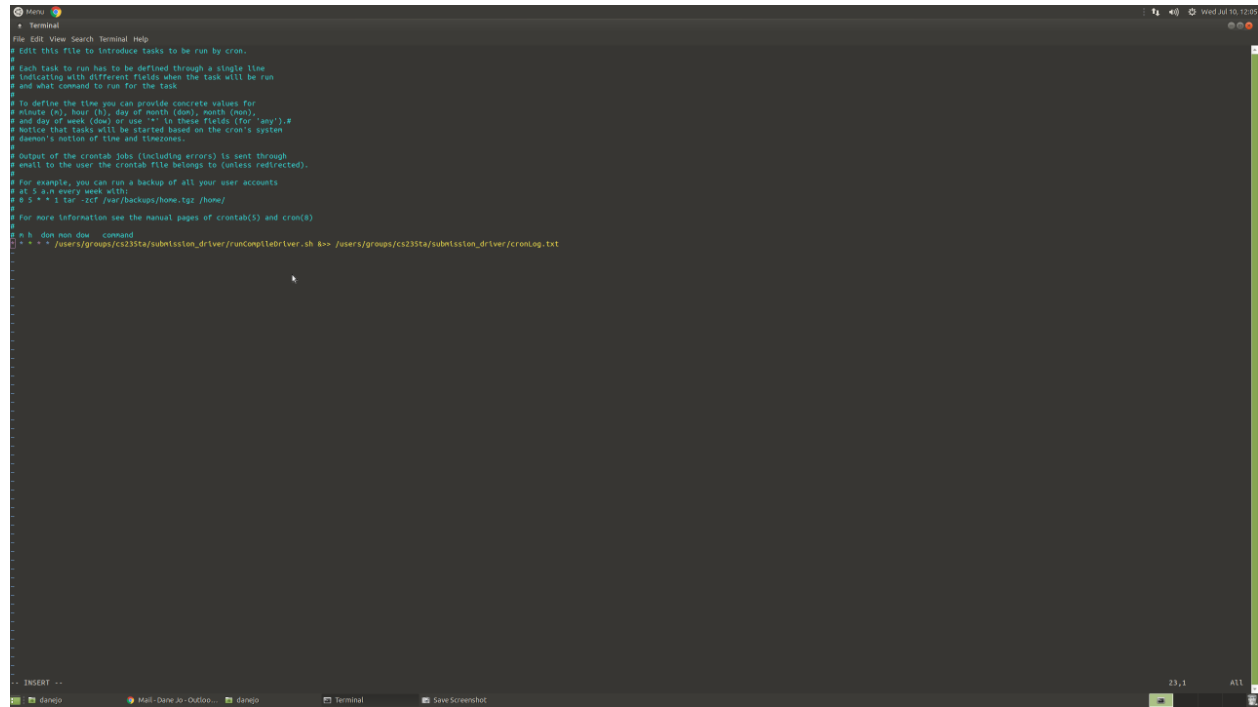
In this tutorial, I will show you how to run the driver on any TA machine. (I will use TA-1 through the tutorial.)

Starting up The Driver

1. When you log into TA-1, open up the terminal and type in: `$ crontab -e`

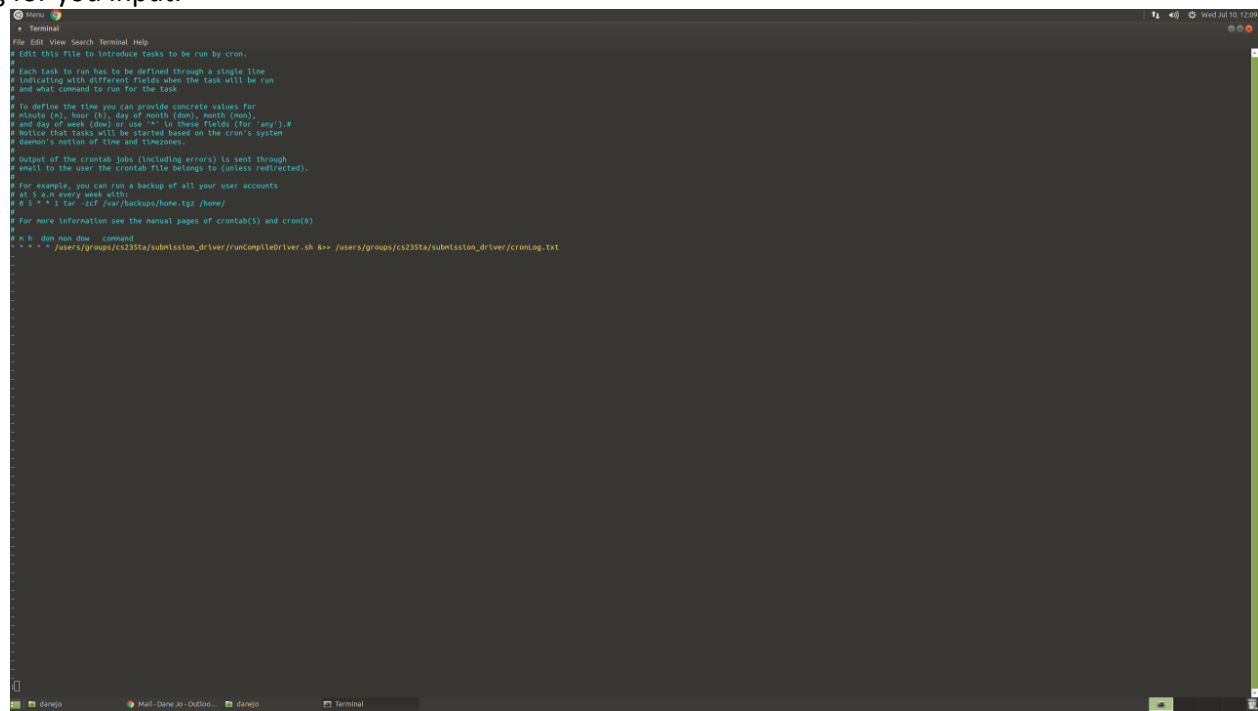


- a.
2. When you click 'enter', you'll be greeted to a text editor (that uses vim) inside the terminal.



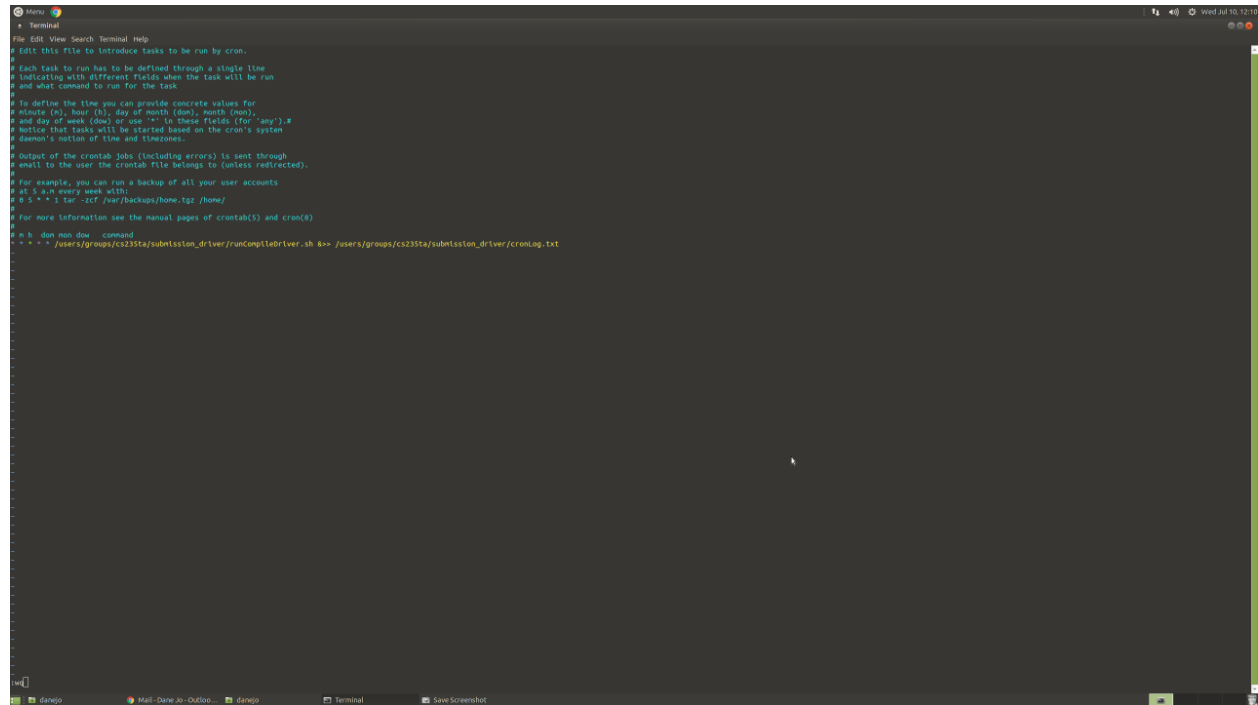
a.

5. To save your edit, click the 'Esc' key on your keyboard and then click the 'Shift' + ';' keys to get the ':'. When you do this, you'll see at the bottom left corner a ':' with a flickering box waiting for you input.



a.

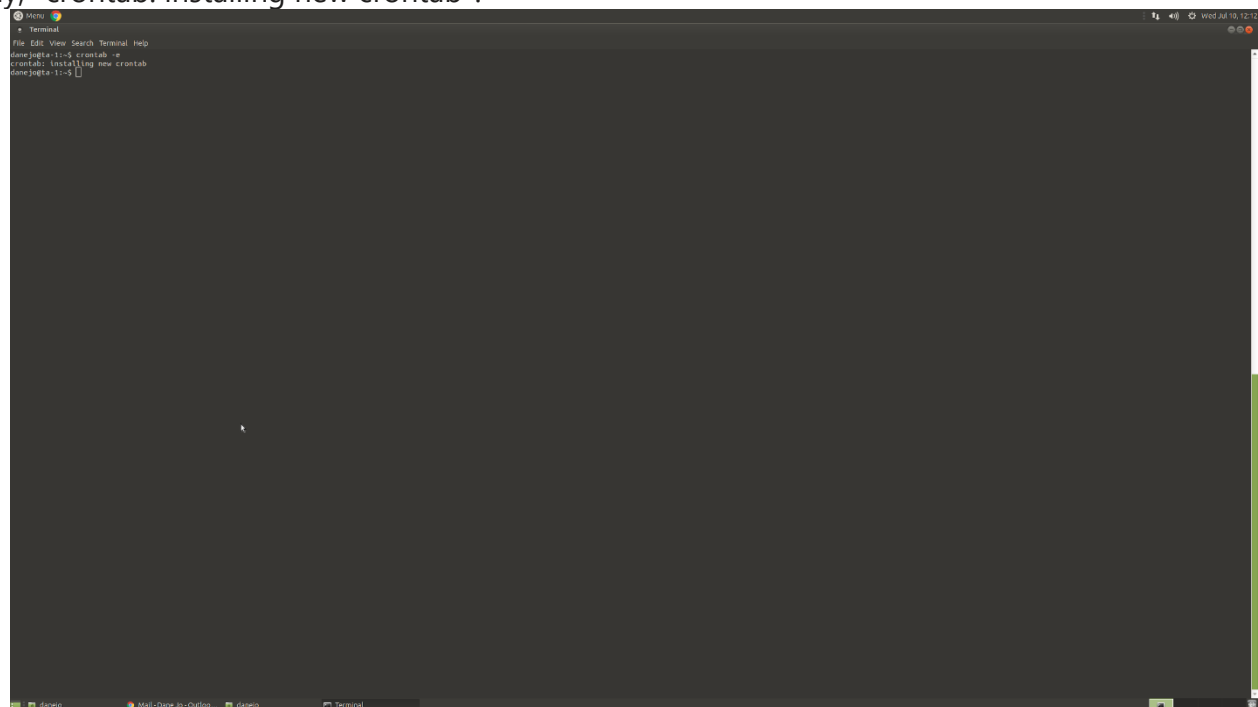
6. Next, type 'wq' (below is the picture of you typing 'wq') and press enter.



```
crontab(5)
# This file is to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# mail to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 5 * * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# h don run dow    command
# * * * * * /users/groups/cs235ta/submission_driver/runCompileDriver.sh &> /users/groups/cs235ta/submission_driver/cronLog.txt
```

a.

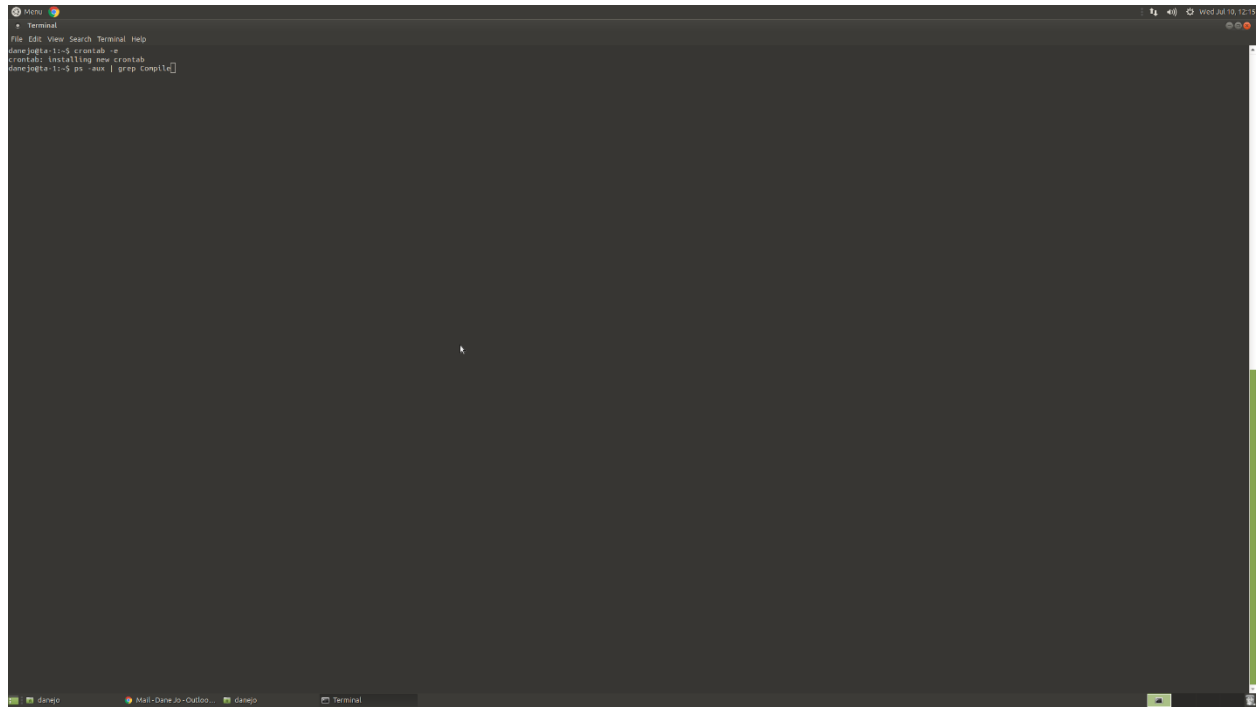
- By doing the previous step, you'll go back to the terminal and in the terminal, it will way say, "crontab: installing new crontab".



```
danjpa~$ crontab -e
crontab: installing new crontab
danjpa~$
```

a.

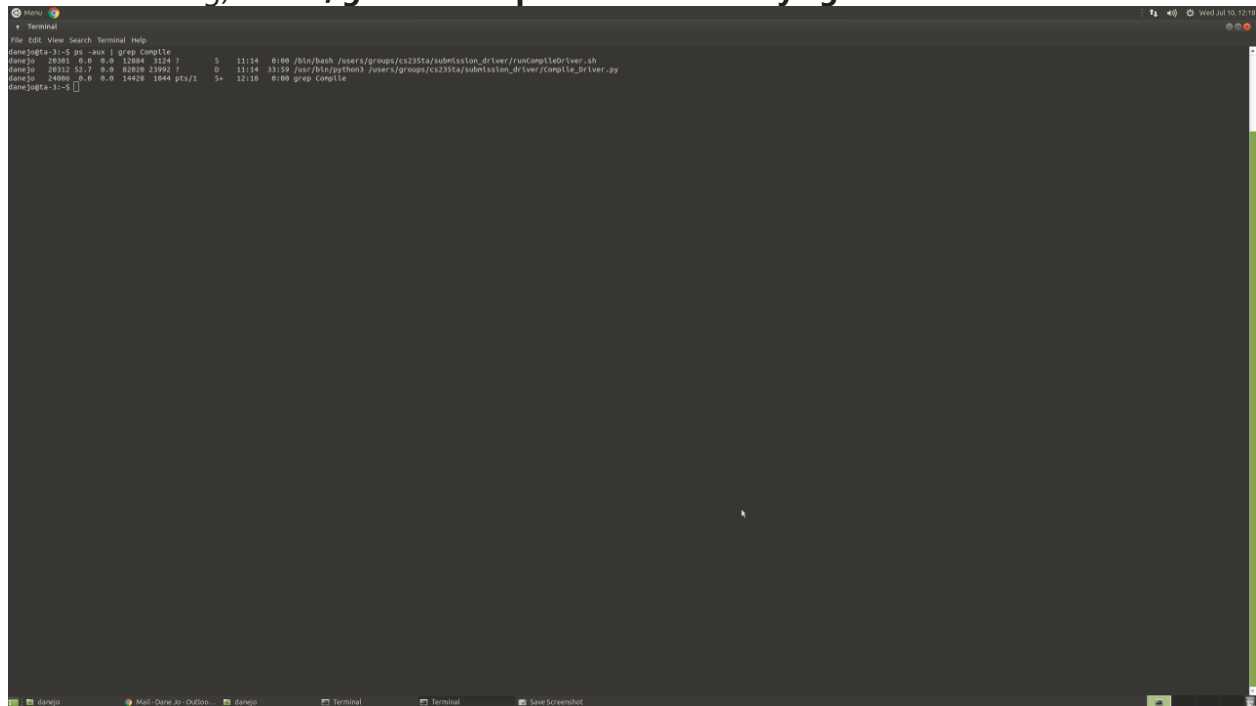
- To check if the driver is running, type in terminal: `$ ps -aux | grep Compile`



```
Menu
Terminal
File Edit View Search Terminal Help
danej@ta-11:~$ crontab -e
crontab: installing new crontab
danej@ta-11:~$ ps -aux | grep Compile
```

a.

9. If you see **3 lines of tasks**, that means **the driver is running** (below is a picture of the driver now running). **If not, give the script a minute and try again.**



```
Menu
Terminal
File Edit View Search Terminal Help
danej@ta-31:~$ ps -aux | grep Compile
danej 26081 0.0 0.0 12884 3124 ? S 11:14 0:00 /bin/bash /users/groups/cs235ta/submission_driver/runCompiledDriver.sh
danej 26312 52.0 0.0 42608 23992 ? D 11:14 33:59 /usr/bin/python3 /users/groups/cs235ta/submission_driver/Compile_driver.py
danej 24866 0.0 0.0 14428 1644 pts/1 S+ 12:18 0:00 grep Compile
danej@ta-31:~$
```

a.

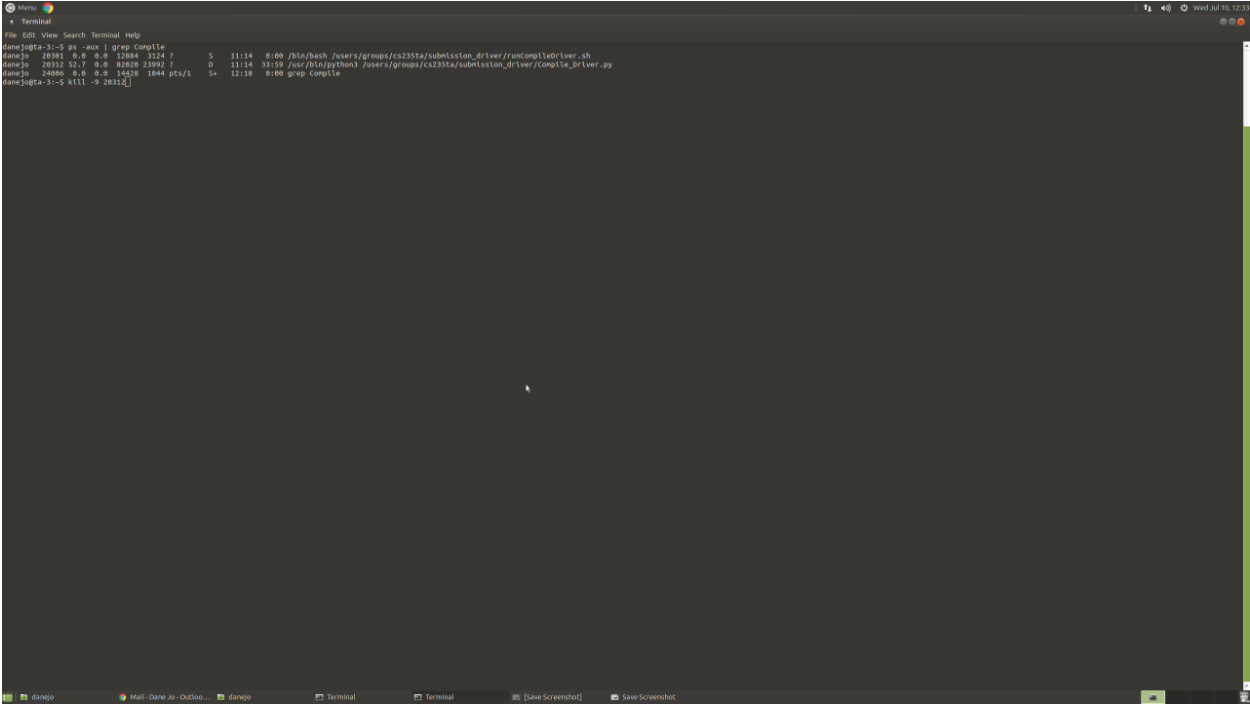
10. Once you see your job running, congratulations; you got the driver up and running!

How to Kill the Driver Manually

1. To kill the driver, first, access the computer's terminal where the driver is temporarily running.

2. Access the crontab by following step #1 again.
3. When you enter the text editor, enable editing and delete the command that is running the driver (see the command that we wrote on step #4).
4. Save your changes by following step #5 and #6.
5. Next, to actually kill the driver, type in the same command as step #8.
6. Again, you'll see all the current task running on the computer. **You'll only need to kill 1 task.** Notice that each task will have a netid and a unique task id number next to it. To kill the task (or in this case, the driver), type in the terminal: `$ kill -9 _____type_in_the_unique_task_id_number_____`
 - a. For example; in the picture from step #9, we want to kill the task running `'/usr/bin/python3 /users/groups/cs235ta/submission_driver/Compile_Driver.py'`. So in the terminal, I would type, `$ kill -9 20312`

b.

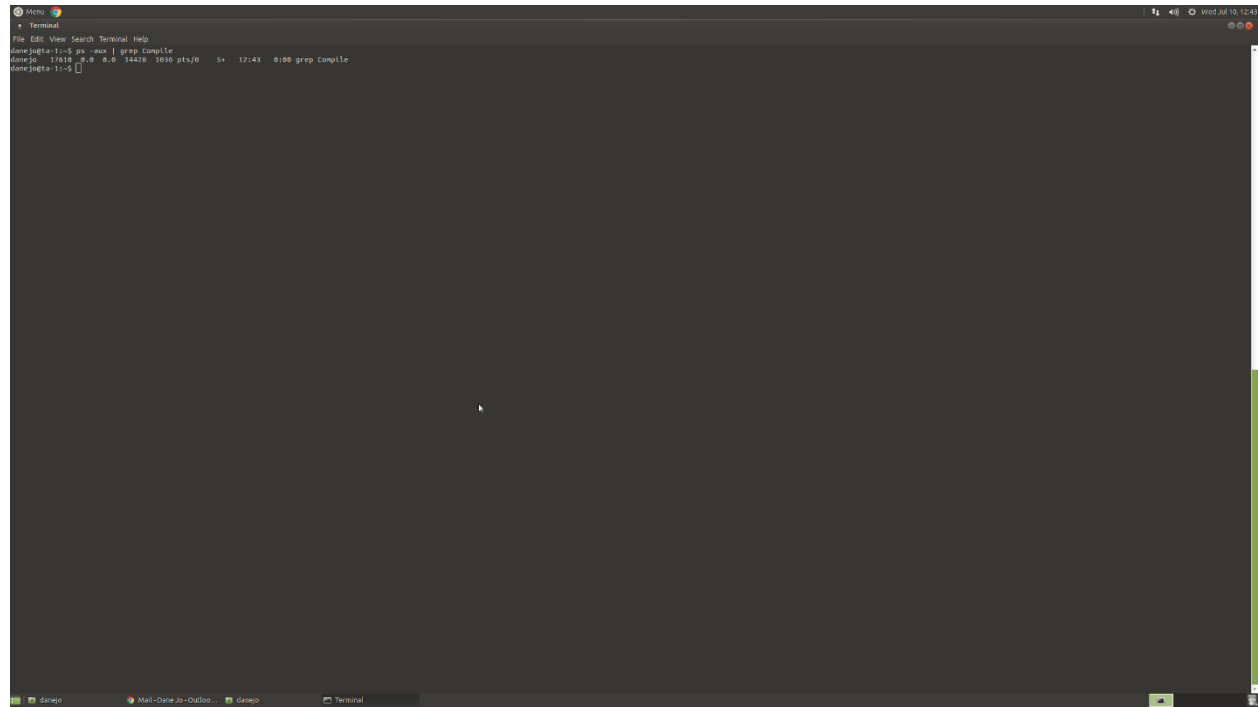


```

danejo@ta-3:~$ ps -aux | grep Compile
danejo 20312  0.0  0.0  12800  3128 ?        S    11:14   0:00 /bin/bash /users/groups/cs235ta/submission_driver/CompileDriver.sh
danejo 20312 52.7  0.0  82808 23992 ?        D    11:14 33:59 /usr/bin/python3 /users/groups/cs235ta/submission_driver/Compile_Driver.py
danejo 24006  0.0  0.0  14328  1844 pts/1    S+   12:18   0:00 grep Compile
danejo@ta-3:~$ kill -9 20312

```

7. After you press enter, type in the same command as step #8.
8. You'll notice now that there will only be one task running (or was running. That was your last command--the 'ps -aux' one).



A terminal window with a dark background. The title bar at the top says "Terminal". Below the title bar, there is a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal content shows the following text:

```
dan@jagsta:11~$ ps -aux | grep Compile
dan@jagsta 17618  0.0  0.0 14428 1036 pts/0    S+   12:43   0:00 grep Compile
dan@jagsta:11~$
```

The terminal is currently at the prompt `dan@jagsta:11~$`. The status bar at the bottom of the window shows icons for "dan@jagsta", "Mail--dan@jagsta--Outbox...", "dan@jagsta", and "Terminal".

- a.
9. Congratulations! You have officially killed the temporary driver.