

Midterm Lab

Part 1:

```
sudo apt update && sudo apt upgrade
```

Part 2:

```
vagrant ~ → mkdir midterm
vagrant ~ → cd midterm/
vagrant ~/midterm → touch p2-file
vagrant ~/midterm → chmod 744 p2-file
vagrant ~/midterm → ls -l
total 0
-rwxr--r-- 1 vagrant vagrant 0 Oct 17 19:14 p2-file
vagrant ~/midterm →
```

Part 3:

```
vagrant ~/midterm → find ./ -type f -name '*.pyc' -exec rm {} +
vagrant ~/midterm → ls dir1
p1.py p2.py p3.py p4.py
vagrant ~/midterm → ls dir2
p1.py p2.py p3.py p4.py
vagrant ~/midterm →
```

Part 4:

```
vagrant ~ → ps -ef --sort rss
```

Part 5:

```
vagrant ~ → htop --sort-key PERCENT_MEM
```

Steps taken:

1. Run `man htop`.
2. Search for `sort` using the `/` search feature.
3. Look at the `--sort-key help` column list to find what the key for the memory percent is.
4. Ran the command to get the required result, shown below.

```
0[ 0.0%] Tasks: 27, 36 thr; 1 running
1[ 0.0%] Load average: 0.00 0.00 0.00
Mem[|||||] 126M/1.93G Uptime: 00:32:50
Swp[ 0K/2.00G]
```

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
636	root	20	0	854M	37872	19832	S	0.0	1.9	0:01.56	/usr/lib/snapd/snapd
775	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.14	/usr/lib/snapd/snapd
776	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.00	/usr/lib/snapd/snapd
777	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.14	/usr/lib/snapd/snapd
778	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.01	/usr/lib/snapd/snapd
779	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.00	/usr/lib/snapd/snapd
810	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.05	/usr/lib/snapd/snapd
811	root	20	0	854M	37872	19832	S	0.0	1.9	0:00.10	/usr/lib/snapd/snapd

Part 6:

- a. Create user

```
vagrant ~ → sudo useradd -m -s /bin/bash dalinar
vagrant ~ → |
```

- b. Give user password

```
vagrant ~ → sudo passwd dalinar
New password:
Retype new password:
passwd: password updated successfully
vagrant ~ → |
```

- c. Give user sudo privileges

```
vagrant ~ → sudo usermod -aG sudo dalinar
vagrant ~ → |
```

- d. Use su utility to login as user in their environment

```
vagrant ~ → su - dalinar
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

dalinar@ubuntu2110:~$ |
```

- e. Demonstrating that I was successful

```
dalinar@ubuntu2110:~$ sudo apt -qq update
All packages are up to date.
dalinar@ubuntu2110:~$ |
```

Part 7:

```
vagrant ~ → vi .profile |
```

```
27 ↑1  
28 export EDITOR=vim|  
~
```

```
vagrant ~ → source .profile  
vagrant ~ → |
```

Part 8:

```
vagrant ~ → grep -E '\b[1-9][0-9]{3}\b' /etc/passwd  
vagrant:x:1000:1000::/home/vagrant:/bin/bash  
dalinar:x:1002:1003::/home/dalinar:/bin/bash  
vagrant ~ → |
```