

EN 600.620 Parallel programming: Project 0

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1. How large is the system's root drive, mounted on "/"?

Command :

1. `df -h`
2. `sudo fdisk -l /dev/xvda`

```
Filesystem      Size  Used Avail Use% Mounted on
udev            488M     0   488M   0% /dev
tmpfs           100M   3.1M    97M   4% /run
/dev/xvda1      7.7G   1.2G   6.5G  16% /
tmpfs           496M     0   496M   0% /dev/shm
tmpfs           5.0M     0    5.0M   0% /run/lock
tmpfs           496M     0   496M   0% /sys/fs/cgroup
tmpfs           100M     0   100M   0% /run/user/1000
```

```
Disk /dev/xvda: 8 GiB, 8589934592 bytes, 16777216 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x89cdb65f

Device      Boot Start      End  Sectors  Size Id Type
/dev/xvda1  *        2048 16777182 16775135   8G 83 Linux
```

Answer: Using `df -h` we can see that there is a partition mounted in the root drive which is called `/dev/xvda1` and its size is 7.7 G. We then run command `sudo fdisk -l /dev/xvda` and we can see that the root drive is 8 GiB which is the same value we allocated during the set-up for instance in AWS.

2. How much memory does the system have?

Command: free -h

	total	used	free	shared	buff/cache	available
Mem:	990M	55M	763M	11M	172M	773M
Swap:	0B	0B	0B			

Answer: The memory capacity is 7.7 G(see in question 1). Using free -h, we can obtain the size of the physical RAM as well. The size of the physical RAM is 990 M.

3. How much memory is being used?

Command: (same as those in Q1 and Q2)

Answer: we have used 1.2 G memory from the partition and 55M RAM used.

4. What linux kernel version are you running?

Command: `uname -v` or `uname -rv`

```
#58-Ubuntu SMP Fri Jan 12 23:17:09 UTC 2018
```

Answer: the version is shown above. Or we can use `uname -rv` to check both the release and the version.

5. What is the MAC address of the Ethernet card?

Command: ifconfig -a

```
Link encap:Ethernet  HWaddr 06:d5:24:a1:7e:d0
    inet
addr:10.0.113.67  Bcast:10.0.255.255  Mask:255.255.0.0
    inet6 addr: fe80::4d5:24ff:fea1:7ed0/64 Scope:Link
    UP BROADCAST RUNNING MULTICAST  MTU:9001  Metric:1
    RX packets:2166 errors:0 dropped:0 overruns:0 frame:0
    TX packets:1474 errors:0 dropped:0 overruns:0
carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:894545 (894.5 KB)  TX bytes:867483 (867.4 KB)
```

Answer: using ifconfig -a (or ifconfig eth0), the HWaddr is the MAC address we are looking for: 06:d5:24:a1:7e:d0

6. What is the last message in the log file where system messages/errors would be found? Where is this file located?

Command: `cat /var/log/syslog`

```
ubuntu@ip-10-0-113-67:/$ cd /var/log
ubuntu@ip-10-0-113-67:/var/log$ ls
alternatives.log  btmp                                fsck                unattended-
upgrades
apache2           cloud-init.log                     kern.log            wtmp
apport.log        cloud-init-output.log              lastlog
apt               dist-upgrade                       lxd
auth.log          dpkg.log                           syslog
```

Answer: all log files are in directory `/var/log`, they can be accessed using `cat` (file name)