

1- Identify the current USB devices (hint. : lsusb)

```
vboxuser@ubuntu:~$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 002: ID 80ee:0021 VirtualBox USB Tablet
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
vboxuser@ubuntu:~$
```

2- Count how many CPUs (cores) on your device. (hint: /proc/cpuinfo)

```
vboxuser@ubuntu:~$ grep -c ^processor /proc/cpuinfo
1
vboxuser@ubuntu:~$
```

3- Take a snapshot of current disk statistics 5 times with 2 seconds interval. (hint: iostat)

```
vboxuser@ubuntu:~$ iostat -d 2 5
Linux 5.15.0-69-generic (ubuntu)      04/01/2023      _x86_64_      (1 CPU)

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB
loop0              0.02         0.02         0.00         0.00         17         0
loop1              0.05         0.53         0.00         0.00        476         0
loop10             0.05         0.53         0.00         0.00        476         0
loop11             0.05         0.53         0.00         0.00        476         0
loop12             1.12        12.66         0.00         0.00       11319         0
loop13             1.49        55.37         0.00         0.00      49484         0
loop14             0.11         2.60         0.00         0.00       2321         0
loop2              0.06         0.55         0.00         0.00        490         0
loop3              0.05         0.53         0.00         0.00        476         0
loop4              0.65         7.25         0.00         0.00       6482         0
loop5              0.06         1.34         0.00         0.00       1199         0
loop6              0.07         1.35         0.00         0.00       1203         0
loop7              1.62        16.74         0.00         0.00      14962         0
loop8              0.05         0.53         0.00         0.00        476         0
loop9              2.00         6.17         0.00         0.00       5517         0
```

4- measure the network activities using (hint: `nicstat`)

```
vboxuser@ubuntu:~$ nicstat
      Time      Int    rKB/s    wKB/s    rPk/s    wPk/s    rAvs    wAvs %Util    Sat
14:53:53      lo      0.02      0.02      0.20      0.20    90.09    90.09    0.00    0.00
14:53:53  enp0s3    48.78      0.41    34.51      6.15   1447.3    68.68    0.04    0.00
```

5- List current PCI devices on your device (hint: `lspci`)

```
vboxuser@ubuntu:~$ lspci -vmm
Slot: 00:00.0
Class: Host bridge
Vendor: Intel Corporation
Device: 440FX - 82441FX PMC [Natoma]
Rev: 02

Slot: 00:01.0
Class: ISA bridge
Vendor: Intel Corporation
Device: 82371SB PIIX3 ISA [Natoma/Triton II]

Slot: 00:01.1
Class: IDE interface
Vendor: Intel Corporation
Device: 82371AB/EB/MB PIIX4 IDE
Rev: 01
ProgIf: 8a

Slot: 00:02.0
Class: VGA compatible controller
Vendor: VMware
Device: SVGA II Adapter
SVendor: VMware
SDevice: SVGA II Adapter

Slot: 00:03.0
Class: Ethernet controller
Vendor: Intel Corporation
Device: 82540EM Gigabit Ethernet Controller
SVendor: Intel Corporation
SDevice: PRO/1000 MT Desktop Adapter
Rev: 02
```

6- List all files which are compressed by ZIP utilities

```
vboxuser@ubuntu:~$ ls | grep "*\.zip"
```

7- Using `grep` and `regex` list all lines containing hex numbers on a `/var/log/syslog`

```
vboxuser@ubuntu:~$ sudo grep "\x[0-9A-Z]" /var/log/syslog
Apr  1 14:31:22 ubuntu NetworkManager[576]: <info> [1680352282.7857] dns-mgr[0x558958f6d290]: init: dns=systemd-resolved rc-manager=symlink, plugin=systemd-resolved
Apr  1 14:31:22 ubuntu NetworkManager[576]: <info> [1680352282.7860] manager[0x558958f84030]: rfkill: Wi-Fi hardware radio set enabled
Apr  1 14:31:22 ubuntu NetworkManager[576]: <info> [1680352282.7860] manager[0x558958f84030]: rfkill: WWAN hardware radio set enabled
Apr  1 14:31:42 ubuntu /usr/lib/gdm3/gdm-x-session[1414]: (==) Max clients allowed: 256, resource mask: 0x1fffff
Apr  1 14:31:42 ubuntu /usr/lib/gdm3/gdm-x-session[1414]: (II) Loader magic: 0x55fa2fffc020
Apr  1 14:31:42 ubuntu /usr/lib/gdm3/gdm-x-session[1414]: (--) PCI:*(0@0:2:0) 15ad:0405:15ad:0405 rev 0, Mem @ 0xe0000000/16777216, 0xf0000000/2097152, I/O @ 0x0000d010/16, BIOS
```