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

```
esraa@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
esraa@ubuntu:~$
```

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

```
                                    esraa@ubuntu: ~
model            : 96
model name       : AMD PRO A10-8700B R6, 10 Compute Cores 4C+6G
stepping         : 1
cpu MHz          : 1796.627
cache size       : 1024 KB
physical id      : 0
siblings         : 2
core id          : 0
cpu cores        : 2
apicid           : 0
initial apicid   : 0
fpu              : yes
fpu_exception    : yes
cpuid level      : 13
wp               : yes
flags            : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
 pat pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt rdtscp lm co
nstant_tsc rep_good nopl nonstop_tsc cpuid extd_apicid tsc_known_freq pni pclmu
lqdq ssse3 cx16 sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx rdrand hypervis
or lahf_lm cmp_legacy cr8_legacy abm sse4a misalignsse 3dnowprefetch ssbd vmmca
ll fsgsbase bmi1 avx2 bmi2 arat
bugs             : fxsave_leak sysret_ss_attrs null_seg spectre_v1 spectre_v2 re
tbleed
bogomips         : 3593.25
TLB size         : 1536 4K pages
clflush size     : 64
cache_alignment  : 64
address sizes    : 48 bits physical, 48 bits virtual
power management:
```

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

```
esraa@ubuntu:~$ iostat 2 5
Linux 5.19.0-32-generic (ubuntu)        02/04/23        _x86_64_        (2 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal  %idle
          20.28    3.10    9.68   18.59    0.00   48.36

Device           tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_
wrtn    kB_dscd
loop0           0.02         0.02         0.00         0.00         17
   0         0
loop1           0.05         0.41         0.00         0.00        348
   0         0
loop10          0.05         0.41         0.00         0.00        349
   0         0
loop11          0.06         0.42         0.00         0.00        362
   0         0
loop12          0.05         0.41         0.00         0.00        348
   0         0
loop13          0.83        29.02         0.00         0.00      24892
   0         0
loop14          0.02         0.06         0.00         0.00         54
   0         0
loop15          0.03         0.30         0.00         0.00        259
   0         0
loop16          0.03         0.05         0.00         0.00         40
   0         0
loop17          0.07         1.28         0.00         0.00       1095
   0         0
```

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

```
esraa@ubuntu:~$ nicstat
    Time        Int    rKB/s    wKB/s    rPk/s    wPk/s    rAvs    wAvs  %Util    Sat
02:20:44         lo     0.08     0.08     0.73     0.73   110.7   110.7   0.00   0.00
02:20:44     enp0s3    87.63     1.84    63.08    22.53  1422.5   83.72   0.07   0.00
```

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

```
esraa@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
```

6. List all files which are compressed by ZIP utilities

```
esraa@ubuntu:~$ ls | grep -e "\.zip"
esraa.zip
esraa@ubuntu:~$ 
```

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

```
esraa@ubuntu:~$ sudo grep "0x[0-9A-Z]" /var/log/syslog
[sudo] password for esraa:
Apr   2 02:02:52 ubuntu kernel: [   113.034133] audit: type=1326 audit(1680393772
.628:51): auid=1003 uid=1003 gid=1004 ses=3 subj=snap.snapd-desktop-integration
.snapd-desktop-integration pid=1762 comm="snapd-desktop-i" exe="/snap/snapd-des
ktop-integration/57/usr/bin/snapd-desktop-integration" sig=0 arch=c000003e sysc
all=314 compat=0 ip=0x7f6d96666a3d code=0x50000
Apr   2 02:03:48 ubuntu kernel: [   168.459165] audit: type=1326 audit(1680393828
.057:54): auid=1003 uid=1003 gid=1004 ses=3 subj=snap.firefox.firefox pid=2116
comm="firefox" exe="/snap/firefox/2391/usr/lib/firefox/firefox" sig=0 arch=c000
003e syscall=314 compat=0 ip=0x7ff3edf0073d code=0x50000
```