Lab 2 System Admin 2

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

```
vboxuser@Ubuntuu:~$ 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@Ubuntuu:~$
```

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

```
vboxuser@Ubuntuu:~$ cat /proc/cpuinfo | grep processor
processor        : 0
vboxuser@Ubuntuu:~$ cat /proc/cpuinfo | grep processor | wc -l
1
vboxuser@Ubuntuu:~$
```

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

```
vboxuser@Ubuntuu:~$ sudo apt install sysstat
[sudo] password for vboxuser:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  systemd-hwe-hwdb
Use 'sudo apt autoremove' to remove it.
Suggested packages:
  isag
The following NEW packages will be installed:
  sysstat
0 upgraded, 1 newly installed, 0 to remove and 205 not upgraded.
Need to get 487 kB of archives.
After this operation, 1,507 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 sysstat amd6
4 12.5.2-2ubuntu0.1 [487 kB]
Fetched 487 kB in 2s (229 kB/s)
Preconfiguring packages ...
Selecting previously unselected package sysstat.
(Reading database ... 232654 files and directories currently installed.)
Preparing to unpack .../sysstat_12.5.2-2ubuntu0.1_amd64.deb ...
Unpacking sysstat (12.5.2-2ubuntu0.1) ...
Setting up sysstat (12.5.2-2ubuntu0.1) ...

Creating config file /etc/default/sysstat with new version
update-alternatives: using /usr/bin/sar.sysstat to provide /usr/bin/sar (sar) i
```

```
vboxuser@Ubuntuu:~$ iostat 2 5
Linux 5.19.0-35-generic (Ubuntuu)          04/07/2023          _x86_64_          (1 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           2.02    0.55    7.92   26.56    0.00   62.95
```

Device	tps	kB_read/s	kB_wrtn/s	kB_dscd/s	kB_read	kB_
wrtn	kB_dscd					
loop0	0.01	0.01	0.00	0.00	17	
0	0					
loop1	0.03	0.21	0.00	0.00	348	
0	0					
loop10	0.03	0.22	0.00	0.00	364	
0	0					
loop11	0.03	0.21	0.00	0.00	349	
0	0					
loop12	0.03	0.22	0.00	0.00	362	
0	0					
loop13	0.03	0.21	0.00	0.00	348	
0	0					
loop14	0.42	14.50	0.00	0.00	23980	
0	0					
loop15	0.01	0.03	0.00	0.00	53	
0	0					
loop16	0.02	0.13	0.00	0.00	209	
0	0					
loop17	0.01	0.01	0.00	0.00	14	
0	0					
loop2	0.23	2.84	0.00	0.00	4691	

- measure the network activities using (hint: nicstat).

```
vboxuser@Ubuntuu:~$ sudo apt install nicstat
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  systemd-hwe-hwdb
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  nicstat
0 upgraded, 1 newly installed, 0 to remove and 205 not upgraded.
Need to get 18.2 kB of archives.
After this operation, 54.3 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 nicstat amd64 1.95-1
build3 [18.2 kB]
Fetched 18.2 kB in 0s (41.7 kB/s)
Selecting previously unselected package nicstat.
(Reading database ... 232716 files and directories currently installed.)
Preparing to unpack .../nicstat_1.95-1build3_amd64.deb ...
Unpacking nicstat (1.95-1build3) ...
Setting up nicstat (1.95-1build3) ...
Processing triggers for man-db (2.10.2-1) ...
vboxuser@Ubuntuu:~$ nicstat 1 5
    Time     Int   rKB/s   wKB/s   rPk/s   wPk/s    rAvs    wAvs %Util     Sat
16:29:43      lo    0.01    0.01    0.09    0.09   83.83   83.83  0.00    0.00
16:29:43  enp0s3    0.42    0.04    0.39    0.38  1113.6   102.1  0.00    0.00
    Time     Int   rKB/s   wKB/s   rPk/s   wPk/s    rAvs    wAvs %Util     Sat
16:29:44      lo    0.00    0.00    0.00    0.00    0.00    0.00  0.00    0.00
16:29:44  enp0s3    0.00    0.00    0.00    0.00    0.00    0.00  0.00    0.00
    Time     Int   rKB/s   wKB/s   rPk/s   wPk/s    rAvs    wAvs %Util     Sat
```

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

```
vboxuser@Ubuntuu:~$ lspci
00:00.0 Host bridge: Intel Corporation 440FX - 82441FX PMC [Natoma] (rev 02)
00:01.0 ISA bridge: Intel Corporation 82371SB PIIX3 ISA [Natoma/Triton II]
00:01.1 IDE interface: Intel Corporation 82371AB/EB/MB PIIX4 IDE (rev 01)
00:02.0 VGA compatible controller: VMware SVGA II Adapter
00:03.0 Ethernet controller: Intel Corporation 82540EM Gigabit Ethernet Control
ler (rev 02)
00:04.0 System peripheral: InnoTek Systemberatung GmbH VirtualBox Guest Service
00:05.0 Multimedia audio controller: Intel Corporation 82801AA AC'97 Audio Cont
roller (rev 01)
00:06.0 USB controller: Apple Inc. KeyLargo/Intrepid USB
00:07.0 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 08)
00:0b.0 USB controller: Intel Corporation 82801FB/FBM/FR/FW/FRW (ICH6 Family) U
SB2 EHCI Controller
00:0d.0 SATA controller: Intel Corporation 82801HM/HEM (ICH8M/ICH8M-E) SATA Con
troller [AHCI mode] (rev 02)
vboxuser@Ubuntuu:~$
```

- List all files which are compressed by ZIP utilities.
- Using grep and regex list all lines containing hex numbers on a /var/log/syslog.

```
troller [AHCI mode] (rev 02)
vboxuser@Ubuntuu:~$ ls | grep ".zip"
vboxuser@Ubuntuu:~$ grep -e "0x" /var/log/syslog
grep: /var/log/syslog: Permission denied
vboxuser@Ubuntuu:~$ sudo grep -e "0x" /var/log/syslog
Apr   7 16:01:51 Ubuntuu /usr/libexec/gdm-x-session[1271]: (==) Max clients allo
wed: 256, resource mask: 0x1fffff
Apr   7 16:01:52 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) Loader magic: 0x
5636be2e8020
Apr   7 16:01:52 Ubuntuu /usr/libexec/gdm-x-session[1271]: (--) PCI:*(0@0:2:0) 1
5ad:0405:15ad:0405 rev 0, Mem @ 0xe0000000/16777216, 0xf0000000/2097152, I/O @
0x0000d010/16, BIOS @ 0x????????/131072
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "800x600"x60.0    42.75   800 850 900 950   600 650 700 750 -hsync +vsync (45.
0 kHz eP)
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "2560x1600"x60.0  348.50   2560 2752 3032 3504   1600 1603 1609 1658 -hsync +
vsync (99.5 kHz e)
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "2560x1440"x60.0  241.50   2560 2608 2640 2720   1440 1443 1448 1481 +hsync -
vsync (88.8 kHz e)
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "1920x1440"x60.0  234.00   1920 2048 2256 2600   1440 1441 1444 1500 -hsync +
vsync (90.0 kHz e)
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "1920x1200"x59.9  193.25   1920 2056 2256 2592   1200 1203 1209 1245 -hsync +
vsync (74.6 kHz e)
Apr   7 16:02:14 Ubuntuu /usr/libexec/gdm-x-session[1271]: (II) vmware(0): Model
ine "1920x1080"x60.0  173.00   1920 2048 2248 2576   1080 1083 1088 1120 -hsync +
vsync (67.2 kHz e)
```