

Lab 2 System Admin2

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

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

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

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

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

```
habiba@habiba-VirtualBox:~$ sudo apt install sysstat
[sudo] password for habiba:
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
Processing triggers for man-db (2.10.2-1) ...
habiba@habiba-VirtualBox:~$ iostat 2 5
Linux 5.19.0-32-generic (habiba-VirtualBox)      01 2023, أبر,      _x86_64_
1 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           2.92    3.72    2.32    6.50     0.00    84.54

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
Device rtn      kB_dscd
loop0              0.12         1.47         0.00         0.00       4281         0
 0                  0
loop1              0.00         0.01         0.00         0.00        17         0
 0                  0
loop10             0.01         0.12         0.00         0.00       349         0
 0                  0
```

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

```
habiba@habiba-VirtualBox:~$ 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
Processing triggers for man-db (2.10.2-1) ...
habiba@habiba-VirtualBox:~$ nicstat
Time      Int      rKB/s    wKB/s    rPk/s    wPk/s    rAvs    wAvs %Util    Sat
11:51:12   lo      0.00     0.00     0.05     0.05    90.24    90.24  0.00     0.00
11:51:12  enp0s3  14.73    0.12    10.12    1.86   1491.1    64.88  0.01     0.00
```

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

```
habiba@habiba-VirtualBox:~$ 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 Controller (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 Controller (rev 02)
00:06.0 USB controller: Apple Inc. KeyLargo/Intrepid USB
00:07.0 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 08)
00:0d.0 SATA controller: Intel Corporation 82801HM/HEM (ICH8M/ICH8M-E) SATA Controller [AHCI mode] (rev 02)
```

- List all files which are compressed by ZIP utilities

```
habiba@habiba-VirtualBox:~$ ls *.zip
file.zip
```

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

```
habiba@habiba-VirtualBox:~$ grep -e "0x" /var/log/syslog
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point registers'
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, using 'standard' format.
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009ffff] usable
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000100000-0x0000000000dd5efff] usable
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000dd5f000-0x0000000000dd5ffff] ACPI data
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000dd60000-0x0000000000de90fff] usable
Feb  1 13:31:44 habiba-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000de91000-0x0000000000de91fff] usable
```