

1- Identify the current USB devices

```

samir@samir-VirtualBox:~$ 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
samir@samir-VirtualBox:~$
```

2- Count how many cpu cores

```

samir@samir-VirtualBox:~$ cat /proc/cpuinfo
processor       : 0
vendor_id      : GenuineIntel
cpu family     : 6
model          : 158
model name     : Intel(R) Core(TM) i7-8750H CPU @ 2.20GHz
stepping       : 10
cpu MHz        : 2208.000
cache size     : 9216 KB
physical id    : 0
siblings       : 4
core id        : 0
cpu cores      : 4
apicid         : 0
initial apicid : 0
fpu            : yes
fpu_exception  : yes
cpuid level    : 22
wp             : yes
flags          : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx
n_freq pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx rdrand hypervisor
ear flush_lld arch_capabilities
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs itlb_multihit
bogomips       : 4416.00
clflush size   : 64
```

3-Take a snapshot of current disk statistics 5 times with 2 seconds

```

samir@samir-VirtualBox:~$ sudo apt-get install sysstat
[sudo] password for samir:
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 259 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://eg.archive.ubuntu.com/ubuntu jammy-updates/main amd64 sysstat amd64 12.5.2-2ubuntu0.1 [487 kB]
Fetched 487 kB in 2s (217 kB/s)
Preconfiguring packages ...
```

4- Measure the network activities

```
samir@samir-VirtualBox:~$ iostat sda 2 5
Linux 5.19.0-32-generic (samir-VirtualBox)      11 2023 أبر ١      _x86_64_      (4 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           5.63    1.13    2.50   13.18    0.00   77.57

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
sda                69.38       3746.07       1822.89         0.00     1408373     685333         0

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           15.38    0.00    2.27   26.86    0.00   55.49

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
sda                190.50      24440.00       2146.00         0.00      48880      4292         0

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           17.53    0.00    2.40   21.69    0.00   58.39

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
sda                84.50      14092.00      39058.00         0.00      28184      78116         0

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           10.26    0.00    4.57   39.18    0.00   45.98

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
sda                121.39      28997.01      15540.30         0.00      58284      31236         0

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           3.98    0.00    4.97   44.35    0.00   46.71

Device            tps    kB_read/s    kB_wrtn/s    kB_dscd/s    kB_read    kB_wrtn    kB_dscd
sda                129.85      30569.15      14815.92         0.00      61444      29780         0
```

5- List current PCI devices

```
samir@samir-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
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  nicstat
0 upgraded, 1 newly installed, 0 to remove and 259 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://eg.archive.ubuntu.com/ubuntu jammy/main amd64 nicstat amd64 1.95-1build3 [18.2 kB]
Fetched 18.2 kB in 1s (18.4 kB/s)
Selecting previously unselected package nicstat.
(Reading database ... 199054 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) ...
```

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```
samir@samir-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 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) USB2 EHCI Controller
00:0d.0 SATA controller: Intel Corporation 82801HM/HEM (ICH8M/ICH8M-E) SATA Controller [AHCI mode] (rev 01)
samir@samir-VirtualBox:~$
```

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```
samir@samir-VirtualBox:~$ grep -e "0x" /var/log/syslog
Apr 10 21:28:39 samir-VirtualBox kernel: [ 41.903187] audit: type=1326 audit(1681154919.744:55): auid=1000 uid=1000
comm="snapd-desktop-i" exe="/snap/snapd-desktop-integration/57/usr/bin/snapd-desktop-integration" sig=0 arch=c000003
Apr 10 21:28:42 samir-VirtualBox kernel: [ 44.377959] audit: type=1326 audit(1681154922.220:58): auid=1000 uid=1000
comm="snapd-desktop-i" exe="/snap/snapd-desktop-integration/57/usr/bin/snapd-desktop-integration" sig=0 arch=c000003
Apr 10 21:28:44 samir-VirtualBox kernel: [ 46.562530] audit: type=1326 audit(1681154924.404:61): auid=1000 uid=1000
comm="snapd-desktop-i" exe="/snap/snapd-desktop-integration/57/usr/bin/snapd-desktop-integration" sig=0 arch=c000003
Apr 10 23:54:32 samir-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point
Apr 10 23:54:32 samir-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
Apr 10 23:54:32 samir-VirtualBox kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
Apr 10 23:54:32 samir-VirtualBox kernel: [ 0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 byt
Apr 10 23:54:32 samir-VirtualBox kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009fbff] usable
```