

HPC ASSIGNMENT 13

lshw:

```
user@LAPTOP-6QVE9SBJ:~$ sudo lshw
laptop-6qve9sbj
  description: Computer
  width: 64 bits
  capabilities: smp vsyscall32
*-core
  description: Motherboard
  physical id: 0
*-memory
  description: System memory
  physical id: 1
  size: 4GiB
*-cpu
  product: Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
  vendor: Intel Corp.
  physical id: 2
  bus info: cpu@0
  version: 6.142.12
  width: 64 bits
  capabilities: fpu fpu_exception wp vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush
mmx fxsr sse sse2 ss ht syscall nx pdpe1gb rdtscp x86-64 constant_tsc arch_perfmon rep_good noopl xtopology cpuid pni pc
lmulq dq vmx ssse3 fma cx16 pdcm pcid sse4_1 sse4_2 movbe popcnt aes xsave avx f16c rdrand hypervisor lahf_lm abm 3dnowpr
efetch invpcid_single ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi ept vpid ept_ad fsgsbase bmi1 avx2 smep bmi2 er
ms invpcid rdseed adx smap clflushopt xsaveopt xsavec xgetbv1 xsaves md_clear flush_lld arch_capabilities
  configuration: microcode=4294967295
*-generic
  description: System peripheral
```

user@LAPTOP-6QVE9SBJ:~\$ sudo lshw

[sudo] password for user:

laptop-6qve9sbj

description: Computer

width: 64 bits

capabilities: smp vsyscall32

*-core

description: Motherboard

physical id: 0

*-memory

description: System memory

physical id: 1

size: 4GiB

*-cpu

product: Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz

vendor: Intel Corp.

physical id: 2

bus info: cpu@0

version: 6.142.12

width: 64 bits

capabilities: fpu fpu_exception wp vme de pse tsc msr pae mce cx8
apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ss ht
syscall nx pdpe1gb rdtscp x86-64 constant_tsc arch_perfmon rep_good
nopl xtopology cpuid pni pclmulqdq vmx ssse3 fma cx16 pdcm pcid sse4_1
sse4_2 movbe popcnt aes xsave avx f16c rdrand hypervisor lahf_lm abm
3dnowprefetch invpcid_single ssbd ibrs ibpb stibp ibrs_enhanced
tpr_shadow vnmi ept vpid ept_ad fsgsbase bmi1 avx2 smep bmi2 erms
invpcid rdseed adx smap clflushopt xsaveopt xsavec xgetbv1 xsaves
flush_l1d arch_capabilities

configuration: microcode=4294967295

*-scsi:0

description: SCSI storage controller

product: Virtio console

vendor: Red Hat, Inc.

physical id: 3

bus info: pci@e91b:00:00.0

version: 01

width: 64 bits

clock: 33MHz

capabilities: scsi msix bus_master cap_list

configuration: driver=virtio-pci latency=64

resources: iomemory:90-8f iomemory:90-8f iomemory:90-8f irq:0
memory:9ffe00000-9ffe00fff memory:9ffe01000-9ffe01fff
memory:9ffe02000-9ffe02fff

*-virtio0 UNCLAIMED

description: Virtual I/O device

physical id: 0

bus info: virtio@0

configuration: driver=virtio_console

*-display

description: 3D controller

product: Microsoft Corporation

vendor: Microsoft Corporation

physical id: 4

bus info: pci@efe4:00:00.0

version: 00

width: 32 bits

clock: 33MHz

capabilities: bus_master cap_list

configuration: driver=dxgkrnl latency=0

resources: irq:0

*-generic

description: System peripheral

product: Virtio file system

vendor: Red Hat, Inc.

physical id: 0

bus info: pci@f482:00:00.0

version: 01

width: 64 bits

clock: 33MHz

capabilities: msix bus_master cap_list

configuration: driver=virtio-pci latency=64

resources: iomemory:e0-df iomemory:e0-df iomemory:c0-bf irq:0
memory:e00000000-e00000fff memory:e00001000-e00001fff
memory:c00000000-dfffffff

*-virtio1 UNCLAIMED

description: Virtual I/O device

physical id: 0

bus info: virtio@1

configuration: driver=virtiofs

*-pnp00:00

product: PnP device PNP0b00

physical id: 5

capabilities: pnp

configuration: driver=rtc_cmos

*-scsi:1

physical id: 6

logical name: scsi0

*-disk:0

description: SCSI Disk

product: Virtual Disk

vendor: Linux

physical id: 0.0.0

bus info: scsi@0:0.0.0

logical name: /dev/sda

version: 1.0

size: 388MiB

capabilities: extended_attributes large_files huge_files extents ext2
initialized

configuration: ansversion=5 filesystem=ext2 logicalsectorsize=512
sectorsize=512 state=clean

*-disk:1

description: Linux swap volume

product: Virtual Disk

vendor: Msft

physical id: 0.0.1

bus info: scsi@0:0.0.1

logical name: /dev/sdb

version: 1

serial: 6fe43f8b-4429-46c1-8444-944420a5d6a9

size: 1GiB

capacity: 1GiB

capabilities: swap initialized

configuration: ansversion=5 filesystem=swap logicalsectorsize=512
pagesize=4096 sectorsize=4096

*-disk:2

description: EXT4 volume

product: Virtual Disk

vendor: Linux

physical id: 0.0.2

bus info: scsi@0:0.0.2

logical name: /dev/sdc

logical name: /

logical name: /mnt/wslg/distro

logical name: /snap

version: 1.0

serial: 54b61250-d471-4149-bd74-bde99aac5bd8

size: 1TiB

capabilities: journaled extended_attributes large_files huge_files
dir_nlink recover 64bit extents ext4 ext2 initialized

configuration: ansiversion=5 created=2024-03-13 10:42:07
filesystem=ext4 lastmountpoint=/distro logicalsectorsize=512
modified=2024-03-13 10:42:37 mount.fstype=ext4
mount.options=rw,relatime,discard,errors=remount-ro,data=ordered
mounted=2024-03-13 10:42:37 sectorsize=4096 state=mounted

*-usbhost:0

product: USB/IP Virtual Host Controller

vendor: Linux 5.15.146.1-microsoft-standard-WSL2 vhci_hcd

physical id: 1

bus info: usb@1

logical name: usb1

version: 5.15

capabilities: usb-2.00

configuration: driver=hub slots=8 speed=480Mbit/s

*-usbhost:1

product: USB/IP Virtual Host Controller

vendor: Linux 5.15.146.1-microsoft-standard-WSL2 vhci_hcd

physical id: 2

bus info: usb@2

logical name: usb2

version: 5.15

capabilities: usb-3.00

configuration: driver=hub slots=8 speed=5000Mbit/s

*-network

description: Ethernet interface

physical id: 3

logical name: eth0

serial: 00:15:5d:97:fb:b6

size: 10Gbit/s

capabilities: ethernet physical

configuration: autonegotiation=off broadcast=yes driver=hv_netvsc
driverversion=5.15.146.1-microsoft-standard-W duplex=full firmware=N/A
ip=172.17.39.183 link=yes multicast=yes speed=10Gbit/s

lsusb:

List connected USB devices.

Input: -lsusb

Output: -

```
user@LAPTOP-6QVE9SBJ:~$ lsusb
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

lspci:

List installed PCI devices.

Input: - lspci

Output: -

```
user@LAPTOP-6QVE9SBJ:~$ lspci
e91b:00:00.0 SCSI storage controller: Red Hat, Inc. Virtio console (rev 01)
efe4:00:00.0 3D controller: Microsoft Corporation Device 008e
f482:00:00.0 System peripheral: Red Hat, Inc. Virtio file system (rev 01)
```

lsblk:

List block devices and their attributes.

Input: - lsblk

Output: -

```
user@LAPTOP-6IN5E1D3:~$ lsblk
NAME MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda   8:0    0 388.5M  1 disk
sdb   8:16   0    2G    0 disk [SWAP]
sdc   8:32   0    1T    0 disk /snap
                        /mnt/wslg/distro
                        /

user@LAPTOP-6IN5E1D3:~$
```

lscpu:


```

user@LAPTOP-6QVE9SBJ:~$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          39 bits physical, 48 bits virtual
Byte Order:             Little Endian
CPU(s):                 8
On-line CPU(s) list:   0-7
Vendor ID:              GenuineIntel
Model name:             Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz
CPU family:             6
Model:                 142
Thread(s) per core:    2
Core(s) per socket:    4
Socket(s):              1
Stepping:               12
BogoMIPS:               3600.01
Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ss ht
                        syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon rep_good nopl xtopology cpuid pni pclmulqdq vmx s
                        sse3 fma cx16 pdcm pcid sse4_1 s
se4_2 movbe popcnt aes xsave avx f16c rdrand hypervisor lahf_lm abm 3dno                                wprefetch invpcid_single ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi ept vpid ept_
ad fsgsbase bmi1                                1 avx2 smep bmi2 erms invpcid rdseed adx smap clflushopt xsaves md_clear flush_l
ies
Virtualization features:
Virtualization:         VT-x
Hypervisor vendor:      Microsoft
Virtualization type:    full
Caches (sum of all):
  L1d:                  128 KiB (4 instances)
  L1i:                  128 KiB (4 instances)
  L2:                   1 MiB (4 instances)
  L3:                   6 MiB (1 instance)
Vulnerabilities:
Gather data sampling:   Unknown: Dependent on hypervisor status
Itlb multihit:          KVM: Mitigation: VMX disabled
L1tf:                  Not affected
Mds:                   Not affected
Meltdown:              Not affected
Mmio stale data:        Vulnerable: Clear CPU buffers attempted, no microcode; SMT Host state unknown
Retbleed:               Mitigation; Enhanced IBRS
Spec rstack overflow:   Not affected
Spec store bypass:      Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Spectre v1:             Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Spectre v2:             Mitigation; Enhanced IBRS, IBPB conditional, RSB filling, PBRSB-eIBRS SW sequence
Srbds:                 Unknown: Dependent on hypervisor status
Tsx async abort:        Not affected

```

df:

Show disk space usage and availability.

Input: -df

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
none            1968164         4    1968160    1% /mnt/wsl
none            248896836 202486432  46410404   82% /usr/lib/wsl/drivers
none            1968164         0    1968164    0% /usr/lib/modules
none            1968164         0    1968164    0% /usr/lib/modules/5.15.146.1-microsoft-standard-WSL2
/dev/sdc        1055762868  1081364 1000978032    1% /
none            1968164         80    1968084    1% /mnt/wslg
none            1968164         0    1968164    0% /usr/lib/wsl/lib
rootfs          1964904       1884    1963020    1% /init
none            1968164       768    1967396    1% /run
none            1968164         0    1968164    0% /run/lock
none            1968164         0    1968164    0% /run/shm
tmpfs           4096         0      4096    0% /sys/fs/cgroup
none            1968164       76    1968088    1% /mnt/wslg/versions.txt
none            1968164       76    1968088    1% /mnt/wslg/doc
A:\             243268604 175095092  68173512   72% /mnt/a
C:\             248896836 202486432  46410404   82% /mnt/c
D:\             489300988 401430308  87870680   83% /mnt/d
G:\             15728640  4597088   11131552   30% /mnt/g
V:\             244189180 197341692  46847488   81% /mnt/v
snapfuse        128         128         0 100% /snap/bare/5
snapfuse       75776      75776         0 100% /snap/core22/864
snapfuse       93952      93952         0 100% /snap/gtk-common-themes/1535
snapfuse       41856      41856         0 100% /snap/snapd/20290
snapfuse       134272     134272         0 100% /snap/ubuntu-desktop-installer/1276

```

dmidecode:

Decode and display DMI table information.

Input: - dmidecode

Output: -

```
user@LAPTOP-6QVE9SBJ:~$ dmidecode
# dmidecode 3.3
Scanning /dev/mem for entry point.
/dev/mem: Permission denied
```

ip a:

Show IP addresses and network information for all interfaces.

Input: - ip a

Output: -

```
user@LAPTOP-6QVE9SBJ:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1400 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:97:fb:b6 brd ff:ff:ff:ff:ff:ff
    inet 172.17.39.183/20 brd 172.17.47.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fe97:fbb6/64 scope link
        valid_lft forever preferred_lft forever
```

top:

Display real-time system resource usage.

Input: -top

Output: -

```
user@LAPTOP-6QVE9SBJ:~$ top
top - 10:59:14 up 17 min, 1 user, load average: 0.00, 0.01, 0.00
Tasks: 31 total, 1 running, 30 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni, 100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3844.1 total, 2992.9 free, 501.2 used, 350.0 buff/cache
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used, 3129.5 avail Mem

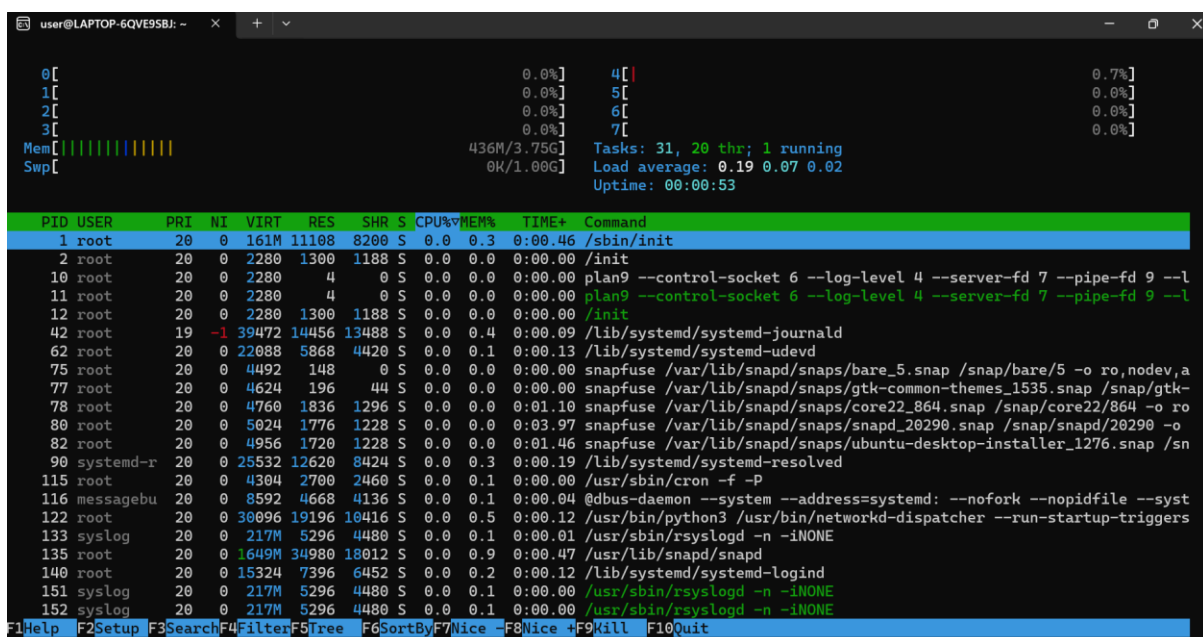
  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
  497 root        20   0   44212   37864  10060 S   0.3   1.0   0:03.33 python3
```

htop:

Interactive version of top with enhanced visualization.

Input: -htop

Output: -



The screenshot shows the htop interface. At the top, it displays system statistics: 0.0% CPU, 436M/3.75G memory, and 0K/1.00G swap. Below this is a table of running processes. The first few processes are /sbin/init, /init, and plan9. The table includes columns for PID, USER, PRI, NI, VIRT, RES, SHR, S, CPU%, MEM%, TIME+, and Command. At the bottom, there is a legend for keyboard shortcuts: F1 Help, F2 Setup, F3 Search, F4 Filter, F5 Tree, F6 SortBy, F7 Nice, F8 Nice, F9 Kill, and F10 Quit.

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
1	root	20	0	161M	11108	8200	S	0.0	0.3	0:00.46	/sbin/init
2	root	20	0	2280	1300	1188	S	0.0	0.0	0:00.00	/init
10	root	20	0	2280	4	0	S	0.0	0.0	0:00.00	plan9 --control-socket 6 --log-level 4 --server-fd 7 --pipe-fd 9 --l
11	root	20	0	2280	4	0	S	0.0	0.0	0:00.00	plan9 --control-socket 6 --log-level 4 --server-fd 7 --pipe-fd 9 --l
12	root	20	0	2280	1300	1188	S	0.0	0.0	0:00.00	/init
42	root	19	-1	39472	14456	13488	S	0.0	0.4	0:00.09	/lib/systemd/systemd-journald
62	root	20	0	22088	5868	4420	S	0.0	0.1	0:00.13	/lib/systemd/systemd-udevd
75	root	20	0	4492	148	0	S	0.0	0.0	0:00.00	snappyfuse /var/lib/snappyd/snaps/bare_5.snap /snap/bare/5 -o ro,nodev,a
77	root	20	0	4624	196	44	S	0.0	0.0	0:00.00	snappyfuse /var/lib/snappyd/snaps/gtk-common-themes_1535.snap /snap/gtk-
78	root	20	0	4760	1836	1296	S	0.0	0.0	0:01.10	snappyfuse /var/lib/snappyd/snaps/core22_864.snap /snap/core22/864 -o ro
80	root	20	0	5024	1776	1228	S	0.0	0.0	0:03.97	snappyfuse /var/lib/snappyd/snaps/snapd_20290.snap /snap/snapd/20290 -o
82	root	20	0	4956	1720	1228	S	0.0	0.0	0:01.46	snappyfuse /var/lib/snappyd/snaps/ubuntu-desktop-installer_1276.snap /sn
90	systemd-r	20	0	25532	12620	8424	S	0.0	0.3	0:00.19	/lib/systemd/systemd-resolved
115	root	20	0	4304	2700	2460	S	0.0	0.1	0:00.00	/usr/sbin/cron -f -P
116	messagebu	20	0	8592	4668	4136	S	0.0	0.1	0:00.04	@dbus-daemon --system --address=systemd: --nofork --nopidfile --syst
122	root	20	0	30096	19196	10416	S	0.0	0.5	0:00.12	/usr/bin/python3 /usr/bin/networkd-dispatcher --run-startup-triggers
133	syslog	20	0	217M	5296	4480	S	0.0	0.1	0:00.01	/usr/sbin/rsyslogd -n -iNONE
135	root	20	0	1649M	34980	18012	S	0.0	0.9	0:00.47	/usr/lib/snappyd/snappyd
140	root	20	0	15324	7396	6452	S	0.0	0.2	0:00.12	/lib/systemd/systemd-logind
151	syslog	20	0	217M	5296	4480	S	0.0	0.1	0:00.00	/usr/sbin/rsyslogd -n -iNONE
152	syslog	20	0	217M	5296	4480	S	0.0	0.1	0:00.00	/usr/sbin/rsyslogd -n -iNONE

nvidia-smi:

Provide management for NVIDIA GPU devices.

Input: - nvidia-smi

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ nvidia-smi
Command 'nvidia-smi' not found, but can be installed with:
sudo apt install nvidia-utils-390 # version 390.157-0ubuntu0.22.04.2, or
sudo apt install nvidia-utils-418-server # version 418.226.00-0ubuntu5~0.22.04.1
sudo apt install nvidia-utils-450-server # version 450.248.02-0ubuntu0.22.04.1
sudo apt install nvidia-utils-470 # version 470.223.02-0ubuntu0.22.04.1
sudo apt install nvidia-utils-470-server # version 470.223.02-0ubuntu0.22.04.1
sudo apt install nvidia-utils-525 # version 525.147.05-0ubuntu0.22.04.1
sudo apt install nvidia-utils-525-server # version 525.147.05-0ubuntu0.22.04.1
sudo apt install nvidia-utils-535 # version 535.129.03-0ubuntu0.22.04.1
sudo apt install nvidia-utils-535-server # version 535.129.03-0ubuntu0.22.04.1
sudo apt install nvidia-utils-510 # version 510.60.02-0ubuntu1
sudo apt install nvidia-utils-510-server # version 510.47.03-0ubuntu3

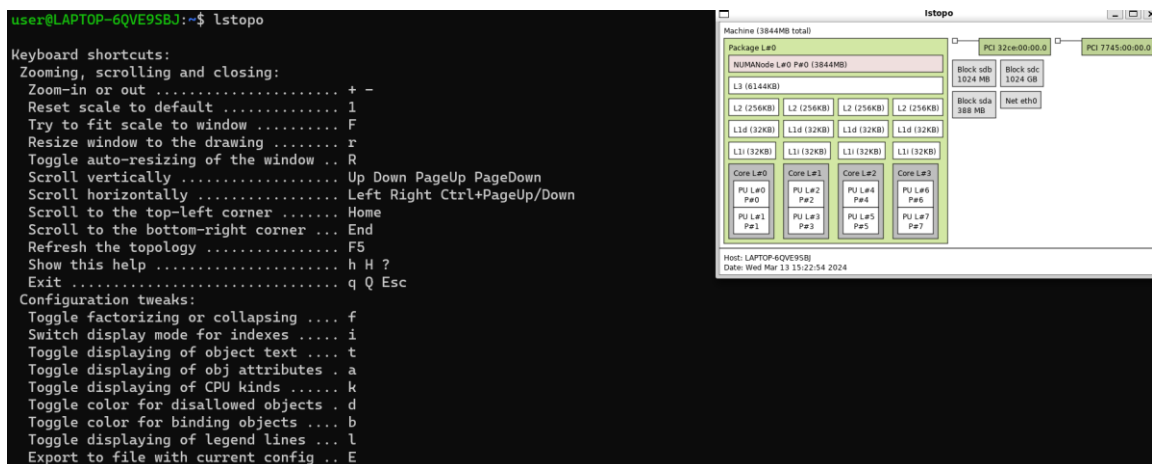
```

lstopo:

Generate graphical system topology representation.

Input: -lstopo

Output: -



perf:

Collect and analyze performance data.

Input: -perf

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ perf
WARNING: perf not found for kernel 5.15.146.1-microsoft

You may need to install the following packages for this specific kernel:
  linux-tools-5.15.146.1-microsoft-standard-WSL2
  linux-cloud-tools-5.15.146.1-microsoft-standard-WSL2

You may also want to install one of the following packages to keep up to date:
  linux-tools-standard-WSL2
  linux-cloud-tools-standard-WSL2

```

numactl:

Control and monitor NUMA policy on NUMA systems.

Input: - numactl

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ numactl
usage: numactl [--all | -a] [--interleave= | -i <nodes>] [--preferred= | -p <node>]
      [--physcpubind= | -C <cpus>] [--cpunodebind= | -N <nodes>]
      [--membind= | -m <nodes>] [--localalloc | -l] command args ...

numactl [--show | -s]
numactl [--hardware | -H]
numactl [--length | -l <length>] [--offset | -o <offset>] [--shmnode | -M <shmnode>]
      [--strict | -t]
      [--shmid | -I <id>] --shm | -S <shmkeyfile>
      [--shmid | -I <id>] --file | -f <tmpfsfile>
      [--huge | -u] [--touch | -T]
      memory policy | --dump | -d | --dump-nodes | -D

memory policy is --interleave | -i, --preferred | -p, --membind | -m, --localalloc | -l
<nodes> is a comma delimited list of node numbers or A-B ranges or all.
Instead of a number a node can also be:
  netdev:DEV the node connected to network device DEV
  file:PATH  the node the block device of path is connected to
  ip:HOST    the node of the network device host routes through
  block:PATH the node of block device path
  pci:[seg:]bus:dev[:func] The node of a PCI device
<cpus> is a comma delimited list of cpu numbers or A-B ranges or all
all ranges can be inverted with !
all numbers and ranges can be made cpuset-relative with +
the old --cpubind argument is deprecated.
use --cpunodebind or --physcpubind instead
<length> can have g (GB), m (MB) or k (KB) suffixes

```

sar:

Collect and analyze system activity data over time.

Input: - sar -u 1 10

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ sar -u 1 10
Linux 5.15.146.1-microsoft-standard-WSL2 (LAPTOP-6QVE9SBJ)      03/13/24      _x86_64_      (8 CPU)

22:55:43      CPU      %user      %nice      %system      %iowait      %steal      %idle
22:55:44      all      0.38      0.00      0.12      0.00      0.00      99.50
22:55:45      all      0.38      0.00      0.13      0.00      0.00      99.50
22:55:46      all      0.37      0.00      0.62      0.25      0.00      98.75
22:55:47      all      0.25      0.00      0.87      0.00      0.00      98.88
22:55:48      all      0.50      0.00      0.13      0.00      0.00      99.37
22:55:49      all      0.38      0.00      0.25      0.00      0.00      99.38
22:55:50      all      0.25      0.00      0.25      0.00      0.00      99.50
22:55:51      all      0.75      0.00      0.87      0.00      0.00      98.38
22:55:52      all      0.37      0.00      0.62      0.00      0.00      99.00
22:55:53      all      0.50      0.00      0.87      0.00      0.00      98.63
Average:      all      0.41      0.00      0.47      0.02      0.00      99.09

```

Input: - sar -r 60 5

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ sar -r 60 5
Linux 5.15.146.1-microsoft-standard-WSL2 (LAPTOP-6QVE9SBJ)      03/13/24      _x86_64_      (8 CPU)

22:57:04      kbmemfree  kbavail  kmemused  %memused  kbbuffers  kbcached  kbcommit  %commit  kbactive  kbinact  kbdirt
22:57:04      3137364    3249784    425444    10.81     10660     290496    624372    12.53     88028    393136
22:59:04      3122140    3234560    440640    11.19     10660     290496    624768    12.53     88028    403140
23:00:04      3124460    3236880    438292    11.13     10660     290496    624372    12.53     88028    404340
23:01:04      3116588    3234444    440296    11.19     10800     295468    632768    12.69     89076    409944
23:02:04      3111532    3229396    445328    11.31     10800     295468    632768    12.69     89076    409980
Average:      3122417    3237013    438000    11.13     10716     292485    627810    12.59     88447    404108

```

Input: - sar -d 5 30

Output: -

```

user@LAPTOP-6QVE9SBJ:~$ sar -d 5 30
Linux 5.15.146.1-microsoft-standard-WSL2 (LAPTOP-6QVE9SBJ)      03/13/24      _x86_64_      (8 CPU)

23:02:32      DEV      tps      rkB/s      wkB/s      dBK/s      areq-sz      aqu-sz      await      %util
23:02:37      sda      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:37      sdb      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:37      sdc      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

23:02:37      DEV      tps      rkB/s      wkB/s      dBK/s      areq-sz      aqu-sz      await      %util
23:02:42      sda      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:42      sdb      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:42      sdc      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

23:02:42      DEV      tps      rkB/s      wkB/s      dBK/s      areq-sz      aqu-sz      await      %util
23:02:47      sda      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:47      sdb      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:47      sdc      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

23:02:47      DEV      tps      rkB/s      wkB/s      dBK/s      areq-sz      aqu-sz      await      %util
23:02:52      sda      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:52      sdb      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:52      sdc      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

23:02:52      DEV      tps      rkB/s      wkB/s      dBK/s      areq-sz      aqu-sz      await      %util
23:02:57      sda      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:57      sdb      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
23:02:57      sdc      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

```