



**Université:** Institut Universitaire des Sciences (IUS)

**Faculté:** Sciences Informatiques

**TD N°3 –: Systèmes I**

**Nom & Prénom:** SAINT-JEAN Marc-Evenort

**Professeur:** Imaël SAINT AMOUR

**Niveau:** 3ème Année

Date: le 15/Décembre/2025

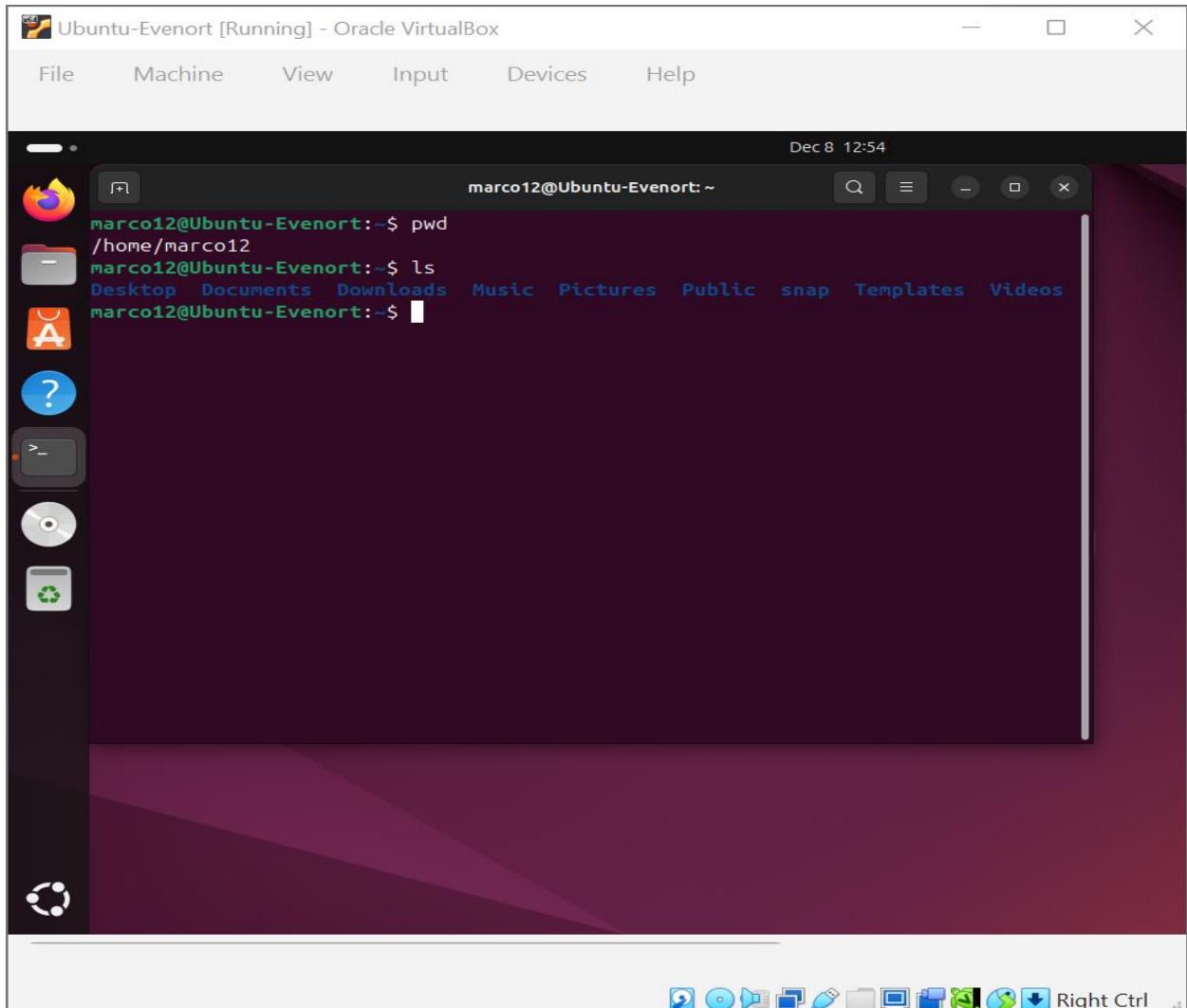
# **Objectif du TD**

L'objectif de ce TD est de:

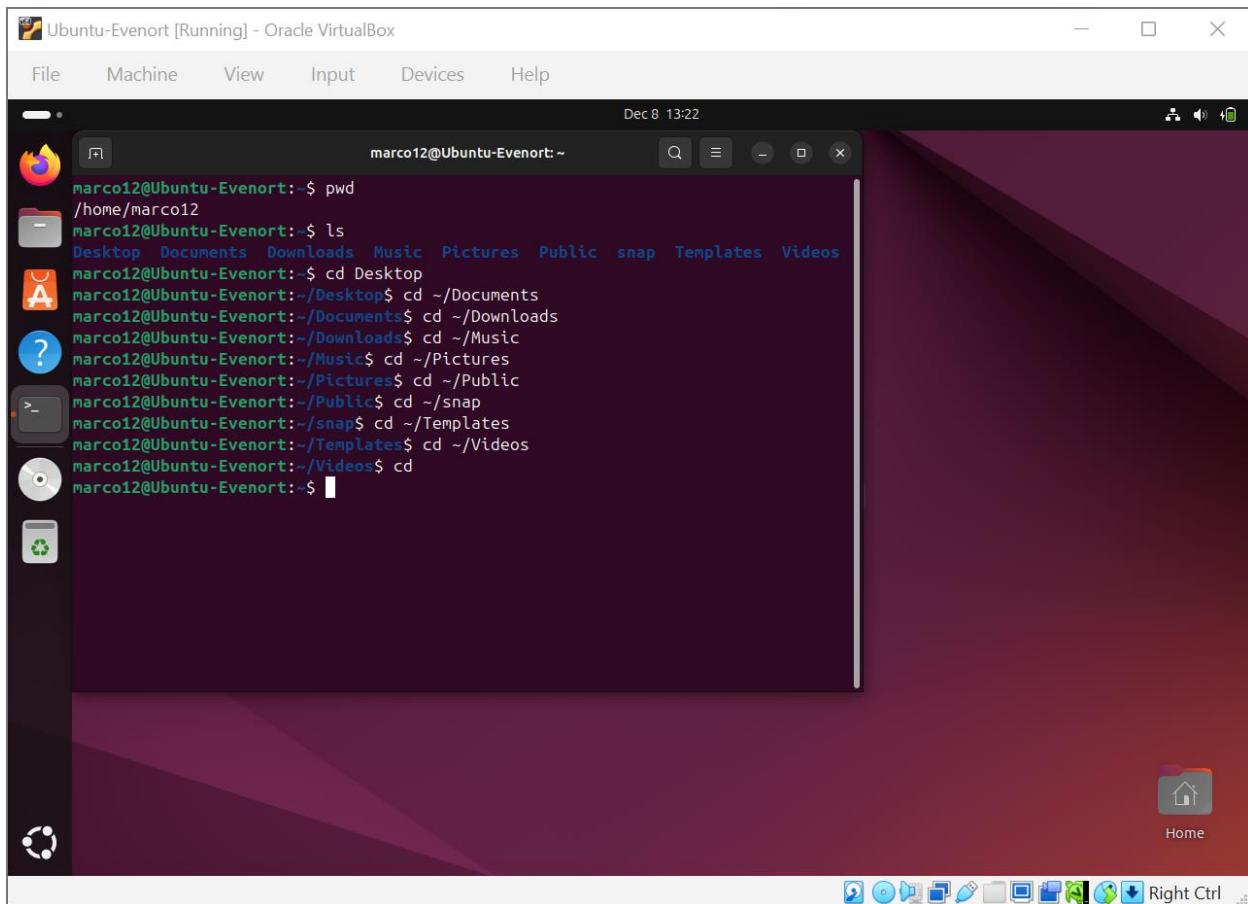
- Se familiariser avec l'utilisation de Linux en ligne de commande, la gestion des fichiers et des répertoires, la consultation et l'édition de fichiers, ainsi que la supervision des processus et du réseau.
- Il permet également de découvrir des utilitaires pratiques, de comprendre les informations système, et d'explorer différents environnements de bureau tels que KDE Plasma et XFCE.
- Ce TD vise à développer l'autonomie dans l'utilisation d'un système Linux et à acquérir les compétences nécessaires pour effectuer des tâches courantes d'administration système.

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# Partie 1 – Navigation dans le système

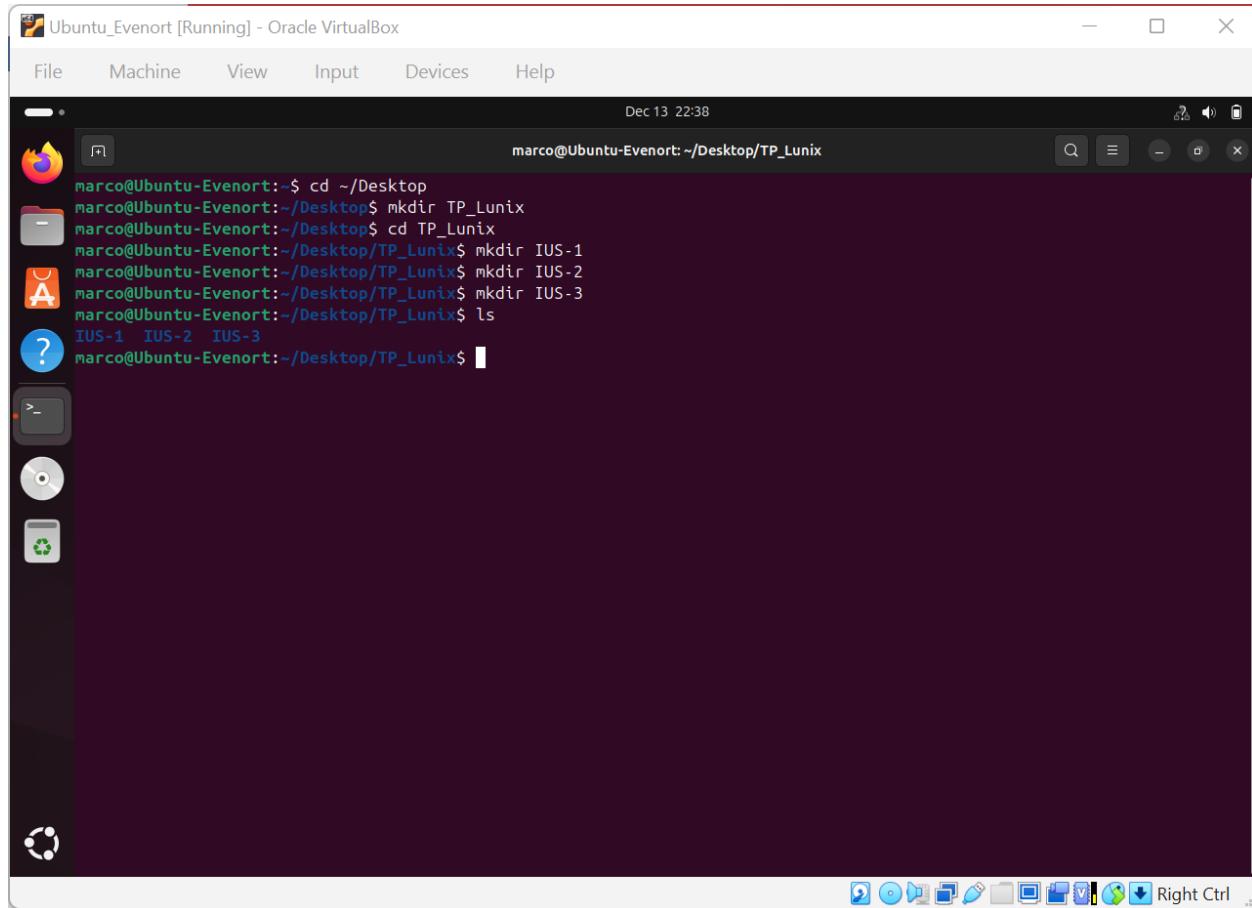


- J'ai utilisé la commande **pwd** pour afficher le répertoire courant et la commande **ls** pour lister le contenu d'un dossier.



- Dans cette image j'ai utilisé la commande **cd ~/...** Pour naviguer dans les différents répertoires.

## Partie 2 – Gestion des fichiers et répertoires



The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "Ubuntu\_Evenort [Running] - Oracle VirtualBox". The terminal session shows the following commands and output:

```
marco@Ubuntu-Evenort: ~/Desktop/TP_Linux
marco@Ubuntu-Evenort:~/Desktop$ mkdir TP_Linux
marco@Ubuntu-Evenort:~/Desktop$ cd TP_Linux
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-1
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-2
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-3
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ ls
IUS-1  IUS-2  IUS-3
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$
```

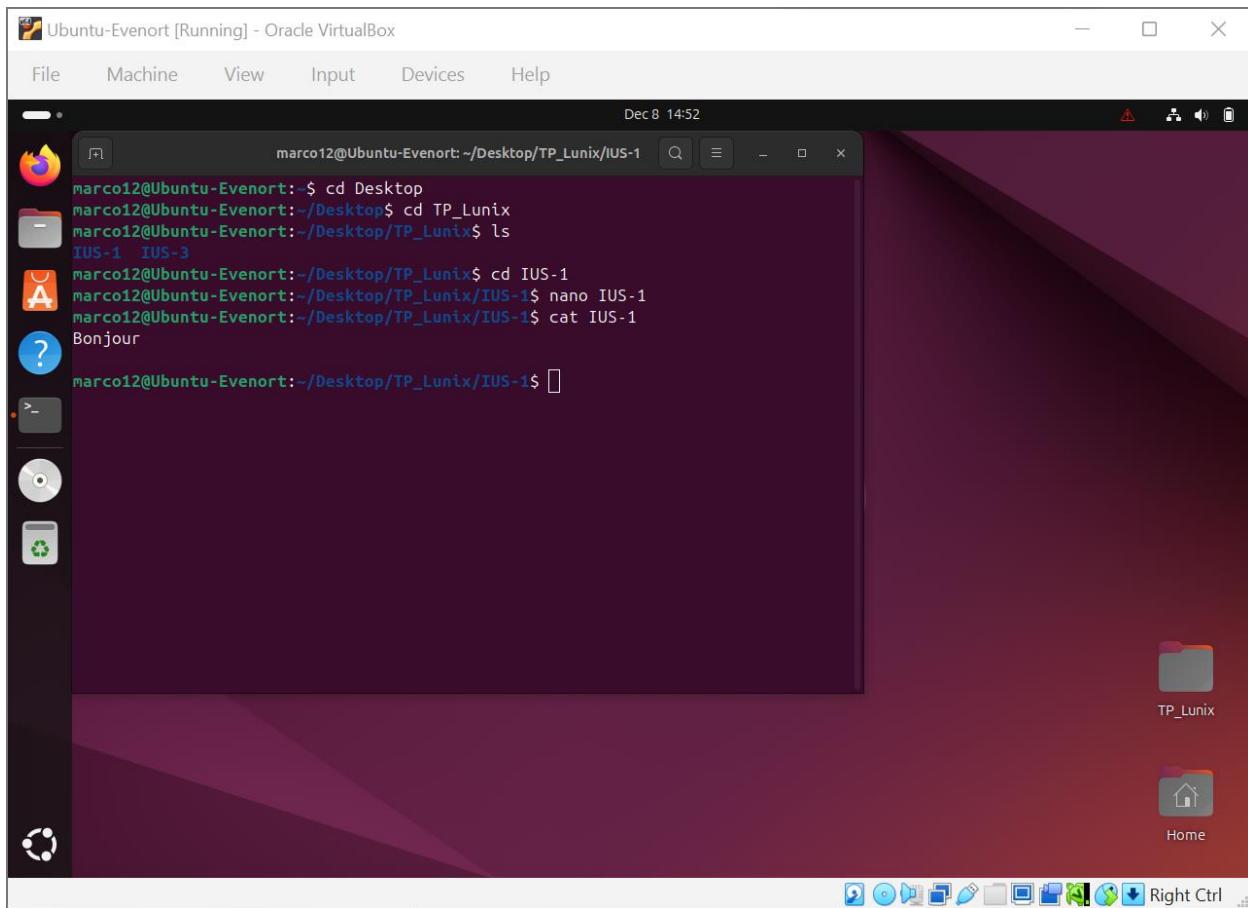
- Sur cette image, j'ai utilisé la commande **mkdir** pour créer un ou plusieurs répertoire.

The screenshot shows a terminal window titled "Ubuntu\_Evenort [Running] - Oracle VirtualBox". The terminal session is as follows:

```
marco@Ubuntu-Evenort:~$ cd ~/Desktop
marco@Ubuntu-Evenort:~/Desktop$ mkdir TP_Linux
marco@Ubuntu-Evenort:~/Desktop$ cd TP_Linux
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-1
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-2
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ mkdir IUS-3
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ ls
IUS-1 IUS-2 IUS-3
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ rmdir IUS-2
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$ ls
IUS-1 IUS-3
marco@Ubuntu-Evenort:~/Desktop/TP_Linux$
```

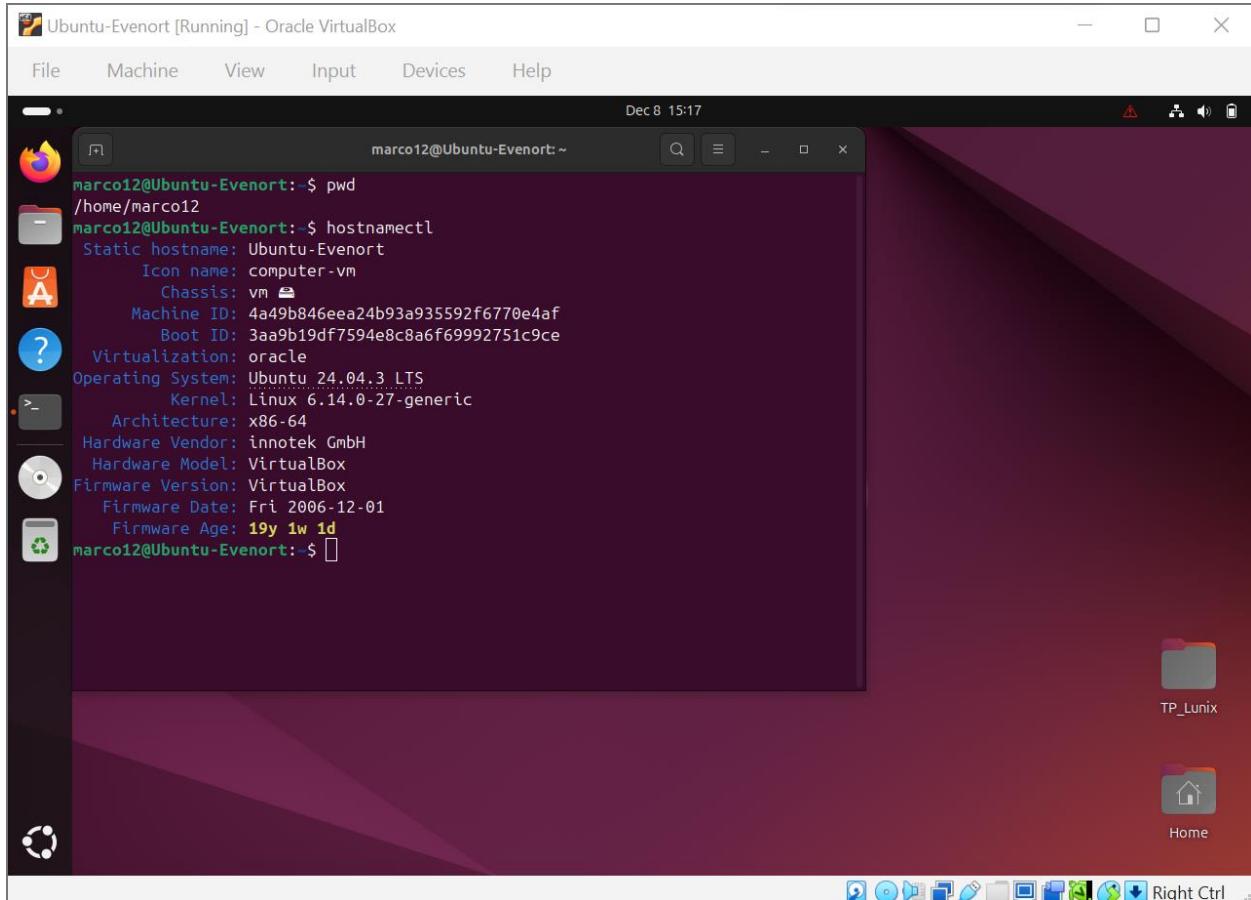
- Sur cette image, j'ai utilisé la commande **rmdir** pour supprimer un fichier ou un répertoire.

## Partie 3 – Consultation et édition de fichiers



- Dans cette image j'ai utilisé la commande **cat** Pour afficher le contenu d'un fichier texte.

## Partie 4 – Informations système



- Sur cette image, j'ai utilisé la commande **pwd** (whoamie) pour afficher la version de linux. Et la commande **hostnamectl** pour afficher les informations sur la machine.

```
Dec 8 15:27  
marco12@Ubuntu-Evenor:~$ sudo dmesg  
[    0.000000] Linux version 6.14.0-27-generic (buildd@lcy02-amd64-120) (x86_64-linux-gnu-gcc-13 (Ubuntu 13.3.0-6ubuntu2  
~24.04) 13.3.0, GNU ld (GNU Binutils for Ubuntu) 2.42) #27-24.04.1-Ubuntu SMP PREEMPT_DYNAMIC Tue Jul 22 17:38:49 UTC 2  
(Ubuntu 6.14.0-27.27-24.04.1-generic 6.14.6)  
[    0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-6.14.0-27-generic root=UUID=75cfb377-45b4-4b04-87c3-27324f7927b8 r  
o quiet splash  
[    0.000000] KERNEL supported cpus:  
[    0.000000]   Intel GenuineIntel  
[    0.000000]   AMD AuthenticAMD  
[    0.000000]   Hygon HygonGenuine  
[    0.000000]   Centaur CentaurHauls  
[    0.000000]     zhaoxin Shanghai  
[    0.000000] BIOS-provided physical RAM map:  
[    0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000009fbff] usable  
[    0.000000] BIOS-e820: [mem 0x00000000000fc000-0x00000000000ffff] reserved  
[    0.000000] BIOS-e820: [mem 0x00000000000f0000-0x00000000000ffff] reserved  
[    0.000000] BIOS-e820: [mem 0x000000000010000-0x000000007fffffff] usable  
[    0.000000] BIOS-e820: [mem 0x00000000007ff0000-0x000000007fffffff] ACPI data  
[    0.000000] BIOS-e820: [mem 0x00000000fec0000-0x00000000fec00fff] reserved  
[    0.000000] BIOS-e820: [mem 0x00000000fee0000-0x00000000fee00fff] reserved  
[    0.000000] BIOS-e820: [mem 0x00000000fffc0000-0x00000000ffffffffff] reserved  
[    0.000000] NX (Execute Disable) protection: active  
[    0.000000] APIC: Static calls initialized  
[    0.000000] SMBIOS 2.5 present.  
[    0.000000] DMI: innoteck GmbH VirtualBox/VirtualBox, BIOS VirtualBox 12/01/2006  
[    0.000000] DMI: Memory slots populated: 0/0  
[    0.000000] Hypervisor detected: KVM  
[    0.000000] kvm-clock: Using msrs 4b564d01 and 4b564d00  
[    0.000003] kvm-clock: using sched offset of 14394190024 cycles  
[    0.000006] clocksource: kvm-clock: mask: 0xfffffffffffffff max_cycles: 0x1cd42e4dff, max_idle_ns: 881590591483 ns  
[    0.000011] tsc: Detected 2112.006 MHz processor  
[    0.003651] e820: update [mem 0x00000000-0x00000fff] usable ==> reserved  
[    0.003656] e820: remove [mem 0x000a0000-0x000fffff] usable
```

```
Dec 8 15:29  
marco12@Ubuntu-Evenor:~$ sudo dmesg  
[ 0.003656] e820: remove [mem 0x00000000-0x0000ffff] usable  
[ 0.003661] last_pfn = 0x8000 max_arch_pfn = 0x40000000  
[ 0.003684] MTRR map: 3 entries (3 fixed + 0 variable; max 19), built from 8 variable MTRRs  
[ 0.003686] x86/PAT: Configuration [0-7]: WB WC UC UC WB WP UC WT  
[ 0.003714] CPU MTRRs all blank - virtualized system.  
[ 0.018044] Found SMP MP-table at [mem 0x0009fb0-0x0009fbff]  
[ 0.018164] RAMDISK: [mem 0x2f521000-0x3a87ffff]  
[ 0.018574] ACPI: Early table checksum verification disabled  
[ 0.018578] ACPI: RSDP 0x0000000000E0000 000024 (v02 VBOX )  
[ 0.018583] ACPI: XSDT 0x000000007FFF0030 00003C (v01 VBOX  VBOXXSDT 00000001 ASL 00000061)  
[ 0.018612] ACPI: FACP 0x000000007FFF00F0 0000F4 (v04 VBOX  VBOXFACP 00000001 ASL 00000061)  
[ 0.018634] ACPI: DSDT 0x000000007FFF02F0 002353 (v02 VBOX  VBOXBIOS 00000002 VBOX 00029BF3)  
[ 0.018639] ACPI: FACS 0x000000007FFF0200 000040  
[ 0.018642] ACPI: FACS 0x000000007FFF0200 000040  
[ 0.018645] ACPI: APIC 0x000000007FFF0240 00005C (v02 VBOX  VBOXAPIC 00000001 ASL 00000061)  
[ 0.018649] ACPI: SSDT 0x000000007FFF02A0 000045 (v01 VBOX  VBOXCPUT 00000002 VBOX 00029BF3)  
[ 0.018651] ACPI: Reserving FACP table memory at [mem 0x7ffff00f0-0x7ffff01e3]  
[ 0.018653] ACPI: Reserving DSDT table memory at [mem 0x7ffff02f0-0x7ffff2642]  
[ 0.018654] ACPI: Reserving FACS table memory at [mem 0x7ffff0200-0x7ffff023f]  
[ 0.018655] ACPI: Reserving FADT table memory at [mem 0x7ffff0200-0x7ffff023f]  
[ 0.018655] ACPI: Reserving APIC table memory at [mem 0x7ffff0240-0x7ffff029b]  
[ 0.018656] ACPI: Reserving SSDT table memory at [mem 0x7ffff02a0-0x7ffff02e4]  
[ 0.019977] No NUMA configuration found  
[ 0.019978] Faking a node at [mem 0x0000000000000000-0x000000007fffffff]  
[ 0.019988] NODE_DATA(0) allocated [mem 0x7ffc5540-0x7fffffff]  
[ 0.020171] Zone ranges:  
[ 0.020172] DMA      [mem 0x000000000001000-0x0000000000ffff]  
[ 0.020174] DMA32    [mem 0x000000000100000-0x000000007fffffff]  
[ 0.020176] Normal   empty  
[ 0.020177] Device   empty  
[ 0.020177] Movable zone start for each node  
[ 0.020179] Early memory node ranges  
[ 0.020180] node  0: [mem 0x0000000000000000-0x000000000009efff]
```

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Dec 8 15:30 marco12@Ubuntu-Evenor:~
[ 0.020180] node 0: [mem 0x000000000000100000-0x0000000007ffff]
[ 0.020182] Initmem setup node 0 [mem 0x0000000000001000-0x0000000007ffff]
[ 0.020187] On node 0, zone DMA: 1 pages in unavailable ranges
[ 0.020204] On node 0, zone DMA: 97 pages in unavailable ranges
[ 0.023258] On node 0, zone DMA32: 16 pages in unavailable ranges
[ 0.025768] ACPI: PM-Timer IO Port: 0x4008
[ 0.026131] IOAPIC[0]: apic_id 2, version 32, address 0xfc000000, GSI 0-23
[ 0.026137] ACPI: INT_SRC_OVR (bus 0 bus_irq 0 global_irq 2 dfl dfl)
[ 0.026139] ACPI: INT_SRC_OVR (bus 0 bus_irq 9 global_irq 9 low level)
[ 0.026144] ACPI: Using ACPI (MADT) for SMP configuration information
[ 0.026150] CPU topo: Max. logical packages: 1
[ 0.026151] CPU topo: Max. logical dies: 1
[ 0.026152] CPU topo: Max. dies per package: 1
[ 0.026156] CPU topo: Max. threads per core: 1
[ 0.026157] CPU topo: Num. cores per package: 2
[ 0.026158] CPU topo: Num. threads per package: 2
[ 0.026158] CPU topo: Allowing 2 present CPUs plus 0 hotplug CPUs
[ 0.026335] PM: hibernation: Registered nosave memory: [mem 0x00000000-0x00000fff]
[ 0.026337] PM: hibernation: Registered nosave memory: [mem 0x0009f000-0x000fffff]
[ 0.026339] PM: hibernation: Registered nosave memory: [mem 0xfffff000-0xffffffff]
[ 0.026340] [mem 0x80000000-0xebffff] available for PCI devices
[ 0.026342] Booting paravirtualized kernel on KVM
[ 0.026343] clocksource: refined-jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 1910969940391419 ns
[ 0.026350] setup_percpu: NR_CPUS:8192 nr_cpumask_bits:2 nr_cpu_ids:2 nr_node_ids:1
[ 0.029084] percpu: Embedded 88 pages/cpu s237568 r8192 d114688 u1048576
[ 0.029089] pcpu-alloc: s237568 r8192 d114688 u1048576 alloc=1*2097152
[ 0.029092] pcpu-alloc: [0] 0 1
[ 0.029222] kvm-guest: PV spinlocks enabled
[ 0.029225] PV qspinlock hash table entries: 256 (order: 0, 4096 bytes, linear)
[ 0.029229] Kernel command line: BOOT_IMAGE=/boot/vmlinuz-6.14.0-27-generic root=UUID=75cfb377-45b4-4b04-87c3-27324f7
927b8 ro quiet splash
[ 0.029292] Unknown kernel command line parameters "splash BOOT_IMAGE=/boot/vmlinuz-6.14.0-27-generic", will be passe

```

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Dec 8 15:32 marco12@Ubuntu-Evenor:~
92/08 To quiet splash
[ 0.029292] Unknown kernel command line parameters "splash BOOT_IMAGE=/boot/vmlinuz-6.14.0-27-generic", will be passe
d to user space.
[ 0.029318] random: crng init done
[ 0.029319] printk: log buffer data + meta data: 262144 + 917504 = 1179648 bytes
[ 0.036810] Dentry cache hash table entries: 262144 (order: 9, 2097152 bytes, linear)
[ 0.037039] Inode-cache hash table entries: 131072 (order: 8, 1048576 bytes, linear)
[ 0.037100] Fallback order for Node 0: 0
[ 0.037102] Built 1 zonelists, mobility grouping on. Total pages: 524174
[ 0.037104] Policy zone: DMA32
[ 0.037112] mem auto-init: stack:all(zero), heap alloc:on, heap free:off
[ 0.042730] SLUB: HWalign=64, Order=0-3, MinObjects=0, CPUs=2, Nodes=1
[ 0.042765] ftrace: allocating 60343 entries in 236 pages
[ 0.067442] ftrace: allocated 236 pages with 5 groups
[ 0.068347] Dynamic Preempt: voluntary
[ 0.068402] rcu: Preemptible hierarchical RCU implementation.
[ 0.068403] rcu: RCU restricting CPUs from NR_CPUS=8192 to nr_cpu_ids=2.
[ 0.068405] Trampoline variant of Tasks RCU enabled.
[ 0.068405] Rude variant of Tasks RCU enabled.
[ 0.068406] Tracing variant of Tasks RCU enabled.
[ 0.068406] rcu: RCU calculated value of scheduler-enlistment delay is 100 jiffies.
[ 0.068407] rcu: Adjusting geometry for rcu_fanout_leaf=16, nr_cpu_ids=2
[ 0.068414] RCU Tasks: Setting shift to 1 and lim to 1 rcu_task_cb_adjust=1 rcu_task_cpu_ids=2.
[ 0.068416] RCU Tasks Rude: Setting shift to 1 and lim to 1 rcu_task_cb_adjust=1 rcu_task_cpu_ids=2.
[ 0.068417] RCU Tasks Trace: Setting shift to 1 and lim to 1 rcu_task_cb_adjust=1 rcu_task_cpu_ids=2.
[ 0.072525] NR_IRQS: 524544, nr_irqs: 440, preallocated irqs: 16
[ 0.072923] rcu: srcu_init: Setting srcu_struct sizes based on contention.
[ 0.136778] Console: colour VGA+ 80x25
[ 0.136783] printk: legacy console [tty0] enabled
[ 0.136838] ACPI: Core revision 20240827
[ 0.137707] APIC: Switch to symmetric I/O mode setup
[ 0.151827] ..TIMER: vector=0x30 apic1=0 pin1=2 apic2=-1 pin2=-1
[ 0.152077] clocksource: tsc-early: mask: 0xffffffffffffffff max_cycles: 0x1e717e40680, max_idle_ns: 440795297614 ns

```

```
Dec 8 15:34 marco12@Ubuntu-Evenor:~  
[ 0.152086] Calibrating delay loop (skipped) preset value.. 4224.01 BogoMIPS (lpj=2112006)  
[ 0.153083] Last level iTLB entries: 4KB 64, 2MB 8, 4MB 8  
[ 0.153083] Last level dTLB entries: 4KB 64, 2MB 32, 4MB 32, 1GB 4  
[ 0.153083] Spectre V1 : Mitigation: usercopy/swapgs barriers and __user pointer sanitization  
[ 0.153083] Spectre V2 : Spectre BHI mitigation: SW BHB clearing on syscall and VM exit  
[ 0.153083] Spectre V2 : Mitigation: Enhanced / Automatic IBRS  
[ 0.153083] Spectre V2 : Spectre v2 / PBRSB-eIBRS: Retire a single CALL on VMEXIT  
[ 0.153083] RETBleed: Mitigation: Enhanced IBRS  
[ 0.153083] Speculative Store Bypass: Vulnerable  
[ 0.153083] MMIO Stale Data: Vulnerable: Clear CPU buffers attempted, no microcode  
[ 0.153083] SRBDS: Unknown: Dependent on hypervisor status  
[ 0.153083] GDS: Unknown: Dependent on hypervisor status  
[ 0.153083] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point registers'  
[ 0.153083] x86/fpu: Supporting XSAVE Feature 0x002: 'SSE registers'  
[ 0.153083] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'  
[ 0.153083] x86/fpu: xstate_offset[2]: 576, xstate_sizes[2]: 256  
[ 0.153083] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, using 'standard' format.  
[ 0.170731] Freeing SMP alternatives memory: 48K  
[ 0.170739] pid_max: default: 32768 minimum: 301  
[ 0.170799] LSM: initializing lsm=lockdown,capability,landlock,yama,apparmor,ima,evm  
[ 0.170816] landlock: Up and running.  
[ 0.170817] Yama: becoming mindful.  
[ 0.170852] AppArmor: AppArmor initialized  
[ 0.170899] Mount-cache hash table entries: 4096 (order: 3, 32768 bytes, linear)  
[ 0.170903] Mountpoint-cache hash table entries: 4096 (order: 3, 32768 bytes, linear)  
[ 0.285346] APIC calibration not consistent with PM-Timer: 129ms instead of 100ms  
[ 0.285352] APIC delta adjusted to PM-Timer: 6287823 (8145148)  
[ 0.285889] smpboot: CPU0: Intel(R) Core(TM) i5-10210U CPU @ 1.60GHz (family: 0x6, model: 0x8e, stepping: 0xc)  
[ 0.286083] Performance Events: unsupported p6 CPU model 142 no PMU driver, software events only.  
[ 0.286083] signal: max sigframe size: 1776  
[ 0.286083] rcu: Hierarchical SRCU implementation.  
[ 0.286083] rcu: Max phase no-delay instances is 400.
```

```
Dec 8 15:36 marco12@Ubuntu-Evenor:~  
[ 0.286083] rcu: Max phase no-delay instances is 400.  
[ 0.286083] Timer migration: 1 hierarchy levels; 8 children per group; 1 crossnode level  
[ 0.286083] NMI watchdog: Perf NMI watchdog permanently disabled  
[ 0.286083] smp: Bringing up secondary CPUs ...  
[ 0.286210] smpboot: x86: Booting SMP configuration:  
[ 0.286212] .... node #0, CPUs: #1  
[ 0.296285] smp: Brought up 1 node, 2 CPUs  
[ 0.296292] smpboot: Total of 2 processors activated (8448.02 BogoMIPS)  
[ 0.298134] Memory: 1927924K/2096696K available (21441K kernel code, 4572K rwdta, 15048K rodata, 5132K init, 4436K b  
ss, 161748K reserved, 0K cma-reserved)  
[ 0.299236] devtmpfs: initialized  
[ 0.299236] x86/mm: Memory block size: 128MB  
[ 0.300398] clocksource: jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 1911260446275000 ns  
[ 0.300405] futex hash table entries: 512 (order: 3, 32768 bytes, linear)  
[ 0.300477] pinctrl core: initialized pinctrl subsystem  
[ 0.301087] PM: RTC time: 17:42:15, date: 2025-12-08  
[ 0.302595] NET: Registered PF_NETLINK/PF_ROUTE protocol family  
[ 0.302718] DMA: preallocated 256 KiB GFP_KERNEL pool for atomic allocations  
[ 0.302735] DMA: preallocated 256 KiB GFP_KERNEL|GFP_DMA pool for atomic allocations  
[ 0.302750] DMA: preallocated 256 KiB GFP_KERNEL|GFP_DMA32 pool for atomic allocations  
[ 0.302766] audit: initializing netlink subsys (disabled)  
[ 0.303138] audit: type=2000 audit(1765215757.395:1): state=initialized audit_enabled=0 res=1  
[ 0.303365] thermal_sys: Registered thermal governor 'fair_share'  
[ 0.303367] thermal_sys: Registered thermal governor 'bang_bang'  
[ 0.303368] thermal_sys: Registered thermal governor 'step_wise'  
[ 0.303369] thermal_sys: Registered thermal governor 'user_space'  
[ 0.303370] thermal_sys: Registered thermal governor 'power_allocator'  
[ 0.303383] cpuidle: using governor ladder  
[ 0.303387] cpuidle: using governor menu  
[ 0.305567] aciphp: ACPI Hot Plug PCI Controller Driver version: 0.5  
[ 0.306049] PCI: Using configuration type 1 for base access  
[ 0.306083] ntrr: your CPUs had inconsistent variable MTTR settings  
[ 0.306083] ntrr: probably your BIOS does not setup all CPUs
```

```
Dec 8 15:38 marco12@Ubuntu-Evenor:~  
[ 0.306083] mtrr: your CPUs had inconsistent variable MTRR settings  
[ 0.306083] mtrr: probably your BIOS does not setup all CPUs.  
[ 0.306083] mtrr: corrected configuration.  
[ 0.306692] kprobes: kprobe jump-optimization is enabled. All kprobes are optimized if possible.  
[ 0.313272] HugeTLB: registered 2.00 MiB page size, pre-allocated 0 pages  
[ 0.313276] HugeTLB: 28 KiB vmemmap can be freed for a 2.00 MiB page  
[ 0.313860] ACPI: Added _OSI(Module Device)  
[ 0.313861] ACPI: Added _OSI(Processor Device)  
[ 0.313862] ACPI: Added _OSI(3.0 _SCP Extensions)  
[ 0.313863] ACPI: Added _OSI(Processor Aggregator Device)  
[ 0.314083] ACPI: 2 ACPI AML tables successfully acquired and loaded  
[ 0.323083] ACPI: Interpreter enabled  
[ 0.323083] ACPI: PM: (supports S0 S5)  
[ 0.323083] ACPI: Using IOAPIC for interrupt routing  
[ 0.323524] PCI: Using host bridge windows from ACPI; if necessary, use "pci=nocrs" and report a bug  
[ 0.323526] PCI: Using E820 reservations for host bridge windows  
[ 0.323723] ACPI: Enabled 2 GPEs in block 00 to 07  
[ 0.340617] ACPI: PCI Root Bridge [PCI0] (domain 0000 [bus 00-ff])  
[ 0.340639] acpi PNP0A03:00: _OSC: OS supports [ASPM ClockPM Segments MSI EDR HPX-Type3]  
[ 0.340641] acpi PNP0A03:00: _OSC: not requesting OS control; OS requires [ExtendedConfig ASPM ClockPM MSI]  
[ 0.341798] acpi PNP0A03:00: fail to add MMCONFIG information, can't access extended configuration space under this b  
ridge  
[ 0.343133] PCI host bridge to bus 0000:00  
[ 0.343137] pci_bus 0000:00: root bus resource [io 0x0000-0x0cf7 window]  
[ 0.343140] pci_bus 0000:00: root bus resource [io 0xd000-0xffff window]  
[ 0.343141] pci_bus 0000:00: root bus resource [mem 0x000a0000-0x000bffff window]  
[ 0.343143] pci_bus 0000:00: root bus resource [mem 0x80000000-0xfdf9ffff window]  
[ 0.343145] pci_bus 0000:00: root bus resource [bus 00-ff]  
[ 0.343599] pci 0000:00:00.00: [8086:1123] type 00 class 0x060000 conventional PCI endpoint  
[ 0.346465] pci 0000:00:01.0: [8086:7000] type 00 class 0x060100 conventional PCI endpoint  
[ 0.349363] pci 0000:00:01.1: [8086:7111] type 00 class 0x01018a conventional PCI endpoint  
[ 0.351432] pci 0000:00:01.1: BAR 4 [io 0xd000-0xd00f]  
[ 0.351594] pci 0000:00:01.1: BAR 0 [io 0x01f0-0x01f7]: legacy IDE quirk
```

```
Dec 8 15:39 marco12@Ubuntu-Evenor:~  
[ 0.351599] pci 0000:00:01.1: BAR 3 [io 0x0376]: legacy IDE quirk  
[ 0.352580] pci 0000:00:02.0: [15ad:0405] type 00 class 0x030000 conventional PCI endpoint  
[ 0.356083] pci 0000:00:02.0: BAR 0 [io 0xd010-0xd01f]  
[ 0.356083] pci 0000:00:02.0: BAR 1 [mem 0xe0000000-0xe7ffff pref]  
[ 0.356086] pci 0000:00:02.0: BAR 2 [mem 0xf0000000-0xf01ffff]  
[ 0.356383] pci 0000:00:02.0: Video device with shadowed ROM at [mem 0x000c0000-0x000dffff]  
[ 0.357597] pci 0000:00:03.0: [8086:100e] type 00 class 0x020000 conventional PCI endpoint  
[ 0.360303] pci 0000:00:03.0: BAR 0 [mem 0xf0200000-0xf021ffff]  
[ 0.360378] pci 0000:00:03.0: BAR 2 [io 0xd020-0xd027]  
[ 0.364087] pci 0000:00:04.0: [80ee:cafe] type 00 class 0x088000 conventional PCI endpoint  
[ 0.366472] pci 0000:00:04.0: BAR 0 [io 0xd040-0xd05f]  
[ 0.366508] pci 0000:00:04.0: BAR 1 [mem 0xf0400000-0xf07ffff]  
[ 0.366579] pci 0000:00:04.0: BAR 2 [mem 0xf0800000-0xf0803fff pref]  
[ 0.368120] pci 0000:00:05.0: [8086:2415] type 00 class 0x040100 conventional PCI endpoint  
[ 0.370147] pci 0000:00:05.0: BAR 0 [io 0xd100-0xd1ff]  
[ 0.370180] pci 0000:00:05.0: BAR 1 [io 0xd200-0xd23f]  
[ 0.371496] pci 0000:00:06.0: [106b:003f] type 00 class 0x0c0310 conventional PCI endpoint  
[ 0.373567] pci 0000:00:06.0: BAR 0 [mem 0xf0804000-0xf0804fff]  
[ 0.375338] pci 0000:00:07.0: [8086:7113] type 00 class 0x068000 conventional PCI endpoint  
[ 0.378255] pci 0000:00:07.0: quirk: [io 0x4000-0x403f] claimed by PII4 ACPI  
[ 0.378292] pci 0000:00:07.0: quirk: [io 0x4100-0x410f] claimed by PII4 SMB  
[ 0.417364] pci 0000:00:08.0: [8086:265c] type 00 class 0x0c0320 conventional PCI endpoint  
[ 0.419589] pci 0000:00:08.0: BAR 0 [mem 0xf0805000-0xf0805fff]  
[ 0.435433] pci 0000:00:08.0: [8086:2829] type 00 class 0x010601 conventional PCI endpoint  
[ 0.438122] pci 0000:00:0d.0: BAR 0 [io 0xd240-0xd247]  
[ 0.438160] pci 0000:00:0d.0: BAR 1 [io 0xd248-0xd24b]  
[ 0.438197] pci 0000:00:0d.0: BAR 2 [io 0xd250-0xd257]  
[ 0.438234] pci 0000:00:0d.0: BAR 3 [io 0xd258-0xd25b]  
[ 0.438270] pci 0000:00:0d.0: BAR 4 [io 0xd260-0xd26f]  
[ 0.438308] pci 0000:00:0d.0: BAR 5 [mem 0xf0806000-0xf0807fff]  
[ 0.612556] ACPI: PCI: Interrupt link LNKA configured for IRQ 11  
[ 0.613391] ACPI: PCI: Interrupt link LNKB configured for IRQ 10  
[ 0.613621] ACPI: PCI: Interrupt link LNKC configured for IRQ 9
```

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[ 0.613391] ACPI: PCI: Interrupt link LNKB configured for IRQ 10  
[ 0.613631] ACPI: PCI: Interrupt link LNKC configured for IRQ 9  
[ 0.613949] ACPI: PCI: Interrupt link LNKD configured for IRQ 11  
[ 0.615088] iommu: Default domain type: Translated  
[ 0.615096] iommu: DMA domain TLB invalidation policy: lazy mode  
[ 0.615262] SCSI subsystem initialized  
[ 0.616097] libata version 3.00 loaded.  
[ 0.616122] ACPI: bus type USB registered  
[ 0.616139] usbcore: registered new interface driver usbf  
[ 0.616145] usbcore: registered new interface driver hub  
[ 0.616151] usbcore: registered new device driver usb  
[ 0.616171] pps_core: LinuxPPS API ver. 1 registered  
[ 0.616173] pps_core: Software ver. 5.3.6 - Copyright 2005-2007 Rodolfo Giometti <giometti@linux.it>  
[ 0.616175] PTP clock support registered  
[ 0.616443] EDAC MC: Ver: 3.0.0  
[ 0.619685] NetLabel: Initializing  
[ 0.619689] NetLabel: domain hash size = 128  
[ 0.619691] NetLabel: protocols = UNLABELED CIPSOv4 CALIPSO  
[ 0.619705] NetLabel: unlabeled traffic allowed by default  
[ 0.619785] mctp: management component transport protocol core  
[ 0.619787] NET: Registered PF_MCTP protocol family  
[ 0.619829] PCI: Using ACPI for IRQ routing  
[ 0.619832] PCI: pci_cache_line_size set to 64 bytes  
[ 0.620636] e820: reserve RAM buffer [mem 0x0009fc00-0x0009ffff]  
[ 0.620642] e820: reserve RAM buffer [mem 0x7fff0000-0x7fffffff]  
[ 0.621042] pci 0000:00:02.0: vgaarb: setting as boot VGA device  
[ 0.621048] pci 0000:00:02.0: vgaarb: bridge control possible  
[ 0.621050] pci 0000:00:02.0: vgaarb: VGA device added: decodes=io+mem,owns=io+mem,locks=none  
[ 0.621056] vgaarb: loaded  
[ 0.621513] clocksource: Switched to clocksource kvm-clock  
[ 0.622119] VFS: Disk quotas dquot_6.6.0  
[ 0.622135] VFS: Dquot-cache hash table entries: 512 (order 0, 4096 bytes)  
[ 0.622136] AppArmor: AppArmor Filesystem Enabled
```

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[ 0.622135] VFS: Dquot-cache hash table entries: 512 (order 0, 4096 bytes)  
[ 0.622926] AppArmor: AppArmor Filesystem Enabled  
[ 0.622956] pnp: PnP ACPI init  
[ 0.628515] pnp: PnP ACPI: found 2 devices  
[ 0.636568] clocksource: acpi_pm: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 2085701024 ns  
[ 0.636684] NET: Registered PF_INET protocol family  
[ 0.636772] IP idents hash table entries: 32768 (order: 6, 262144 bytes, linear)  
[ 0.644074] tcp_listen_portaddr_hash hash table entries: 1024 (order: 2, 16384 bytes, linear)  
[ 0.644074] Table-perturb hash table entries: 65536 (order: 6, 262144 bytes, linear)  
[ 0.644074] TCP established hash table entries: 16384 (order: 5, 131072 bytes, linear)  
[ 0.644074] TCP bind hash table entries: 16384 (order: 7, 524288 bytes, linear)  
[ 0.644074] TCP: Hash tables configured (established 16384 bind 16384)  
[ 0.644074] MPTCP token hash table entries: 2048 (order: 3, 49152 bytes, linear)  
[ 0.644074] UDP hash table entries: 1024 (order: 4, 65536 bytes, linear)  
[ 0.644074] UDP-Lite hash table entries: 1024 (order: 4, 65536 bytes, linear)  
[ 0.644074] NET: Registered PF_UNIX/PF_LOCAL protocol family  
[ 0.644074] NET: Registered PF_XDP protocol family  
[ 0.644074] pci_bus 0000:00: resource 4 [io 0x0000-0x0cf7 window]  
[ 0.644074] pci_bus 0000:00: resource 5 [io 0xd00-0xffff window]  
[ 0.644074] pci_bus 0000:00: resource 6 [mem 0x000a0000-0x000ffff window]  
[ 0.644074] pci_bus 0000:00: resource 7 [mem 0x80000000-0xfdf8ffff window]  
[ 0.657238] pci 0000:00:00.0: Limiting direct PCI/PCI transfers  
[ 0.664860] PCI: CLS 0 bytes, default 64  
[ 0.665260] Trying to unpack rootfs image as initramfs...  
[ 0.677562] clocksource: tsc: mask: 0xffffffffffffffff max_cycles: 0x1e717e40680, max_idle_ns: 440795297614 ns  
[ 0.678164] clocksource: Switched to clocksource tsc  
[ 0.678205] platform rtc_cmos: registered platform RTC device (no PNP device found)  
[ 0.707771] Initialise system trusted keyrings  
[ 0.707788] Key type blacklist registered  
[ 0.710189] workingset: timestamp_bits=36 max_order=19 bucket_order=0  
[ 0.710209] zbud: loaded  
[ 0.711878] squashfs: version 4.0 (2009/01/31) Phillip Louher  
[ 0.713407] fuse: init (API version 7.12)
```

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Dec 8 15:44  
marco12@Ubuntu-Evenor:~  
[ 0.711878] squashfs: version 4.0 (2009/01/31) Phillip Louher  
[ 0.713407] fuse: init (API version 7.42)  
[ 0.714987] integrity: Platform Keyring initialized  
[ 0.714995] integrity: Machine keyring initialized  
[ 0.730027] Key type asymmetric registered  
[ 0.730027] Asymmetric key parser 'x509' registered  
[ 0.730027] Block layer SCSI generic (bsg) driver version 0.4 loaded (major 243)  
[ 0.734573] io scheduler mq-deadline registered  
[ 0.798409] ledtrig-cpu: registered to indicate activity on CPUs  
[ 0.798479] shpchp: Standard Hot Plug PCI Controller Driver version: 0.4  
[ 0.798952] ACPI: AC: AC Adapter [AC] (on-line)  
[ 0.799187] input: Power Button as /devices/LNXSYSTM:00/LNXPWRBN:00/input/input0  
[ 0.799218] ACPI: button: Power Button [PWRF]  
[ 0.799218] input: Sleep Button as /devices/LNXSYSTM:00/LNXLSPBN:00/input/input1  
[ 0.799218] ACPI: button: Sleep Button [SLPF]  
[ 0.801486] ACPI: battery: Slot [BAT0] (battery present)  
[ 0.801486] Serial: 8250/16550 driver, 32 ports, IRQ sharing enabled  
[ 0.801486] Linux agpgart interface v0.103  
[ 0.812605] loop: module loaded  
[ 0.812605] ata_piix 0000:00:01.1: version 2.13  
[ 0.812605] scsi host0: ata_piix  
[ 0.812605] scsi host1: ata_piix  
[ 0.812605] ata1: PATA max UDMA/33 cmd 0x1f0 ctl 0x3f6 bmdma 0xd000 irq 14 lpm-pol 0  
[ 0.812605] ata2: PATA max UDMA/33 cmd 0x170 ctl 0x376 bmdma 0xd008 irq 15 lpm-pol 0  
[ 0.812605] ACPI: bus type drm_connector registered  
[ 0.812605] tun: Universal TUN/TAP device driver, 1.6  
[ 0.812605] PPP generic driver version 2.4.2  
[ 0.812605] ohci-pci 0000:00:06.0: OHCI PCI host controller  
[ 0.812605] ohci-pci 0000:00:06.0: new USB bus registered, assigned bus number 1  
[ 0.812605] ohci-pci 0000:00:06.0: irq 22, io mem 0xf0804000  
[ 0.909090] usb usb1: New USB device found, idVendor=1d6b, idProduct=0001, bcdDevice= 6.14  
[ 0.909096] usb usb1: New USB device strings: Mfr=3, Product=2, SerialNumber=1  
[ 0.909097] usb usb1: Product: OHCI PCI host controller
```

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Dec 8 15:47  
marco12@Ubuntu-Evenor:~  
[ 0.909096] usb usb1: New USB device strings: Mfr=3, Product=2, SerialNumber=1  
[ 0.909097] usb usb1: Product: OHCI PCI host controller  
[ 0.909099] usb usb1: Manufacturer: Linux 6.14.0-27-generic ohci_hcd  
[ 0.909100] usb usb1: SerialNumber: 0000:00:06.0  
[ 0.909176] hub 1-0:1.0: 12 ports detected  
[ 0.909176] i8042: PNP: PS/2 Controller [PNP0303:PS2K,PNP0f03:PS2M] at 0x60,0x64 irq 1,12  
[ 0.912028] ehci-pci 0000:00:0b.0: EHCI Host Controller  
[ 0.912034] ehci-pci 0000:00:0b.0: new USB bus registered, assigned bus number 2  
[ 0.919103] serio: i8042 KBD port at 0x60,0x64 irq 1  
[ 0.919103] serio: i8042 AUX port at 0x60,0x64 irq 12  
[ 0.919103] ehci-pci 0000:00:0b.0: irq 19, io mem 0xf0805000  
[ 0.923665] mousedev: PS/2 mouse device common for all mice  
[ 0.924023] input: AT Translated Set 2 keyboard as /devices/platform/i8042/serio0/input/input2  
[ 0.931145] rtc_cmos rtc_cmos: registered as rtc0  
[ 0.931952] rtc_cmos rtc_cmos: setting system clock to 2025-12-08T17:42:16 UTC (1765215736)  
[ 0.932310] rtc_cmos rtc_cmos: alarms up to one day, 114 bytes nvram  
[ 0.932326] i2c_dev: i2c /dev entries driver  
[ 0.932406] device-mapper: core: CONFIG_IMA_DISABLE_HTABLE is disabled. Duplicate IMA measurements will not be recorded in the IMA log.  
[ 0.932428] device-mapper: uevent: version 1.0.3  
[ 0.932510] device-mapper: ioctl: 4.49.0-ioctl (2025-01-17) initialised: dm-devel@lists.linux.dev  
[ 0.932516] intel_pstate: CPU model not supported  
[ 0.932616] drop_monitor: Initializing network drop monitor service  
[ 0.932981] NET: Registered PF_INET6 protocol family  
[ 1.0041415] ehci-pci 0000:00:0b.0: USB 2.0 started, EHCI 1.00  
[ 1.041619] usb usb2: New USB device found, idVendor=1d6b, idProduct=0002, bcdDevice= 6.14  
[ 1.041624] usb usb2: New USB device strings: Mfr=3, Product=2, SerialNumber=1  
[ 1.041626] usb usb2: Product: EHCI Host Controller  
[ 1.041628] usb usb2: Manufacturer: Linux 6.14.0-27-generic ehci_hcd  
[ 1.041630] usb usb2: SerialNumber: 0000:00:0b.0  
[ 1.041935] hub 2-0:1.0: 12 ports detected  
[ 1.041948] hub 2-0:1.0: 12 ports detected
```

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[ 1.041955] hub 2-0:1.0: USB hub round
[ 1.041948] hub 2-0:1.0: 12 ports detected
[ 1.042135] Freeing initrd memory: 71068K
[ 1.085492] ata1.00: ATAPI: VBOX CD-ROM, 1.0, max UDMA/133
[ 1.093543] scsi 0:0:0:0: CD-ROM           VBOX   CD-ROM      1.0 PQ: 0 ANSI: 5
[ 1.098263] sr 0:0:0:0: [sr0] scsi3-mmc drive: 32x/32x xa/form2 tray
[ 1.098268] cdrom: Uniform CD-ROM driver Revision: 3.20
[ 1.112267] sr 0:0:0:0: Attached scsi CD-ROM sr0
[ 1.113235] sr 0:0:0:0: Attached scsi generic sg0 type 5
[ 1.120634] Segment Routing with IPv6
[ 1.120652] In-situ OAM (IOAM) with IPv6
[ 1.120799] NET: Registered PF_PACKET protocol family
[ 1.121454] Key type dns_resolver registered
[ 1.123989] IPI shorthand broadcast: enabled
[ 1.127620] sched_clock: Marking stable (1048261172, 79015718)->(1139860273, -12583383)
[ 1.129465] registered taskstats version 1
[ 1.130666] Loading compiled-in X.509 certificates
[ 1.132164] Loaded X.509 cert 'Build time autogenerated kernel key: b72185e7da5a2807c98fd54db84f90ec0625b589'
[ 1.133071] Loaded X.509 cert 'Canonical Ltd. Live Patch Signing 2025 Kmod: d541cef61dc7e793b7eb7e899970a2eeff0b5dc8c'
[ 1.133758] Loaded X.509 cert 'Canonical Ltd. Live Patch Signing: 14df34d1a87cf37625abec039ef2bf521249b969'
[ 1.134562] Loaded X.509 cert 'Canonical Ltd. Kernel Module Signing: 88f752e560a1e0737e31163a466ad7b70a850c19'
[ 1.134565] blacklist: Loading compiled-in revocation X.509 certificates
[ 1.134591] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing: 61482aa2830d0ab2ad5af10b7250da9033ddcef0'
[ 1.134604] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2017): 242ade75ac4a15e50d50c84b0d45ff33ae707a03'
[ 1.134615] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (ESM 2018): 365188c1d374d6b07c3c8f240f8ef722433d6a8c
[ 1.134626] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2019): c0746fd6c5da3ae827864651ad66ae47fe24b3e8'
[ 1.134637] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2021 v1): a8d54bbb3825cfb94fa13c9f8a594a195c107b8d
[ 1.134648] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2021 v2): 4cf046892d6fd3c9a5b03f98d845f90851dc6a8c
[ 1.134659] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2021 v3): 100437bb6de6e469b581e61cd66bce3ef4ed53af
```

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```
[ 1.134659] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (2021 v3): 100437bb6de6e469b581e61cd66bce3ef4ed53af
[ 1.134671] Loaded X.509 cert 'Canonical Ltd. Secure Boot Signing (Ubuntu Core 2019): c1d57b8f6b743f23ee41f4f7ee292f0
6eecadfb9'
[ 1.149861] Demotion targets for Node 0: null
[ 1.153472] Key type .fsckrypt registered
[ 1.153476] Key type fsckrypt-provisioning registered
[ 1.213619] Key type encrypted registered
[ 1.213626] AppArmor: AppArmor sha256 policy hashing enabled
[ 1.213638] ima: No TPM chip found, activating TPM-bypass!
[ 1.213643] Loading compiled-in module X.509 certificates
[ 1.214113] Loaded X.509 cert 'Build time autogenerated kernel key: b72185e7da5a2807c98fd54db84f90ec0625b589'
[ 1.214115] ima: Allocated hash algorithm: sha256
[ 1.214124] ima: No architecture policies found
[ 1.214160] evm: Initialising EVM extended attributes:
[ 1.214162] evm: security.selinux
[ 1.214163] evm: security.SMACK64
[ 1.214164] evm: security.SMACK64EXEC
[ 1.214316] evm: security.SMACK64TRANSMUTE
[ 1.214317] evm: security.SMACK64MMAP
[ 1.214318] evm: security.apparmor
[ 1.214318] evm: security.ima
[ 1.214319] evm: security.capability
[ 1.214320] evm: HMAC attrs: 0x1
[ 1.214606] PM: Magic number: 5:127:744
[ 1.222297] RAS: Correctable Errors collector initialized.
[ 1.240421] clk: Disabling unused clocks
[ 1.240425] PM: genpd: Disabling unused power domains
[ 1.247549] Freeing unused decrypted memory: 2028K
[ 1.248965] Freeing unused kernel image (initmem) memory: 5132K
[ 1.248986] Write protecting the kernel read-only data: 38912K
[ 1.250607] Freeing unused kernel image (text/rodata gap) memory: 1084K
```

```
Dec 8 15:52 marco12@Ubuntu-Evenor:~  
[ 1.240425] PM: genpd: Disabling unused power domains  
[ 1.247549] Freeing unused decrypted memory: 2028K  
[ 1.248965] Freeing unused kernel image (initmem) memory: 5132K  
[ 1.248986] Write protecting the kernel read-only data: 38912K  
[ 1.250607] Freeing unused kernel image (text/rodata gap) memory: 1084K  
[ 1.251633] Freeing unused kernel image (rodata/data gap) memory: 1336K  
[ 1.251649] usb 1-1: new full-speed USB device number 2 using ohci-pci  
[ 1.273337] x86/mm: Checked W+X mappings: passed, no W+X pages found.  
[ 1.273606] Run /init as init process  
[ 1.273610] with arguments:  
[ 1.273612]   /init  
[ 1.273614]   splash  
[ 1.273615] with environment:  
[ 1.273616]   HOME=/  
[ 1.273617]   TERM=linux  
[ 1.273618]   BOOT_IMAGE=/boot/vmlinuz-6.14.0-27-generic  
[ 1.521086] usb 1-1: New USB device found, idVendor=80ee, idProduct=0021, bcdDevice= 1.00  
[ 1.521095] usb 1-1: New USB device strings: Mfr=1, Product=3, SerialNumber=0  
[ 1.521098] usb 1-1: Product: USB Tablet  
[ 1.521100] usb 1-1: Manufacturer: VirtualBox  
[ 1.532694] ACPI: video: Video Device [GFX0] (multi-head: yes rom: no post: no)  
[ 1.532884] input: Video Bus as /devices/LNXSYSTM:00/PNP0A03:00/LNXVIDEO:00/input/input4  
[ 1.564279] e1000: Intel(R) PRO/1000 Network Driver  
[ 1.564284] e1000: Copyright (c) 1999-2006 Intel Corporation.  
[ 1.589350] ahci 0000:00:0d.0: version 3.0  
[ 1.600401] ahci 0000:00:0d.0: SSS flag set, parallel bus scan disabled  
[ 1.601874] ahci 0000:00:0d.0: AHCI vers 0001.0100, 32 command slots, 3 Gbps, SATA mode  
[ 1.601882] ahci 0000:00:0d.0: 1/1 ports implemented (port mask 0x1)  
[ 1.601885] ahci 0000:00:0d.0: flags: 64bit ncq stag only ccc  
[ 1.645636] scsi host2: ahci  
[ 1.645898] ata3: SATA max UDMA/133 abar m8192@0xf0806000 port 0xf0806100 irq 21 lpm-pol 0  
[ 1.713281] input: ImExPS/2 Generic Explorer Mouse as /devices/platform/i8042/serio1/input/input5
```

```
Dec 8 15:53 marco12@Ubuntu-Evenor:~  
[ 1.645636] scsi host2: ahci  
[ 1.645898] ata3: SATA max UDMA/133 abar m8192@0xf0806000 port 0xf0806100 irq 21 lpm-pol 0  
[ 1.713281] input: ImExPS/2 Generic Explorer Mouse as /devices/platform/i8042/serio1/input/input5  
[ 1.789820] hid: raw HID events driver (C) Jiri Kosina  
[ 1.975447] ata3: SATA link up 3.0 Gbps (SStatus 123 SControl 300)  
[ 1.976234] ata3.00: ATA-6: VBOX HARDDISK, 1.0, max UDMA/133  
[ 1.976239] ata3.00: 104857600 sectors, multi 128: LBA48 NCQ (depth 32)  
[ 1.977399] ata3.00: configured for UDMA/133  
[ 1.977534] scsi 2:0:0:0: Direct-Access ATA VBOX HARDDISK 1.0 PQ: 0 ANSI: 5  
[ 1.977942] sd 2:0:0:0: [sda] 104857600 512-byte logical blocks: (53.7 GB/50.0 GiB)  
[ 1.977955] sd 2:0:0:0: [sda] Write Protect is off  
[ 1.977958] sd 2:0:0:0: [sda] Mode Sense: 00 3a 00 00  
[ 1.977980] sd 2:0:0:0: [sda] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA  
[ 1.978010] sd 2:0:0:0: [sda] Preferred minimum I/O size 512 bytes  
[ 1.980598] sd 2:0:0:0: Attached scsi generic sg1 type 0  
[ 2.046286] sda: sda1 sda2  
[ 2.046939] sd 2:0:0:0: [sda] Attached SCSI disk  
[ 2.077448] usbcore: registered new interface driver usbhid  
[ 2.077452] usbhid: USB HID core driver  
[ 2.083064] input: VirtualBox USB Tablet as /devices/pci0000:00/0000:00:06.0/usb1/1-1:1.0/0003:80EE:0021.0001/input0  
[ 2.083940] hid-generic 0003:80EE:0021.0001: input,hidraw0: USB HID v1.10 Mouse [VirtualBox USB Tablet] on usb-0000:00:06.0-1/input0  
[ 2.515769] e1000 0000:00:03.0 eth0: (PCI:33MHz:32-bit) 08:00:27:51:9c:d5  
[ 2.515785] e1000 0000:00:03.0 eth0: Intel(R) PRO/1000 Network Connection  
[ 2.517996] e1000 0000:00:03.0 enp0s3: renamed from eth0  
[ 8.996690] EXT4-fs (sda2): mounted filesystem 75cfb377-45b4-4b04-87c3-27324f7927b8 ro with ordered data mode. Quota mode: none.  
[ 11.545620] systemd[1]: Inserted module 'autofs4'  
[ 11.962202] systemd[1]: systemd 255.4-1ubuntu8.10 running in system mode (+PAM +AUDIT +SELINUX +APPARMOR +IMA +SMACK  
+SECCOMP +CRYPT -GNUTLS +OPENSSL +ACL +BLKID +CURL +ELFUTILS +FID02 +IDN +IPTC +KMOD +LIBCRYPTSETUP +LIBFDISK +PC  
RE2 -PWQUALITY +P11KIT +QRENCODE +TPM2 +BZIP2 +LZ4 +XZ +ZLIB +ZSTD -BPF_FRAMEWORK -XKBCOMMON +UTMP +SYSVINIT default-hie  
rue+sysvinit+firewall)
```

Dec 8 15:55  
marco12@Ubuntu-Evenort:~

```
+SECCOMP +GCRYPT -GNUTLS +OPENSSL +ACL +BLKID +CURL +ELFUTILS +FIDO2 +IDN +IPTC +KMOD +LIBCRYPTSETUP +LIBFDISK +PCRE2 +PWQUALITY +P11KIT +QRENCODE +TPM2 +BZIP2 +LZ4 +XZ +ZLIB +ZSTD -BPF_FRAMEWORK -XKBCOMMON +UTMP +SYSVINIT default-hierarchy=unified
[ 11.962232] systemd[1]: Detected virtualization oracle.
[ 11.965934] systemd[1]: Detected architecture x86-64.
[ 12.133359] systemd[1]: Hostname set to <Ubuntu-Evenort>.
[ 18.712832] systemd[1]: Queued start job for default target graphical.target.
[ 18.793015] systemd[1]: Created slice system-modprobe.slice - Slice /system/modprobe.
[ 18.794026] systemd[1]: Created slice user.slice - User and Session Slice.
[ 18.794111] systemd[1]: Started systemd-ask-password-wall.path - Forward Password Requests to Wall Directory Watch.
[ 18.794518] systemd[1]: Set up automount proc-sys-fs-binfmt_misc.automount - Arbitrary Executable File Formats File System Automount Point.
[ 18.794549] systemd[1]: Reached target integritysetup.target - Local Integrity Protected Volumes.
[ 18.794581] systemd[1]: Reached target remote-fs.target - Remote File Systems.
[ 18.794592] systemd[1]: Reached target slices.target - Slice Units.
[ 18.794603] systemd[1]: Reached target snapd.mounts-pre.target - Mounting snaps.
[ 18.794627] systemd[1]: Reached target veritysetup.target - Local Verity Protected Volumes.
[ 18.794811] systemd[1]: Listening on syslog.socket - Syslog Socket.
[ 18.794948] systemd[1]: Listening on systemd-fsckd.socket - fsck to fsckd communication Socket.
[ 18.795297] systemd[1]: Listening on systemd-initctl.socket - initctl Compatibility Named Pipe.
[ 18.795577] systemd[1]: Listening on systemd-journald-dev-log.socket - Journal Socket (/dev/log).
[ 18.795698] systemd[1]: Listening on systemd-journald.socket - Journal Socket.
[ 18.795944] systemd[1]: Listening on systemd-oomd.socket - Userspace Out-Of-Memory (OOM) Killer Socket.
[ 18.795967] systemd[1]: systemd-pcrextend.socket - TPM2 PCR Extension (Varlink) was skipped because of an unmet condition check (ConditionSecurity=measured-uki).
[ 18.817913] systemd[1]: Listening on systemd-udevd-control.socket - udev Control Socket.
[ 18.818072] systemd[1]: Listening on systemd-udevd-kernel.socket - udev Kernel Socket.
[ 18.850316] systemd[1]: Mounting dev-hugepages.mount - Huge Pages File System...
[ 18.853710] systemd[1]: Mounting dev-mqueue.mount - POSIX Message Queue File System...
[ 18.854754] systemd[1]: Mounting sys-kernel-debug.mount - Kernel Debug File System...
[ 18.859537] systemd[1]: Mounting sys-kernel-tracing.mount - Kernel Trace File System...
[ 18.882457] systemd[1]: Starting systemd-journald.service - Journal Service...
[ 18.899491] systemd[1]: Starting keyboard-setup.service - Set the console keyboard layout...
```

Dec 8 15:57  
marco12@Ubuntu-Evenort:~

```
[ 18.832497] systemd[1]: Starting systemd-journald.service - Journal Service...
[ 18.899494] systemd[1]: Starting keyboard-setup.service - Set the console keyboard layout...
[ 18.910352] systemd[1]: Starting kmod-static-nodes.service - Create List of Static Device Nodes...
[ 18.929308] systemd[1]: Starting modprobe@configfs.service - Load Kernel Module configfs...
[ 18.933410] systemd[1]: Starting modprobe@dm_mod.service - Load Kernel Module dm_mod...
[ 18.937414] systemd[1]: Starting modprobe@drm.service - Load Kernel Module drm...
[ 18.955719] systemd[1]: Starting modprobe@efi_pstore.service - Load Kernel Module efi_pstore...
[ 18.959327] systemd[1]: Starting modprobe@fuse.service - Load Kernel Module fuse...
[ 18.967404] systemd[1]: Starting modprobe@loop.service - Load Kernel Module loop...
[ 18.967574] systemd[1]: systemd-fsck-root.service - File System Check on Root Device was skipped because of an unmet condition check (ConditionPathExists=!/run/initramfs/fsck-root).
[ 19.027484] systemd[1]: Starting systemd-modules-load.service - Load Kernel Modules...
[ 19.027523] systemd[1]: systemd-pcmachine.service - TPM2 PCR Machine ID Measurement was skipped because of an unmet condition check (ConditionSecurity=measured-uki).
[ 19.030483] systemd[1]: Starting systemd-remount-fs.service - Remount Root and Kernel File Systems...
[ 19.030580] systemd[1]: systemd-tpm2-setup-early.service - TPM2 SRK Setup (Early) was skipped because of an unmet condition check (ConditionSecurity=measured-uki).
[ 19.038851] systemd[1]: Starting systemd-udev-trigger.service - Coldplug All udev Devices...
[ 19.041064] systemd[1]: Mounted dev-hugepages.mount - Huge Pages File System.
[ 19.053062] systemd[1]: Mounted dev-mqueue.mount - POSIX Message Queue File System.
[ 19.053261] systemd[1]: Mounted sys-kernel-debug.mount - Kernel Debug File System.
[ 19.053866] systemd[1]: Mounted sys-kernel-tracing.mount - Kernel Trace File System.
[ 19.055769] systemd[1]: Finished kmod-static-nodes.service - Create List of Static Device Nodes.
[ 19.056645] systemd[1]: modprobe@configfs.service: Deactivated successfully.
[ 19.058759] systemd[1]: Finished modprobe@configfs.service - Load Kernel Module configfs.
[ 19.061874] systemd[1]: modprobe@dm_mod.service: Deactivated successfully.
[ 19.065482] systemd[1]: Finished modprobe@dm_mod.service - Load Kernel Module dm_mod.
[ 19.065965] systemd[1]: modprobe@drm.service: Deactivated successfully.
[ 19.070483] systemd[1]: Finished modprobe@drm.service - Load Kernel Module drm.
[ 19.070951] systemd[1]: modprobe@fuse.service: Deactivated successfully.
[ 19.071160] systemd[1]: Finished modprobe@fuse.service - Load Kernel Module fuse.
[ 19.071398] systemd[1]: modprobe@loop.service: Deactivated successfully.
[ 19.071517] systemd[1]: Finished modprobe@loop.service - Load Kernel Module loop.
```

Dec 8 15:59

```
marco12@Ubuntu-Evenor: ~
[ 19.071517] systemd[1]: Finished modprobe@loop.service - Load Kernel Module loop.
[ 19.076525] systemd[1]: Mounting sys-fs-fuse-connections.mount - FUSE Control File System...
[ 19.077681] systemd[1]: Mounting sys-kernel-config.mount - Kernel Configuration File System...
[ 19.077759] systemd[1]: systemd-repart.service - Repartition Root Disk was skipped because no trigger condition check
s were met.
[ 19.082354] systemd[1]: Starting systemd-tmpfiles-setup-dev-early.service - Create Static Device Nodes in /dev gracefully...
[ 19.111454] systemd[1]: modprobe@efi_pstore.service: Deactivated successfully.
[ 19.112556] systemd[1]: Finished modprobe@efi_pstore.service - Load Kernel Module efi_pstore.
[ 19.112751] systemd[1]: Mounted sys-kernel-config.mount - Kernel Configuration File System.
[ 19.122823] systemd[1]: Mounted sys-fs-fuse-connections.mount - FUSE Control File System.
[ 19.264922] systemd-journald[246]: Collecting audit messages is disabled.
[ 19.302149] systemd[1]: Started systemd-journald.service - Journal Service.
[ 19.315830] EXT4-fs (sda2): re-mounted 75cfb377-45b4-4b04-87c3-27324f7927b8 r/w. Quota mode: none.
[ 19.707798] lp: driver loaded but no devices found
[ 19.757058] ppdev: user-space parallel port driver
[ 19.766414] systemd-journald[246]: Received client request to flush runtime journal.
[ 19.856165] Adding 2097148k swap on /swap.img. Priority:-2 extents:2 across:2359292k
[ 19.917757] systemd-journald[246]: File /var/log/journal/4a49b846eea24b93a935592f6770e4af/system.journal corrupted or
uncleanly shut down, renaming and replacing.
[ 20.994658] loop0: detected capacity change from 0 to 151376
[ 20.995390] loop1: detected capacity change from 0 to 8
[ 20.995704] loop2: detected capacity change from 0 to 502024
[ 20.996570] loop3: detected capacity change from 0 to 22800
[ 21.434974] loop4: detected capacity change from 0 to 1056784
[ 21.515931] loop5: detected capacity change from 0 to 187776
[ 21.575730] loop6: detected capacity change from 0 to 22176
[ 21.629563] loop7: detected capacity change from 0 to 100952
[ 21.785294] loop8: detected capacity change from 0 to 1152
[ 23.365818] audit: type=1400 audit(1765215758.932:2): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="1password" pid=354 comm="apparmor_parser"
[ 23.365828] audit: type=1400 audit(1765215758.932:3): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="Discord" pid=355 comm="apparmor_parser"
[ 23.452622] audit: type=1400 audit(1765215759.019:4): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="QtWebEngineProcess" pid=357 comm="apparmor_parser"
[ 23.488755] audit: type=1400 audit(1765215759.055:5): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="4D6F6E676F44420436F6D70617373 pid=356 comm="apparmor_parser"
[ 23.526946] audit: type=1400 audit(1765215759.093:6): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="balena-etcher" pid=361 comm="apparmor_parser"
[ 23.558441] audit: type=1400 audit(1765215759.125:7): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="brave" pid=364 comm="apparmor_parser"
[ 23.608496] audit: type=1400 audit(1765215759.174:8): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="buildah" pid=365 comm="apparmor_parser"
[ 23.625175] audit: type=1400 audit(1765215759.192:9): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="busybox" pid=366 comm="apparmor_parser"
[ 23.647509] audit: type=1400 audit(1765215759.214:10): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="ch-checkns" pid=369 comm="apparmor_parser"
[ 23.647768] audit: type=1400 audit(1765215759.214:11): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="cam" pid=367 comm="apparmor_parser"
[ 24.939657] vboxguest: host-version: 7.2.4r170995 0x8000000f
[ 24.942421] vbg_heartbeat_init: Setting up heartbeat to trigger every 2000 milliseconds
[ 24.944358] input: VirtualBox mouse integration as /devices/pci0000:00/0000:00:04.0/input/input7
[ 25.189402] piix4_smbus 0000:00:07.0: SMBus Host Controller at 0x4100, revision 0
[ 25.656797] RAPL PMU: API unit is 2^-32 Joules, 0 fixed counters, 10737418240 ms ovfl timer
[ 26.329236] cryptd: max_cpu_qlen set to 1000
[ 26.596523] vmwgfx 0000:00:02.0: vgaarb: deactivate vga console
[ 26.628701] Console: switching to colour dummy device 80x25
[ 26.631490] vmwgfx 0000:00:02.0: [drm] FIFO at 0x00000000e0000000 size is 2048 KiB
[ 26.631515] vmwgfx 0000:00:02.0: [drm] VRAM at 0x00000000e0000000 size is 131072 KiB
[ 26.631660] vmwgfx 0000:00:02.0: [drm] Running on SVGA version 2.
[ 26.631716] vmwgfx 0000:00:02.0: [drm] Capabilities: fast-copy cursor-bypass cursor-bypass-2 alpha-cursor
```

Dec 8 16:00

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marco12@Ubuntu-Evenor: ~
[ 21.785294] loop8: detected capacity change from 0 to 1152
[ 23.365818] audit: type=1400 audit(1765215758.932:2): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="1password" pid=354 comm="apparmor_parser"
[ 23.365828] audit: type=1400 audit(1765215758.932:3): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="Discord" pid=355 comm="apparmor_parser"
[ 23.452622] audit: type=1400 audit(1765215759.019:4): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="QtWebEngineProcess" pid=357 comm="apparmor_parser"
[ 23.488755] audit: type=1400 audit(1765215759.055:5): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="4D6F6E676F44420436F6D70617373 pid=356 comm="apparmor_parser"
[ 23.526946] audit: type=1400 audit(1765215759.093:6): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="balena-etcher" pid=361 comm="apparmor_parser"
[ 23.558441] audit: type=1400 audit(1765215759.125:7): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="brave" pid=364 comm="apparmor_parser"
[ 23.608496] audit: type=1400 audit(1765215759.174:8): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="buildah" pid=365 comm="apparmor_parser"
[ 23.625175] audit: type=1400 audit(1765215759.192:9): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="busybox" pid=366 comm="apparmor_parser"
[ 23.647509] audit: type=1400 audit(1765215759.214:10): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="ch-checkns" pid=369 comm="apparmor_parser"
[ 23.647768] audit: type=1400 audit(1765215759.214:11): apparmor="STATUS" operation="profile_load" profile="unconfined"
name="cam" pid=367 comm="apparmor_parser"
[ 24.939657] vboxguest: host-version: 7.2.4r170995 0x8000000f
[ 24.942421] vbg_heartbeat_init: Setting up heartbeat to trigger every 2000 milliseconds
[ 24.944358] input: VirtualBox mouse integration as /devices/pci0000:00/0000:00:04.0/input/input7
[ 25.189402] piix4_smbus 0000:00:07.0: SMBus Host Controller at 0x4100, revision 0
[ 25.656797] RAPL PMU: API unit is 2^-32 Joules, 0 fixed counters, 10737418240 ms ovfl timer
[ 26.329236] cryptd: max_cpu_qlen set to 1000
[ 26.596523] vmwgfx 0000:00:02.0: vgaarb: deactivate vga console
[ 26.628701] Console: switching to colour dummy device 80x25
[ 26.631490] vmwgfx 0000:00:02.0: [drm] FIFO at 0x00000000e0000000 size is 2048 KiB
[ 26.631515] vmwgfx 0000:00:02.0: [drm] VRAM at 0x00000000e0000000 size is 131072 KiB
[ 26.631660] vmwgfx 0000:00:02.0: [drm] Running on SVGA version 2.
[ 26.631716] vmwgfx 0000:00:02.0: [drm] Capabilities: fast-copy cursor-bypass cursor-bypass-2 alpha-cursor
```

```

Dec 8 16:02 marco12@Ubuntu-Evenor:~
[ 26.631515] VMWGFX 0000:00:02.0: [drm] VRAM at 0x00000000e0000000 size is 131072 KiB
[ 26.631660] VMWGFX 0000:00:02.0: [drm] Running on SVGA version 2.
[ 26.631716] VMWGFX 0000:00:02.0: [drm] Capabilities: rect copy, cursor, cursor bypass, cursor bypass 2, alpha cursor, 3D, extended fifo, pitchlock, irq mask, gmr, traces, gmr2, screen object 2, command buffers, command buffers 2, gboject, dx, cap2 register,
[ 26.631771] VMWGFX 0000:00:02.0: [drm] Capabilities2: grow otable, intra surface copy, dx2, gb memsize 2, otable ptde pth2, dx3,
[ 26.631776] VMWGFX 0000:00:02.0: [drm] *ERROR* VMWGFX seems to be running on an unsupported hypervisor.
[ 26.631783] VMWGFX 0000:00:02.0: [drm] *ERROR* This configuration is likely broken.
[ 26.631788] VMWGFX 0000:00:02.0: [drm] *ERROR* Please switch to a supported graphics device to avoid problems.
[ 26.631794] VMWGFX 0000:00:02.0: [drm] DMA map mode: Caching DMA mappings.
[ 26.633236] VMWGFX 0000:00:02.0: [drm] Legacy memory limits: VRAM = 131072 KiB, FIFO = 2048 KiB, surface = 393216 KiB
[ 26.633241] VMWGFX 0000:00:02.0: [drm] MOB limits: max mob size = 131072 KiB, max mob pages = 262144
[ 26.633244] VMWGFX 0000:00:02.0: [drm] Max GMR ids is 8192
[ 26.633246] VMWGFX 0000:00:02.0: [drm] Max number of GMR pages is 1048576
[ 26.633248] VMWGFX 0000:00:02.0: [drm] Maximum display memory size is 131072 KiB
[ 26.661632] VMWGFX 0000:00:02.0: [drm] Screen Target display unit initialized
[ 26.662146] VMWGFX 0000:00:02.0: [drm] Fifo max 0x00200000 min 0x00001000 cap 0x00000355
[ 26.662655] VMWGFX 0000:00:02.0: [drm] Using command buffers with DMA pool.
[ 26.662666] VMWGFX 0000:00:02.0: [drm] Available shader model: SM_5.
[ 26.665019] [drm] Initialized VMWGFX 2.20.0 for 0000:00:02.0 on minor 0
[ 26.667314] fbcon: VMWGFXDRMFB (fb0) is primary device
[ 26.668118] Console: switching to colour frame buffer device 160x50
[ 26.671055] VMWGFX 0000:00:02.0: [drm] fb0: VMWGFXDRMFB frame buffer device
[ 27.268411] AES CTR mode by8 optimization enabled
[ 28.443767] kauditd_printk_skb: 76 callbacks suppressed
[ 28.443771] audit: type=1400 audit(1765215764.010:88): apparmor="STATUS" operation="profile_load" profile="unconfined" name="trinity" pid=755 comm="apparmor_parser"
[ 28.486850] audit: type=1400 audit(1765215764.053:89): apparmor="STATUS" operation="profile_load" profile="unconfined" name="tup" pid=756 comm="apparmor_parser"
[ 28.679836] audit: type=1400 audit(1765215764.246:90): apparmor="STATUS" operation="profile_load" profile="unconfined" name="tuxedo-control-center" pid=757 comm="apparmor_parser"
[ 28.794572] snd_intel8x0 0000:00:05.0: allow list rate for 1028:0177 is 48000

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Dec 8 16:04 marco12@Ubuntu-Evenor:~
[ 29.240550] audit: type=1400 audit(1765215764.013:91): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_apt_news" pid=760 comm="apparmor_parser"
[ 29.240727] audit: type=1400 audit(1765215764.804:92): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache" pid=768 comm="apparmor_parser"
[ 29.240735] audit: type=1400 audit(1765215764.804:93): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache//apt_methods" pid=768 comm="apparmor_parser"
[ 29.240737] audit: type=1400 audit(1765215764.804:94): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache//apt_methods_gpgv" pid=768 comm="apparmor_parser"
[ 29.240738] audit: type=1400 audit(1765215764.804:95): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache//cloud_id" pid=768 comm="apparmor_parser"
[ 29.240740] audit: type=1400 audit(1765215764.804:96): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache//dpkg" pid=768 comm="apparmor_parser"
[ 29.240742] audit: type=1400 audit(1765215764.804:97): apparmor="STATUS" operation="profile_load" profile="unconfined" name="ubuntu_pro_esm_cache//ps" pid=768 comm="apparmor_parser"
[ 33.450568] kauditd_printk_skb: 55 callbacks suppressed
[ 33.450572] audit: type=1400 audit(1765215769.013:153): apparmor="STATUS" operation="profile_load" profile="unconfined" name="snap.snapd-desktop-integration.snapd-desktop-integration" pid=825 comm="apparmor_parser"
[ 35.326189] audit: type=1400 audit(1765215770.888:154): apparmor="STATUS" operation="profile_replace" info="same as current profile, skipping" profile="unconfined" name="rsyslogd" pid=869 comm="apparmor_parser"
[ 54.969725] NET: Registered PF_QIPCRTR protocol family
[ 62.465197] loop9: detected capacity change from 0 to 8
[ 62.728394] e1000: enp0s3 NIC Link is Up 1000 Mbps Full Duplex, Flow Control: RX
[ 65.955879] audit: type=1400 audit(1765215801.522:155): apparmor="DENIED" operation="capable" class="cap" profile="/usr/sbin/cupsd" pid=1166 comm="cupsd" capability=12 capname="net_admin"
[ 77.019225] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 79.132921] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 82.156226] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 85.781054] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 85.781175] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 88.910218] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 88.910312] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 96.601343] rfkill: input handler disabled
[ 100.161728] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.

```

Dec 8 16:05 marco12@Ubuntu-Evenor:~

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[ 96.601343] rfkill: input handler disabled
[ 100.161728] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 100.162437] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 105.303115] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 105.303191] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 105.837643] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 105.837710] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 113.037837] clocksource: Long readout interval, skipping watchdog check: cs_nsec: 1313573756 wd_nsec: 1313573021
[ 113.927221] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 115.916011] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 125.263794] clocksource: Long readout interval, skipping watchdog check: cs_nsec: 3079043471 wd_nsec: 3079042030
[ 132.628358] systemd-journald[246]: File /var/log/journal/4a49b846eea24b93a935592f6770e4af/user-1000.journal corrupted
or uncleanly shut down, renaming and replacing.
[ 133.640101] rfkill: input handler enabled
[ 136.092674] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 136.092724] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 138.838249] rfkill: input handler disabled
[ 143.022123] /dev/sr0: Can't open blockdev
[ 143.033594] ISO 9660 Extensions: Microsoft Joliet Level 3
[ 143.079563] ISO 9660 Extensions: RRIP_1991A
[ 184.452682] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 11 times, consider switching to WQ_UNBOUND
[ 220.743298] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 334.519090] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 11 times, consider switching to WQ_UNBOUND
[ 344.903081] workqueue: ata_sff_pio_task hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 357.391074] workqueue: ata_sff_pio_task hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 371.937253] workqueue: ata_sff_pio_task hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 493.245353] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 493.245408] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 583.620932] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 19 times, consider switching to WQ_UNBOUND
[ 647.813558] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 19 times, consider switching to WQ_UNBOUND
[ 647.888095] workqueue: blk_mq_requeue_work hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 3069.586298] workqueue: blk_mq_requeue_work hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 3598.518236] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3598.518436] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.649861] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.650006] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3666.264034] audit: type=1400 audit(1765219401.832:156): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/proc/sys/vm/max_map_count" pid=3515 comm="snap-store" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.118943] audit: type=1400 audit(1765219403.685:157): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/lib/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.182724] audit: type=1400 audit(1765219403.749:158): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.237489] audit: type=1400 audit(1765219403.805:159): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/app-info/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3695.395833] traps: snap-store[3515] general protection fault ip:7e86e53cef9 sp:7ffdec57b810 error:0 in libflutter_linux_gtk.so[440fd9,7e86e5381000+9e000]
[ 3980.083918] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 35 times, consider switching to WQ_UNBOUND
[ 6670.826739] workqueue: blk_mq_requeue_work hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 7001.260603] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 67 times, consider switching to WQ_UNBOUND
[ 7156.938777] workqueue: ata_sff_pio_task hogged CPU for >10000us 11 times, consider switching to WQ_UNBOUND
[ 8293.538496] audit: type=1400 audit(1765224029.108:160): apparmor="DENIED" operation="open" class="file" profile="snap.firmware-updater.firmware-notifier" name="/proc/sys/vm/max_map_count" pid=4224 comm="firmware-notif" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
marco12@Ubuntu-Evenor:~$ sudo dmesg
```

Dec 8 16:06 marco12@Ubuntu-Evenor:~

```
[ 493.245353] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 493.245408] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 583.620932] workqueue: e1000_watchdog [e1000] hogged CPU for >10000us 19 times, consider switching to WQ_UNBOUND
[ 647.813558] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 19 times, consider switching to WQ_UNBOUND
[ 647.888095] workqueue: blk_mq_requeue_work hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 3069.586298] workqueue: blk_mq_requeue_work hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 3598.518236] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3598.518436] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.649861] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.650006] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3666.264034] audit: type=1400 audit(1765219401.832:156): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/proc/sys/vm/max_map_count" pid=3515 comm="snap-store" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.118943] audit: type=1400 audit(1765219403.685:157): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/lib/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.182724] audit: type=1400 audit(1765219403.749:158): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.237489] audit: type=1400 audit(1765219403.805:159): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/app-info/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3695.395833] traps: snap-store[3515] general protection fault ip:7e86e53cef9 sp:7ffdec57b810 error:0 in libflutter_linux_gtk.so[440fd9,7e86e5381000+9e000]
[ 3980.083918] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 35 times, consider switching to WQ_UNBOUND
[ 6670.826739] workqueue: blk_mq_requeue_work hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 7001.260603] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 67 times, consider switching to WQ_UNBOUND
[ 7156.938777] workqueue: ata_sff_pio_task hogged CPU for >10000us 11 times, consider switching to WQ_UNBOUND
[ 8293.538496] audit: type=1400 audit(1765224029.108:160): apparmor="DENIED" operation="open" class="file" profile="snap.firmware-updater.firmware-notifier" name="/proc/sys/vm/max_map_count" pid=4224 comm="firmware-notif" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
marco12@Ubuntu-Evenor:~$ sudo dmesg
```

- Dans les images (9,10,11,12,13,14,15,16,17,18,19 et 20), j'ai utilisé la commande **sudo dmesg** pour trouver l'informations sur le noyau du système.

The screenshot shows a terminal window with a dark background and light-colored text. At the top, it displays the date and time: Dec 8 16:14. The title bar shows the user's name: marco12@Ubuntu-Evenort:~. The terminal window contains several lines of log output from the kernel and audit logs, followed by the results of the **pwd** and **hostname** commands.

```
[ 647.888095] workqueue: blk_mq_requeue_work hogged CPU for >10000us 4 times, consider switching to WQ_UNBOUND
[ 3069.586298] workqueue: blk_mq_requeue_work hogged CPU for >10000us 5 times, consider switching to WQ_UNBOUND
[ 3598.518236] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3598.518436] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.649861] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3665.650006] [drm:vmw_msg_ioctl [vmwgfx]] *ERROR* Failed to open channel.
[ 3666.264034] audit: type=1400 audit(1765219401.832:156): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/proc/sys/vm/max_map_count" pid=3515 comm="snap-store" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.118943] audit: type=1400 audit(1765219403.685:157): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/lib/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.182724] audit: type=1400 audit(1765219403.749:158): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/swcatalog/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3668.237489] audit: type=1400 audit(1765219403.805:159): apparmor="DENIED" operation="open" class="file" profile="snap.snap-store.snap-store" name="/var/cache/app-info/" pid=3515 comm="DartWorker" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
[ 3695.395833] traps: snap-store[3515] general protection fault ip:7e86e53cefd9 sp:7ffdec57b810 error:0 in libflutter_libraries_gtk.so[440fd9,7e86e5381000+9e9000]
[ 3980.083918] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 35 times, consider switching to WQ_UNBOUND
[ 6670.826739] workqueue: blk_mq_requeue_work hogged CPU for >10000us 7 times, consider switching to WQ_UNBOUND
[ 7001.260603] workqueue: blk_mq_run_work_fn hogged CPU for >10000us 67 times, consider switching to WQ_UNBOUND
[ 7156.938777] workqueue: ata_sff_pio_task hogged CPU for >10000us 11 times, consider switching to WQ_UNBOUND
[ 8293.538496] audit: type=1400 audit(1765224029.108:160): apparmor="DENIED" operation="open" class="file" profile="snap.firmware-updater.firmware-notifier" name="/proc/sys/vm/max_map_count" pid=4224 comm="firmware-notifi" requested_mask="r" denied_mask="r" fsuid=1000 ouid=0
marco12@Ubuntu-Evenort:~$ pwd
/home/marco12
marco12@Ubuntu-Evenort:~$ hostname
Ubuntu-Evenort
marco12@Ubuntu-Evenort:~$
```

- Sur cette image, j'ai utilisé la commande **pwd** et **hostname** pour afficher le nom d'utilisateur et le nom de la machine.

## Partie 5 – Gestion des processus et mémoire

```

Dec 8 16:26
marco12@Ubuntu-Evenort:~$ ps
  PID TTY      TIME CMD
2977 pts/0    00:00:00 bash
4787 pts/0    00:00:00 ps
marco12@Ubuntu-Evenort:~$ top
top - 16:26:00 up 3:43, 1 user, load average: 0.01, 0.02, 0.04
Tasks: 192 total, 1 running, 191 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.1 us, 0.2 sy, 0.0 ni, 99.1 id, 0.2 wa, 0.0 hi, 0.3 si, 0.0 st
MiB Mem : 1968.4 total, 182.7 free, 1002.0 used, 973.0 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used, 966.4 avail Mem

PID USER      PR  NI    VIRT    RES    SHR   S %CPU %MEM TIME+ COMMAND
2007 marco12  20   0 3861604 282412 129100 S  0.7 14.0 5:07.32 gnome-shell
4788 marco12  20   0 23184 5888 3712 R  0.5  0.3 0:01.21 top
1406 root     20   0 326244 9848 7544 S  0.2  0.5 0:09.90 upowerd
2970 marco12  20   0 569048 58000 44308 S  0.2  2.9 1:05.96 gnome-terminal-
4781 root     20   0     0     0     0 I  0.2  0.0 0:01.07 kworker/0:1-events
1 root       20   0 23100 13856 9376 S  0.0  0.7 0:06.81 systemd
2 root       20   0     0     0     0 S  0.0  0.0 0:00.09 kthreadd
3 root       20   0     0     0     0 S  0.0  0.0 0:00.00 pool_workqueue_release
4 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-rcu_gp
5 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-sync_wq
6 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-kvfree_rcu_reclaim
7 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-slub_flushwq
8 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-netsn
12 root      20   0     0     0     0 I  0.0  0.0 0:00.00 kworker/u8:0-ipv6_addrconf
13 root      0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-mm_percpu_wq
14 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_kthread
15 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_rude_kthread
16 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_trace_kthread
17 root      20   0     0     0     0 S  0.0  0.0 0:05.88 ksoftirqd/0

```

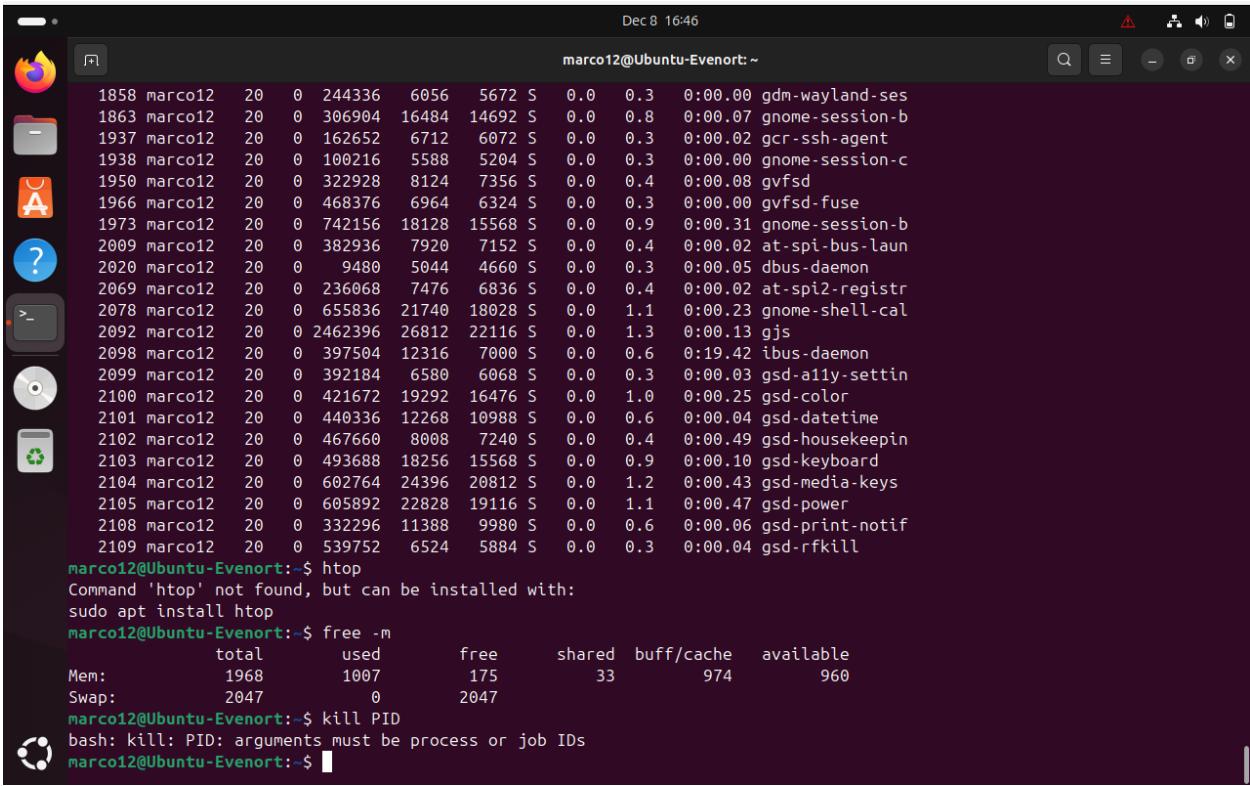
```

Dec 8 16:32
marco12@Ubuntu-Evenort:~$ top
top - 16:32:07 up 3:49, 1 user, load average: 0.18, 0.08, 0.05
Tasks: 198 total, 2 running, 196 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.2 us, 0.3 sy, 0.0 ni, 99.0 id, 0.0 wa, 0.0 hi, 0.5 si, 0.0 st
MiB Mem : 1968.4 total, 181.6 free, 1002.7 used, 973.4 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used, 965.6 avail Mem

PID USER      PR  NI    VIRT    RES    SHR   S %CPU %MEM TIME+ COMMAND
2007 marco12  20   0 3868780 283288 128904 S  0.7 14.1 5:21.83 gnome-shell
2970 marco12  20   0 569288 58128 44308 S  0.7 2.9 1:07.96 gnome-terminal-
4788 marco12  20   0 23184 5888 3712 R  0.7  0.3 0:02.77 top
40 root       20   0     0     0     0 S  0.3  0.0 0:02.76 kcompactd0
4781 root     20   0     0     0     0 I  0.3  0.0 0:02.02 kworker/0:1-events
1 root       20   0 23100 13856 9376 S  0.0  0.7 0:06.93 systemd
2 root       20   0     0     0     0 S  0.0  0.0 0:00.10 kthreadd
3 root       20   0     0     0     0 S  0.0  0.0 0:00.00 pool_workqueue_release
4 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-rcu_gp
5 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-sync_wq
6 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-kvfree_rcu_reclaim
7 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-slub_flushwq
8 root       0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-netsn
12 root      20   0     0     0     0 I  0.0  0.0 0:00.00 kworker/u8:0-ipv6_addrconf
13 root      0 -20     0     0     0 I  0.0  0.0 0:00.00 kworker/R-mm_percpu_wq
14 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_kthread
15 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_rude_kthread
16 root      20   0     0     0     0 I  0.0  0.0 0:00.00 rcu_tasks_trace_kthread
17 root      20   0     0     0     0 S  0.0  0.0 0:06.00 ksoftirqd/0
18 root      20   0     0     0     0 I  0.0  0.0 0:04.96 rcu_prempt
19 root      20   0     0     0     0 S  0.0  0.0 0:00.00 rcu_exp_par_gp_kthread_worker/0
20 root      20   0     0     0     0 S  0.0  0.0 0:00.07 rcu_exp_gp_kthread_worker
21 root      rt   0     0     0     0 S  0.0  0.0 0:00.31 migration/0
22 root      -51   0     0     0     0 S  0.0  0.0 0:00.00 idle_inject/0
23 root      20   0     0     0     0 S  0.0  0.0 0:00.00 cpuhp/0

```

- Sur ces deux images, j'ai utilisé **ps** et **top** pour voir les processus en cours et en temps réel.



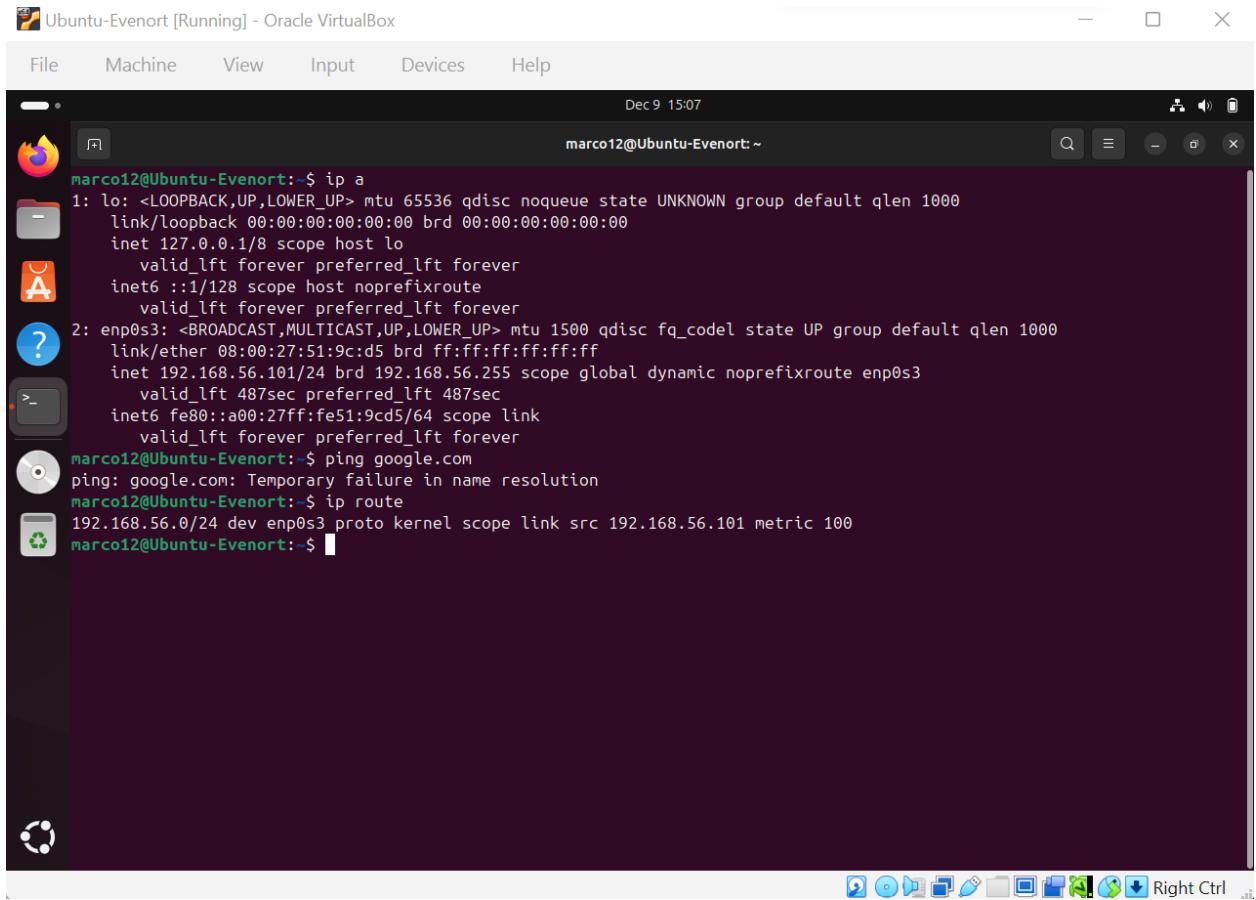
The screenshot shows a terminal window titled "marco12@Ubuntu-Evenort:~". The window contains the following command-line session:

```

Dec 8 16:46
marco12@Ubuntu-Evenort:~ [+] Search Help Close
1858 marco12 20 0 244336 6056 5672 S 0.0 0.3 0:00.00 gdm-wayland-ses
1863 marco12 20 0 306904 16484 14692 S 0.0 0.8 0:00.07 gnome-session-b
1937 marco12 20 0 162652 6712 6072 S 0.0 0.3 0:00.02 gcr-ssh-agent
1938 marco12 20 0 100216 5588 5204 S 0.0 0.3 0:00.00 gnome-session-c
1950 marco12 20 0 322928 8124 7356 S 0.0 0.4 0:00.08 gvfsd
1966 marco12 20 0 468376 6964 6324 S 0.0 0.3 0:00.00 gvfsd-fuse
1973 marco12 20 0 742156 18128 15568 S 0.0 0.9 0:00.31 gnome-session-b
2009 marco12 20 0 382936 7920 7152 S 0.0 0.4 0:00.02 at-spi-bus-laun
2020 marco12 20 0 9480 5044 4660 S 0.0 0.3 0:00.05 dbus-daemon
2069 marco12 20 0 236068 7476 6836 S 0.0 0.4 0:00.02 at-spi2-registr
2078 marco12 20 0 655836 21740 18028 S 0.0 1.1 0:00.23 gnome-shell-cal
2092 marco12 20 0 2462396 26812 22116 S 0.0 1.3 0:00.13 gjs
2098 marco12 20 0 397504 12316 7000 S 0.0 0.6 0:19.42 ibus-daemon
2099 marco12 20 0 392184 6580 6068 S 0.0 0.3 0:00.03 gsd-a11y-settin
2100 marco12 20 0 421672 19292 16476 S 0.0 1.0 0:00.25 gsd-color
2101 marco12 20 0 440336 12268 10988 S 0.0 0.6 0:00.04 gsd-datetime
2102 marco12 20 0 467660 8008 7240 S 0.0 0.4 0:00.49 gsd-housekeepin
2103 marco12 20 0 493688 18256 15568 S 0.0 0.9 0:00.10 gsd-keyboard
2104 marco12 20 0 602764 24396 20812 S 0.0 1.2 0:00.43 gsd-media-keys
2105 marco12 20 0 605892 22828 19116 S 0.0 1.1 0:00.47 gsd-power
2108 marco12 20 0 332296 11388 9980 S 0.0 0.6 0:00.06 gsd-print-notif
2109 marco12 20 0 539752 6524 5884 S 0.0 0.3 0:00.04 gsd-rfkill
marco12@Ubuntu-Evenort:~ $ htop
Command 'htop' not found, but can be installed with:
sudo apt install htop
marco12@Ubuntu-Evenort:~ $ free -m
              total        used        free      shared  buff/cache   available
Mem:       1968       1007       175         33       974       960
Swap:      2047          0       2047
marco12@Ubuntu-Evenort:~ $ kill PID
bash: kill: PID: arguments must be process or job IDs
marco12@Ubuntu-Evenort:~ $ 
```

- Sur cette image, J'ai utilisé la commande **free -m** pour afficher l'utilisateur de la mémoire et commande **kill PID** pour arrêter un processus.

## Partie 6 – Gestion du réseau

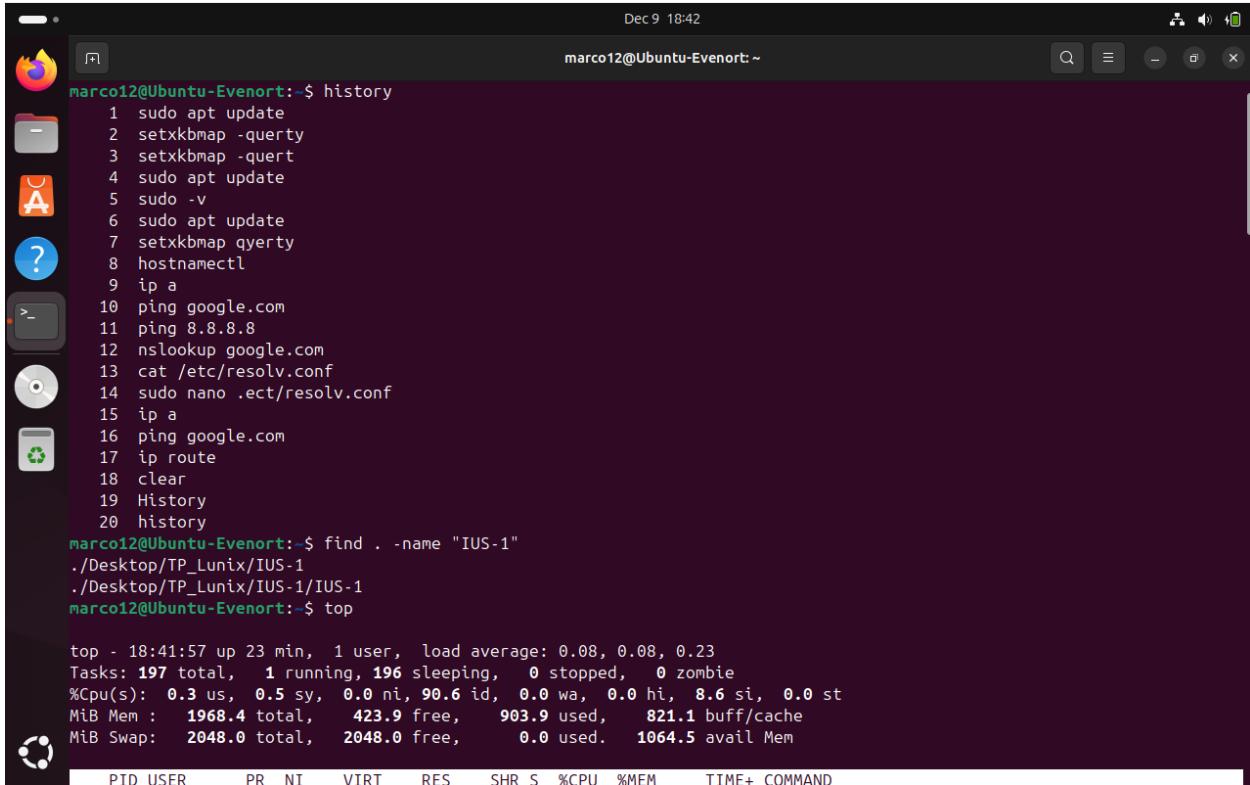


The screenshot shows a terminal window titled "Ubuntu-Evenort [Running] - Oracle VirtualBox". The terminal displays the following command-line session:

```
marco12@Ubuntu-Evenort:~$ 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 noprefixroute
            valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:0e:27:51:9c:d5 brd ff:ff:ff:ff:ff:ff
        inet 192.168.56.101/24 brd 192.168.56.255 scope global dynamic noprefixroute enp0s3
            valid_lft 487sec preferred_lft 487sec
        inet6 fe80::a0e:27ff:fe51:9cd5/64 scope link
            valid_lft forever preferred_lft forever
marco12@Ubuntu-Evenort:~$ ping google.com
ping: google.com: Temporary failure in name resolution
marco12@Ubuntu-Evenort:~$ ip route
192.168.56.0/24 dev enp0s3 proto kernel scope link src 192.168.56.101 metric 100
marco12@Ubuntu-Evenort:~$
```

- Sur cette image j'ai affiche l'adresse IP du système a l'aide de commande **ip a** et pour tester la connectivité du réseau la commande **ping google.com** (résolution faible sur mon linux). J'ai tape la commande **ip route** pour afficher la table de routage.

## Partie 7 – Utilitaires et outils pratiques



The screenshot shows a Linux desktop environment with a terminal window open. The terminal window has a dark background and contains the following text:

```
Dec 9 18:42  
marco12@Ubuntu-Evenort:~$ history  
1 sudo apt update  
2 setxkbmap -query  
3 setxkbmap -query  
4 sudo apt update  
5 sudo -v  
6 sudo apt update  
7 setxkbmap qerty  
8 hostnamectl  
9 ip a  
10 ping google.com  
11 ping 8.8.8.8  
12 nslookup google.com  
13 cat /etc/resolv.conf  
14 sudo nano /etc/resolv.conf  
15 ip a  
16 ping google.com  
17 ip route  
18 clear  
19 History  
20 history  
marco12@Ubuntu-Evenort:~$ find . -name "IUS-1"  
.~/Desktop/TP_Linux/IUS-1  
.~/Desktop/TP_Linux/IUS-1/IUS-1  
marco12@Ubuntu-Evenort:~$ top  
top - 18:41:57 up 23 min, 1 user, load average: 0.08, 0.08, 0.23  
Tasks: 197 total, 1 running, 196 sleeping, 0 stopped, 0 zombie  
%Cpu(s): 0.3 us, 0.5 sy, 0.0 ni, 90.6 id, 0.0 wa, 0.0 hi, 8.6 si, 0.0 st  
MiB Mem : 1968.4 total, 423.9 free, 903.9 used, 821.1 buff/cache  
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1064.5 avail Mem  
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
```

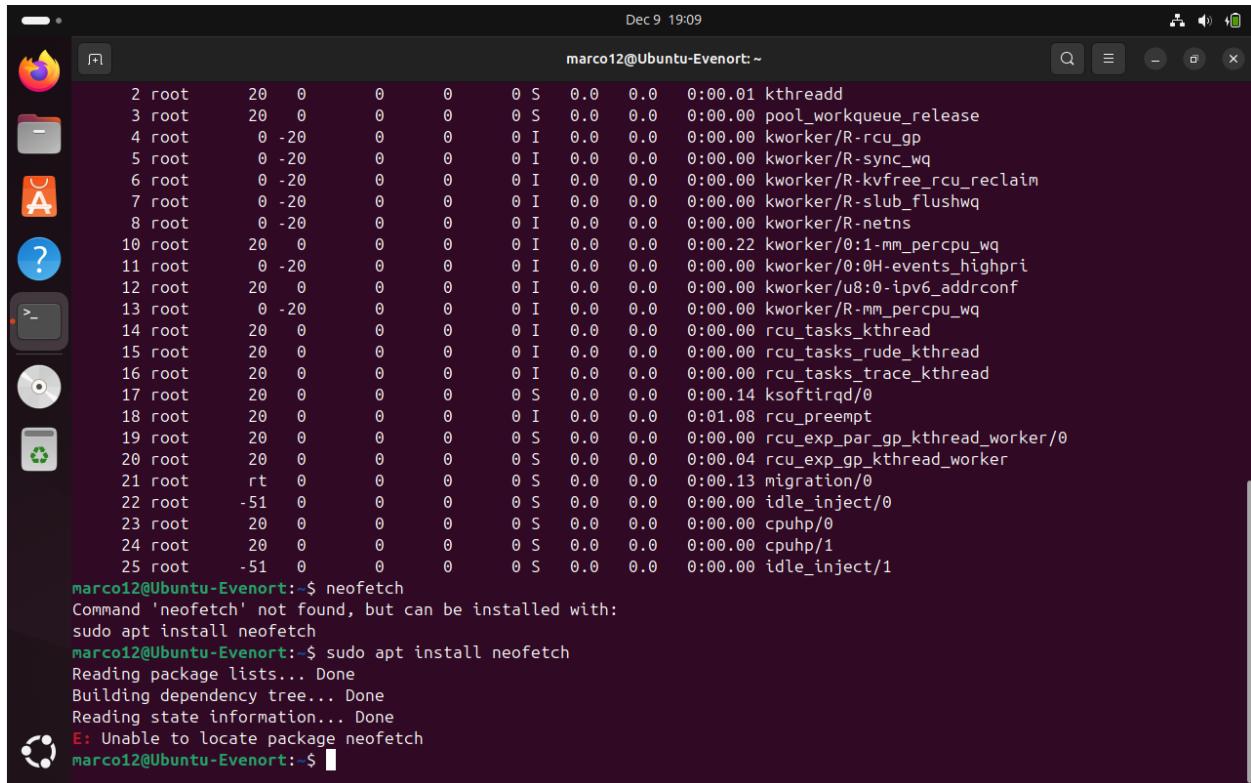
```

Dec 9 18:48
marco12@Ubuntu-Evenor:~ MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1064.5 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
1979 marco12 20 0 3851152 268124 129168 S 1.3 13.3 0:28.21 gnome-shell
2916 marco12 20 0 563856 54200 43316 S 0.7 2.7 0:02.94 gnome-terminal-
853 root 20 0 1848692 41084 24888 S 0.3 2.0 0:03.23 snapd
2312 marco12 20 0 398044 7876 6980 S 0.3 0.4 0:00.27 gvfs-afc-volume
3115 marco12 20 0 23184 5888 3712 R 0.3 0.3 0:00.15 top
1 root 20 0 23088 13972 9364 S 0.0 0.7 0:02.66 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kthreadd
3 root 20 0 0 0 0 S 0.0 0.0 0:00.00 pool_workqueue_release
4 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-rcu_gp
top - 18:42:01 up 23 min, 1 user, load average: 0.07, 0.08, 0.23
Tasks: 197 total, 3 running, 194 sleeping, 0 stopped, 0 zombie
%Cpu(s): 1.0 us, 2.0 sy, 0.0 ni, 89.0 id, 0.0 wa, 0.0 hi, 8.0 si, 0.0 st
MiB Mem : 1968.4 total, 423.9 free, 903.9 used, 821.1 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1064.5 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
1979 marco12 20 0 3851152 268124 129168 R 5.7 13.3 0:28.35 gnome-shell
2916 marco12 20 0 564000 54200 43316 R 3.8 2.7 0:03.01 gnome-terminal-
3115 marco12 20 0 23184 5888 3712 R 3.8 0.3 0:00.18 top
1 root 20 0 23088 13972 9364 S 0.0 0.7 0:02.66 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kthreadd
top - 18:42:07 up 23 min, 1 user, load average: 0.15, 0.09, 0.24
Tasks: 206 total, 2 running, 204 sleeping, 0 stopped, 0 zombie
%Cpu(s): 8.6 us, 21.0 sy, 0.0 ni, 66.7 id, 0.0 wa, 0.0 hi, 3.8 si, 0.0 st
MiB Mem : 1968.4 total, 436.1 free, 891.7 used, 821.2 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1076.7 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
1979 marco12 20 0 3845188 264540 125584 S 45.2 13.1 0:29.79 gnome-shell
Dec 9 18:50
marco12@Ubuntu-Evenor:~ MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1075.9 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
1979 marco12 20 0 3845188 264540 125584 S 45.2 13.1 0:29.79 gnome-shell
2916 marco12 20 0 560548 50536 39652 R 14.5 2.5 0:03.36 gnome-terminal-
482 root -51 0 0 0 0 S 3.2 0.0 0:00.34 irq/18-vmwgfx
3039 root 20 0 0 0 0 I 1.6 0.0 0:00.16 kworker/u9:0-events_unbound
1 root 20 0 23088 13972 9364 S 0.0 0.7 0:02.66 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kthreadd
3 root 20 0 0 0 0 S 0.0 0.0 0:00.00 pool_workqueue_release
4 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-rcu_gp
5 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-sync_wq
6 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-kvfree_rcu_reclaim
7 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-slub_flushwq
8 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/R-netns
top - 18:42:22 up 23 min, 1 user, load average: 0.26, 0.12, 0.24
Tasks: 207 total, 1 running, 206 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.5 us, 1.0 sy, 0.0 ni, 90.1 id, 0.0 wa, 0.0 hi, 8.4 si, 0.0 st
MiB Mem : 1968.4 total, 435.2 free, 892.4 used, 821.3 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 1075.9 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
1979 marco12 20 0 3845188 264540 125584 S 45.2 13.1 0:29.79 gnome-shell

```

- Sur cette image j'ai vidé l'écran du terminal à l'aide de la commande **clear**. et la commande **history** pour afficher l'historicité sur la machine. J'ai utilisé la commande **find . -name** pour rechercher un fichier par nom. Ensuite J'ai utilisé la commande **top** pour surveiller les performances en temps réel. Voir page 25 et 26

## 5)



The screenshot shows a terminal window with the following content:

```
Dec 9 19:09
marco12@Ubuntu-Evenort:~
```

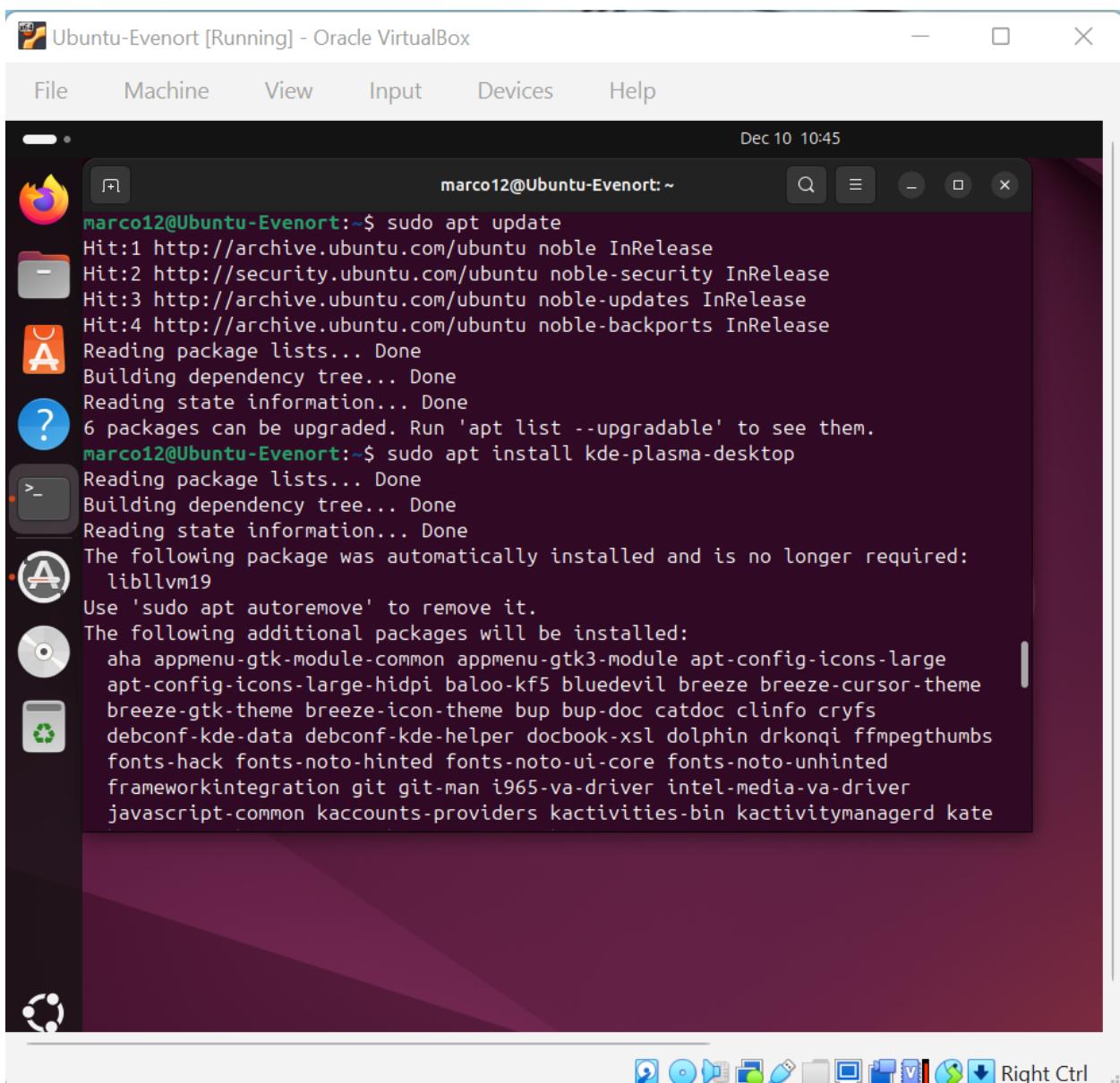
Process ID	User	CPU Usage (%)	Memory Usage (MB)	Memory Type	Memory State	Memory Size (MB)	Memory Speed (MHz)	Memory Type	Memory State	Memory Size (MB)	Memory Speed (MHz)
2	root	20	0	0	S	0.0	0.0	0:00.01	kthreadd		
3	root	20	0	0	S	0.0	0.0	0:00.00	pool_workqueue_release		
4	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-rcu_gp		
5	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-sync_wq		
6	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-kvfree_rcu_reclaim		
7	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-slub_flushwq		
8	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-netns		
10	root	20	0	0	I	0.0	0.0	0:00.22	kworker/0:1-mm_percpu_wq		
11	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/0:OH-events_highpri		
12	root	20	0	0	I	0.0	0.0	0:00.00	kworker/u8:0-ipv6_addrconf		
13	root	0	-20	0	I	0.0	0.0	0:00.00	kworker/R-mm_percpu_wq		
14	root	20	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread		
15	root	20	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread		
16	root	20	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread		
17	root	20	0	0	S	0.0	0.0	0:00.14	ksoftirqd/0		
18	root	20	0	0	I	0.0	0.0	0:01.08	rcu_preempt		
19	root	20	0	0	S	0.0	0.0	0:00.00	rcu_exp_par_gp_kthread_worker/0		
20	root	20	0	0	S	0.0	0.0	0:00.04	rcu_exp_gp_kthread_worker		
21	root	rt	0	0	S	0.0	0.0	0:00.13	migration/0		
22	root	-51	0	0	S	0.0	0.0	0:00.00	idle_inject/0		
23	root	20	0	0	S	0.0	0.0	0:00.00	cpuhp/0		
24	root	20	0	0	S	0.0	0.0	0:00.00	cpuhp/1		
25	root	-51	0	0	S	0.0	0.0	0:00.00	idle_inject/1		

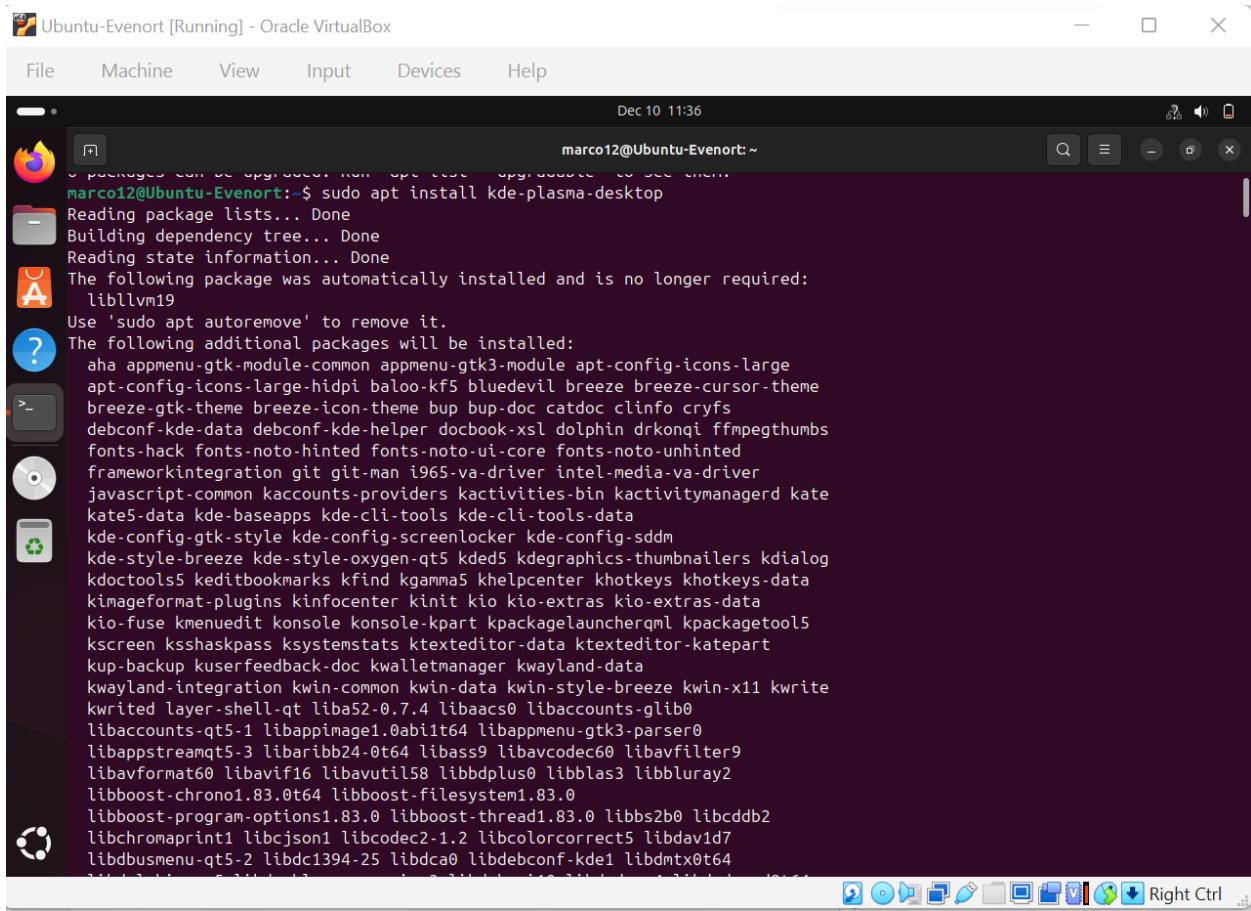
```
marco12@Ubuntu-Evenort:~$ neofetch
Command 'neofetch' not found, but can be installed with:
sudo apt install neofetch
marco12@Ubuntu-Evenort:~$ sudo apt install neofetch
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package neofetch
marco12@Ubuntu-Evenort:~$
```

- Dans cette image j'ai utilisé la commande **neofetch** pour surveiller la performance du système en temps réel.

# Partie 8 – Installation Environnements de bureau

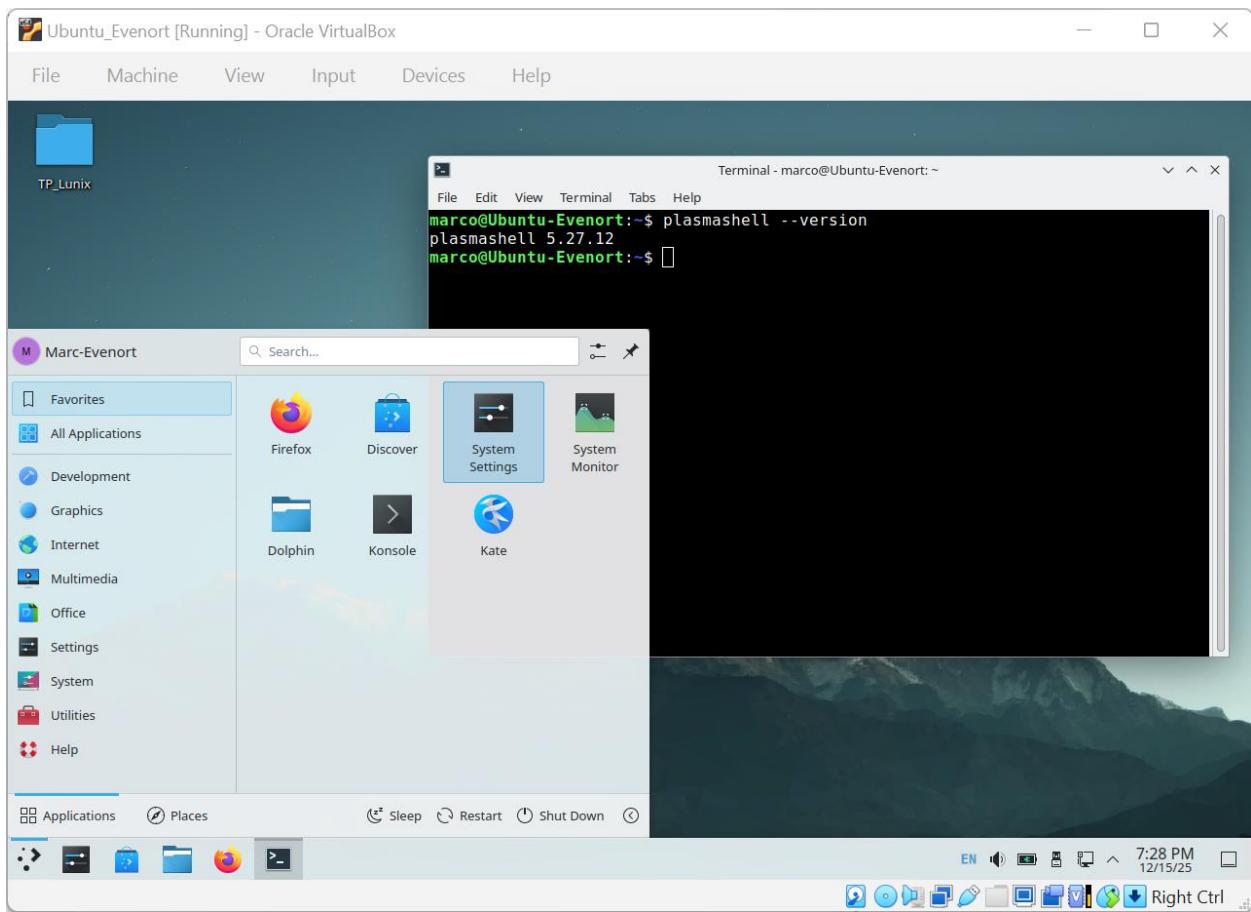
## A. KDE Plasma





```
Ubuntu-Evenort [Running] - Oracle VirtualBox
File Machine View Input Devices Help
Dec 10 11:36
marco12@Ubuntu-Evenort:~$ sudo apt install kde-plasma-desktop
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  liblvm19
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  aha appmenu-gtk-module-common appmenu-gtk3-module apt-config-icons-large
  apt-config-icons-large-hidpi baloo-kf5 bluedevil breeze breeze-cursor-theme
  breeze-gtk-theme breeze-icon-theme bup bup-doc catdoc clinfo cryfs
  debconf-kde-data debconf-kde-helper docbook-xsl dolphin drkonqi ffmpegthumbs
  fonts-hack fonts-noto-hinted fonts-noto-ui-core fonts-noto-unhinted
  frameworkintegration git git-man i965-va-driver intel-media-va-driver
  javascript-common kaccounts-providers kactivities-bin kactivitymanagerd kate
  kate5-data kde-baseapps kde-cli-tools kde-cli-tools-data
  kde-config-gtk-style kde-config-screenlocker kde-config-sddm
  kde-style-breeze kde-style-oxygen-qt5 kdedit5 kdegraphics-thumbnailers kdialog
  kdoctools5 keditbookmarks kfind kgamma5 khelcenter khotkeys khotkeys-data
  kimageformat-plugins kinfocenter kinit kio kio-extras kio-extras-data
  kio-fuse kmenedit konsole kpart kpackagelauncherqml kpackagetool5
  kscreencapture ksshaskpass ksystemstats ktexteditor ktexteditor-katepart
  kup-backup kuserfeedback-doc kwalletmanager kwayland-data
  kwayland-integration kwin-common kwin-data kwin-style-breeze kwin-x11 kwrite
  kwrited layer-shell-qt liba52-0.7.4 libaacs0 libaccounts-glib0
  libaccounts-qt5-1 libappimage1.0abi1t64 libappmenu-gtk3-parser0
  libappstreamqt5-3 libaribb24-0t64 libass9 libavcodec60 libavfilter9
  libavformat60 libavif16 libavutil58 libbdplus0 libblas3 libbluray2
  libboost-chrono1.83.0t64 libboost-fs1.83.0
  libboost-program-options1.83.0 libboost-thread1.83.0 libbs2b0 libcddb2
  libchromaprint1 libcurl4 libcurl4-openssl4 libcurl4-openssl4 libdav1d7
  libibusmenu-qt5-2 libdc1394-25 libdca0 libdebconf-kde1 libdmtx0t64
```

- J'ai utilisé la commande **sudo apt update** pour la mise à jour de la machine puis **sudo apt install kde-plasma-desktop** pour installer kde. *Voir la page 28...*



- Cette image nous montre l'interface de **kde-plasma-desktop** après l'installation. et ensuite j'ai vérifiée la version de Kde.

## **2. Quelles sont les principales caractéristiques de KDE (ergonomie, consommation, design)?**

### **A) Principales caractéristiques de KDE Plasma**

#### **1. Ergonomie :**

- Interface très intuitive et personnalisable.
- Tableaux de bord, menus, widgets et raccourcis configurables selon les préférences de l'utilisateur.
- Gestion avancée des fenêtres et des bureaux virtuels.

#### **2. Consommation :**

- Plus gourmande en ressources (CPU et RAM) que des environnements légers comme XFCE.
- Convient aux ordinateurs récents ou performants, mais reste optimisée pour les tâches courantes.

#### **3. Design :**

- Esthétique moderne avec effets visuels et animations.
- Thèmes, icônes et couleurs personnalisables.
- Apparence proche des systèmes commerciaux tout en restant libre et open-source.

### **En résumé**

KDE (Plasma) est un environnement de bureau complet, hautement personnalisable et efficace, qui propose une alternative puissante et respectueuse de la vie privée aux autres systèmes d'exploitation, en mettant l'accent sur la liberté, la cohérence et la performance.

## B. XFCE

### 1. Quelle différence existe-t-il entre XFCE et KDE Plasma?

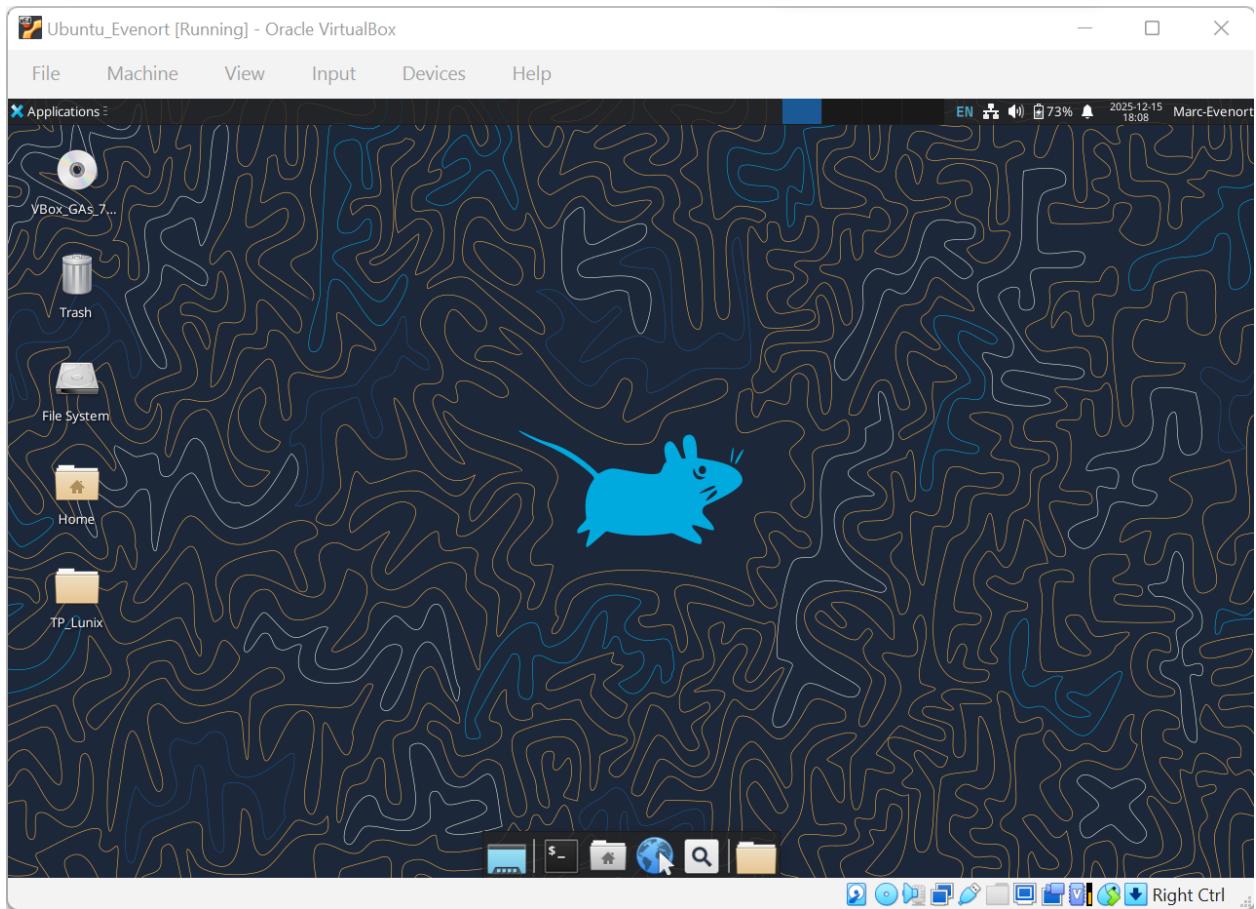
#### Xfce:

- **Performance:** Très léger, démarre vite, consomme peu de RAM et CPU, idéal pour le vieux matériel.
- **Apparence:** Interface classique, simple et propre, style tableau de bord traditionnel.
- **Personnalisation:** Très personnalisable (thèmes, icônes, disposition) mais peut sembler moins moderne par défaut.
- **Idéal pour:** Ordinateurs anciens, utilisateurs recherchant rapidité et simplicité

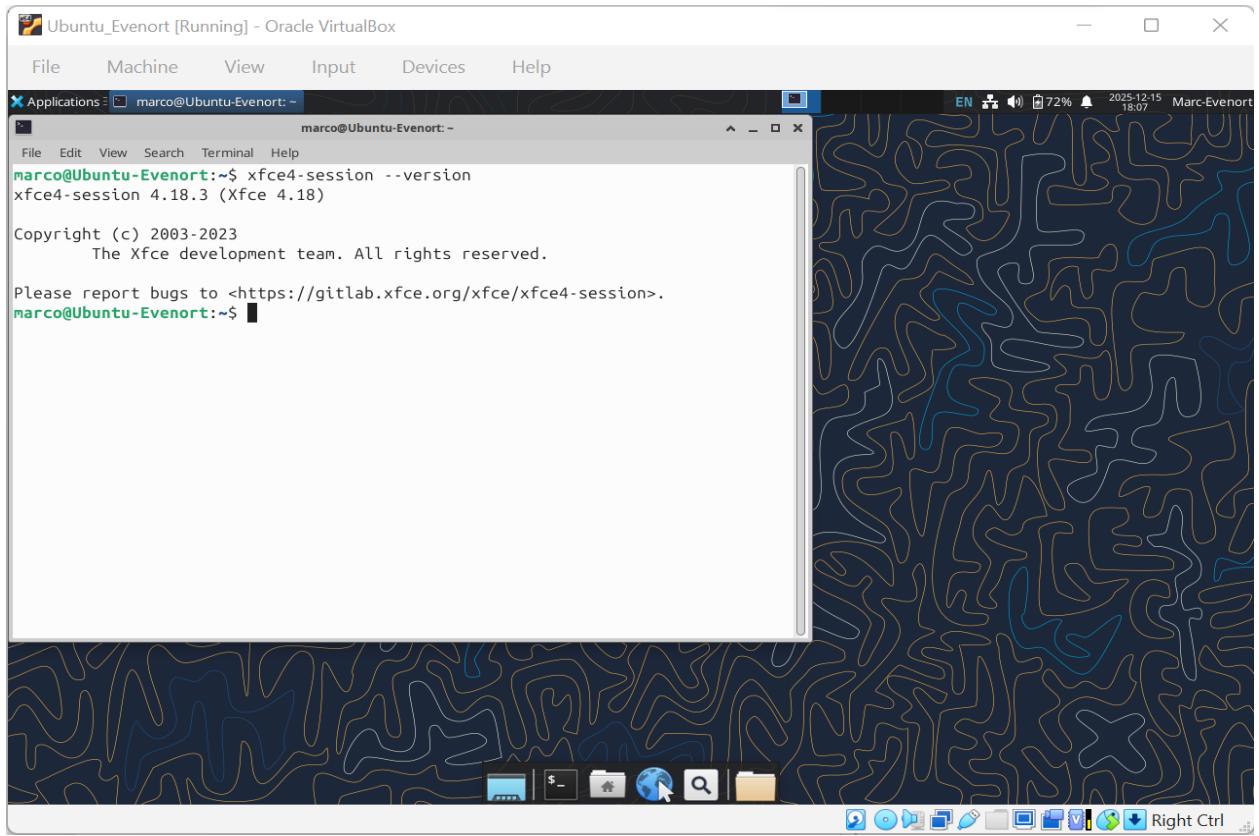
#### KDE Plasma:

- **Performance:** Bien optimisé, plus l'un des plus rapides, mais plus gourmand que XFCE (même s'il reste performant).
- **Apparence:** Moderne, riche en effets visuels, animations, et très esthétique.
- **Personnalisation:** Extrêmement personnalisable avec des widgets, des extensions, et des réglages très fins.
- **Idéal pour:** Utilisateurs voulant un bureau moderne, complet, avec beaucoup d'options et d'effets.

## 2. Capturez le bureau XFCE après l'installation.



- Cette image nous montre l'interface de **XFCE** après l'installation.



- Sur cette image j'ai vérifiée la version de **XFCE**.

### **3. Donnez trois avantages et trois inconvénients de XFCE.**

#### **Avantages de XFCE**

1. **Légèreté et Performance:** Il consomme très peu de ressources (RAM, CPU), ce qui le rend parfait pour les vieux ordinateurs ou les machines avec peu de puissance, offrant une grande réactivité.
2. **Grande Personnalisation:** XFCE est très flexible; vous pouvez facilement changer les thèmes, icônes, panneaux et raccourcis pour adapter l'interface à vos préférences.
3. **Stabilité et Simplicité:** Conçu pour être efficace et fiable, il est très stable et offre une interface utilisateur classique et familière, facile à prendre en main.

#### **Inconvénients de XFCE:**

1. **Moins de Fonctionnalités par Défaut:** Il sacrifie certaines animations et fonctionnalités avancées (comme les effets visuels sophistiqués) pour la légèreté, ce qui peut sembler austère.
2. **Applications de Base Simples :** Bien qu'il fournisse des outils essentiels (Thunar, Terminal), les applications incluses sont souvent légères et peuvent manquer de fonctionnalités "riches" par rapport à celles d'autres environnements.
3. **Courbe d'apprentissage pour les fonctionnalités avancées:** Bien que simple, pour obtenir des fonctionnalités très poussées (comme une gestion d'énergie ou des effets avancés), il faut parfois chercher et installer des composants supplémentaires, ce qui peut être moins intuitif.

## **Conclusion**

Au terme de ce TD, j'ai acquis une meilleure maîtrise des commandes Linux de base et avancées, notamment pour naviguer dans le système de fichiers, gérer les fichiers et les répertoires, consulter les informations système, surveiller les processus et le réseau, et utiliser divers utilitaires pratiques. J'ai également pu installer et explorer deux environnements de bureau différents, KDE Plasma et XFCE, malgré les difficultés rencontrées, et comprendre leurs avantages et limites respectifs. La tâche a été réussie, avec une prise en main progressive des commandes et des outils, et m'a permis de renforcer ma confiance dans l'utilisation de Linux pour des tâches d'administration et de productivité.