



# UNIVERSITÉ DE TECHNOLOGIE D'HAÏTI

## (UNITECH)

# Faculté des Sciences de Génie, et d'Architecture



# TD NoX-Sécurité informatique&Cybersécurité

NOM.....MAITRE

PRÉNOM.....Amourana

NIVEAU.....2

DATE.....le/20/01/25



## Objectif du TD:

- Installer kali Lunix
- Manipuler les commandes Linux de base
- Gérer les fichiers et dossier
- Observer l'état du système et du réseau.

```
(kali㉿kali)-[~]
$ sudo apt upgrade -y
The following packages were automatically installed and are no longer required:
  bloxmon-py libconfigfnt61  libevv1   libml12-2.1-0t64  libspinhxbase3t64  mesa-vdpau-drivers
  curltpfs  libconfig-inifiles-perl  libmjpegutils-2.1-0t64  libpocketphinx3  libswscale8  pocketsphinx-on-us
  libavfilter10  libfuse2t64   libmpeg2encpp-2.1-0t64  libpostproc58  libvdpau-va-gl1  vdpau-driver-all
Use 'sudo apt autoremove' to remove them.

Upgrading:
  libde265-0          libsd3-0           python3-flask-socketio
  libdecbeconfclient0 libseccomp2        python3-functools
  libdecor-0-0         libselinux1       python3-frozenlist
  libdecor-0-plugin-1-gtk libsemanage2     python3-gdal
  libdlt2             libsensors5      python3-gevent
  libdouble-conversion3 libsframe2       python3-gi
  libdrm-amdgpu       libsmr1           python3-glib-cairo
  libdrm-common       libsmrictcols1    python3-greenlet
  libdrm-intel        libsmrclient0     python3-gssapi
  libdrm-nouveau2     libsmrict64       python3-gvnc
  libdrm-radeon1      libsodium23      python3-hamcrest
  libdrm2             libsoup-3.0-0     python3-html5lib
  libdvbnav4          libsoup-3.0-common python3-impacket
  libfdk-aac8t64       libspa-0.2-0      python3-ansible
  libfbread8t64        libspa-0.2-bluetooth python3-ipwhois
  libfbread8t64        libspeeched-module0 python3-jeeepney
  libfbread8t64        libspeeched2      python3-joblib
  libfbread8t64        libsqlcipher2    python3-jq
  libfbread8t64        libvdpau-va-gl1  python3-jsonschema-specifications
```

La commande sudo apt upgrade -Y permet de mettre à jour tous les logiciels installés sur le système.

```
[kali㉿kali)-[~]
$ cat /etc/os-release
PRETTY_NAME="Kali GNU/Linux Rolling"
NAME="Kali GNU/Linux"
VERSION_ID="2025.4"
VERSION="2025.4"
VERSION_CODENAME=kali-rolling
ID=kali
ID_LIKE=debian
HOME_URL="https://www.kali.org/"
SUPPORT_URL="https://forums.kali.org/"
BUG_REPORT_URL="https://bugs.kali.org/"
ANSI_COLOR="1;31"
[kali㉿kali)-[~]
```

La commande cat?etc?os-release permet d'afficher les informations sur le système d'exploitation.

```
(kali㉿kali)-[~]
└─$ hostnamectl
  Static hostname: kali
    Icon name: computer-vm
      Chassis: vm ⓘ
     Machine ID: b69758c0cad3481e967dcad827001d56
       Boot ID: 5617726203ba4216b7d3b59d70f3cfef
   Virtualization: oracle
  Operating System: Kali GNU/Linux Rolling
        Kernel: Linux 6.18.3+kali1-amd64
      Architecture: x86-64
    Hardware Vendor: innotek GmbH
    Hardware Model: VirtualBox
  Hardware Version: 1.2
Firmware Version: VirtualBox
  Firmware Date: Fri 2006-12-01
  Firmware Age: 19y 1month 2w 2d

(kali㉿kali)-[~]
└─$ sudo hostnamectl set-hostname Amourana
[sudo] password for kali:
(kali㉿kali)-[~]
└─$
```

**Hostnamectl:** Affiche les informations liées au nom de la machine(hostname)

**Sudo hostnamectl:** permet de modifier ou gérer le nom de la machine avec les droits administrateur.

```
(kali㉿kali)-[~]
└─$ journalctl -n 10
Jan 16 16:15:01 Kali CRON[38895]: pam_unix(cron:session): session closed for user root
Jan 16 16:17:01 kali CRON[39907]: pam_unix(cron:session): session opened for user root(uid=0) by root(uid=0)
Jan 16 16:17:01 kali CRON[39909]: (root) CMD (cd / && run-parts --report /etc/cron.hourly)
Jan 16 16:17:01 kali CRON[39907]: pam_unix(cron:session): session closed for user root
Jan 16 14:17:55 kali sudo[39864]: kali : TTY:pts/0 ; PWD=/home/kali ; USER=root ; COMMAND=/usr/bin/apt install traceroute -y
Jan 16 14:17:55 kali sudo[39864]: pam_unix(sudo:session): session opened for user root(uid=0) by kali(uid=1000)
Jan 16 14:17:56 kali sudo[39864]: pam_unix(sudo:session): session closed for user root
Jan 16 14:25:01 kali CRON[43894]: pam_unix(cron:session): session opened for user root(uid=0) by root(uid=0)
Jan 16 14:25:01 kali CRON[43896]: (root) CMD (command -v debian-sa1 > /dev/null && debian-sa1 1 1)
Jan 16 14:25:01 kali CRON[43894]: pam_unix(cron:session): session closed for user root
(kali㉿kali)-[~]
└─$
```

La commande journalctl -n 10 permet d'afficher les 10 derniers messages des journaux systems.

```
(kali㉿kali)-[~]
└─$ date
Fri Jan 16 02:32:32 PM EST 2026
(kali㉿kali)-[~]
└─$ timedatectl
      Local time: Fri 2026-01-16 14:33:19 EST
      Universal time: Fri 2026-01-16 19:33:19 UTC
        RTC time: Fri 2026-01-16 19:33:19
       Time zone: America/New_York (EST, -0500)
System clock synchronized: no
          NTP service: inactive
        RTC in local TZ: no

(kali㉿kali)-[~]
└─$ hostnamectl
  Static hostname: kali
    Icon name: computer-vm
      Chassis: vm ⓘ
     Machine ID: b69758c0cad3481e967dcad827001d56
       Boot ID: 5617726203ba4216b7d3b59d70f3cfef
   Virtualization: oracle
  Operating System: Kali GNU/Linux Rolling
        Kernel: Linux 6.18.3+kali1-amd64
      Architecture: x86-64
    Hardware Vendor: innotek GmbH
    Hardware Model: VirtualBox
  Hardware Version: 1.2
Firmware Version: VirtualBox
  Firmware Date: Fri 2006-12-01
  Firmware Age: 19y 1month 2w 2d

(kali㉿kali)-[~]
└─$
```

Date: Affiche la date et l'heure actuelles du système.

Timedatectl: Affiche et permet de gérer les paramètres de date du système(fuseau horaire,synchronization).

```
--(kali㉿kali)-[~]
└─$ journalctl -b
Jan 16 12:58:33 kali kernel: Linux version 6.18.3-kali1+amd64 (devel@Kali.org) (x86_64-limix-gnu-gcc-15 (Debian 15.2.0-12) 15.2.0, GNU ld (GNU Binutils for Debian) 2.45.50.20251209) #1 SMP PREEMPT_DYNAMIC Kali 6.18.3-1-kalil2 (2026-01-1>
Jan 16 12:58:33 kali kernel: Command line: BOOT_IMAGE=/boot/vmlinuz-6.18.3-kali1+amd64 root=UUID=8a84b405-db08-a6bc-48caea65888d ro quiet splash
Jan 16 12:58:33 kali kernel: [Firmware Bug]: TSC self correct with P0 frequency!
Jan 16 12:58:33 kali kernel: BIOS-provided physical RAM map:
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x00000000009fbff] usable
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x00000000009fc00-0x00000000009ffff] reserved
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x00000000009ff000-0x00000000009ffff] reserved
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x00000000100000-0x0000000000ffff] reserved
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x0000000000000000-0xffffffffffff] ACPI data
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x000000000000000f-0x0000000000000010] reserved
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x0000000000000001] reserved
Jan 16 12:58:33 kali kernel: BIOS-e820: [mem 0x0000000000000000-0xffffffffffff] reserved
Jan 16 12:58:33 kali kernel: NX (Execute Disable) protection: active
Jan 16 12:58:33 kali kernel: APIC: IPI multicalls initialized
Jan 16 12:58:33 kali kernel: SMBIOS 2.5 present.
Jan 16 12:58:33 kali kernel: DMI: innoteck GmbH VirtualBox/VirtualBox, BIOS VirtualBox 12/01/2006
Jan 16 12:58:33 kali kernel: DMI: Memory slots populated: 0/0
Jan 16 12:58:33 kali kernel: last_pfn = 0x00000 max_arch_pfn = 0x400000000
Jan 16 12:58:33 kali kernel: kvm-clock: Using msrs 4b564d01 and 4b564d00
```

La commande journalctl -b permet d'afficher les journaux du système depuis le dernier démarrage.

```
--(kali㉿kali)-[~]
└─$ journalctl
Jan 15 17:04:38 kali kernel: Linux version 6.16.8+kali1-amd64 (devel@Kali.org) (x86_64-limix-gnu-gcc-14 (Debian 14.3.0-8) 14.3.0, GNU ld (GNU Binutils for Debian) 2.45) #1 SMP PREEMPT_DYNAMIC Kali 6.16.8-1-kalil1 (2025-09-24)
Jan 15 17:04:38 kali kernel: Command line: BOOT_IMAGE=/boot/vmlinuz-6.16.8+kali1-amd64 root=UUID=8a84b405-db28-a6bc-48caea65888d ro quiet splash
Jan 15 17:04:38 kali kernel: [Firmware Bug]: TSC self correct with P0 frequency!
Jan 15 17:04:38 kali kernel: BIOS-provided physical RAM map:
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x00000000009fbff] usable
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x00000000009fc00-0x00000000009ffff] reserved
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x00000000009ff000-0x00000000009ffff] reserved
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x0000000000000000-0xffffffffffff] ACPI data
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x000000000000000f-0x0000000000000010] reserved
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x0000000000000001] reserved
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x0000000000000000-0xffffffffffff] reserved
Jan 15 17:04:38 kali kernel: NX (Execute Disable) protection: active
Jan 15 17:04:38 kali kernel: APIC: IPI multicalls initialized
Jan 15 17:04:38 kali kernel: SMBIOS 2.5 present.
Jan 15 17:04:38 kali kernel: DMI: innoteck GmbH VirtualBox/VirtualBox, BIOS VirtualBox 12/01/2006
Jan 15 17:04:38 kali kernel: DMI: Memory slots populated: 0/0
Jan 15 17:04:38 kali kernel: Hypervisor detected: KVM
Jan 15 17:04:38 kali kernel: kvm-clock: using sched offset of 6582719542 cycles
Jan 15 17:04:38 kali kernel: clocksource: kvm-clock: mask: 0xfffffffffffff max_cycles: 0x1cd42e4dff, max_idle_ns: 881590591483 ns
Jan 15 17:04:38 kali kernel: tsc: Detected 1996.194 MHz processor
Jan 15 17:04:38 kali kernel: [Firmware Bug]: TSC self correct with P0 frequency!
Jan 15 17:04:38 kali kernel: BIOS-provided physical RAM map:
Jan 15 17:04:38 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x00000000009fbff] usable
Jan 15 17:04:38 kali kernel: last_pfn = 0x120000 max_arch_pfn = 0x400000000
Jan 15 17:04:38 kali kernel: MTRR map: 3 entries (3 fixed + 0 variable; max 19), built from B variable MTRRs
Jan 15 17:04:38 kali kernel: MTRR: 0x0000000000000000-0x0000000000000000 UC WB WP UC-WT
Jan 15 17:04:38 kali kernel: CPU MTRRs all blank - virtualized system
Jan 15 17:04:38 kali kernel: last_pfn = 0x00000 max_arch_pfn = 0x400000000
Jan 15 17:04:38 kali kernel: Found SMAP-MP-table at [mem 0x00009f00-0x00009ffff]
Jan 15 17:04:38 kali kernel: Early table checksum verification disabled
Jan 15 17:04:38 kali kernel: ACPI: RSDP 0x000000000000E0000 000024 (v02 VBOX )
Jan 15 17:04:38 kali kernel: ACPI: XSDT 0x0000000000FF0030 00003C (v01 VBOX  VBOXXSDT 00000001 ASL 00000061)
```

Journalctl montre les messages enregistrés par le système et les services.

```
(kali㉿kali)-[~]
$ sudo apt install traceroute -y
[sudo] password for kali:
traceroute is already the newest version (1:2.1.6-1).
Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 8
(kali㉿kali)-[~]
$ traceroot google.com
traceroot: command not found

(kali㉿kali)-[~]
$ traceroute google.com
traceroute to google.com (172.217.165.206), 30 hops max, 60 byte packets
 1  10.0.2.2 (10.0.2.2)  0.752 ms  0.639 ms  0.573 ms
 2  * *
 3  * *
 4  * *
 5  * *
 6  * *
 7  * *
 8  * *
 9  * *
10  * *
11  * *
12  * *
13  * *
14  * *
15  * *
16  * *
17  * *
18  * *
19  * *
20  * *
21  * *
22  * *
23  * *
24  * *
25  * *
26  * *
27  * *
28  * *
29  * *
30  * *

(kali㉿kali)-[~]
```

Sudo apt install traceroute -y installe l'outil traceroute automatiquement, sans demander de confirmation.

Traceroute google.com affiche le chemin réseau emprunté par les paquets pour atteindre le serveur google.com.

```
(kali㉿kali)-[~]
$ ps aux|head -10
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START  TIME COMMAND
root      1  0.0  0.3  24576 15084 ?        Ss   12:58  0:02 /sbin/init splash
root      2  0.0  0.0      0   0 ?        S    12:58  0:00 [kthreadd]
root      3  0.0  0.0      0   0 ?        S    12:58  0:00 [pool_workqueue_release]
root      4  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/R-rcu_gp]
root      5  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/R-sync_wq]
root      6  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/R-kvfree_rcu_reclaim]
root      7  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/R-slub_flushwq]
root      8  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/R-netns]
root     10  0.0  0.0      0   0 ?        I<   12:58  0:00 [kworker/0:H-kblockd]

(kali㉿kali)-[~]
```

La commande ps aux | head -10 permet d'afficher les 10 premiers processus en cours d'exécution sur le système.

```
[kali㉿kali] ~
$ lsblk
00:00.0 Host bridge: Intel Corporation 440FX - 82441FX PMC [Natoma] (rev 02)
00:01.0 ISA bridge: Intel Corporation 82371SB PIIX3 ISA [Natoma/Triton II]
00:02.0 IDE interface: Intel Corporation 82371SB PIIX3 ATA IDE (rev 01)
00:02.0 VGA compatible controller: VMware SVGA II Adapter
00:03.0 Ethernet controller: Intel Corporation 82540EM Gigabit Ethernet Controller (rev 02)
00:04.0 System peripheral: Innotek Systemberatung GmbH VirtualBox Guest Service
00:05.0 USB controller: Intel Corporation 82801FB/FBM/FR/FRW (ICH9 Family) USB2 EHCI Controller (rev 01)
00:06.0 USB controller: Apple Inc. KeyLargo/Intrypoint USB
00:07.0 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 08)
00:08.0 USB controller: Intel Corporation 82801FB/FBM/FR/FRW (ICH9 Family) USB2 EHCI Controller
00:0d.0 SATA controller: Intel Corporation 82801HM/HEM (ICH9M/ICH9M-E) SATA Controller [AHCI mode] (rev 02)

[kali㉿kali] ~
$ lspci
00:00.0 Host bridge: Intel Corporation 440FX - 82441FX PMC [Natoma] (rev 02)
  Flags: fast devsel
  Kernel modules: intel_agp
00:01.0 ISA bridge: Intel Corporation 82371SB PIIX3 ISA [Natoma/Triton II]
  Flags: bus master, medium devsel, latency 0
00:01.1 I/O interface: Intel Corporation 82371AB/EB/MB PIIX4 IDE (rev 01) (prog-if 8a [ISA Compatibility mode controller, supports both channels switched to PCI native mode, supports bus mastering])
  Flags: bus master, fast devsel, latency 64
  I/O ports at 0f00 [size=8]
  I/O ports at 0f40 [size=8]
  I/O ports at 0f70 [size=8]
  I/O ports at d000 [size=16]
  Kernel driver in use: ata_piix, ata_generic
  Kernel modules: ata_piix, ata_generic
```

Lspci: liste tous les périphériques PCI de l'ordinateur

.

Lspci -v: Affiche les périphériques PCI avec plus de détails.

```
[kali㉿kali] ~
$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
udev            1.9G    0     1.9G  0% /dev
tmpfs           393M  972K  392M  1% /run
/dev/sda1        79G   17G   58G  23% /
tmpfs           2.0G  4.0K   2.0G  1% /dev/shm
none            1.0M    0     1.0M  0% /run/credentials/systemd-journald.service
tmpfs           2.0G  112K   2.0G  1% /tmp
none            1.0M    0     1.0M  0% /run/credentials/getty@tty1.service
tmpfs           393M  104K  392M  1% /run/user/1000

[kali㉿kali] ~
$ du -sh .
3.3M .

[kali㉿kali] ~
$ free -h
              total        used        free      shared  buff/cache   available
Mem:       3.8Gi     898Mi     2.1Gi     16Mi     1.1Gi     3.0Gi
Swap:      953Mi        0B     953Mi

[kali㉿kali] ~
```

Df -h: Affiche l'espace disque disponible et utilisé pour chaque partition, en format lisible.

Du -sh: Affiche la liste totale d'un dossier ou fichier.

Free -h: Affiche la quantité de mémoire RAM utilisée et disponible, en format lisible.

```
(kali㉿kali)-[~]
└─$ ps aux
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START  TIME COMMAND
root      1 0.0  0.3 24576 15084 ?        Ss  12:58  0:02 /sbin/init splash
root      2 0.0  0.0     0  0 ?        S    12:58  0:00 [kthreadd]
root      3 0.0  0.0     0  0 ?        S    12:58  0:00 [pool_workqueue_release]
root      4 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-rcu_gp]
root      5 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-sync_wq]
root      6 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-kvfree_rcu_reclaim]
root      7 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-slub_flushwq]
root      8 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-netns]
root     10 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/0:0-kblockd]
root     12 0.0  0.0     0  0 ?        I    12:58  0:01 [kworker/u4:0-events_unbound]
root     13 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-mm_percpu_wq]
root     14 0.0  0.0     0  0 ?        S    12:58  0:00 [ksoftirqd/0]
root     15 0.0  0.0     0  0 ?        I    12:58  0:01 [rcu_preempt]
root     16 0.0  0.0     0  0 ?        S    12:58  0:00 [rcu_exp_par_gp_kthread_worker/0]
root     17 0.0  0.0     0  0 ?        S    12:58  0:00 [rcu_exp_gp_kthread_worker]
root     18 0.0  0.0     0  0 ?        S    12:58  0:00 [migration/0]
root     19 0.0  0.0     0  0 ?        S    12:58  0:00 [idle_inject/0]
root     20 0.0  0.0     0  0 ?        S    12:58  0:00 [cpuhp/0]
root     22 0.0  0.0     0  0 ?        S    12:58  0:00 [kdevtmpfs]
root     23 0.0  0.0     0  0 ?        I<  12:58  0:00 [kworker/R-inet_frag_wq]
root     24 0.0  0.0     0  0 ?        I    12:58  0:00 [rcu_tasks_kthread]
root     25 0.0  0.0     0  0 ?        I    12:58  0:00 [rcu_tasks_rude_kthread]
```

La command eps aux: permet d'afficher tous les processus en cours d'exécution sur le système.

```
(kali㉿kali)-[~]
└─$ ls -la cybersec/scripts/
total 8
drwxrwxr-x 2 kali kali 4096 Jan 16 13:51 .
drwxrwxr-x 5 kali kali 4096 Jan 16 12:46 ..

(kali㉿kali)-[~]
└─$ rm -rf cybersec/scan cybersec/logs cybersec/scripts

(kali㉿kali)-[~]
└─$ █
```

Ls -la:Affiche tous les fichiers et dossiers, y compris les fichiers caches, avrc details complets.

Rm -rf:Suprime un dossier et tout son contenu de manière force,sans demande de confirmation.

```
[kali㉿kali)-[~]
└─$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
        inet6 fe80::1aeb:ad26:8895:2d84 prefixlen 64 scopeid 0x20<link>
    inet6 fd17:625c:f037:2:8a34:dcea:7b49:666b prefixlen 64 scopeid 0x0<global>
        ether 08:00:27:42:2f:9c txqueuelen 1000 (Ethernet)
        RX packets 16 bytes 4222 (4.1 KiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 48 bytes 6443 (6.2 KiB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 8 bytes 480 (480.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8 bytes 480 (480.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[kali㉿kali)-[~]
└─$
```

La commande ifconfig permet d'afficher et de configurer les interfaces réseau sur le système linux.

```
[kali㉿kali)-[~]
└─$ cp cybersec/scan/notes.txt cybersec/scripts

[kali㉿kali)-[~]
└─$ ls -la cybersec/scripts/
total 12
drwxrwxr-x 2 kali kali 4096 Jan 16 13:05 .
drwxrwxr-x 5 kali kali 4096 Jan 16 12:46 ..
-rw-rw-r-- 1 kali kali 55 Jan 16 13:05 notes.txt

[kali㉿kali)-[~]
└─$ cp sybersec/scan/notes.txt cybersec/scripts/
cp: cannot stat 'sybersec/scan/notes.txt': No such file or directory

[kali㉿kali)-[~]
└─$ ls -la cybersec/scripts/
total 12
drwxrwxr-x 2 kali kali 4096 Jan 16 13:05 .
drwxrwxr-x 5 kali kali 4096 Jan 16 12:46 ..
-rw-rw-r-- 1 kali kali 55 Jan 16 13:05 notes.txt

[kali㉿kali)-[~]
└─$
```

Cp cybersec/scan/notes.txt cybersec/script/: Copie le fichier notes.txt depuis le dossier cybersec/scan vers le dossier cybersec/script.

Ls -la cybersec/script/: Affiche tous les fichiers du dossier script,y compris les fichiers cachés, avec leurs détails complets.

Cp: Permet de copier un fichier ou un dossier d'un emplacement vers un autre.

```
(kali㉿kali)-[~]
$ sudo apt autoremove -y
[...]
Summary:
Upgrading: 0, Installing: 0, Removing: 18, Not Upgrading: 8
(Reading database ... 43383 files and directories currently installed.)
Removing bloodhound.py (1.9.0-0kali1) ...
Removing curlftpfs (0.9.2-10) ...
Removing libavfilter10:amd64 (7:7.1.2-1+b1) ...
Removing libavformat10:amd64 (7:7.1.2-1+b1) ...
Removing libavutil10:amd64 (7:7.1.2-1+b1) ...
Removing libconfig-inifiles-perl (3.000003-4) ...
Removing libfuse2t64:amd64 (2.9.9-9) ...
Removing libgavl1:amd64 (0.19.0-3+b1) ...
Removing libimobiledevice0:amd64 (1:12.1.0+debian-8.1+b1) ...
Removing libimplex2-2.1-0t64:amd64 (1:12.1.0+debian-8.1+b1) ...
Removing libmpegutils-2.1-0t64:amd64 (1:12.1.0+debian-8.1+b1) ...
Removing libpostproc8:amd64 (7:3.1.5-1)
Removing libswscale8:amd64 (0.8+5prealpha1-21+b1) ...
Removing libswresample8:amd64 (0.7.1-1+b1) ...
Removing libvdpau-gl1:amd64 (0.4.2-2) ...
Removing mesa-vdpau-drivers:amd64 (25.2.6-1) ...
Removing pocketsphinx (0.8+5prealpha1-15) ...
Processing triggers for libc-bin (2.13.1-1) ...
Processing triggers for man-db (2.13.1-1) ...
Processing triggers for kali-menu (2025.4.3) ...

(kali㉿kali)-[~]
$ sudo apt autoclean
(kali㉿kali)-[~]
$
```

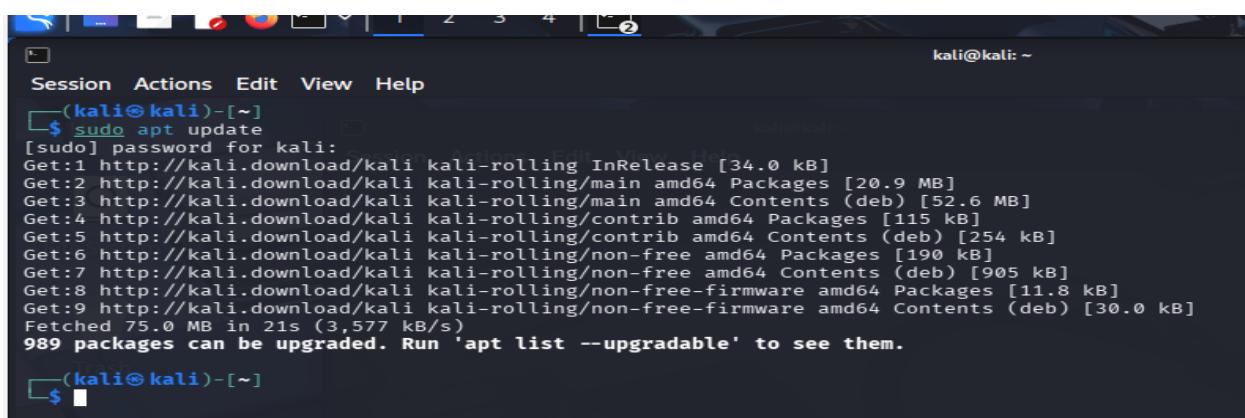
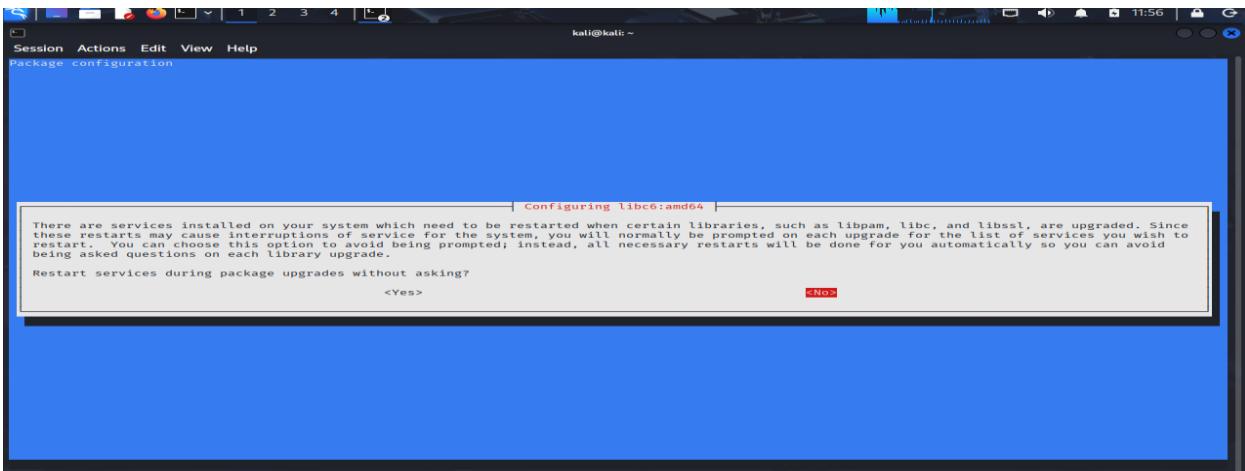
Sudo apt autoremove -y: Supprime automatiquement les paquets et dépendances inutilisés qui ne sont plus nécessaires sur le système.

Sudo apt autoclean: Supprime les fichiers de paquets téléchargés et obsolètes pour libérer de l'espace disque.

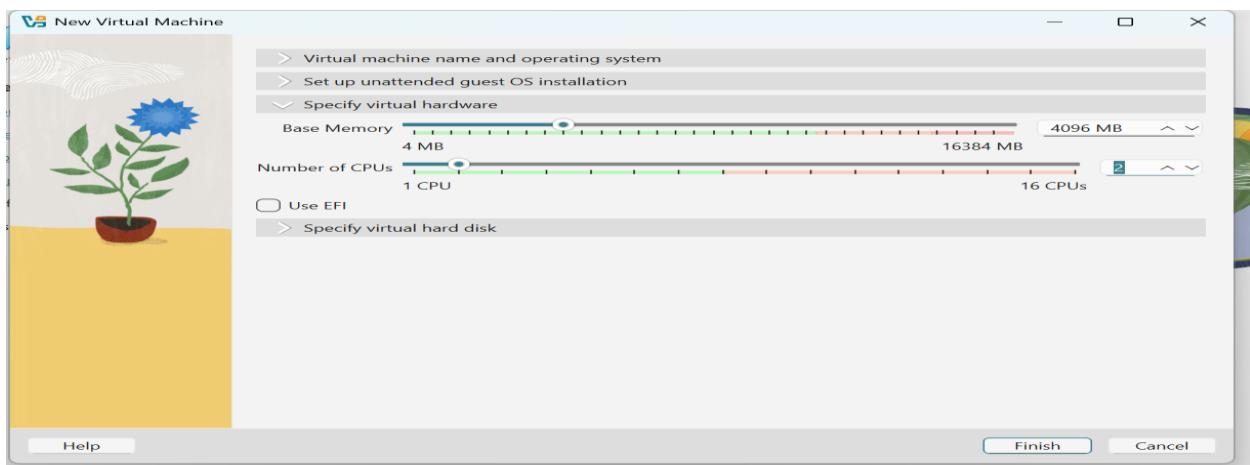
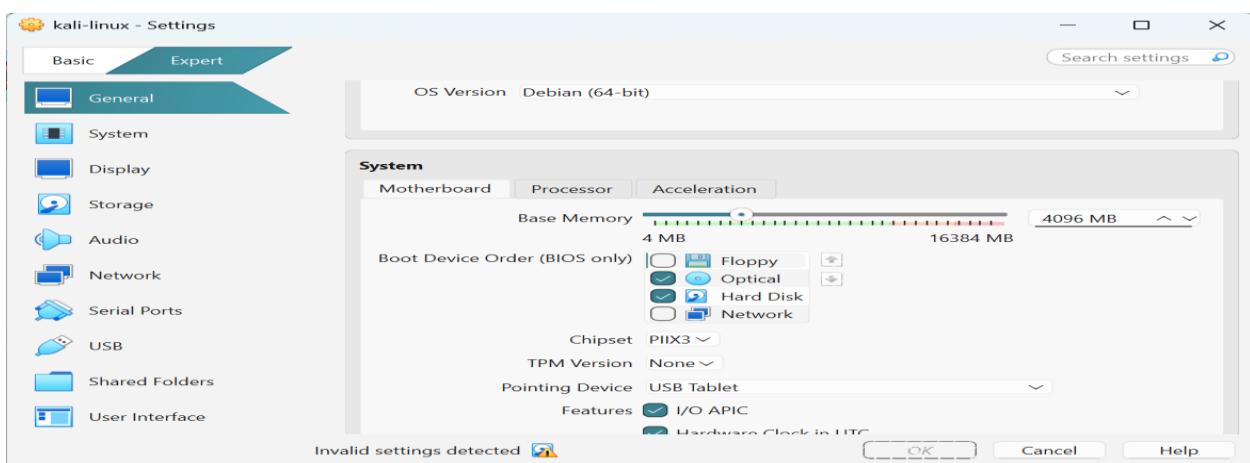
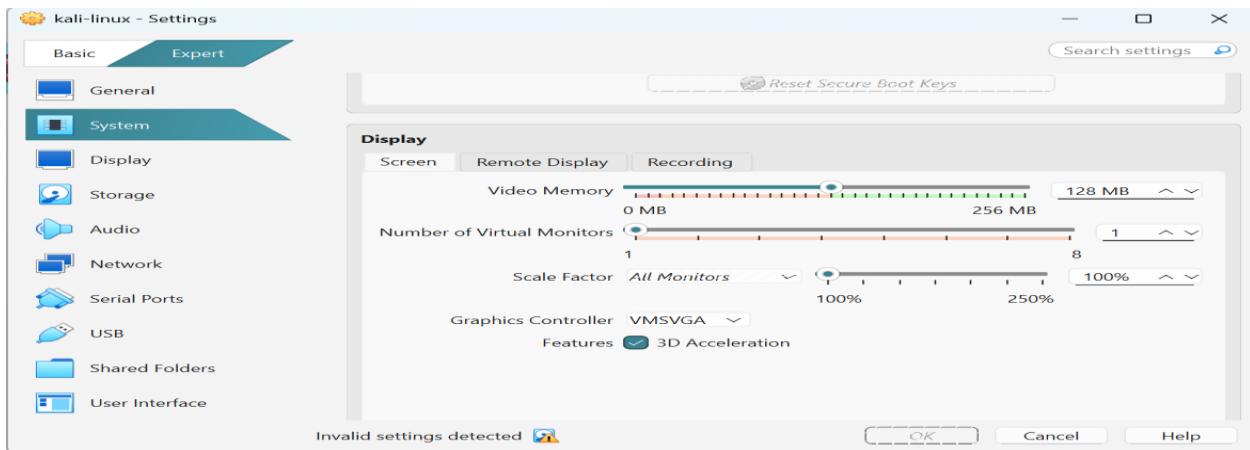
```
Session Actions Edit View Help
(kali㉿kali)-[~]
$ echo "Notes de scan réseau - $(date)" > cybersec/scan/notes.txt
(kali㉿kali)-[~]
$ echo "logs d'analyse - $(date)" > cybersec/logs/notes.txt
(kali㉿kali)-[~]
$ cat cybersec/scan/notes.txt
Notes de scan réseau - Fri Jan 16 01:01:02 PM EST 2026
(kali㉿kali)-[~]
$ cat cybersec/logs/notes.txt
logs d'analyse - Fri Jan 16 01:02:23 PM EST 2026
(kali㉿kali)-[~]
$ cp cybersec/scan/notes.txt cybersec/scripts/
(kali㉿kali)-[~]
$ ls -la cybersec/scripts/
total 12
drwxrwxr-x 2 kali kali 4096 Jan 16 13:05 .
drwxrwxr-x 5 kali kali 4096 Jan 16 12:46 ..
-rw-rw-r-- 1 kali kali    55 Jan 16 13:05 notes.txt

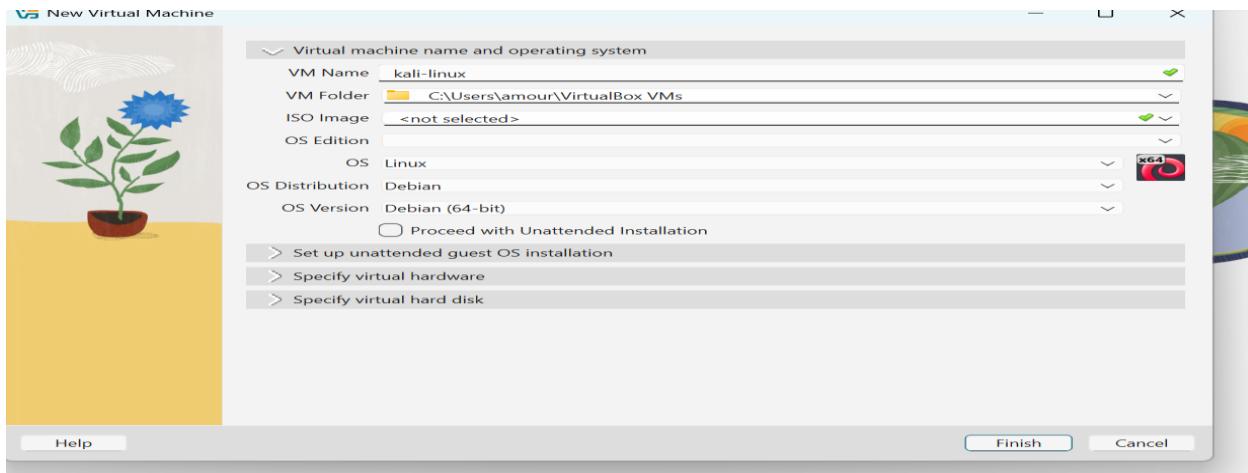
(kali㉿kali)-[~]
```

La commande echo permet d'afficher du texte ou des variables dans le terminal.



La commande sudo apt update permet de mettre à jour la liste des paquets disponibles sur le système linux.





Résumé: J'ai appris à naviguer dans le système linux gérer les fichiers et dossiers avec les commandes de base. Utiliser les commande reseau et consulter les journaux système.

La tache a été réussie toutes les commandes pnt été executes correctement et les résultats attendus obtenus et les principals dificultés concernaient la saisie correcte des commandes et l'utilisation des droits administrateur(sudo).

Les problems ont été résolus en vérifiant la syntaxe des commandes et en utilisant sudo lorsque nécessaire.

## Démarche suivi: Crée une nouvelle VM

- Type : Linux
- Version : Debian 64 bits
- RAM : minimum 2 go
- Disque : minimum 20 go
- Démarrer avec l'ISO Kali Lunix
- Choisir Graphical Install.