

UNIVERSITE DE TECHNOLOGIE D'HAITI SCES INFORMATIQUES

Année Universitaire:2025-2026

Niveau III

SECURITE INFORMATIQUE

**Présenté par
Maurélus Micaël**

**Sous la direction
Du monsieur Saint Amour Ismael**

Table des Matières

1-Installation Kali Linux	1
2-Configuration Linux.....	9
Courte Résumé	34

1-Installation Kali Linux





Select a language

Choose the language to be used for the installation process. The selected language will also be the default language for the installed system.

Language:

Chinese (Simplified)	-	中文(简体)
Chinese (Traditional)	-	中文(繁體)
Croatian	-	Hrvatski
Czech	-	Čeština
Danish	-	Dansk
Dutch	-	Nederlands
Dzongkha	-	ཇོང་ཁ།
English	-	English
Esperanto	-	Esperanto
Estonian	-	Eesti
Finnish	-	Suomi
French	-	Français
Galician	-	Galego
Georgian	-	ქართული
German	-	Deutsch
Greek	-	Ελληνικά
Gujarati	-	ગુજરાતી
Hebrew	-	עברית
Hindi	-	हिन्दी
Hungarian	-	Magyar
Icelandic	-	Íslenska

Choix de votre situation géographique

Le pays choisi permet de définir le fuseau horaire et de déterminer les paramètres régionaux du système (« locale »). C'est le plus souvent le pays où vous vivez.

La courte liste affichée dépend de la langue précédemment choisie. Choisissez « Autre » si votre pays n'est pas affiché.

Pays (territoire ou région) :

Belgique

Canada

France

Luxembourg

Suisse

Autre

Configurer le clavier

Disposition de clavier à utiliser :

États-Unis

Albanais

Arabe

Asturien

Bangladesh

Bélarusse

Bengali

Belge

Berber (Latin)

Bosniaque

Brésilien

Britannique

Bulgare (BDS)

Bulgare (phonétique)

Birman

Canadien français

Canadien multilingue

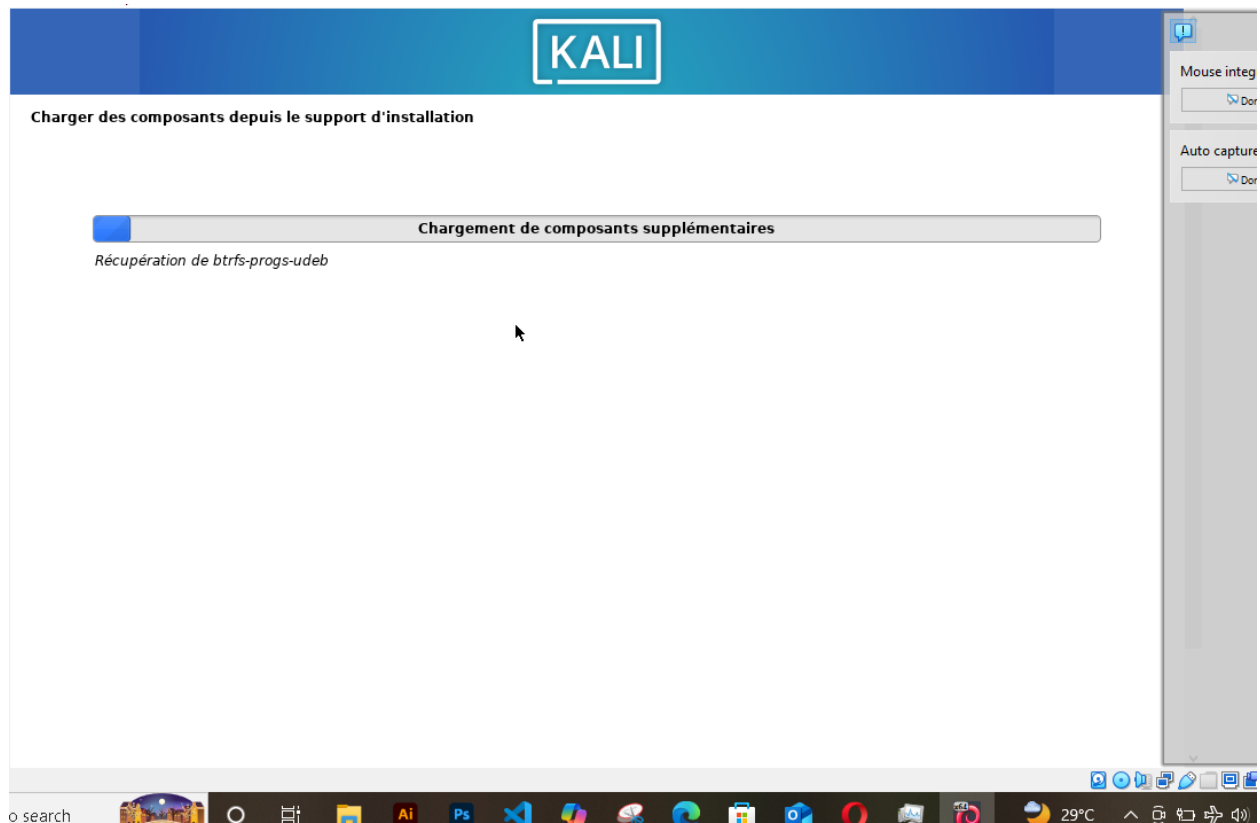
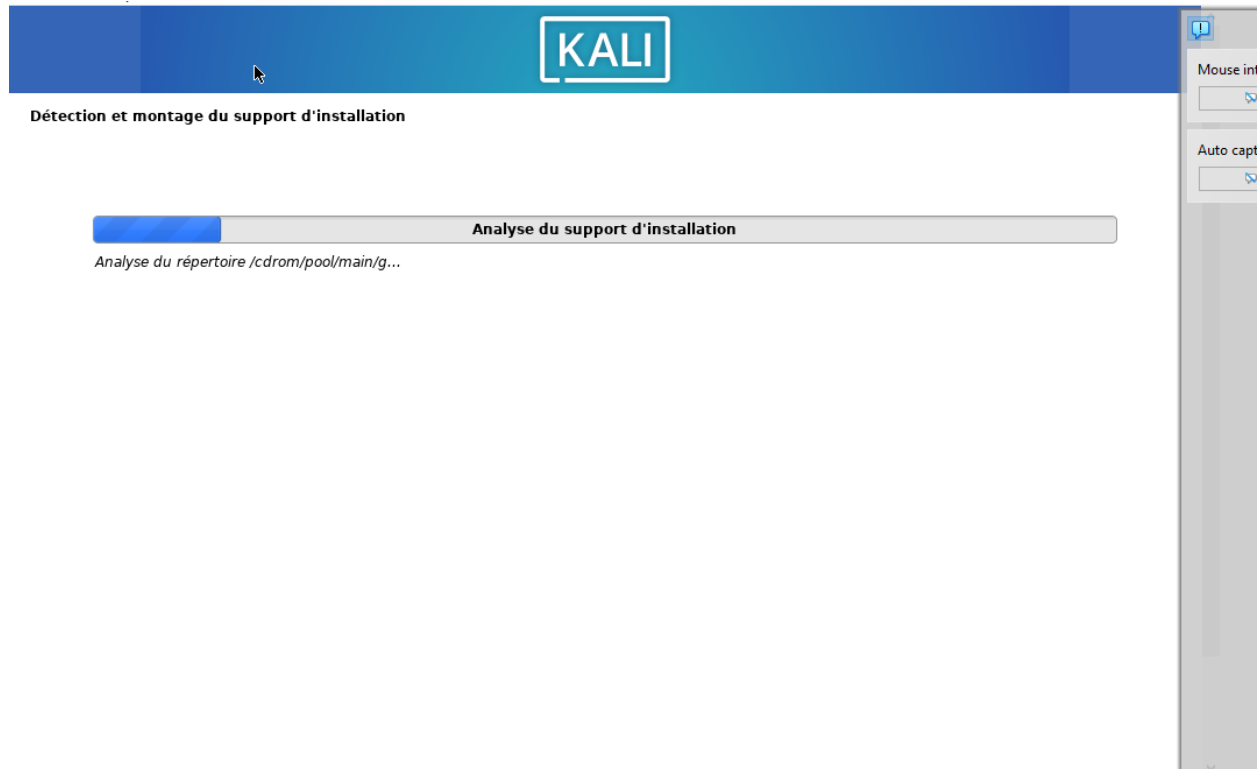
Catalan

Chinois

Croate

Tchèque

Danois



KALI

Configurer le réseau

Veuillez indiquer le nom de ce système.

Le nom de machine est un mot unique qui identifie le système sur le réseau. Si vous ne connaissez pas ce nom, demandez-le à votre administrateur réseau. Si vous installez votre propre réseau, vous pouvez mettre ce que vous voulez.

Nom de machine :

kali

KALI

Configurer le réseau

Le domaine est la partie de l'adresse Internet qui est à la droite du nom de machine. Il se termine souvent par .com, .net, .edu, ou .org. Si vous paramétrez votre propre réseau, vous pouvez mettre ce que vous voulez mais assurez-vous d'employer le même nom sur toutes les machines.

Domaine :

KALI

Créer les utilisateurs et choisir les mots de passe

Un compte d'utilisateur va être créé afin que vous puissiez disposer d'un compte différent de celui du superutilisateur (« root »), pour l'utilisation courante du système.

Veuillez indiquer le nom complet du nouvel utilisateur. Cette information servira par exemple dans l'adresse d'origine des courriels émis ainsi que dans tout programme qui affiche ou se sert du nom complet. Votre propre nom est un bon choix.

Nom complet du nouvel utilisateur :

Maurelus Micael

KALI

Créer les utilisateurs et choisir les mots de passe

Veuillez choisir un identifiant (« login ») pour le nouveau compte. Votre prénom est un choix possible. Les identifiants doivent commencer par une lettre minuscule, suivie d'un nombre quelconque de chiffres et de lettres minuscules.

Identifiant pour le compte utilisateur :

maurelus



Créer les utilisateurs et choisir les mots de passe

Assurez-vous de choisir un mot de passe suffisamment robuste pour qu'il ne puisse pas être deviné.

Mot de passe pour le nouvel utilisateur :

●●●●●●●●●●

☐ Afficher le mot de passe en clair

Veuillez entrer à nouveau le mot de passe pour l'utilisateur, afin de vérifier que votre saisie est correcte.

Confirmation du mot de passe :

●●●●●●●●●●

☐ Afficher le mot de passe en clair

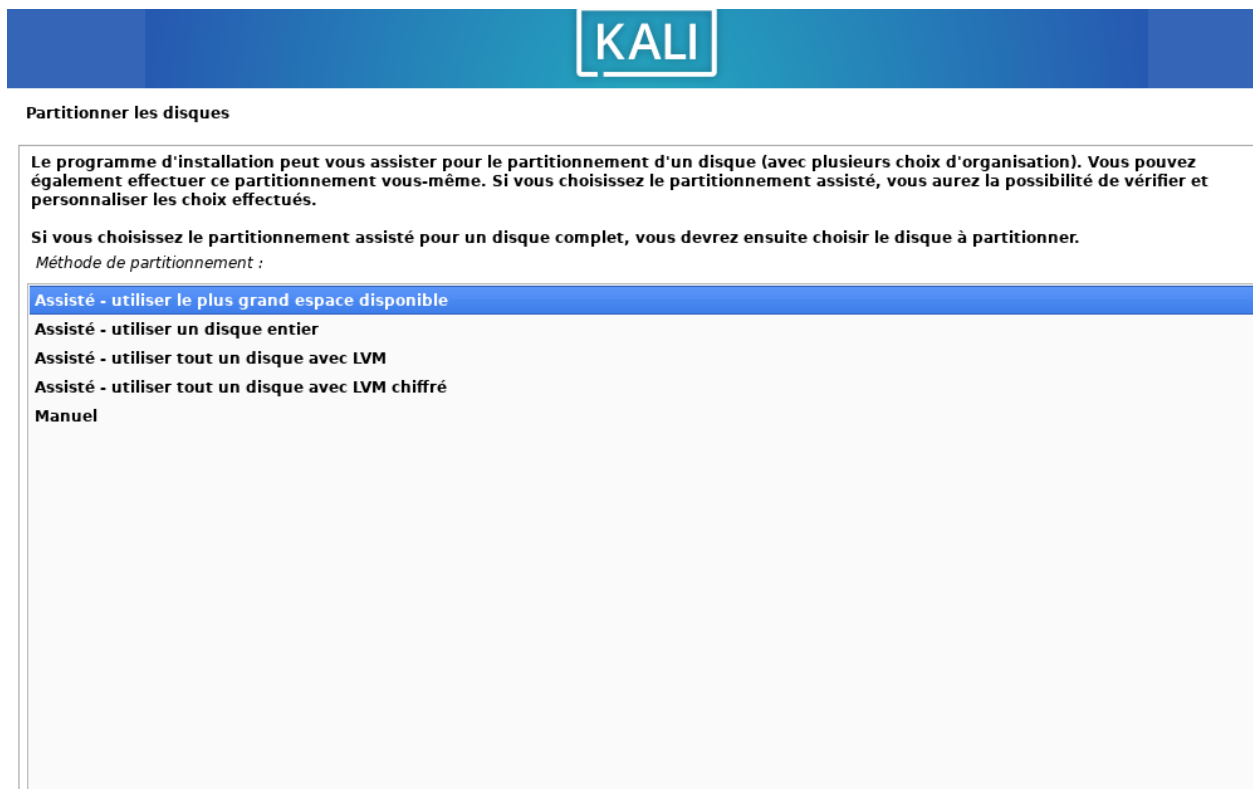
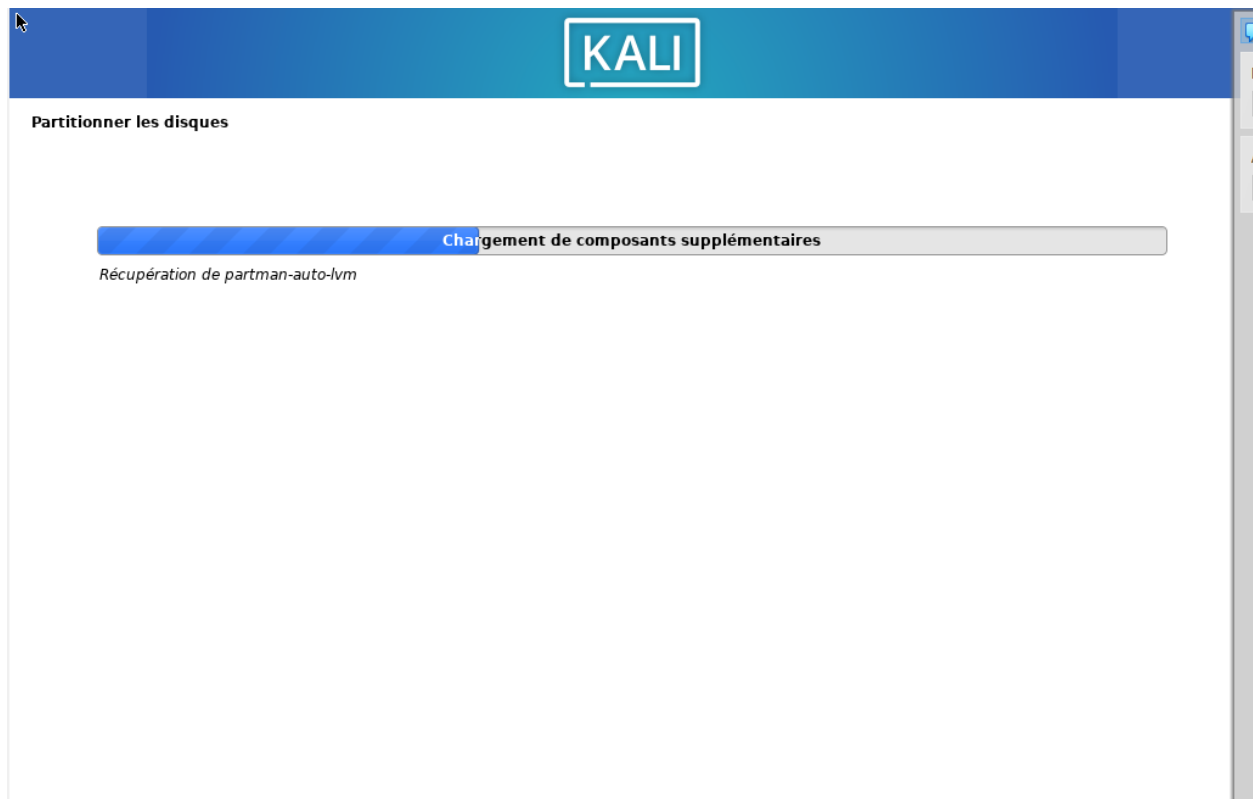


Configurer l'horloge

Si le fuseau horaire souhaité n'est pas affiché, veuillez retourner à l'étape de choix de la langue d'installation et choisir un pays qui inclut ce fuseau horaire (votre pays de résidence, par exemple).

Fuseau horaire :

Terre-Neuve
Atlantique
Est (Eastern)
Centre (Central)
Saskatchewan de l'Est
Saskatchewan
Rocheuses (Mountain)
Pacifique



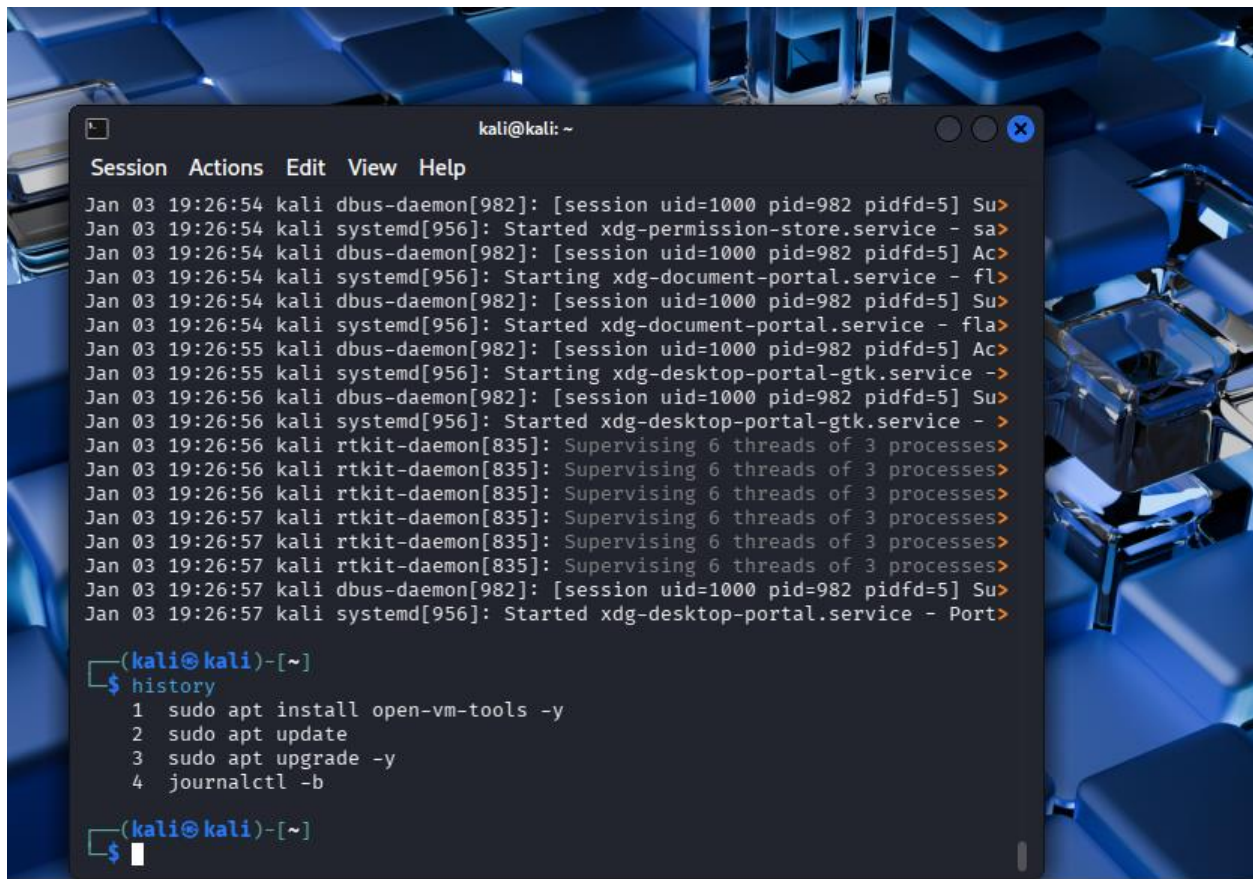
2-Configuration Linux

Mise à jour du système

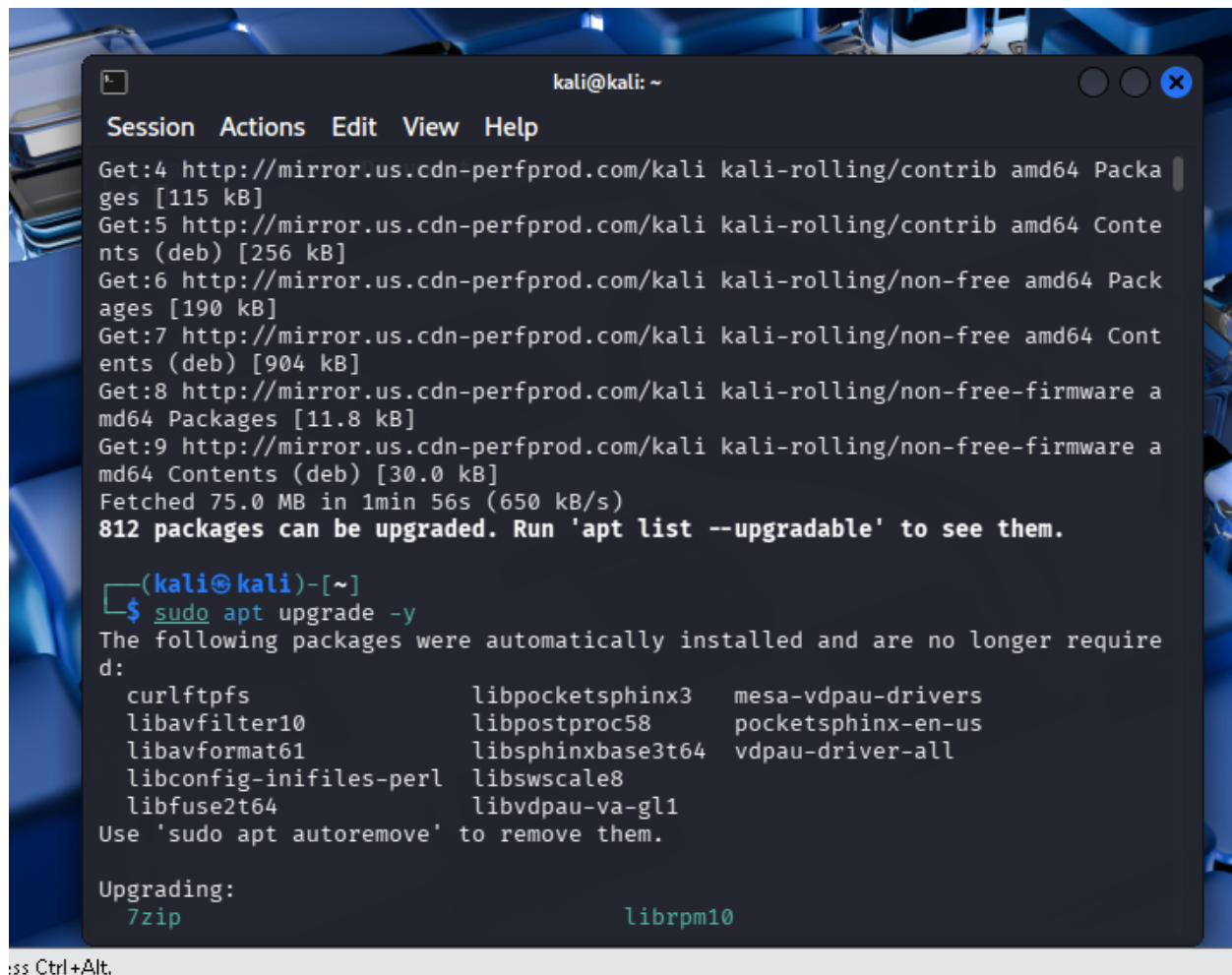
```
sudo apt update
```

```
sudo apt upgrade -y
```

```
sudo apt dist-upgrade -y
```

A terminal window titled 'kali@kali: ~' is displayed over a background image of a blue-lit computer keyboard. The terminal shows a series of system logs from 'Jan 03 19:26:54' to 'Jan 03 19:26:57'. The logs indicate the starting and supervising of various services like 'xdg-permission-store.service', 'xdg-document-portal.service', and 'xdg-desktop-portal-gtk.service'. Below the logs, the user enters the 'history' command, which lists the last four commands: 'sudo apt install open-vm-tools -y', 'sudo apt update', 'sudo apt upgrade -y', and 'journalctl -b'.

```
kali@kali: ~  
Session Actions Edit View Help  
Jan 03 19:26:54 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Su>  
Jan 03 19:26:54 kali systemd[956]: Started xdg-permission-store.service - sa>  
Jan 03 19:26:54 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Ac>  
Jan 03 19:26:54 kali systemd[956]: Starting xdg-document-portal.service - fl>  
Jan 03 19:26:54 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Su>  
Jan 03 19:26:54 kali systemd[956]: Started xdg-document-portal.service - fla>  
Jan 03 19:26:55 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Ac>  
Jan 03 19:26:55 kali systemd[956]: Starting xdg-desktop-portal-gtk.service ->  
Jan 03 19:26:56 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Su>  
Jan 03 19:26:56 kali systemd[956]: Started xdg-desktop-portal-gtk.service ->  
Jan 03 19:26:56 kali rtkit-daemon[835]: Supervising 6 threads of 3 processes>  
Jan 03 19:26:56 kali rtkit-daemon[835]: Supervising 6 threads of 3 processes>  
Jan 03 19:26:56 kali rtkit-daemon[835]: Supervising 6 threads of 3 processes>  
Jan 03 19:26:57 kali rtkit-daemon[835]: Supervising 6 threads of 3 processes>  
Jan 03 19:26:57 kali rtkit-daemon[835]: Supervising 6 threads of 3 processes>  
Jan 03 19:26:57 kali dbus-daemon[982]: [session uid=1000 pid=982 pidfd=5] Su>  
Jan 03 19:26:57 kali systemd[956]: Started xdg-desktop-portal.service - Port>  
  
(kali@kali)-[~]  
$ history  
1 sudo apt install open-vm-tools -y  
2 sudo apt update  
3 sudo apt upgrade -y  
4 journalctl -b  
  
(kali@kali)-[~]  
$
```



A terminal window titled 'kali@kali: ~' with a menu bar (Session, Actions, Edit, View, Help). The terminal shows the output of an 'apt update' command, listing updates for various packages from the kali-rolling repository. It reports that 812 packages can be upgraded. The user then runs 'sudo apt upgrade -y', and the terminal lists several packages that will be automatically installed. Finally, it shows the start of the upgrade process for '7zip' and 'librpm10'.

```
kali@kali: ~
Session Actions Edit View Help
Get:4 http://mirror.us.cdn-perfprod.com/kali kali-rolling/contrib amd64 Packa
ges [115 kB]
Get:5 http://mirror.us.cdn-perfprod.com/kali kali-rolling/contrib amd64 Conte
nts (deb) [256 kB]
Get:6 http://mirror.us.cdn-perfprod.com/kali kali-rolling/non-free amd64 Pack
ages [190 kB]
Get:7 http://mirror.us.cdn-perfprod.com/kali kali-rolling/non-free amd64 Cont
ents (deb) [904 kB]
Get:8 http://mirror.us.cdn-perfprod.com/kali kali-rolling/non-free-firmware a
md64 Packages [11.8 kB]
Get:9 http://mirror.us.cdn-perfprod.com/kali kali-rolling/non-free-firmware a
md64 Contents (deb) [30.0 kB]
Fetched 75.0 MB in 1min 56s (650 kB/s)
812 packages can be upgraded. Run 'apt list --upgradable' to see them.

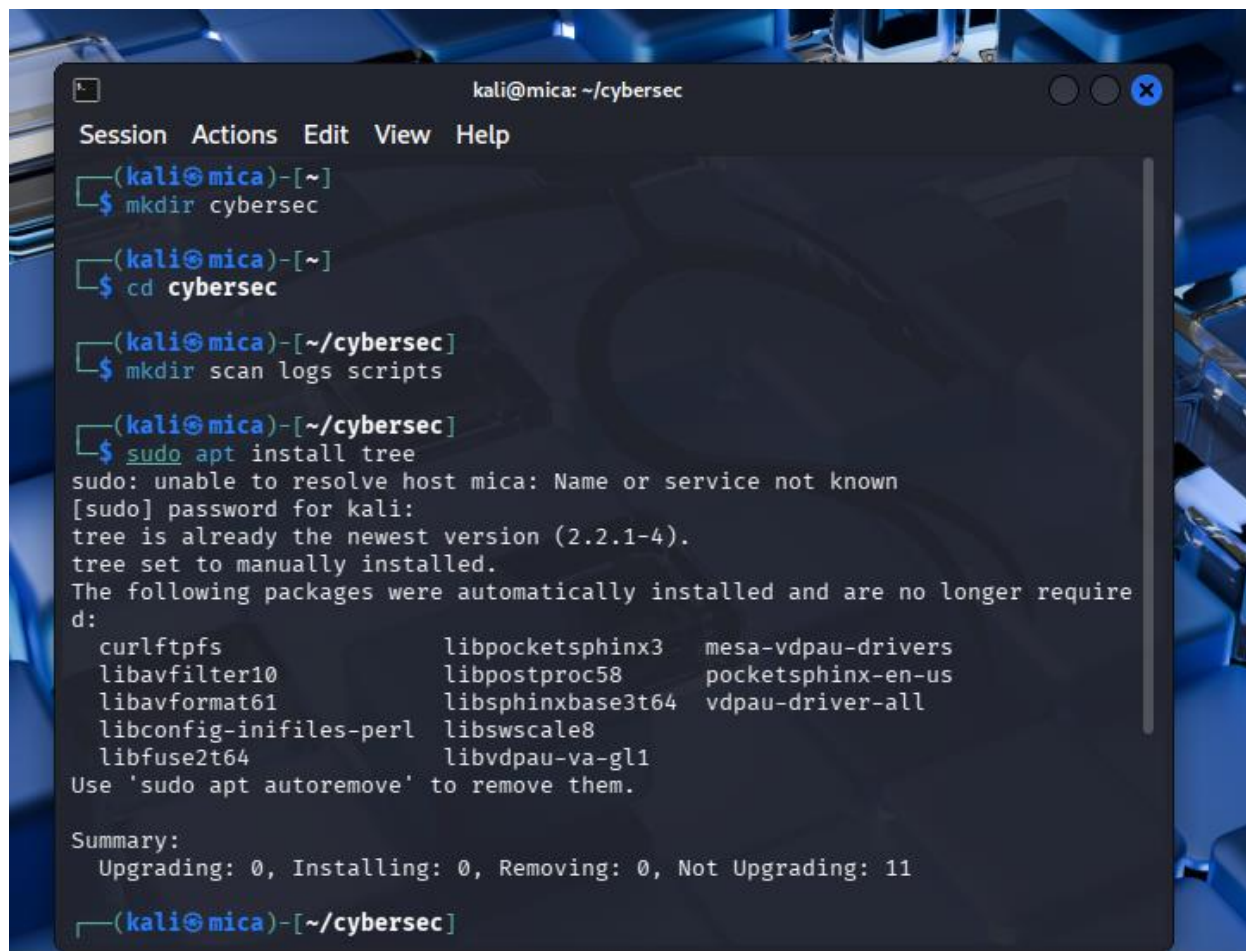
(kali@kali)-[~]
$ sudo apt upgrade -y
The following packages were automatically installed and are no longer require
d:
curlftpfs                libpocketsphinx3        mesa-vidpau-drivers
libavfilter10            libpostproc58           pocketsphinx-en-us
libavformat61            libsphinxbase3t64      vdpau-driver-all
libconfig-inifiles-perl libswscale8
libfuse2t64              libvdpau-va-gl1
Use 'sudo apt autoremove' to remove them.

Upgrading:
7zip                      librpm10
```

iss Ctrl+Alt.

- Créez un dossier cybersec avec trois sous-dossiers :scan, logs, scripts .

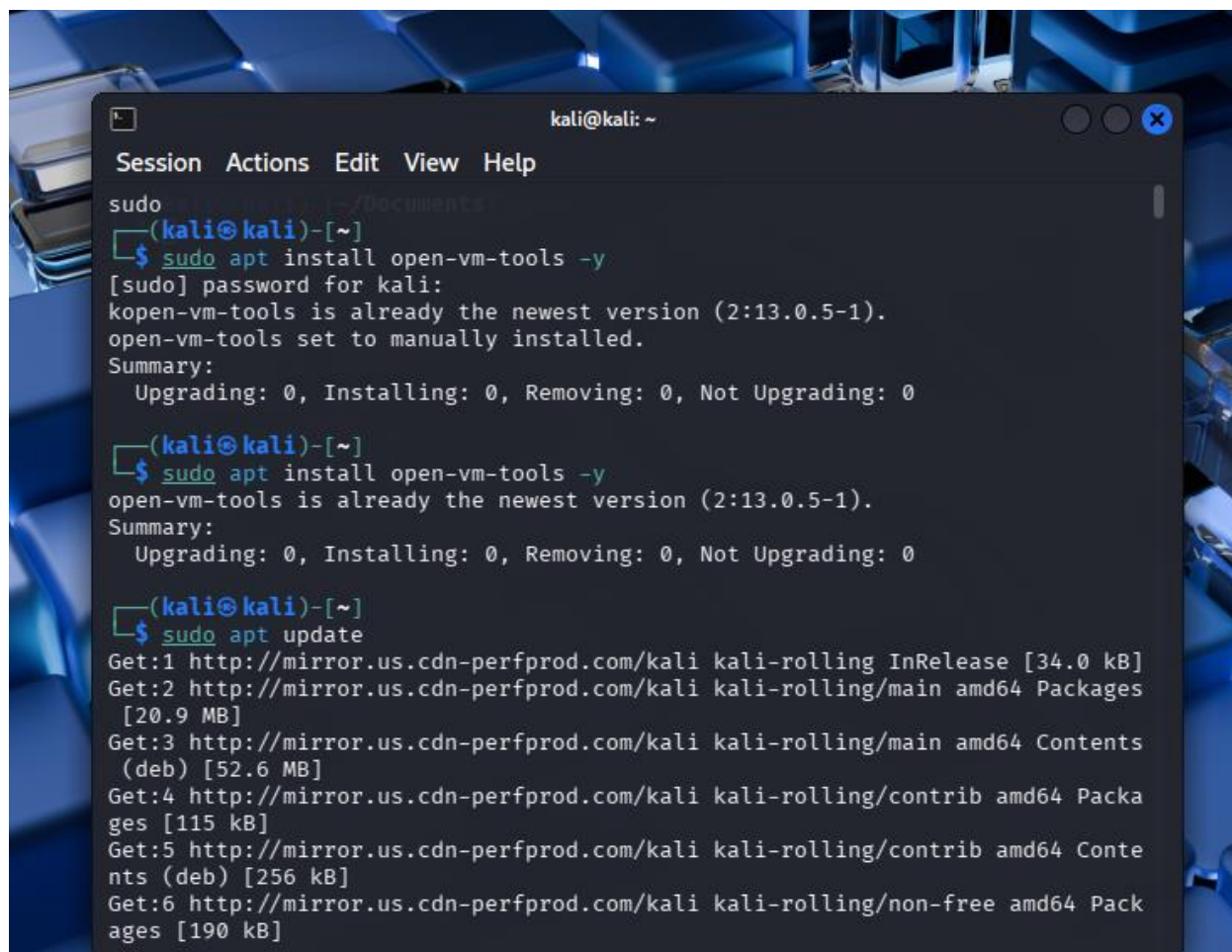
J'ai rencontre certaines erreurs et je les ai resolu



```
kali@mica: ~/cybersec
Session Actions Edit View Help
(kali@mica)-[~]
$ mkdir cybersec
(kali@mica)-[~]
$ cd cybersec
(kali@mica)-[~/cybersec]
$ mkdir scan logs scripts
(kali@mica)-[~/cybersec]
$ sudo apt install tree
sudo: unable to resolve host mica: Name or service not known
[sudo] password for kali:
tree is already the newest version (2.2.1-4).
tree set to manually installed.
The following packages were automatically installed and are no longer require
d:
  curlftpfs          libpocketsphinx3    mesa-udpau-drivers
  libavfilter10      libpostproc58       pocketsphinx-en-us
  libavformat61      libsphinxbase3t64   udpau-driver-all
  libconfig-inifiles-perl libswscale8
  libfuse2t64        libudpau-va-gl1
Use 'sudo apt autoremove' to remove them.

Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 11
(kali@mica)-[~/cybersec]
```

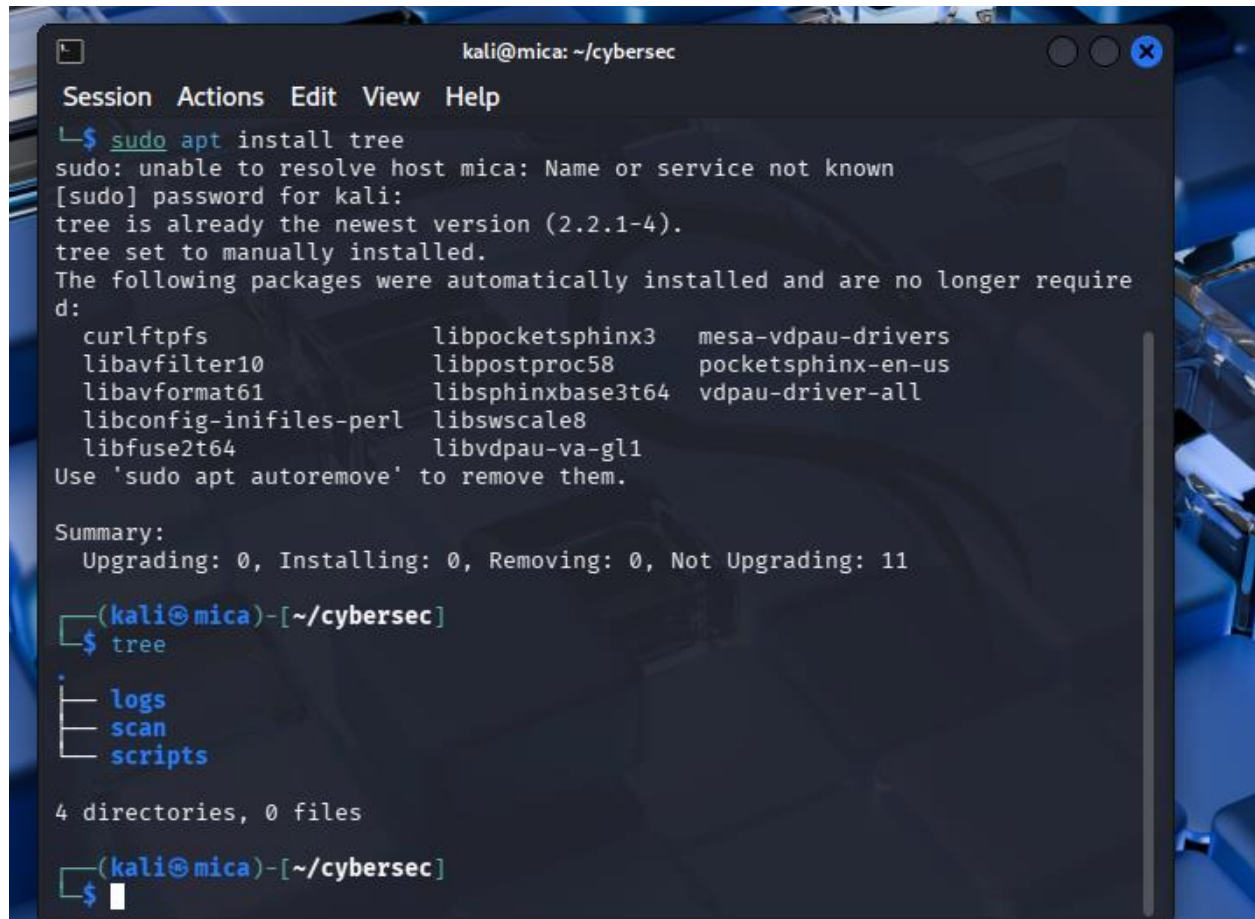
Mkdir permet la creation de dossier en linux, apres creation j'ai installer tree pour pouvoir l'utiliser...



```
kali@kali: ~  
Session Actions Edit View Help  
sudo  
~/.Documents  
(kali@kali)-[~]  
$ sudo apt install open-vm-tools -y  
[sudo] password for kali:  
open-vm-tools is already the newest version (2:13.0.5-1).  
open-vm-tools set to manually installed.  
Summary:  
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0  
  
(kali@kali)-[~]  
$ sudo apt install open-vm-tools -y  
open-vm-tools is already the newest version (2:13.0.5-1).  
Summary:  
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0  
  
(kali@kali)-[~]  
$ sudo apt update  
Get:1 http://mirror.us.cdn-perfprod.com/kali kali-rolling InRelease [34.0 kB]  
Get:2 http://mirror.us.cdn-perfprod.com/kali kali-rolling/main amd64 Packages [20.9 MB]  
Get:3 http://mirror.us.cdn-perfprod.com/kali kali-rolling/main amd64 Contents (deb) [52.6 MB]  
Get:4 http://mirror.us.cdn-perfprod.com/kali kali-rolling/contrib amd64 Packages [115 kB]  
Get:5 http://mirror.us.cdn-perfprod.com/kali kali-rolling/contrib amd64 Contents (deb) [256 kB]  
Get:6 http://mirror.us.cdn-perfprod.com/kali kali-rolling/non-free amd64 Packages [190 kB]
```


Après mise à jour complète nous revenons au devoir:

- Créez un dossier `cybersec` avec trois sous-dossiers : `scan`, `logs`, `scripts` .
- Afficher la structure du répertoire `cybersec` avec `tree`



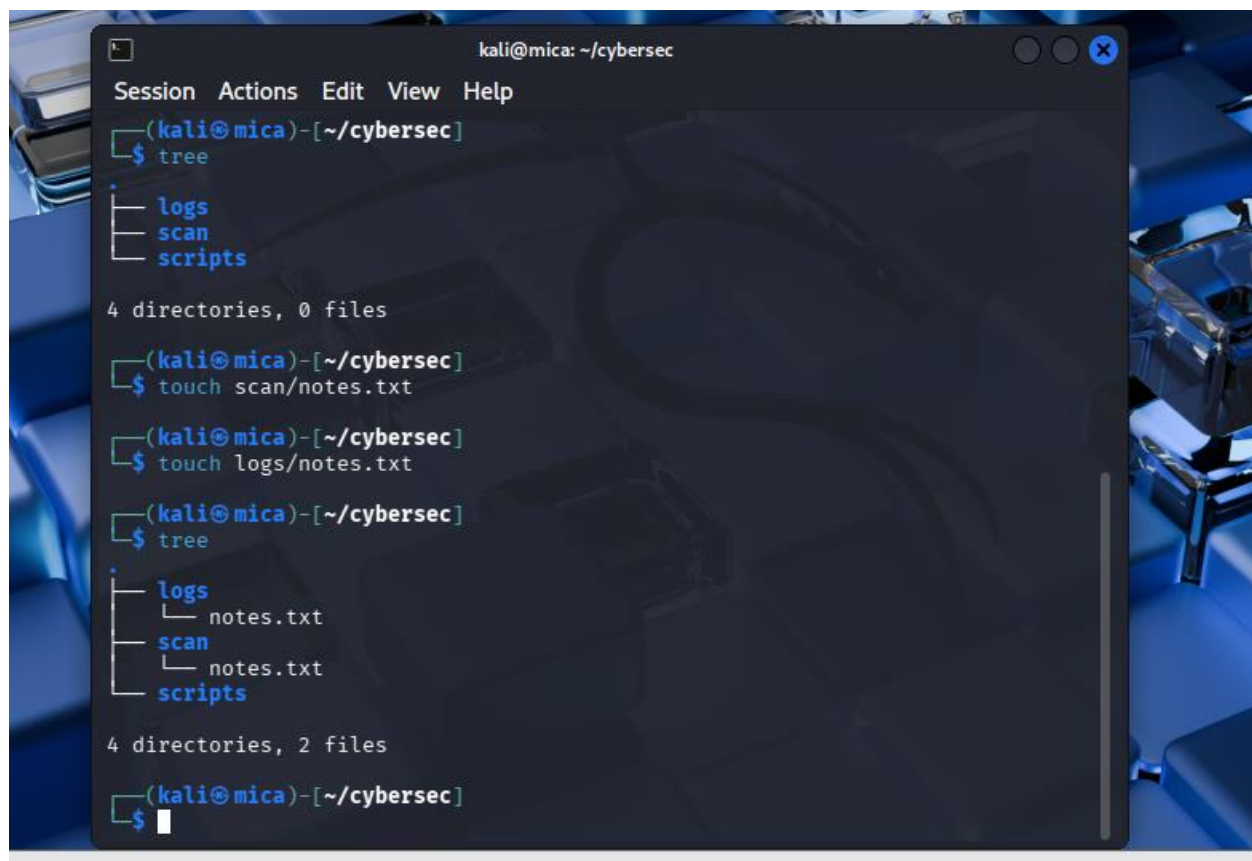
```
kali@mica: ~/cybersec
Session Actions Edit View Help
└─$ sudo apt install tree
sudo: unable to resolve host mica: Name or service not known
[sudo] password for kali:
tree is already the newest version (2.2.1-4).
tree set to manually installed.
The following packages were automatically installed and are no longer required:
 curlftpfs          libpocketsphinx3    mesa-va-driver-all
 libavfilter10      libpostproc58       mesa-va-drivers
 libavformat61      libsphinxbase3t64   pocketsphinx-en-us
 libconfig-inifiles-perl libswscale8         vdpau-driver-all
 libfuse2t64        libvdpau-v4l2       vdpau-driver-core
Use 'sudo apt autoremove' to remove them.

Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 11
└─(kali@mica)-[~/cybersec]
└─$ tree
.
├── logs
├── scan
└── scripts

4 directories, 0 files
└─(kali@mica)-[~/cybersec]
└─$
```

J'ai utilisé `tree` et ça a affiché les dossiers qui se trouvent dans `cybersec`

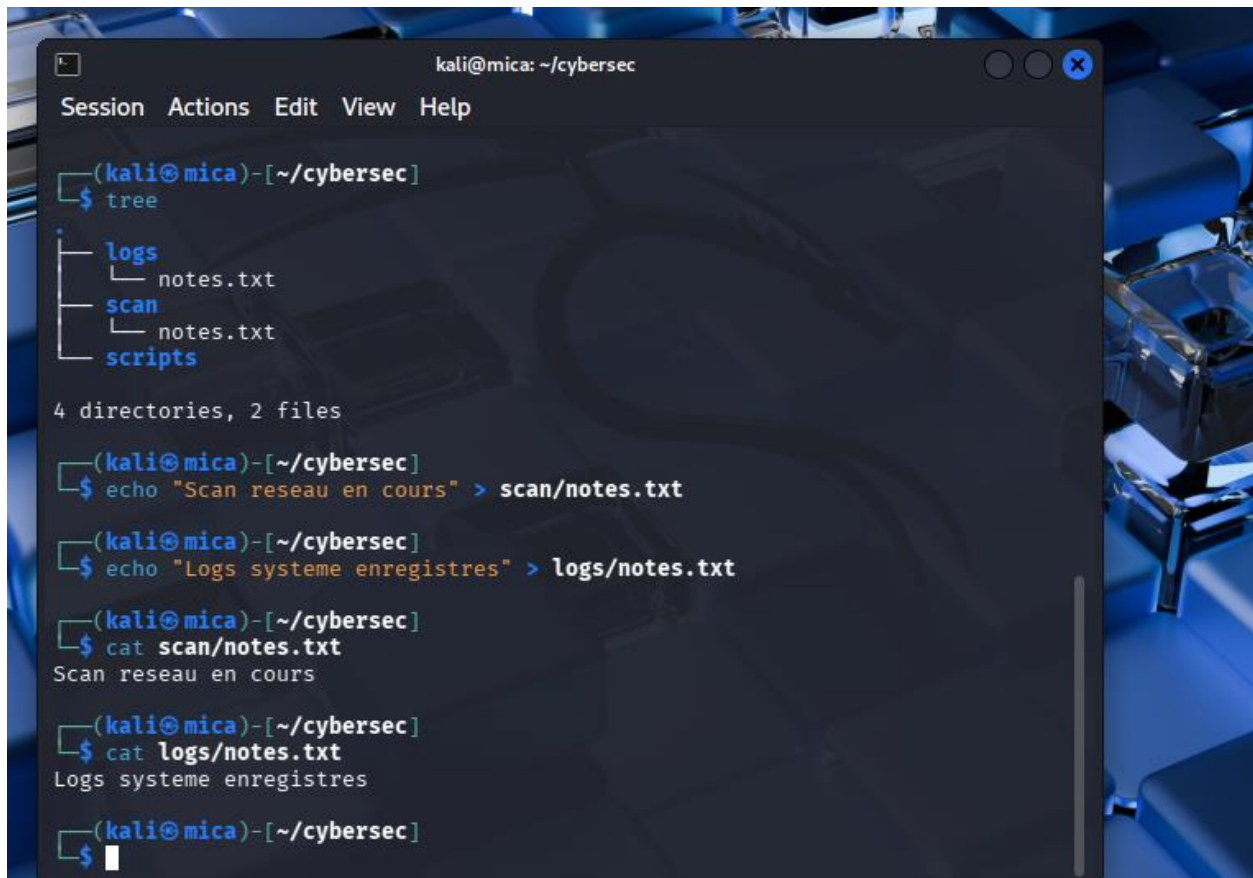
- Ajoutez un fichier notes.txt dans scan et logs
- Ajoutez du contenu dans les fichiers textes (notes.txt), puis affichez le contenu des fichiers
- Copiez le fichier (notes.txt) dans le sous-dossier scripts .
- vérifier si le fichiers a été copié.
- Déplacez le fichier (notes.txt) dans le sous-dossier scan .

A terminal window titled 'kali@mica: ~/cybersec' with a menu bar (Session, Actions, Edit, View, Help). The terminal shows the following commands and output:

```
(kali@mica)-[~/cybersec]  
$ tree  
.  
├── logs  
├── scan  
└── scripts  
  
4 directories, 0 files  
  
(kali@mica)-[~/cybersec]  
$ touch scan/notes.txt  
  
(kali@mica)-[~/cybersec]  
$ touch logs/notes.txt  
  
(kali@mica)-[~/cybersec]  
$ tree  
.  
├── logs  
│   └── notes.txt  
├── scan  
│   └── notes.txt  
└── scripts  
  
4 directories, 2 files  
  
(kali@mica)-[~/cybersec]  
$
```

Le mot cle touch permet la creation de fichier txt en linux...

- Ajoutez du contenu dans les fichiers textes (notes.txt), puis affichez le contenu des fichiers

A screenshot of a Kali Linux terminal window titled 'kali@mica: ~/cybersec'. The window has a menu bar with 'Session', 'Actions', 'Edit', 'View', and 'Help'. The terminal shows the following commands and output:

```
(kali@mica)-[~/cybersec]
$ tree
.
├── logs
│   └── notes.txt
├── scan
│   └── notes.txt
└── scripts

4 directories, 2 files

(kali@mica)-[~/cybersec]
$ echo "Scan reseau en cours" > scan/notes.txt

(kali@mica)-[~/cybersec]
$ echo "Logs systeme enregistres" > logs/notes.txt

(kali@mica)-[~/cybersec]
$ cat scan/notes.txt
Scan reseau en cours

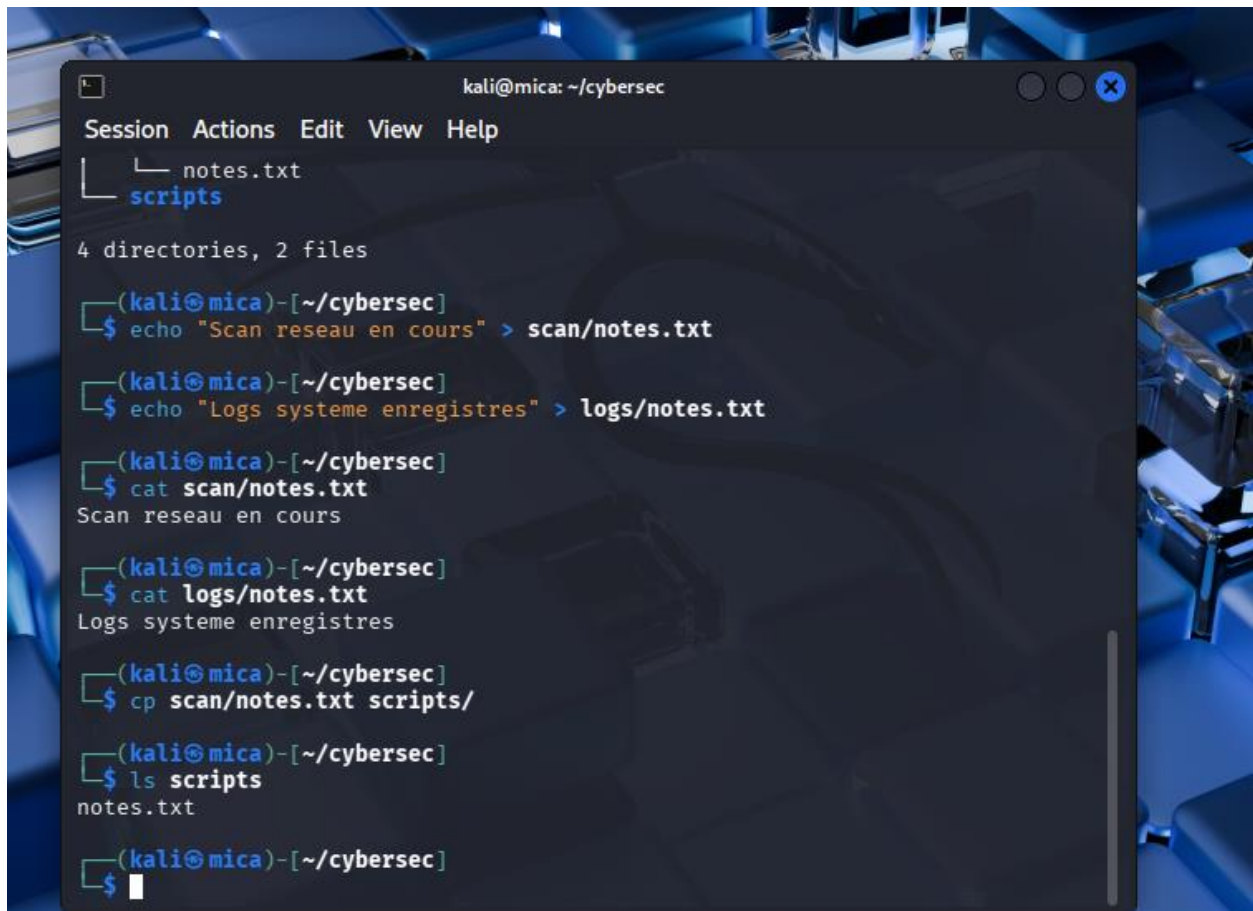
(kali@mica)-[~/cybersec]
$ cat logs/notes.txt
Logs systeme enregistres

(kali@mica)-[~/cybersec]
$
```

Ajout de contenu dan le fichier note.txt

Avec echo...

- Copiez le fichier (notes.txt) dans le sous-dossier scripts
- vérifiez si le fichier a été copié.



The screenshot shows a terminal window titled 'kali@mica: ~/cybersec'. The window has a menu bar with 'Session', 'Actions', 'Edit', 'View', and 'Help'. Below the menu bar, there is a file explorer view showing a tree structure with 'notes.txt' and a subdirectory 'scripts'. The terminal output shows the following commands and their results:

```
(kali@mica)-[~/cybersec]
$ echo "Scan reseau en cours" > scan/notes.txt

(kali@mica)-[~/cybersec]
$ echo "Logs systeme enregistres" > logs/notes.txt

(kali@mica)-[~/cybersec]
$ cat scan/notes.txt
Scan reseau en cours

(kali@mica)-[~/cybersec]
$ cat logs/notes.txt
Logs systeme enregistres

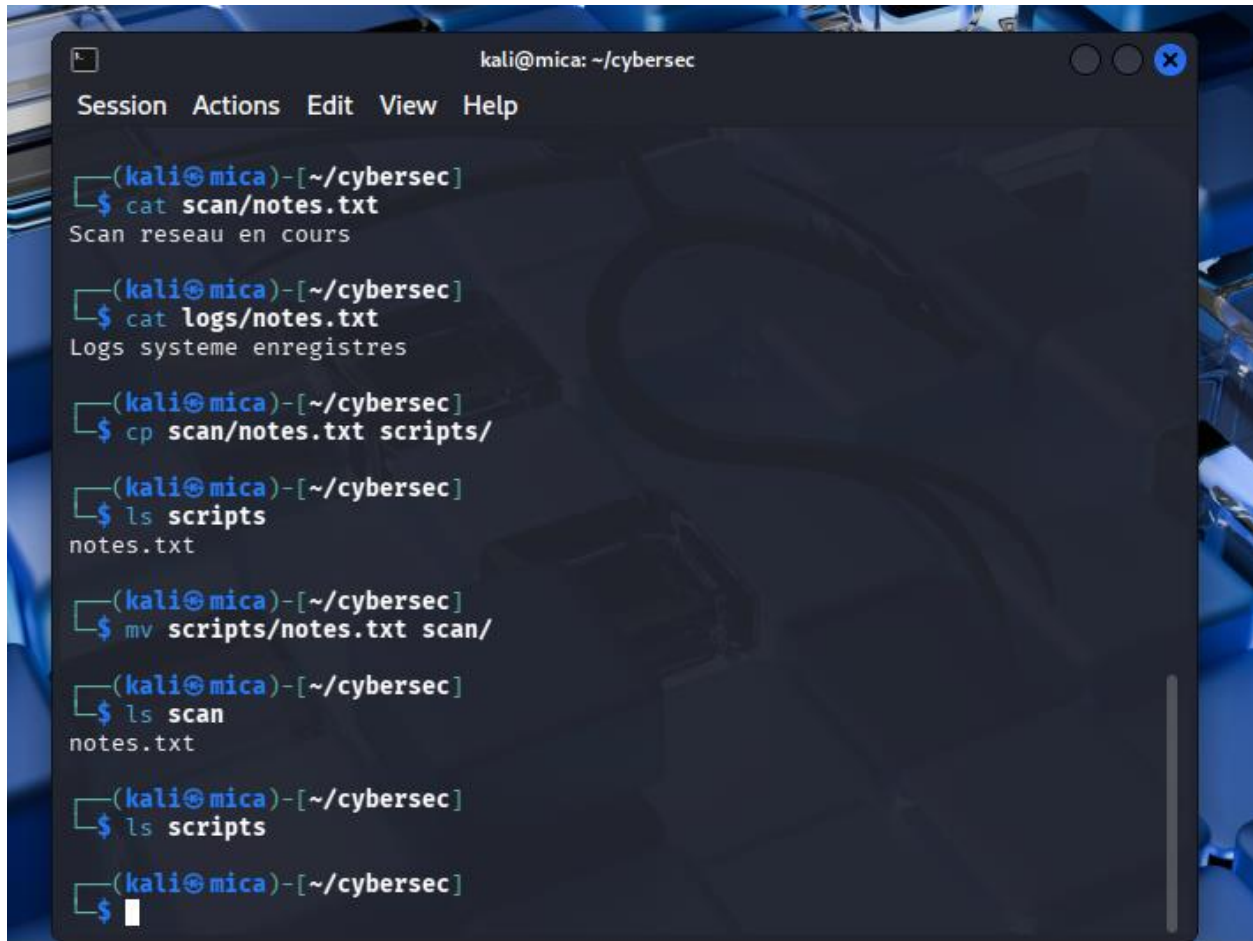
(kali@mica)-[~/cybersec]
$ cp scan/notes.txt scripts/

(kali@mica)-[~/cybersec]
$ ls scripts
notes.txt

(kali@mica)-[~/cybersec]
$
```

Le mot cle cp permet de copier un fichier existant vers un dossier voulu ,cest le cas dans ce capture d’ecran

- Déplacez le fichier (notes.txt) dans le sous-dossier scan .



A terminal window titled 'kali@mica: ~/cybersec' with a menu bar (Session, Actions, Edit, View, Help). The terminal shows a series of commands and their outputs:

```
(kali@mica)-[~/cybersec]
$ cat scan/notes.txt
Scan reseau en cours

(kali@mica)-[~/cybersec]
$ cat logs/notes.txt
Logs systeme enregistres

(kali@mica)-[~/cybersec]
$ cp scan/notes.txt scripts/

(kali@mica)-[~/cybersec]
$ ls scripts
notes.txt

(kali@mica)-[~/cybersec]
$ mv scripts/notes.txt scan/

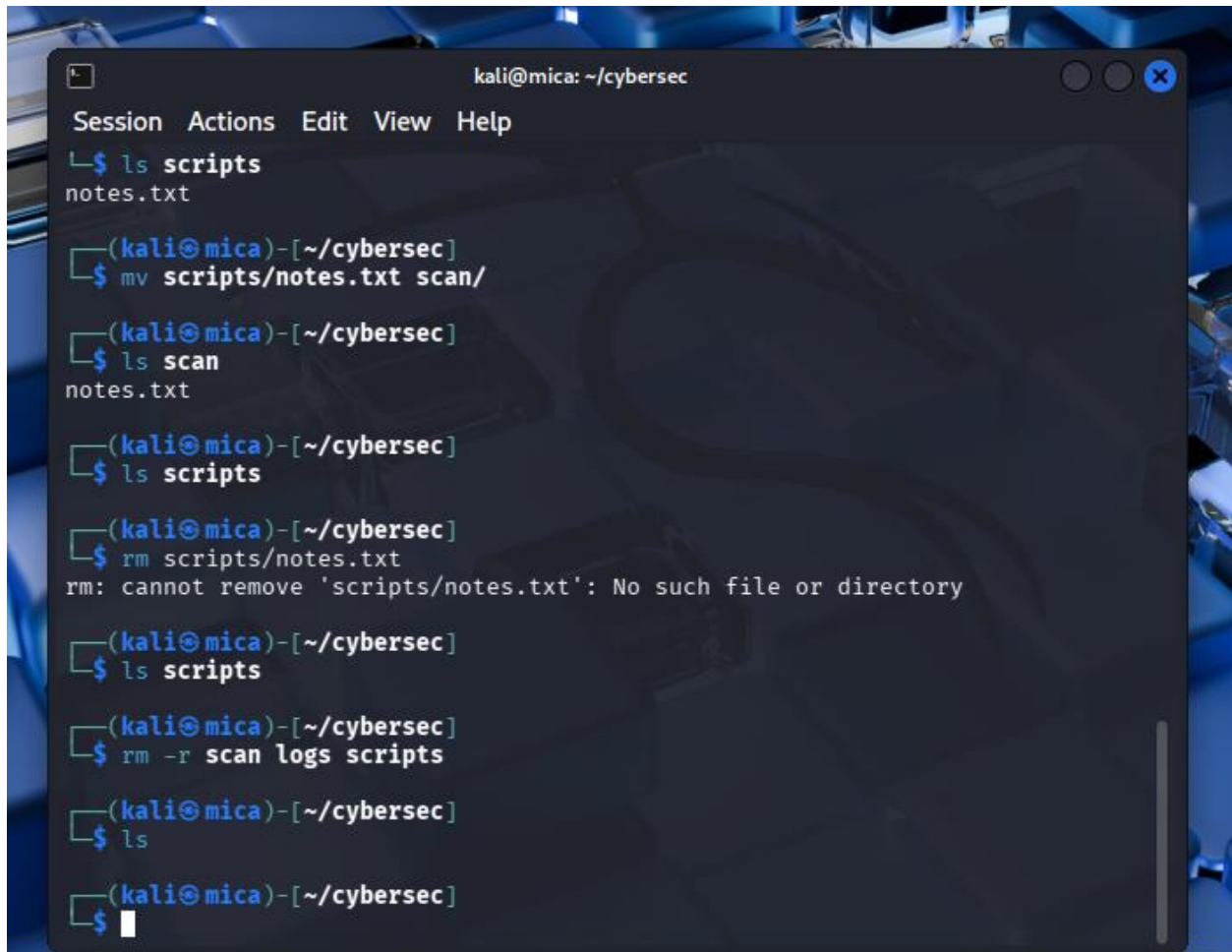
(kali@mica)-[~/cybersec]
$ ls scan
notes.txt

(kali@mica)-[~/cybersec]
$ ls scripts

(kali@mica)-[~/cybersec]
$
```

Le mot cle mv permet de déplacer un fichier vers un emplacement voulu

- Supprimez le fichier (notes.txt) dans le sous-dossier scripts .
- vérifier si le fichiers a été supprimé.
- Supprimez les sous-dossiers : scan , logs , scripts .
- vérifier si les sous-dossiers ont été supprimés.

A terminal window titled 'kali@mica: ~/cybersec' with a menu bar (Session, Actions, Edit, View, Help). The terminal shows a sequence of commands: 1. 'ls scripts' outputs 'notes.txt'. 2. 'mv scripts/notes.txt scan/' moves the file. 3. 'ls scan' outputs 'notes.txt'. 4. 'ls scripts' is executed. 5. 'rm scripts/notes.txt' results in an error: 'rm: cannot remove 'scripts/notes.txt': No such file or directory'. 6. 'ls scripts' is executed. 7. 'rm -r scan logs scripts' is executed. 8. 'ls' is executed. 9. The prompt '\$' is shown at the end of the line.

```
kali@mica: ~/cybersec
Session Actions Edit View Help
└─$ ls scripts
notes.txt

(kali@mica)-[~/cybersec]
└─$ mv scripts/notes.txt scan/

(kali@mica)-[~/cybersec]
└─$ ls scan
notes.txt

(kali@mica)-[~/cybersec]
└─$ ls scripts

(kali@mica)-[~/cybersec]
└─$ rm scripts/notes.txt
rm: cannot remove 'scripts/notes.txt': No such file or directory

(kali@mica)-[~/cybersec]
└─$ ls scripts

(kali@mica)-[~/cybersec]
└─$ rm -r scan logs scripts

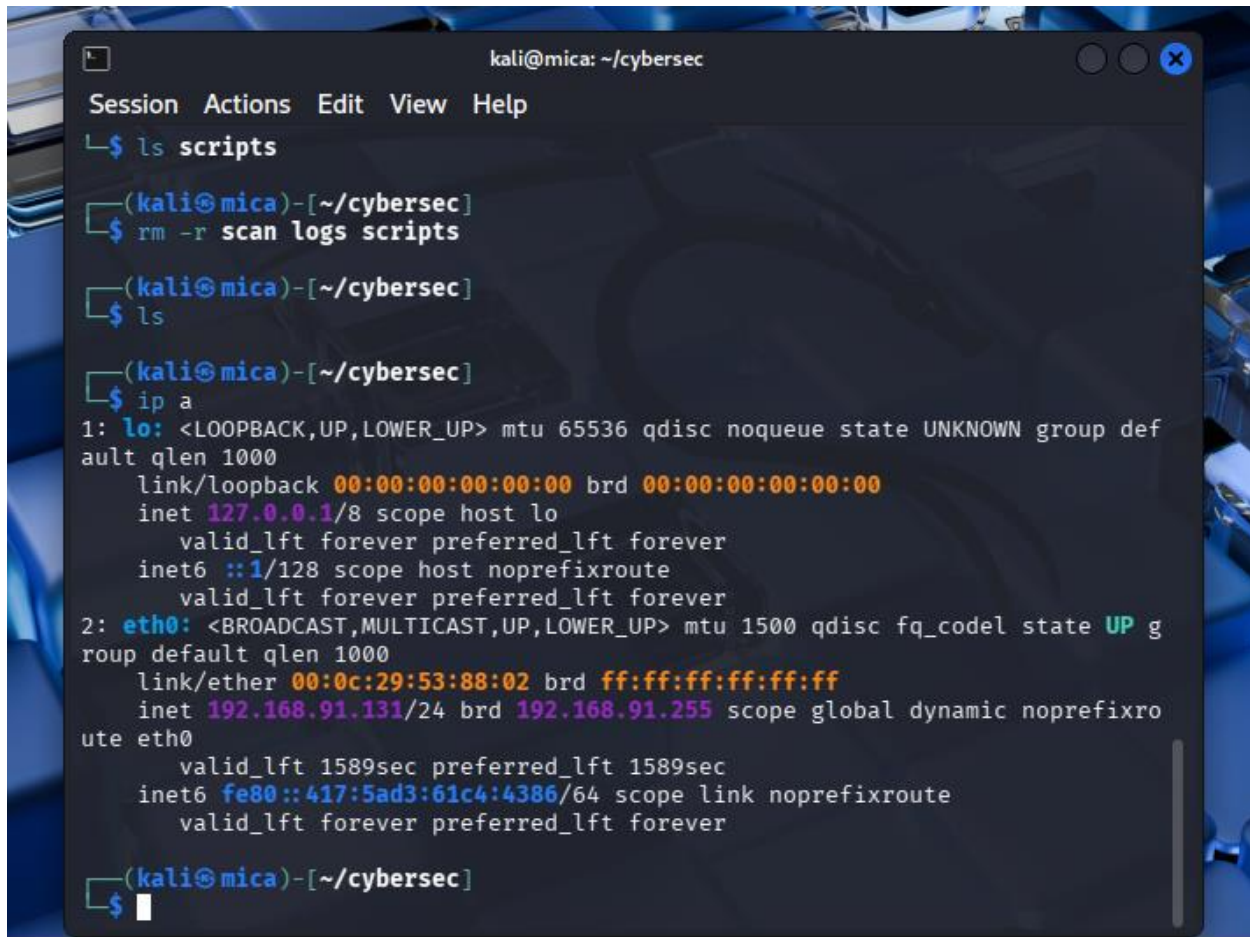
(kali@mica)-[~/cybersec]
└─$ ls

(kali@mica)-[~/cybersec]
└─$
```

Rm permet d'effacer un fichier

5. Scanner un réseau :

ifconfig ou ip a : Affiche les informations reseau.

A terminal window titled 'kali@mica: ~/cybersec' with a menu bar (Session, Actions, Edit, View, Help). The user enters 'ls scripts' and 'rm -r scan logs scripts'. Then they enter 'ls' and 'ip a'. The output for 'ip a' shows details for the loopback interface 'lo' (127.0.0.1) and the ethernet interface 'eth0' (192.168.91.131).

```
kali@mica: ~/cybersec
Session Actions Edit View Help
$ ls scripts
(kali@mica)-[~/cybersec]
$ rm -r scan logs scripts
(kali@mica)-[~/cybersec]
$ ls
(kali@mica)-[~/cybersec]
$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group def
ault 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: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP g
roup default qlen 1000
    link/ether 00:0c:29:53:88:02 brd ff:ff:ff:ff:ff:ff
    inet 192.168.91.131/24 brd 192.168.91.255 scope global dynamic noprefixro
ute eth0
        valid_lft 1589sec preferred_lft 1589sec
    inet6 fe80::417:5ad3:61c4:4386/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
(kali@mica)-[~/cybersec]
$
```

6. Exécuter ces commandes

```
df -h
du -sh
free -h
ps aux
lspci
sudo apt install traceroute
traceroute google.com
netstat -tuln
ss -tuln
journalctl
journalctl -f
journalctl -b
journalctl -n 10
date
timedatectl
hostnamectl
# Pour changer le nom d'hôte, vous pouvez utiliser la commande suivante
sudo hostnamectl set-hostname [nouveau_nom]
cat /etc/os-release
```



```
kali@mica: ~/cybersec
Session Actions Edit View Help
ute eth0
    valid_lft 1589sec preferred_lft 1589sec
    inet6 fe80::417:5ad3:61c4:4386/64 scope link noprefixroute
    valid_lft forever preferred_lft forever

(kali@mica)-[~/cybersec]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.91.131 netmask 255.255.255.0 broadcast 192.168.91.255
    inet6 fe80::417:5ad3:61c4:4386 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:53:88:02 txqueuelen 1000 (Ethernet)
    RX packets 322 bytes 32420 (31.6 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 122 bytes 18222 (17.7 KiB)
    TX errors 0 dropped 3 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@mica)-[~/cybersec]
$
```

```
kali@mica: ~/cybersec
Session Actions Edit View Help
TX packets 8 bytes 480 (480.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

(kali@mica)-[~/cybersec]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            879M   0    879M   0% /dev
tmpfs           197M  1.3M  196M   1% /run
/dev/sda1       79G   17G   58G  23% /
tmpfs           982M  4.0K  982M   1% /dev/shm
none            1.0M   0    1.0M   0% /run/credentials/systemd-journald.servi
ce
tmpfs           982M  84K   982M   1% /tmp
none            1.0M   0    1.0M   0% /run/credentials/getty@tty1.service
tmpfs           197M  112K  197M   1% /run/user/1000

(kali@mica)-[~/cybersec]
$ df -sh
df: invalid option -- 's'
Try 'df --help' for more information.

(kali@mica)-[~/cybersec]
$ du -sh
4.0K  .

(kali@mica)-[~/cybersec]
$
```



```
kali@mica: ~/cybersec
Session Actions Edit View Help
4.0K .

(kali@mica)-[~/cybersec]
$ free -h
              total        used        free      shared  buff/cache   availa
ble
Mem:          1.9Gi         787Mi        210Mi         6.5Mi        1.1Gi        1.
1Gi
Swap:          953Mi           0B         953Mi

(kali@mica)-[~/cybersec]
$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.8  0.7 24756 15728 ?        Ss   11:45   0:21 /sbin/init
root           2  0.0  0.0      0      0 ?        S    11:45   0:00 [kthreadd]
root           3  0.0  0.0      0      0 ?        S    11:45   0:00 [pool_work
root           4  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root           5  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root           6  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root           7  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root           8  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root          12  0.0  0.0      0      0 ?        I    11:45   0:00 [kworker/u
root          13  0.0  0.0      0      0 ?        I<   11:45   0:00 [kworker/R
root          14  0.0  0.0      0      0 ?        S    11:45   0:00 [ksoftirqd
root          15  0.8  0.0      0      0 ?        I    11:45   0:20 [rcu_preem
root          16  0.0  0.0      0      0 ?        S    11:45   0:00 [rcu_exp_p
root          17  0.0  0.0      0      0 ?        S    11:45   0:00 [rcu_exp_g
root          18  0.0  0.0      0      0 ?        S    11:45   0:00 [migration
```

```
kali@mica: ~/cybersec
Session Actions Edit View Help
kali      20111  260  0.2  9808  4448 pts/0   R+   12:25   0:00 ps aux

(kali@mica)-[~/cybersec]
$ lspci
00:00.0 Host bridge: Intel Corporation 440BX/ZX/DX - 82443BX/ZX/DX Host bridge (rev 01)
00:01.0 PCI bridge: Intel Corporation 440BX/ZX/DX - 82443BX/ZX/DX AGP bridge (rev 01)
00:07.0 ISA bridge: Intel Corporation 82371AB/EB/MB PIIX4 ISA (rev 08)
00:07.1 IDE interface: Intel Corporation 82371AB/EB/MB PIIX4 IDE (rev 01)
00:07.3 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 08)
00:07.7 System peripheral: VMware Virtual Machine Communication Interface (rev 10)
00:0f.0 VGA compatible controller: VMware SVGA II Adapter
00:10.0 SCSI storage controller: Broadcom / LSI 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI (rev 01)
00:11.0 PCI bridge: VMware PCI bridge (rev 02)
00:15.0 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.1 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.2 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.3 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.4 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.5 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.6 PCI bridge: VMware PCI Express Root Port (rev 01)
00:15.7 PCI bridge: VMware PCI Express Root Port (rev 01)
00:16.0 PCI bridge: VMware PCI Express Root Port (rev 01)
00:16.1 PCI bridge: VMware PCI Express Root Port (rev 01)
00:16.2 PCI bridge: VMware PCI Express Root Port (rev 01)
```

```
kali@mica: ~/cybersec
Session Actions Edit View Help
00:18.6 PCI bridge: VMware PCI Express Root Port (rev 01)
00:18.7 PCI bridge: VMware PCI Express Root Port (rev 01)
02:00.0 USB controller: VMware USB1.1 UHCI Controller
02:01.0 Ethernet controller: Intel Corporation 82545EM Gigabit Ethernet Contr
oller (Copper) (rev 01)
02:02.0 Multimedia audio controller: Ensoniq ES1371/ES1373 / Creative Labs CT
2518 (rev 02)
02:03.0 USB controller: VMware USB2 EHCI Controller

(kali@mica)~[~/cybersec]
$ sudo apt install traceroute
sudo: unable to resolve host mica: Temporary failure in name resolution
[sudo] password for kali:
traceroute is already the newest version (1:2.1.6-1).
The following packages were automatically installed and are no longer require
d:
curlftpfs          libpocketsphinx3  mesa-vaapi-drivers
libavfilter10      libpostproc58    pocketsphinx-en-us
libavformat61      libsphinxbase3t64 vdpau-driver-all
libconfig-inifiles-perl libswscale8
libfuse2t64        libvdpau-va-gli
Use 'sudo apt autoremove' to remove them.

Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 11

(kali@mica)~[~/cybersec]
$
```

```
kali@mica: ~/cybersec
Session Actions Edit View Help

d:
curlftpfs          libpocketsphinx3  mesa-vidpau-drivers
libavfilter10      libpostproc58     pocketsphinx-en-us
libavformat61      libsphinxbase3t64 vdpau-driver-all
libconfig-inifiles-perl libswscale8
libfuse2t64        libvidpau-va-gli
Use 'sudo apt autoremove' to remove them.

Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 11

(kali@mica)-[~/cybersec]
$ traceroute google.com
google.com: Temporary failure in name resolution
Cannot handle "host" cmdline arg `google.com' on position 1 (argc 1)

(kali@mica)-[~/cybersec]
$ netstat -tuln
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State

(kali@mica)-[~/cybersec]
$ ss -tuln
Netid State  Recv-Q  Send-Q  Local Address:Port      Peer Address:Port
```

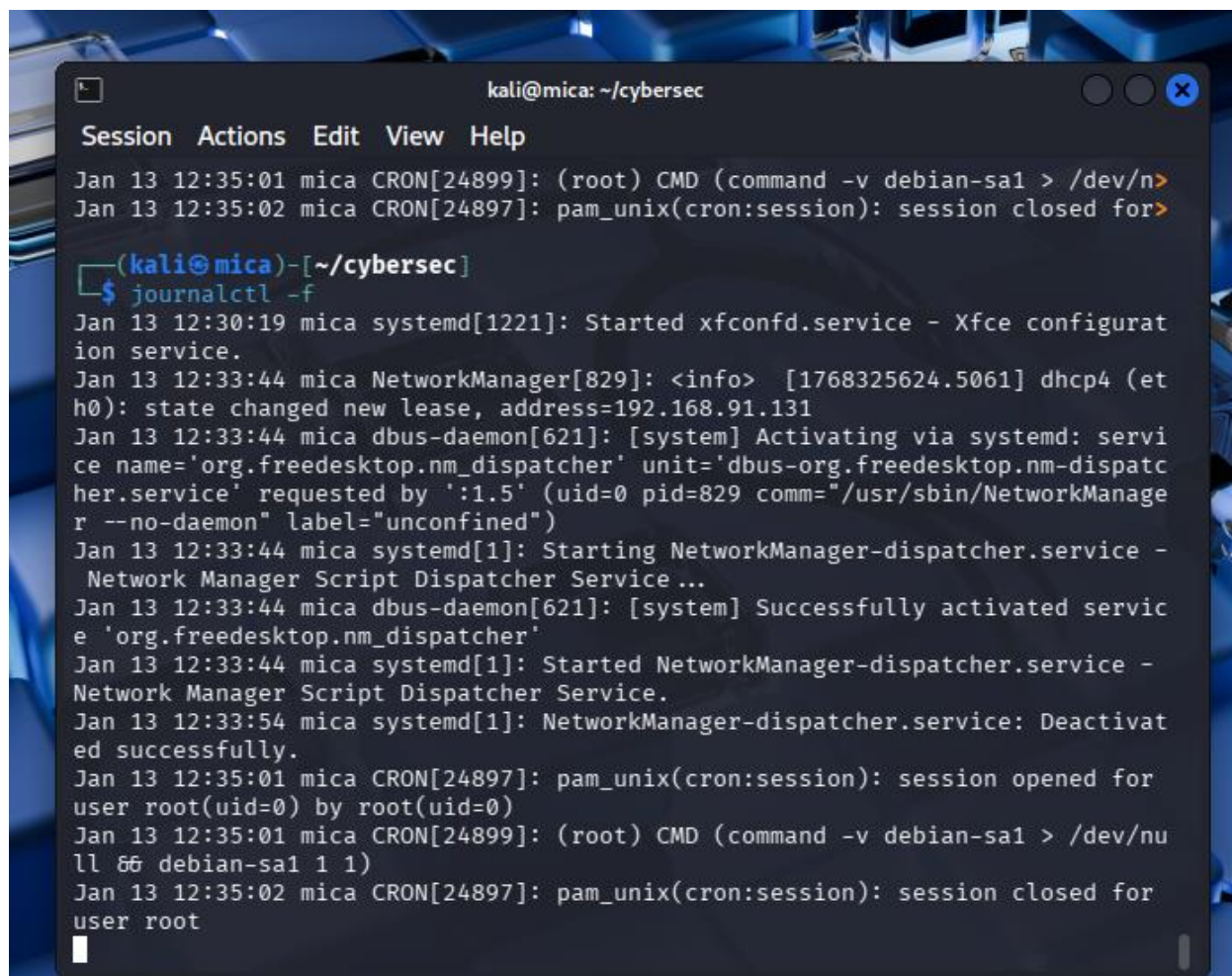


```
kali@mica: ~/cybersec
Session Actions Edit View Help
└─$ netstat -tuln
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State

(kali@mica)-[~/cybersec]
└─$ ss -tuln
Netid State  Recv-Q Send-Q   Local Address:Port      Peer Address:Port

(kali@mica)-[~/cybersec]
└─$ jour
jour: command not found

(kali@mica)-[~/cybersec]
└─$ journalctl
Jan 03 15:53:17 kali kernel: Linux version 6.16.8+kali-amd64 (devel@kali.org>
Jan 03 15:53:17 kali kernel: Command line: BOOT_IMAGE=/boot/vmlinuz-6.16.8+k
Jan 03 15:53:17 kali kernel: Disabled fast string operations
Jan 03 15:53:17 kali kernel: BIOS-provided physical RAM map:
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x0000000000000000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x00000000000009f400-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x000000000000dc000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x00000000000100000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x000000000007fee0000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x000000000007feff000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x000000000007ff00000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x00000000000f0000000-0x0000000000
Jan 03 15:53:17 kali kernel: BIOS-e820: [mem 0x00000000000fec00000-0x0000000000
```

A terminal window titled 'kali@mica: ~/cybersec' with a menu bar (Session, Actions, Edit, View, Help). The terminal displays system logs from journalctl. The logs show a cron job running a command, followed by the activation of the NetworkManager-dispatcher.service. The user then runs 'journalctl -f', which shows real-time logs of the service starting, activating, and then being deactivated. The terminal ends with the user's prompt and a cursor.

```
kali@mica: ~/cybersec
Session Actions Edit View Help
Jan 13 12:35:01 mica CRON[24899]: (root) CMD (command -v debian-sa1 > /dev/n>
Jan 13 12:35:02 mica CRON[24897]: pam_unix(cron:session): session closed for>

(kali@mica)-[~/cybersec]
$ journalctl -f
Jan 13 12:30:19 mica systemd[1221]: Started xfconfd.service - Xfce configurat
ion service.
Jan 13 12:33:44 mica NetworkManager[829]: <info> [1768325624.5061] dhcp4 (et
h0): state changed new lease, address=192.168.91.131
Jan 13 12:33:44 mica dbus-daemon[621]: [system] Activating via systemd: servi
ce name='org.freedesktop.nm_dispatcher' unit='dbus-org.freedesktop.nm-dispatc
her.service' requested by ':1.5' (uid=0 pid=829 comm="/usr/sbin/NetworkManage
r --no-daemon" label="unconfined")
Jan 13 12:33:44 mica systemd[1]: Starting NetworkManager-dispatcher.service -
Network Manager Script Dispatcher Service...
Jan 13 12:33:44 mica dbus-daemon[621]: [system] Successfully activated servic
e 'org.freedesktop.nm_dispatcher'
Jan 13 12:33:44 mica systemd[1]: Started NetworkManager-dispatcher.service -
Network Manager Script Dispatcher Service.
Jan 13 12:33:54 mica systemd[1]: NetworkManager-dispatcher.service: Deactivat
ed successfully.
Jan 13 12:35:01 mica CRON[24897]: pam_unix(cron:session): session opened for
user root(uid=0) by root(uid=0)
Jan 13 12:35:01 mica CRON[24899]: (root) CMD (command -v debian-sa1 > /dev/nu
ll && debian-sa1 1 1)
Jan 13 12:35:02 mica CRON[24897]: pam_unix(cron:session): session closed for
user root
```

Ctrl+Alt+

```
kali@mica: ~/cybersec

Session  Actions  Edit  View  Help

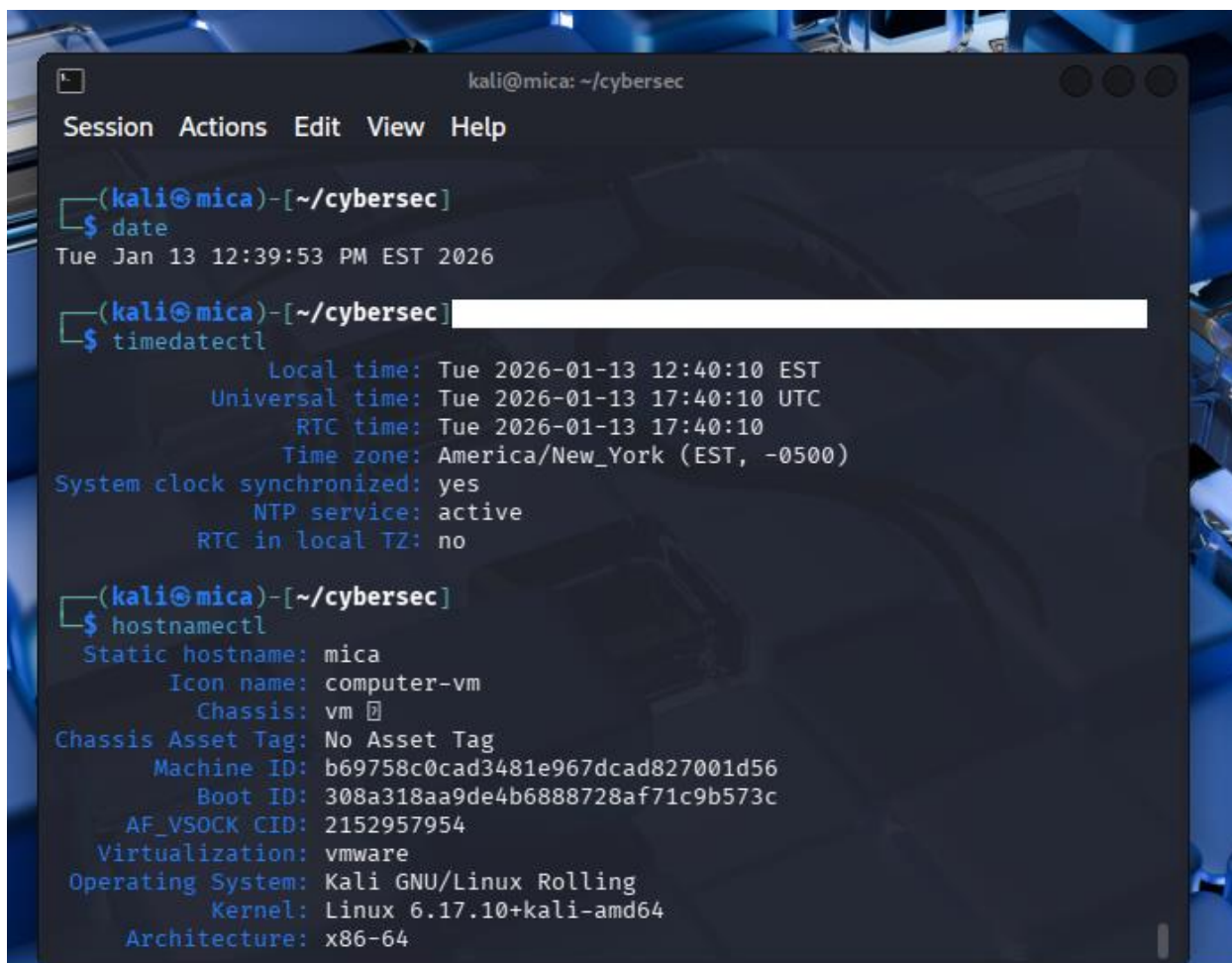
Jan 13 11:46:43 mica kernel: Disabled fast string operations
Jan 13 11:46:43 mica kernel: BIOS-provided physical RAM map:
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x0000000000000000-0x0000000000>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x0000000000009f400-0x0000000000>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x000000000000dc000-0x0000000000>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000000100000-0x0000000007f>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x0000000007fee0000-0x0000000007f>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x0000000007feff000-0x0000000007f>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x0000000007ff00000-0x0000000007f>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000f0000000-0x000000000f7>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000fec00000-0x00000000fe>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000fee00000-0x00000000fe>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000fffe0000-0x00000000ff>
Jan 13 11:46:43 mica kernel: NX (Execute Disable) protection: active
Jan 13 11:46:43 mica kernel: APIC: Static calls initialized
Jan 13 11:46:43 mica kernel: SMBIOS 2.4 present.
Jan 13 11:46:43 mica kernel: DMI: VMware, Inc. VMware Virtual Platform/440BX>
Jan 13 11:46:43 mica kernel: DMI: Memory slots populated: 1/128
Jan 13 11:46:43 mica kernel: vmware: hypercall mode: 0x00
Jan 13 11:46:43 mica kernel: Hypervisor detected: VMware
Jan 13 11:46:43 mica kernel: vmware: TSC freq read from hypervisor : 2394.56>
Jan 13 11:46:43 mica kernel: vmware: Host bus clock speed read from hypervis>
Jan 13 11:46:43 mica kernel: vmware: using clock offset of 129019708152 ns
Jan 13 11:46:43 mica kernel: tsc: Detected 2394.560 MHz processor
Jan 13 11:46:43 mica kernel: e820: update [mem 0x00000000-0x000000fff] usable>

(kali@mica)-[~/cybersec]
$ journalctl -b
```



```
kali@mica: ~/cybersec
Session  Actions  Edit  View  Help
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000fee00000-0x00000000fe>
Jan 13 11:46:43 mica kernel: BIOS-e820: [mem 0x00000000fffe0000-0x00000000ff>
Jan 13 11:46:43 mica kernel: NX (Execute Disable) protection: active
Jan 13 11:46:43 mica kernel: APIC: Static calls initialized
Jan 13 11:46:43 mica kernel: SMBIOS 2.4 present.
Jan 13 11:46:43 mica kernel: DMI: VMware, Inc. VMware Virtual Platform/440BX>
Jan 13 11:46:43 mica kernel: DMI: Memory slots populated: 1/128
Jan 13 11:46:43 mica kernel: vmware: hypercall mode: 0x00
Jan 13 11:46:43 mica kernel: Hypervisor detected: VMware
Jan 13 11:46:43 mica kernel: vmware: TSC freq read from hypervisor : 2394.56>
Jan 13 11:46:43 mica kernel: vmware: Host bus clock speed read from hypervis>
Jan 13 11:46:43 mica kernel: vmware: using clock offset of 129019708152 ns
Jan 13 11:46:43 mica kernel: tsc: Detected 2394.560 MHz processor
Jan 13 11:46:43 mica kernel: e820: update [mem 0x00000000-0x00000fff] usable>

(kali@mica)-[~/cybersec]
$ journalctl -n 10
Jan 13 12:35:01 mica CRON[24897]: pam_unix(cron:session): session opened for>
Jan 13 12:35:01 mica CRON[24899]: (root) CMD (command -v debian-sa1 > /dev/n>
Jan 13 12:35:02 mica CRON[24897]: pam_unix(cron:session): session closed for>
Jan 13 12:39:01 mica CRON[26851]: pam_unix(cron:session): session opened for>
Jan 13 12:39:01 mica CRON[26853]: (root) CMD ( [ -x /usr/lib/php/sessioncle>
Jan 13 12:39:01 mica CRON[26851]: pam_unix(cron:session): session closed for>
Jan 13 12:39:14 mica systemd[1]: Starting phpsessionclean.service - Clean ph>
Jan 13 12:39:16 mica systemd[1]: phpsessionclean.service: Deactivated succes>
Jan 13 12:39:16 mica systemd[1]: Finished phpsessionclean.service - Clean ph>
Jan 13 12:39:16 mica systemd[1]: phpsessionclean.service: Consumed 1.774s CP>
lines 1-10/10 (END)
```

A terminal window titled 'kali@mica: ~/cybersec' with a menu bar containing 'Session', 'Actions', 'Edit', 'View', and 'Help'. The terminal shows the following commands and output:

```
(kali@mica)-[~/cybersec]
$ date
Tue Jan 13 12:39:53 PM EST 2026

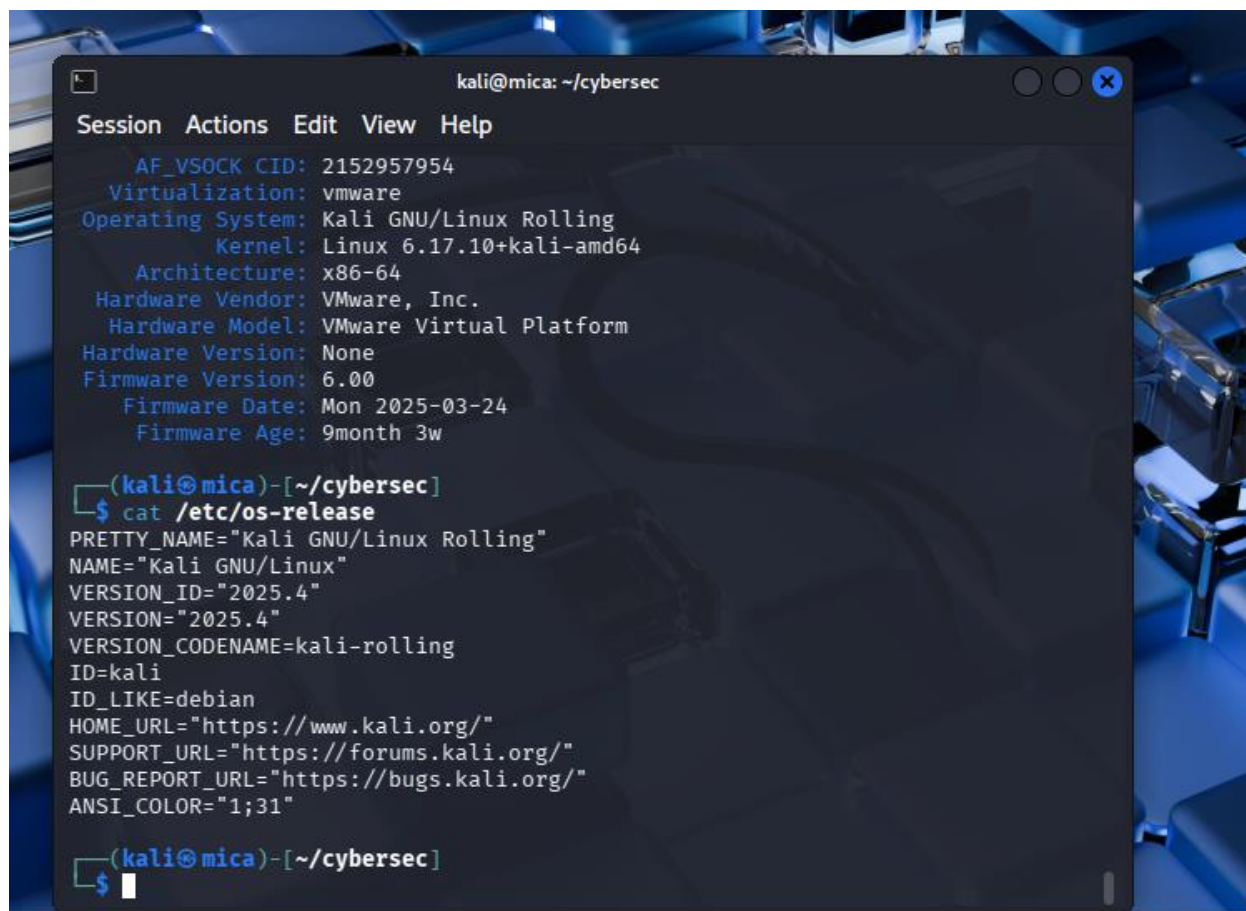
(kali@mica)-[~/cybersec]
$ timedatectl
      Local time: Tue 2026-01-13 12:40:10 EST
      Universal time: Tue 2026-01-13 17:40:10 UTC
        RTC time: Tue 2026-01-13 17:40:10
        Time zone: America/New_York (EST, -0500)
System clock synchronized: yes
          NTP service: active
      RTC in local TZ: no

(kali@mica)-[~/cybersec]
$ hostnamectl
      Static hostname: mica
            Icon name: computer-vm
            Chassis: vm
Chassis Asset Tag: No Asset Tag
      Machine ID: b69758c0cad3481e967dcad827001d56
        Boot ID: 308a318aa9de4b6888728af71c9b573c
    AF_VSOCK CID: 2152957954
  Virtualization: vmware
Operating System: Kali GNU/Linux Rolling
          Kernel: Linux 6.17.10+kali-amd64
    Architecture: x86-64
```

```
kali@mica: ~/cybersec
Session Actions Edit View Help
RTC time: Tue 2026-01-13 17:40:10
Time zone: America/New_York (EST, -0500)
System clock synchronized: yes
NTP service: active
RTC in local TZ: no

(kali@mica)-[~/cybersec]
$ hostnamectl
  Static hostname: mica
    Icon name: computer-vm
    Chassis: vm
Chassis Asset Tag: No Asset Tag
  Machine ID: b69758c0cad3481e967dcad827001d56
    Boot ID: 308a318aa9de4b6888728af71c9b573c
  AF_VSOCK CID: 2152957954
Virtualization: vmware
Operating System: Kali GNU/Linux Rolling
    Kernel: Linux 6.17.10+kali-amd64
  Architecture: x86-64
Hardware Vendor: VMware, Inc.
Hardware Model: VMware Virtual Platform
Hardware Version: None
Firmware Version: 6.00
  Firmware Date: Mon 2025-03-24
  Firmware Age: 9month 3w

(kali@mica)-[~/cybersec]
$ sudo hostnamectl set-hostname mica
```

A terminal window titled 'kali@mica: ~/cybersec' with standard window controls. The terminal displays system information in a key-value format, followed by the execution of the 'cat /etc/os-release' command which outputs detailed OS release information. The prompt '(kali@mica)-[~/cybersec]' is shown twice, once before the command and once at the bottom.

```
kali@mica: ~/cybersec
Session Actions Edit View Help
AF_VSOCK CID: 2152957954
Virtualization: vmware
Operating System: Kali GNU/Linux Rolling
Kernel: Linux 6.17.10+kali-amd64
Architecture: x86-64
Hardware Vendor: VMware, Inc.
Hardware Model: VMware Virtual Platform
Hardware Version: None
Firmware Version: 6.00
Firmware Date: Mon 2025-03-24
Firmware Age: 9month 3w

(kali@mica)-[~/cybersec]
$ 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@mica)-[~/cybersec]
$
```

Courte Résumé

Durant ce devoir,

J'ai appris comment installer linux sur mon ordinateur et comment le configuré correctement sachant que cette installation se fait sur une machine virtuelle.

Les grands points,

Ce TD a pu me montrer les bases de linux en parlant de:comment creer un dossier,lire un dossier,creer un fichier txt en linux,comment supprimer,deplacer et copier en linux

Sans oublier comment afficher ladresse ip de votre ordi,montrer les events opperer emn linux etc...

Les difficultés rencontrés,

J'ai un ordi de faible capacités et donc a chercher comment l'installer je suis devenu un pro de l'installation linux.

Et apres tant d'echec j'ai su parvenir a realiser l'impossible.

C'était un processus assez long genre des semaines meme mais j'ai aimé.

