

Mission 4

1. Définition d'un logiciel de virtualisation :

Un logiciel de virtualisation permet de faire tourner plusieurs systèmes d'exploitation sur un seul ordinateur.

2. Utilité de VirtualBox :

VirtualBox sert à créer et utiliser des machines virtuelles. Il permet de tester d'autres systèmes sans modifier l'ordinateur principal.

3. Exemples d'autres logiciels de virtualisation :

- VMware
- Hyper-V
- QEMU

4. Machine virtuelle :

C'est un ordinateur simulé à l'intérieur d'un vrai ordinateur.

5. Debian :

Debian est un système d'exploitation libre basé sur Linux.

Se connecter à la VM Debian SLAM

1. Gestionnaire du panneau :

Permet d'accéder rapidement aux menus, applications, heure, son, réseau, etc.

2. Gestionnaire de fichiers :

Permet de naviguer dans les dossiers, ouvrir, copier, coller, ou supprimer des fichiers.

3. Terminal :

Interface en ligne de commande pour taper des instructions directement au système.

4. Eclipse :

Environnement de développement (IDE) pour écrire et exécuter du code Java (et autres langages).

5. Mousepad :

Petit éditeur de texte simple, utile pour écrire du texte ou des scripts.

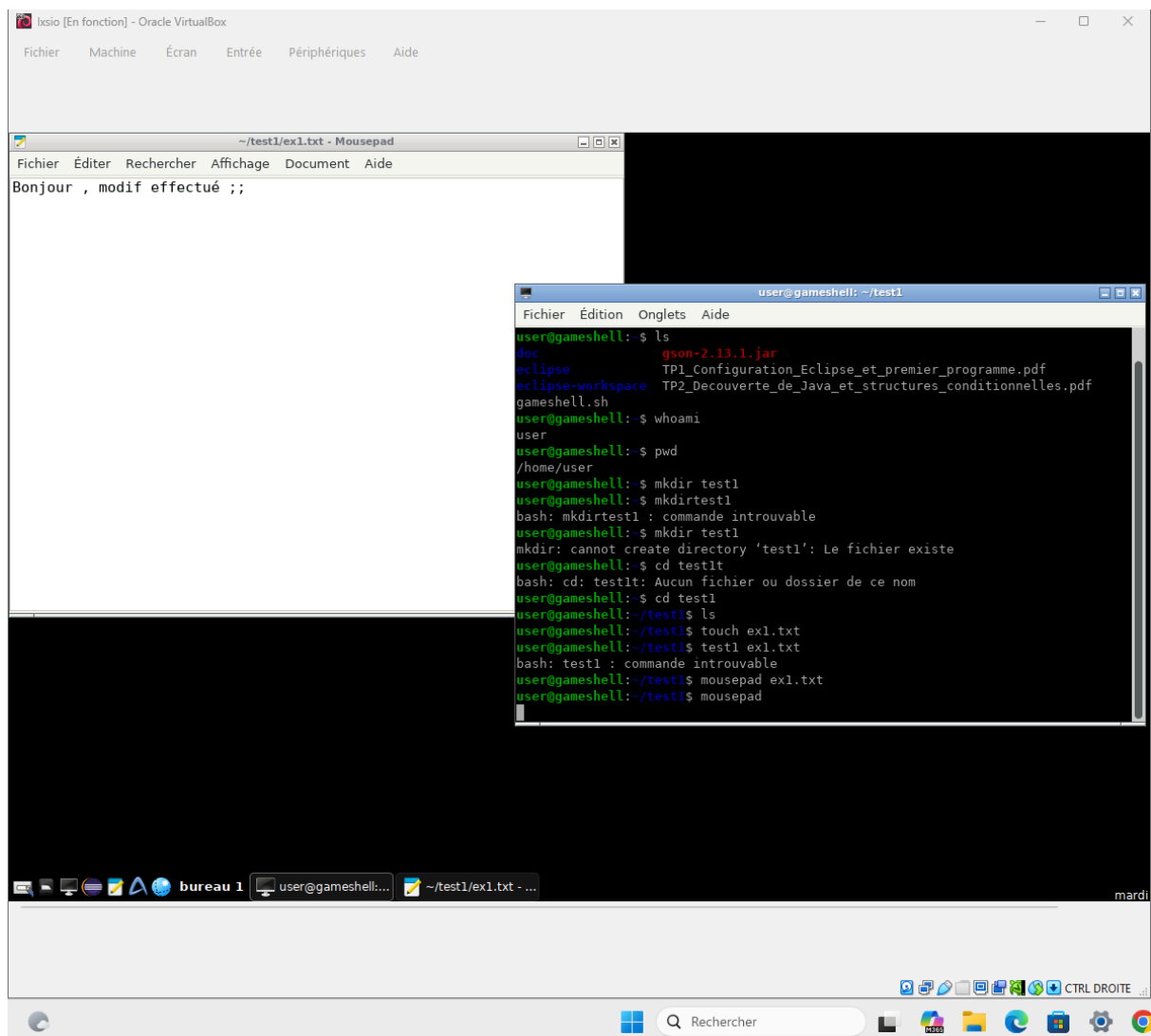
6. Abiword :

Traitement de texte léger, comme Microsoft Word, pour créer des documents.

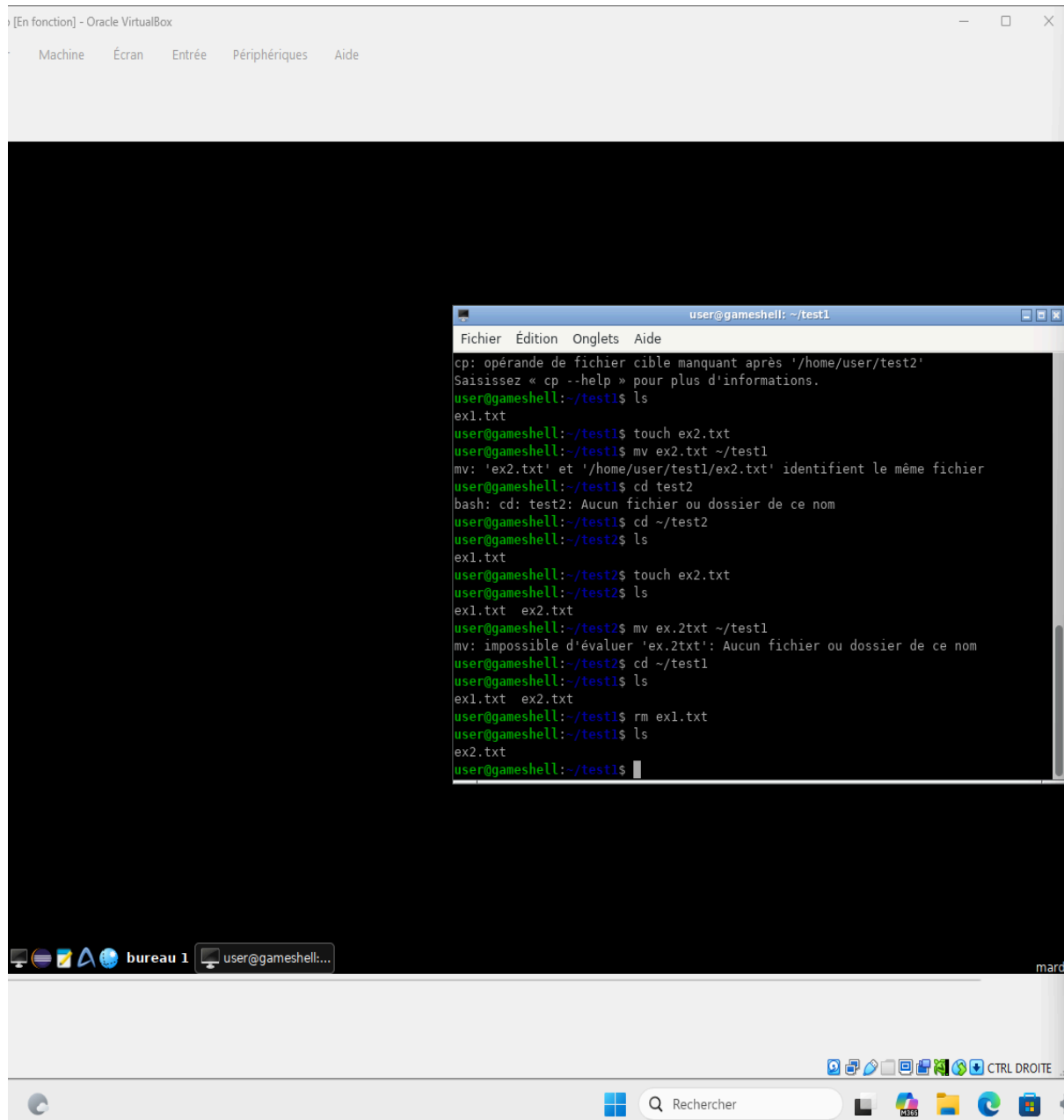
7. NetSurf :

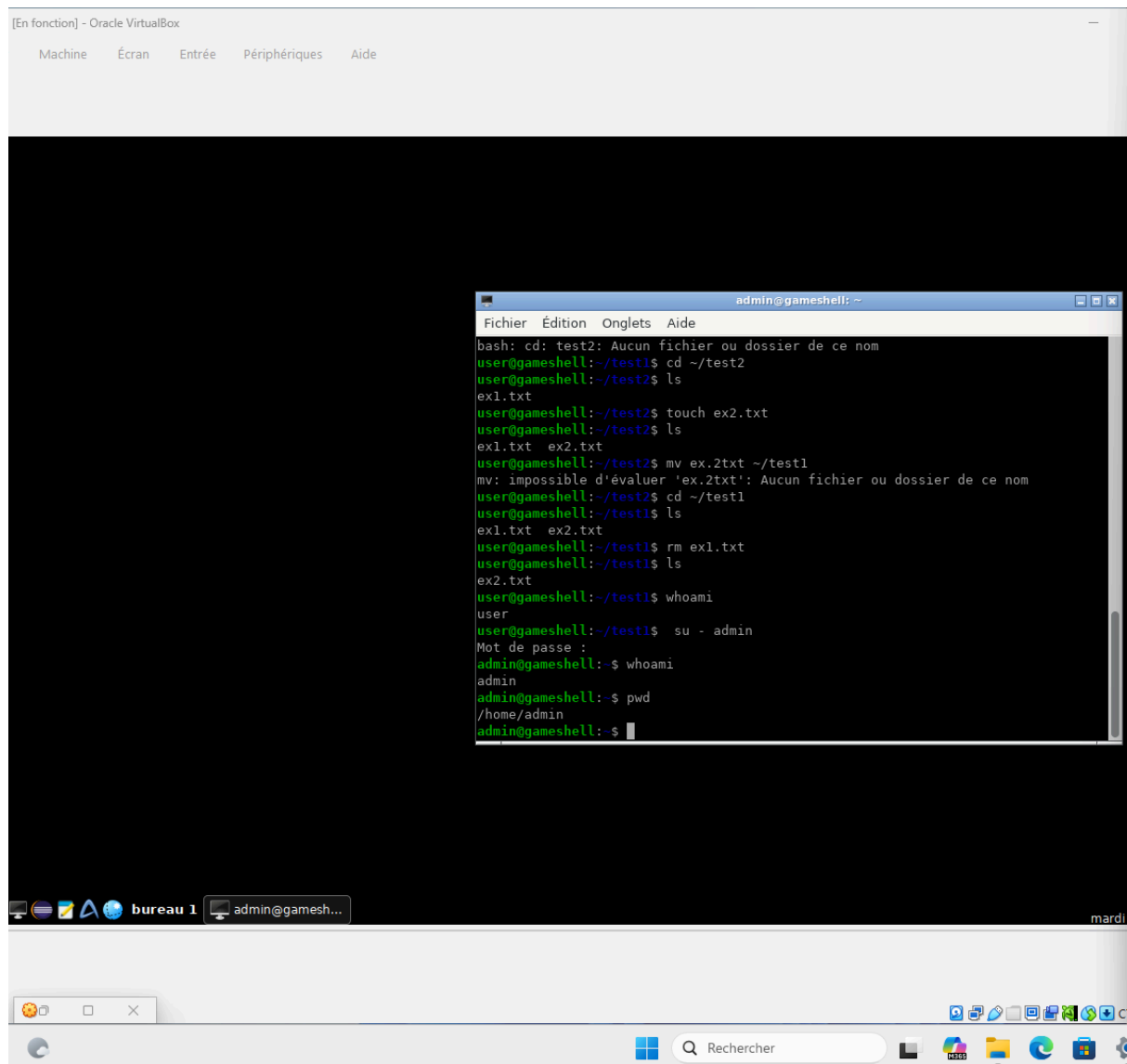
Navigateur web léger, utilisé pour consulter des pages Internet.

captures d'écrans attendus

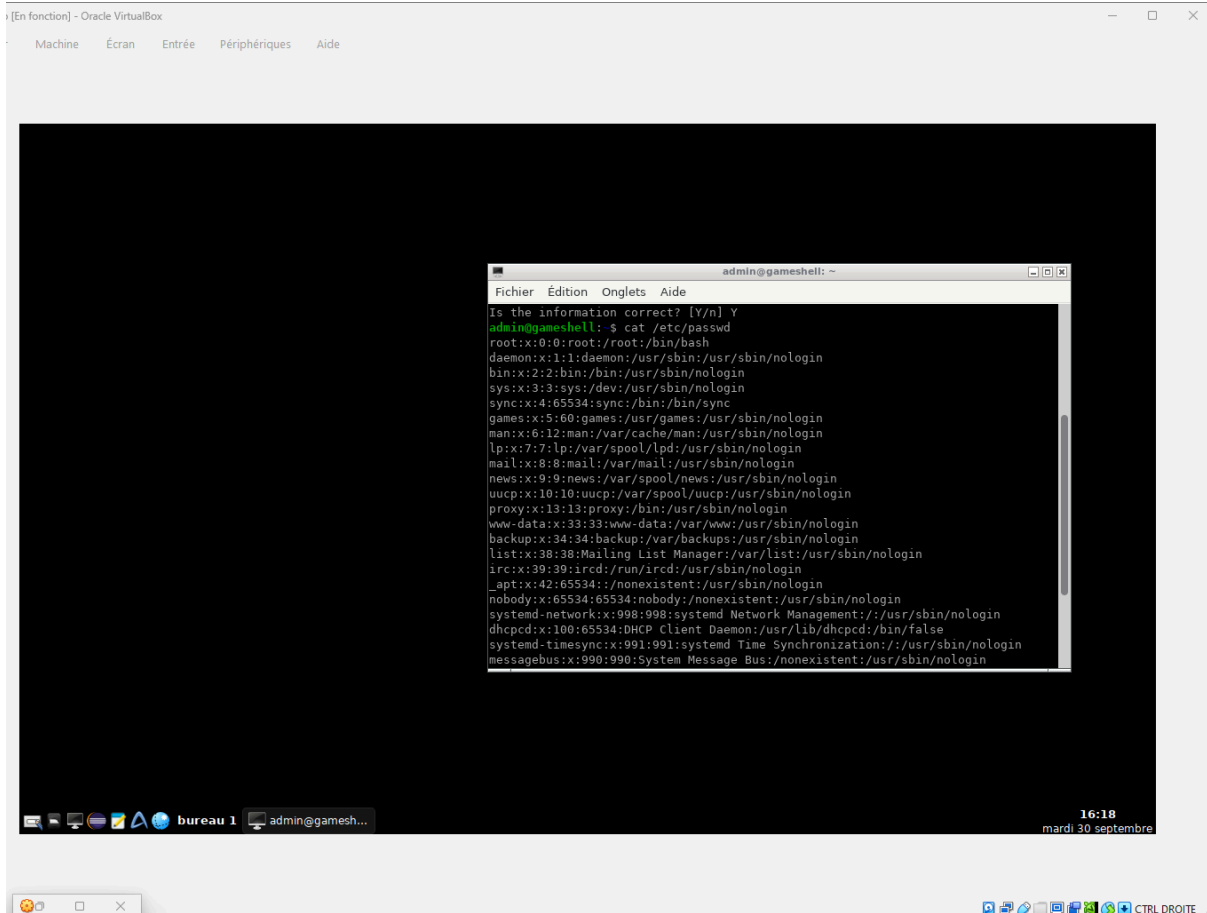


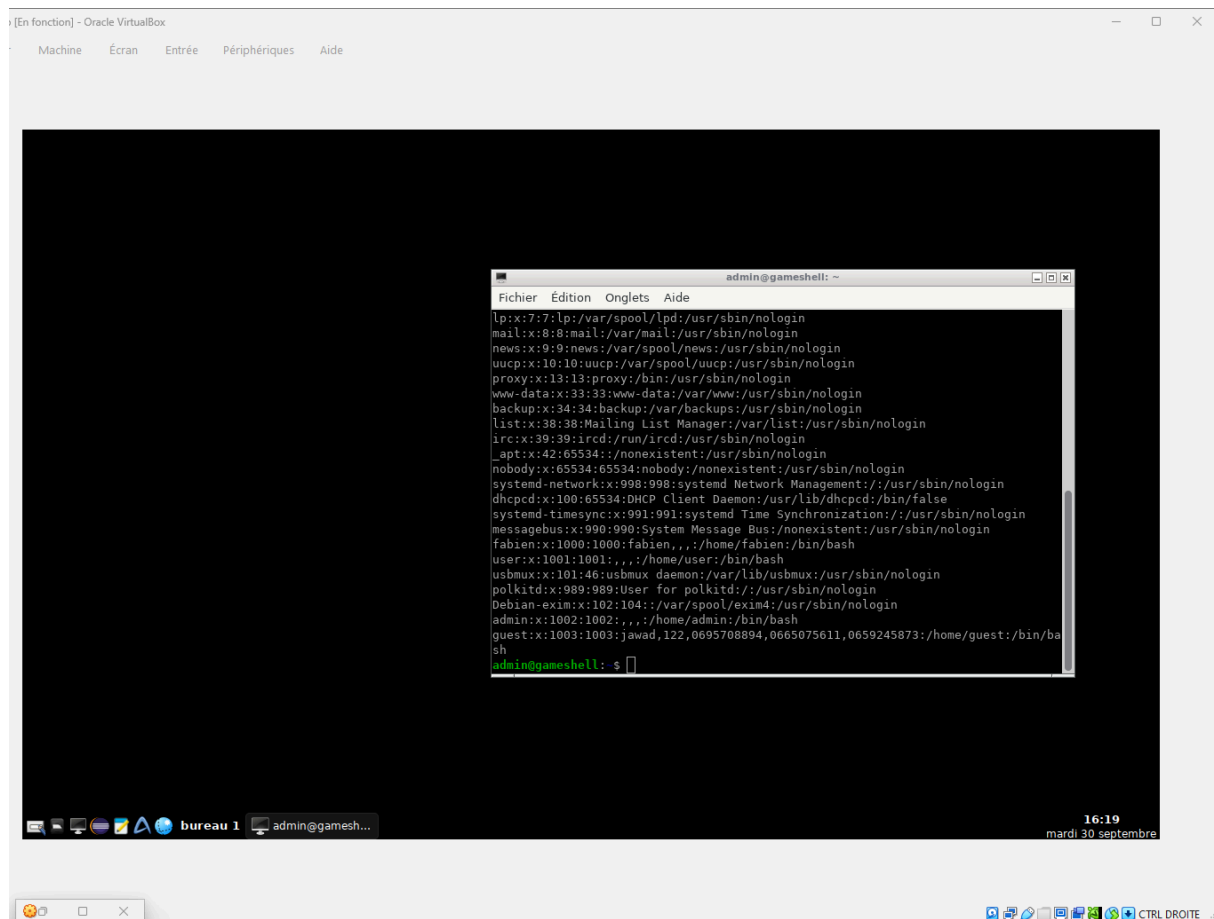
capture d'écran attendus :





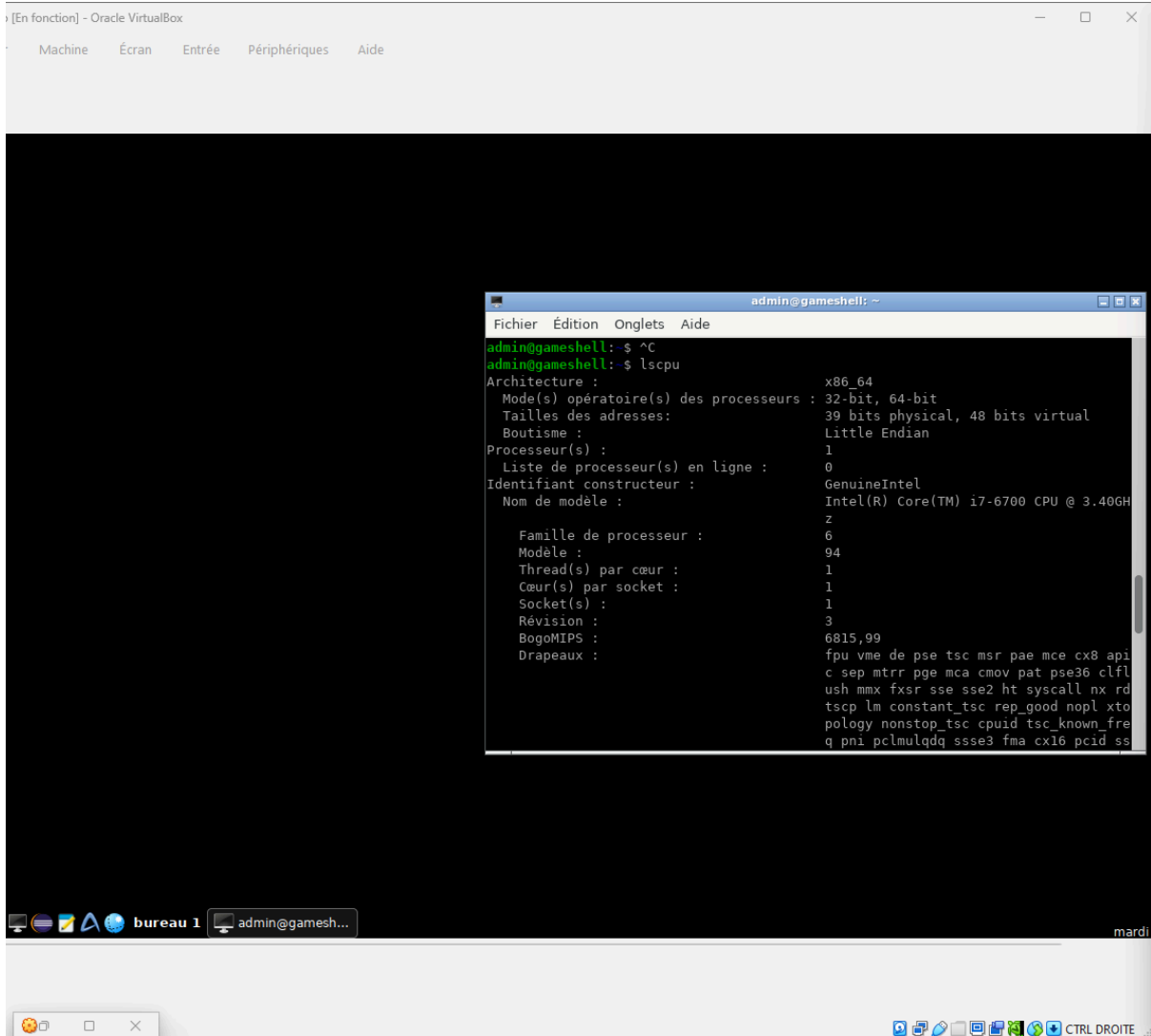
capture d'écrans attendus :

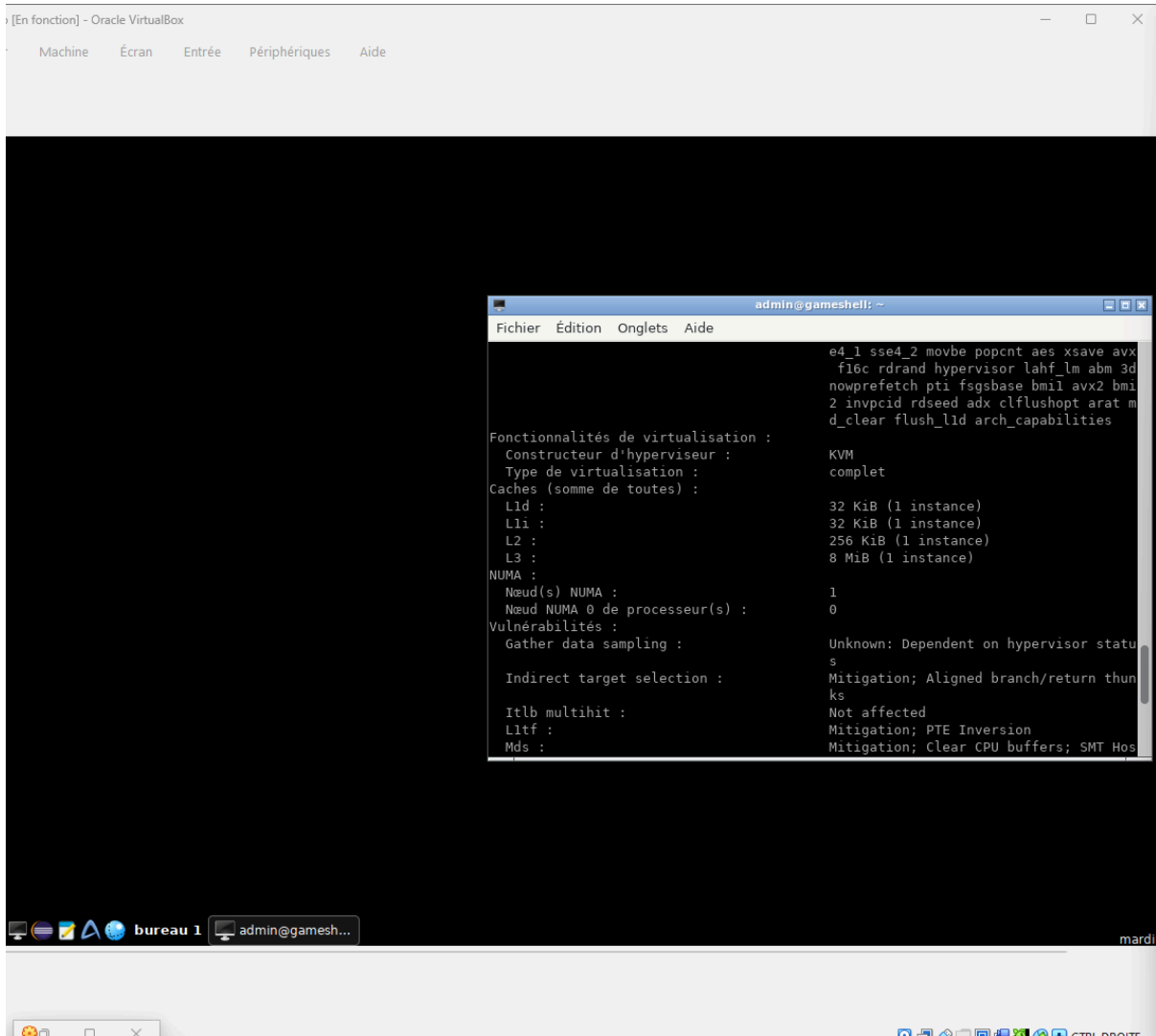


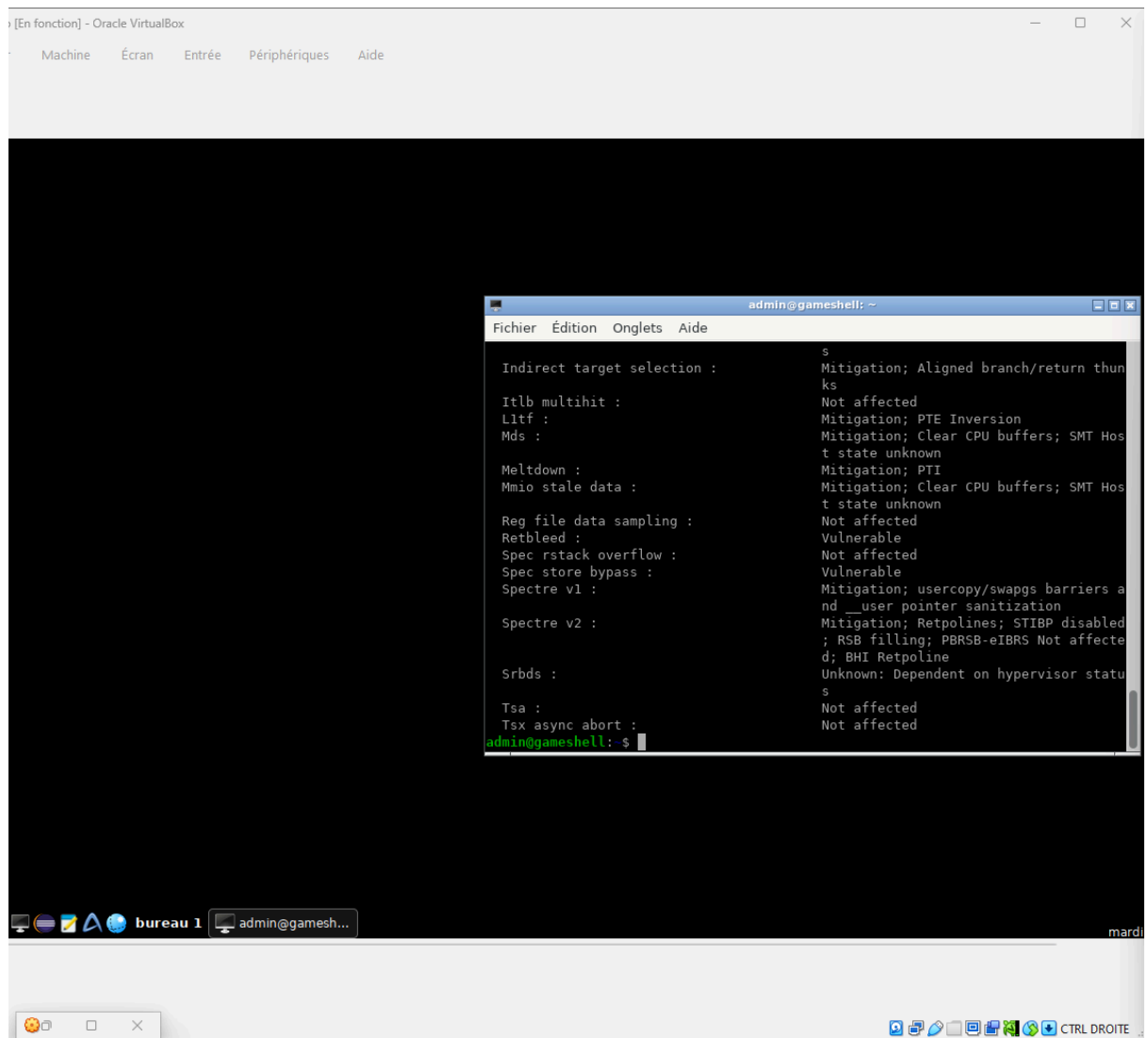


adresse MAC : 08:00:27:7d:c2:c5

capture d'écrans attendus :







captures d'écrans attendus

```
admin@gameshell: ~
Fichier  Édition  Onglets  Aide
Échange:      0B      0B      0B
admin@gameshell:~$ cat /proc/meminfo
MemTotal:      2021308 kB
MemFree:      1306228 kB
MemAvailable:  1665288 kB
Buffers:       24108 kB
Cached:        458768 kB
SwapCached:    0 kB
Active:        444900 kB
Inactive:      141364 kB
Active(anon):  103996 kB
Inactive(anon): 0 kB
Active(file):  340904 kB
Inactive(file): 141364 kB
Unevictable:   0 kB
Mlocked:      0 kB
SwapTotal:     0 kB
SwapFree:      0 kB
Zswap:         0 kB
Zswapped:      0 kB
Dirty:         4 kB
Writeback:     0 kB
AnonPages:     103396 kB
Mapped:        118940 kB
Shmem:         676 kB
KReclaimable:  16836 kB
Slab:          42568 kB
SReclaimable:  16836 kB
SUnreclaim:    25732 kB
KernelStack:   2604 kB
PageTables:    4544 kB
SecPageTables: 0 kB
NFS_Unstable:  0 kB
Bounce:        0 kB
WritebackTmp:  0 kB
CommitLimit:   1010652 kB
Committed_AS:  817736 kB
VmallocTotal:  34359738367 kB
VmallocUsed:    21404 kB
VmallocChunk:   0 kB
Percpu:        436 kB
HardwareCorrupted: 0 kB
AnonHugePages: 20400 kB
```

```
admin@gameshell: ~
Fichier  Édition  Onglets  Aide
locked:      0 kB
swapTotal:   0 kB
swapFree:    0 kB
zswap:       0 kB
zswapped:    0 kB
dirty:       4 kB
writeback:   0 kB
anonPages:   103396 kB
Mapped:      118940 kB
shmem:       676 kB
kReclaimable: 16836 kB
slab:        42568 kB
sReclaimable: 16836 kB
sUnreclaim:  25732 kB
kernelStack: 2604 kB
PageTables:  4544 kB
secPageTables: 0 kB
MFS_Unstable: 0 kB
Bounce:      0 kB
writebackTmp: 0 kB
commitLimit: 1010652 kB
Committed_AS: 817736 kB
vmallocTotal: 34359738367 kB
vmallocUsed:  21404 kB
vmallocChunk: 0 kB
percpu:      436 kB
HardwareCorrupted: 0 kB
AnonHugePages: 20480 kB
shmemHugePages: 0 kB
shmemPmdMapped: 0 kB
fileHugePages: 0 kB
filePmdMapped: 0 kB
Unaccepted:  0 kB
HugePages_Total: 0
HugePages_Free: 0
HugePages_Rsvd: 0
HugePages_Surp: 0
Hugepagesize: 2048 kB
Hugetlb:      0 kB
DirectMap4k: 90048 kB
DirectMap2M: 2007040 kB
admin@gameshell: ~$
```

bureau 1 admin@gamesh...

capture d'écran attendu (ci dessus)

capture d'écran attendu (ci dessous) fuseau horaire :

```
lxio [En fonction] - Oracle VirtualBox
Fichier  Machine  Écran  Entrée  Périphériques  Aide

admin@gameshell: ~
Fichier  Édition  Onglets  Aide
Bounce: 0 kB
WritebackTmp: 0 kB
CommitLimit: 1010652 kB
Committed_AS: 817736 kB
VmallocTotal: 34359738367 kB
VmallocUsed: 21404 kB
VmallocChunk: 0 kB
PerCpu: 436 kB
HardwareCorrupted: 0 kB
AnonHugePages: 20480 kB
ShmemHugePages: 0 kB
ShmemPmdMapped: 0 kB
FileHugePages: 0 kB
FilePmdMapped: 0 kB
Unaccepted: 0 kB
HugePages_Total: 0
HugePages_Free: 0
HugePages_Rsvd: 0
HugePages_Surp: 0
Hugepagesize: 2048 kB
Hugetlb: 0 kB
DirectMap4k: 90048 kB
DirectMap2M: 2007040 kB
admin@gameshell:~$ free
admin@gameshell:~$ lsblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
sda 8:0 0 3,6G 0 disk
└─sda1 8:1 0 3,6G 0 part /
admin@gameshell:~$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 002 Device 002: ID 80ee:0021 VirtualBox USB Tablet
admin@gameshell:~$ timedatectl
        Local time: mar. 2025-09-30 16:33:17 CEST
        Universal time: mar. 2025-09-30 14:33:17 UTC
        RTC time: mar. 2025-09-30 14:33:17
        Time zone: Europe/Paris (CEST, +0200)
System clock synchronized: no
        NTP service: active
        RTC in local TZ: no
admin@gameshell:~$ sudo timedatectl set-timezone Europe/Paris
[sudo] Mot de passe de admin :
admin@gameshell:~$
```

3 commandes choisies :

1ère : df -h (permet d'afficher l'espace utilisé et dispo)

```
admin@gameshell: ~  
Fichier  Édition  Onglets  Aide  
ShmemPmdMapped:      0 kB  
FileHugePages:        0 kB  
FilePmdMapped:        0 kB  
Unaccepted:           0 kB  
HugePages_Total:      0  
HugePages_Free:        0  
HugePages_Rsvd:        0  
HugePages_Surp:        0  
Hugepagesize:         2048 kB  
Hugetlb:               0 kB  
DirectMap4k:          90048 kB  
DirectMap2M:          2007040 kB  
admin@gameshell:~$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS  
sda          8:0    0   3,6G  0 disk  
└─sda1       8:1    0   3,6G  0 part /  
admin@gameshell:~$ lsusb  
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub  
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub  
Bus 002 Device 002: ID 80ee:0021 VirtualBox USB Tablet  
admin@gameshell:~$ timedatectl  
Local time: mar. 2025-09-30 16:33:17 CEST  
Universal time: mar. 2025-09-30 14:33:17 UTC  
RTC time: mar. 2025-09-30 14:33:17  
Time zone: Europe/Paris (CEST, +0200)  
System clock synchronized: no  
NTP service: active  
RTC in local TZ: no  
admin@gameshell:~$ sudo timedatectl set-timezone Europe/Paris  
[sudo] Mot de passe de admin :  
admin@gameshell:~$ df -h  
Sys. de fichiers Taille Utilisé Dispo Uti% Monté sur  
udev              960M    0  960M   0% /dev  
tmpfs             198M   496K  197M   1% /run  
/dev/sda1         3,5G   3,2G  128M  97% /  
tmpfs             987M    0  987M   0% /dev/shm  
tmpfs             5,0M    0   5,0M   0% /run/lock  
tmpfs            987M   8,0K  987M   1% /tmp  
tmpfs             1,0M    0   1,0M   0% /run/credentials/systemd-journald.service  
tmpfs             1,0M    0   1,0M   0% /run/credentials/getty@tty1.service  
tmpfs            198M   40K  198M   1% /run/user/1001  
admin@gameshell:~$
```

2ème : uptime (permet de voir depuis combien de temps nous sommes connectés)

```
admin@gameshell: ~  
Fichier Edition Onglets Aide  
FileMapMapped: 0 kB  
Unaccepted: 0 kB  
HugePages_Total: 0  
HugePages_Free: 0  
HugePages_Rsvd: 0  
HugePages_Surp: 0  
HugePagesize: 2048 kB  
Hugetlb: 0 kB  
DirectMap4k: 90048 kB  
DirectMap2M: 2007040 kB  
admin@gameshell:~$ lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS  
sda 8:0 0 3,6G 0 disk  
└─sda1 8:1 0 3,6G 0 part /  
admin@gameshell:~$ lsusb  
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub  
Bus 002 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub  
Bus 002 Device 002: ID 80ee:0021 VirtualBox USB Tablet  
admin@gameshell:~$ timedatectl  
Local time: mar. 2025-09-30 16:33:17 CEST  
Universal time: mar. 2025-09-30 14:33:17 UTC  
RTC time: mar. 2025-09-30 14:33:17  
Time zone: Europe/Paris (CEST, +0200)  
System clock synchronized: no  
NTP service: active  
RTC in local TZ: no  
admin@gameshell:~$ sudo timedatectl set-timezone Europe/Paris  
[sudo] Mot de passe de admin :  
admin@gameshell:~$ df -h  
Sys. de fichiers Taille Utilisé Dispo Uti% Monté sur  
udev 960M 0 960M 0% /dev  
tmpfs 198M 480K 197M 1% /run  
/dev/sda1 3,5G 3,2G 128M 97% /  
tmpfs 987M 0 987M 0% /dev/shm  
tmpfs 5,0M 0 5,0M 0% /run/lock  
tmpfs 987M 8,0K 987M 1% /tmp  
tmpfs 1,0M 0 1,0M 0% /run/credentials/systemd-journald.service  
tmpfs 1,0M 0 1,0M 0% /run/credentials/getty@tty1.service  
tmpfs 198M 40K 198M 1% /run/user/1001  
admin@gameshell:~$ uptime  
17:19:24 up 2:34, 1 user, load average: 0,00, 0,00, 0,00  
admin@gameshell:~$
```

3ème : ps aux (liste tout les processus en cours)

```
admin@gameshell: ~  
Fichier Edition Onglets Aide  
tmpfs 1,0M 0 1,0M 0% /run/credentials/getty@tty1.service  
tmpfs 198M 40K 198M 1% /run/user/1001  
admin@gameshell:~$ uptime  
17:19:24 up 2:34, 1 user, load average: 0,00, 0,00, 0,00  
admin@gameshell:~$ ps aux  
USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND  
root 1 0.0 0.7 23444 14196 ? Ss 14:44 0:01 /sbin/init  
root 2 0.0 0.0 0 0 ? S 14:44 0:00 [kthreadd]  
root 3 0.0 0.0 0 0 ? S 14:44 0:00 [pool_workqueue_release]  
root 4 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-kvfree_rcu_reclaim]  
root 5 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-rcu_gp]  
root 6 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-sync_wq]  
root 7 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-slab_flushwq]  
root 8 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-netns]  
root 11 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/0:0H-events_highpri]  
root 12 0.0 0.0 0 0 ? I 14:44 0:00 [kworker/u4:0-events_unbound]  
root 13 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-mm_percpu_wq]  
root 14 0.0 0.0 0 0 ? I 14:44 0:00 [rcu_tasks_kthread]  
root 15 0.0 0.0 0 0 ? I 14:44 0:00 [rcu_tasks_rude_kthread]  
root 16 0.0 0.0 0 0 ? I 14:44 0:00 [rcu_tasks_trace_kthread]  
root 17 0.0 0.0 0 0 ? S 14:44 0:00 [ksoftirqd/0]  
root 18 0.0 0.0 0 0 ? I 14:44 0:00 [rcu_preempt]  
root 19 0.0 0.0 0 0 ? S 14:44 0:00 [rcu_exp_par_gp_kthread_worker/0]  
root 20 0.0 0.0 0 0 ? S 14:44 0:00 [rcu_exp_gp_kthread_worker]  
root 21 0.0 0.0 0 0 ? S 14:44 0:00 [migration/0]  
root 22 0.0 0.0 0 0 ? S 14:44 0:00 [idle_inject/0]  
root 23 0.0 0.0 0 0 ? S 14:44 0:00 [cpuhp/0]  
root 25 0.0 0.0 0 0 ? S 14:44 0:00 [kdevtmpfs]  
root 26 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-inet_frag_wq]  
root 27 0.0 0.0 0 0 ? S 14:44 0:00 [kauditd]  
root 28 0.0 0.0 0 0 ? S 14:44 0:00 [khungtaskd]  
root 30 0.0 0.0 0 0 ? S 14:44 0:00 [oom_reaper]  
root 31 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-writeback]  
root 32 0.0 0.0 0 0 ? S 14:44 0:00 [kcompactd0]  
root 33 0.0 0.0 0 0 ? SN 14:44 0:00 [ksmd]  
root 34 0.0 0.0 0 0 ? SN 14:44 0:00 [khugepaged]  
root 35 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-kintegrityd]  
root 36 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-kblockd]  
root 37 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-blkcg_punt_bio]  
root 38 0.0 0.0 0 0 ? S 14:44 0:00 [irq/9-acpi]  
root 40 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-tpm_dev_wq]  
root 41 0.0 0.0 0 0 ? I< 14:44 0:00 [kworker/R-edac-poller]  
root 42 0.0 0.0 0 0 ? T< 14:44 0:00 [kworker/R-dmufreq_wq]  
bureau 1 admin@gameshell:~
```

