

TP 3 - DOS et Prog Shell sous Linux

Introduction

Bienvenue dans le module "TP 3 - DOS et Programmation Shell sous Linux" de ARI EST BM. Je suis Youssef HACHIMI de la filière ARI G2. Au cours de ce module, nous explorerons le passionnant univers de Linux, un système d'exploitation robuste et très répandu.

EX1 TP3 :

1-

```
cp /etc/passwd ~/passwd-cp
```

```
head -n 7 ~/passwd-cp
```

```
tail -n 3 ~/passwd_cp
```

2-

```
sort -t ':' -k 3 -n ~/passwd_cp
```

```
youssef@youssef:~$ cp /etc/passwd ~/passwd-cp
youssef@youssef:~$ head -n 7 ~/passwd-cp
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
youssef@youssef:~$ tail -n 3 ~/passwd-cp
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/n
ologin
youssef:x:1000:1000:youssef,,,:/home/youssef:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/
nologin
youssef@youssef:~$ sort -t ':' -k 3 -n ~/passwd-cp
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
```

3-

```
cat /etc/passwd | wc -l
```

4-

```
sort -t ':' -k 1 ~/passwd_cp
```

5-

```
cut -d ':' -f 1,3 ~/passwd_cp | sort -t ':' -k 2 > username_sorted.txt
```

6-

```
sed -i 's:// /g' username_sorted.txt
```

7-

```
tail -n 5 username_sorted.txt
```

8-

```
head -c 5 username_sorted.txt
```

9-

```
file /etc/*passwd*
```

10-

```
ls -l /bin > Detail-bin.txt
```

```
youssef@youssef:~$ cut -d ':' -f 1,3 ~/passwd_cp | sort -t
-k 2> username_sorted.txt
youssef@youssef:~$ tail -n 5 username_sorted.txt
sort: multi-character tab '-k'
youssef@youssef:~$ head -c 5 username_sorted.txt
sort:youssef@youssef:~$ file /etc/*passwd*
/etc/passwd: ASCII text
/etc/passwd-: ASCII text
youssef@youssef:~$ ls -l /bin >Detail.txt
```

EX2 TP3:

1-

find /var/log -type f

```
youssef@youssef:~$ find /var/log -type f
/var/log/dpkg.log
/var/log/cups/access_log
/var/log/dmesg.1.gz
/var/log/faillog
find: '/var/log/private': Permission denied
/var/log/kern.log
/var/log/bootstrap.log
find: '/var/log/unattended-upgrades': Permission denied
/var/log/fontconfig.log
/var/log/dmesg
/var/log/dmesg.0
/var/log/wtmp
```

2-

grep -r -i 'error' /var/log

```
/var/log/btmp
/var/log/vboxpostinstall.log
youssef@youssef:~$ grep -r -i 'error' /var/log
/var/log/dpkg.log:2021-08-19 10:29:29 install libgpg-error0
:amd64 <none> 1.37-1
/var/log/dpkg.log:2021-08-19 10:29:29 status half-installed
libgpg-error0:amd64 1.37-1
/var/log/dpkg.log:2021-08-19 10:29:29 status unpacked libgpg
g-error0:amd64 1.37-1
/var/log/dpkg.log:2021-08-19 10:29:33 configure libgpg-erro
r0:amd64 1.37-1 <none>
/var/log/dpkg.log:2021-08-19 10:29:33 status unpacked libgpg
g-error0:amd64 1.37-1
/var/log/dpkg.log:2021-08-19 10:29:33 status half-configure
d libgpg-error0:amd64 1.37-1
/var/log/dpkg.log:2021-08-19 10:29:33 status installed libg
pg-error0:amd64 1.37-1
```

3-

```
grep -r -i 'error' /var/log > errors_temp.txt
```

4-

```
find /etc -type f -name '*.conf'
```

5-

```
grep -r -i -f errors_temp.txt /etc
```

6-

```
tr '[:upper:]' '[:lower:]' errors_temp.txt > errors_temp_lowercase.txt
```

```
root@youssef:/home/youssef# grep -r -i 'error' /var/log > errors.txt
root@youssef:/home/youssef# find /etc -type f '*.conf'
find: paths must precede expression: '*.conf'
root@youssef:/home/youssef# grep -r -i -f errors.txt /etc
root@youssef:/home/youssef# tr '[:upper:]' '[:lower:]' errors.txt > errors_lowercase.txt
tr: extra operand 'errors.txt'
Try 'tr --help' for more information.
root@youssef:/home/youssef#
```

EX3 TP3:

1-

```
sort -k 1 telephone.txt
```

2-

```
wc -l telephone.txt
```

3-

```
wc -l telephone.txt
```

4-

```
grep -v 'Alami' telephone.txt
```

5-

```
grep 'Alami' telephone.txt | cut -f 3
```

6-

```
grep 'Alami' telephone.txt | cut -f 3
```

```
root@youssef:/home/youssef# touch telephone.txt
root@youssef:/home/youssef# sort -k 1 telephone.txt
root@youssef:/home/youssef# wc -l telephone.txt
0 telephone.txt
root@youssef:/home/youssef# grep 'Alami' telephone.txt
root@youssef:/home/youssef# grep -v 'Alami' telephone.txt
root@youssef:/home/youssef# grep 'Alami' telephone.txt | cut -f 3
root@youssef:/home/youssef# grep 'Alami' telephone.txt | sort -k 2 | cut -f 3
root@youssef:/home/youssef#
```

EX4 TP3:

1-

```
echo -e "3/abc\0\n1/def\0\n2/ghi jkl\0" > fichier.txt
```

1-1

```
sort -n -k 1 -t '/' fichier.txt | sed 's/^[0-9]*\\/'
```

1-2

```
sort -r fichier.txt
```

1-3

```
sort -r fichier.txt
```

2

```
ls -l > Gl-ARI
```

3

```
du -ha /usr/bin/ | sort -rh | head -n 10
```



```
youssef@youssef:~$ echo -e "3/abc\0\n1/def\0\n2/qwe rty" > fichier.txt
youssef@youssef:~$ sort -n -k -t '/' fichier.txt | sed 's/^[0-9]*\\/'
sort: invalid number at field start: invalid count at start of '-t'
youssef@youssef:~$ sort -r fichier.txt
3/abc
2/qwe rty
1/def
youssef@youssef:~$ ls -l > GI-ARI
youssef@youssef:~$ du -ha /user/bin/ | sort -rh | head -n 10
du: cannot access '/user/bin/': No such file or directory
youssef@youssef:~$ su
Password:
root@youssef:/home/youssef# du -ha /usr/bin | sort -rh | head -n 10
159M    /usr/bin
23M     /usr/bin/snap
8.1M    /usr/bin/gdb
7.4M    /usr/bin/ubuntu-report
5.3M    /usr/bin/python3.8
5.2M    /usr/bin/gnome-control-center
4.8M    /usr/bin/shotwell
3.4M    /usr/bin/perl
2.4M    /usr/bin/Xephyr
2.3M    /usr/bin/Xwayland
root@youssef:/home/youssef#
```

Conclusion :

Cet exercice a permis , la réalisation de ces exercices sur Linux Ubuntu constitue une excellente pratique pour renforcer ses compétences en ligne de commande et pour mieux comprendre le fonctionnement et la gestion des systèmes Linux.