1) List everyone logged in and save the list in a file called "users" in your own home directory.

COMMAND:
who -u >users.txt

RESULT:
duc :0 2021-03-06 17:06 ? 1719 (:0)
am :1 2021-03-06 19:22 ? 83347 (:1)
tu :2 2021-03-06 19:26 ? 85396 (:2)
thanh :3 2021-03-06 19:32 ? 87412 (:3)
a :4 2021-03-06 19:35 ? 89277 (:4)

2) List all processes that are running and add this list to the end of the "users" file.

COMMAND:
ps -aux >>users.txt

RESULT:
duc :0 2021-03-06 17:06 ? 1719 (:0) l
am :1 2021-03-06 19:22 ? 83347 (:1)
tu :2 2021-03-06 19:26 ? 85396 (:2)
thanh :3 2021-03-06 19:32 ? 87412 (:3)
a :4 2021-03-06 19:35 ? 89277 (:4)
USER PID
root 1 0.1 s0.0 169560 13496 ? Ss 17:04 0:16 /sbin/init splash
root 2 0.0 0.0 0 0 ? S 17:04 0:00 [kthreadd]
root 3 0.0 0.0 0 0 ? I¡ 17:04 0:00 [rcu$_g$p]
$root 4 0.0 0.0 0 0 ? I < 17 : 04 0 : 00 [rcu_p ar_g p]$
$etc - etc.....$

3) List everyone who is logged on sorted by their username

COMMAND:
who -u >>users.txt

RESULT:
a :4 2021-03-06 19:35 ? 89277 (:4)
duc :0 2021-03-06 17:06 ? 1719 (:0)
lam :1 2021-03-06 19:22 ? 83347 (:1)
thanh :3 2021-03-06 19:32 ? 87412 (:3)
tu :2 2021-03-06 19:26 ? 85396 (:2)

5) Show content of the first and last 3 lines of the file "/etc/fstab"

COMMAND:
head -n 3 /etc/fstab tail -n 3 /etc/fstab2

RESULT:
/etc/fstab: static file system information.

Use 'blkid' to print the universally unique identifier for a
/boot/efi was on /dev/nvme0n1p2 during installation
UUID=B69B-EC8F /boot/efi vfat umask=0077 0 1
/swapfile none swap sw 0 0

6) Retrieve line number 5 to 10 from the file "/etc/fstab" and write these lines into a new file "extract.txt"

NOTE how to use awk and build-in variable NR
We will have the varibles to store the object in one line such as $1,$2,$3,...
For example:

Name	Sport	Class
NguyenVanA	BongRo	12A3
NguyenVanB	BongDa	10A6
NguyenVanC	CauLong	9A5

$1 = Name; $2 = Sport; $3 = Class
$0 entire line

COMMAND:
awk "NR==5, NR==10 print $0, NR" /etc/fstab — nl >extract.txt

---

RESULT:
1 that works even if disks are added and removed. See fstab(5). 5
2 6
3 ¡file system¿ ¡mount point¿ ¡type¿ ¡options¿ ¡dump¿ ¡pass¿ 7
4 / was on /dev/sda3 during installation 8
5   UUID=02094cb8-5296-4d94-b434-e47d224f9354   /   ext4 errors=remount-ro 0 1 9
6 boot/efi was on /dev/nvme0n1p2 during installation 10

---

7) List all files in current directory, recursively, to which the user has full permissions
NOTE:
First create full permission files in folder
nano fullPermissionFile¡1...n¿.txt
sudo chmod a+rwx fullPermissionFile¡1....n¿.txt
r/w/x: read; write; execute permission; a: mean all

COMMAND:
ls -la — awk '$1==¨rwxrwxrwx¨'

RESULT:
/etc/fstab: static file system information.

Use 'blkid' to print the universally unique identifier for a
/boot/efi was on /dev/nvme0n1p2 during installation
UUID=B69B-EC8F /boot/efi vfat umask=0077 0 1
/swapfile none swap sw 0 0

---

8) Compare two files and show percentage of similarities between them
NOTE:
Compare two files and show percentage of similarities between them
First find the number of removed lines put it in the variable called remov
Second fin the number of added lines put it in the variable called added
Get total line number put it in the variable called firstCount

COMMAND:
removed = 'diff -u compareFIle1.txt compareFIle2.txt — grep