

Shehab Hossam

RedHat lab5

using dd command create empty file with size of 20MB (hint: count 40000, bs=512)

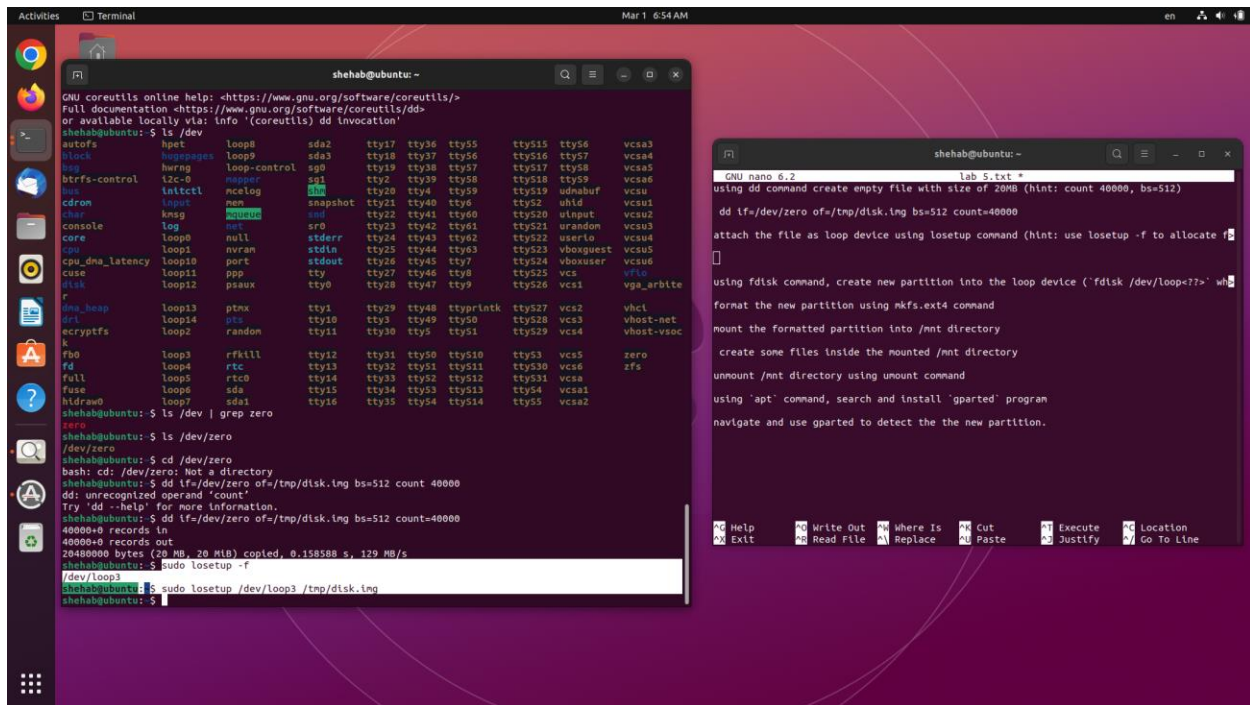
dd if=/dev/zero of=/tmp/disk.img bs=512 count=40000

```
shehab@ubuntu:~$ dd if=/dev/zero of=/tmp/disk.img bs=512 count=40000
40000+0 records in
40000+0 records out
20480000 bytes (20 MB, 20 MiB) copied, 0.158588 s, 129 MB/s
shehab@ubuntu:~$
```

attach the file as loop device using losetup command (hint: use losetup -f to allocate free device)

```
sudo losetup -f // => /dev/loop3
```

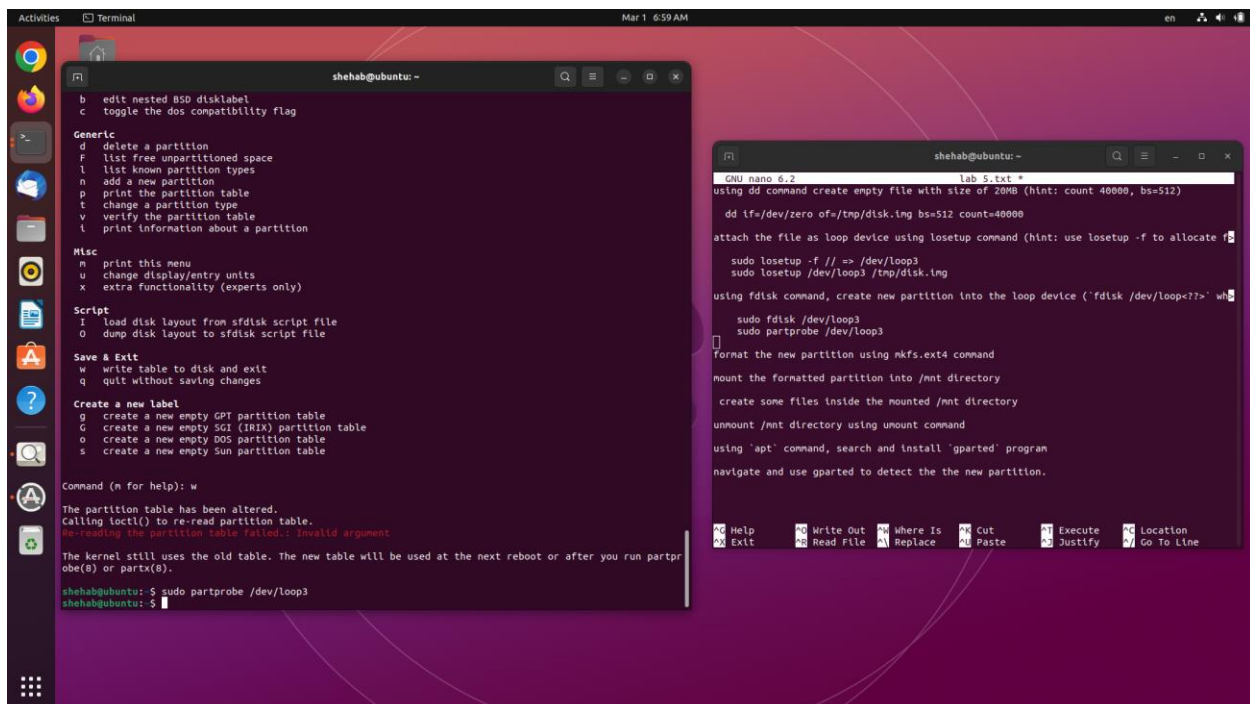
```
sudo losetup /dev/loop3 /tmp/disk.img
```

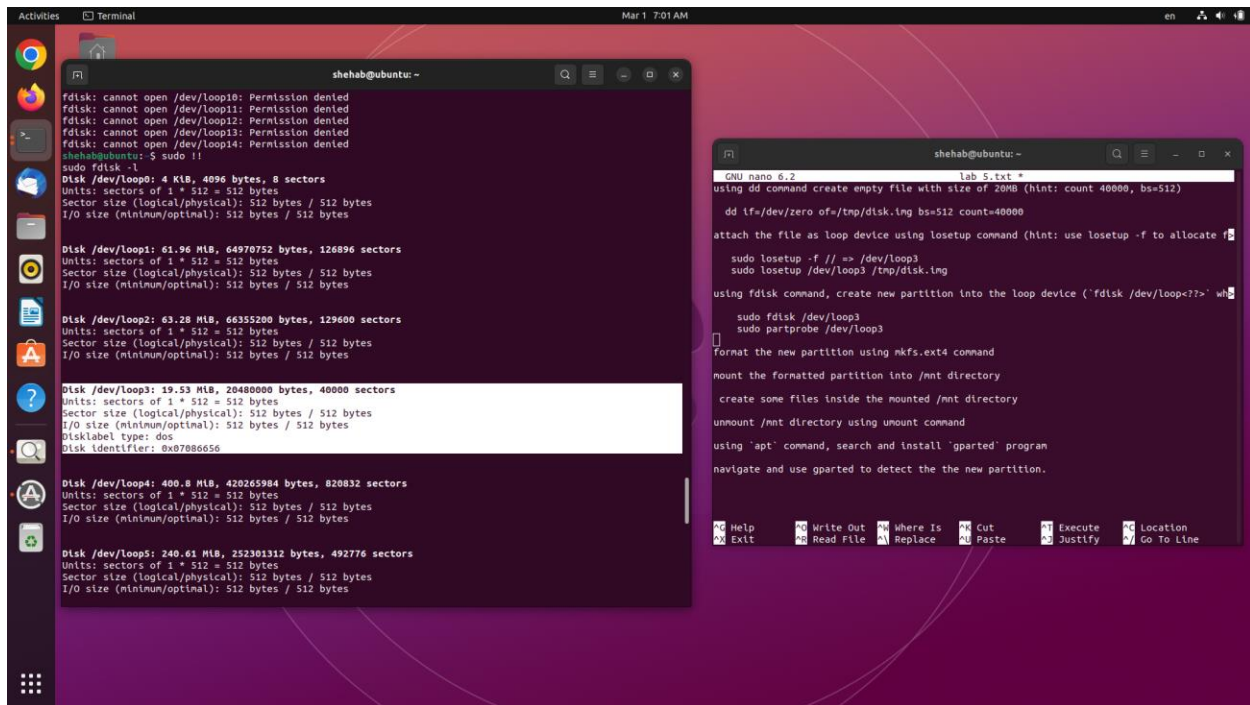


using fdisk command, create new partition into the loop device ('fdisk /dev/loop<??>' where <??> is the device number)

sudo fdisk /dev/loop3

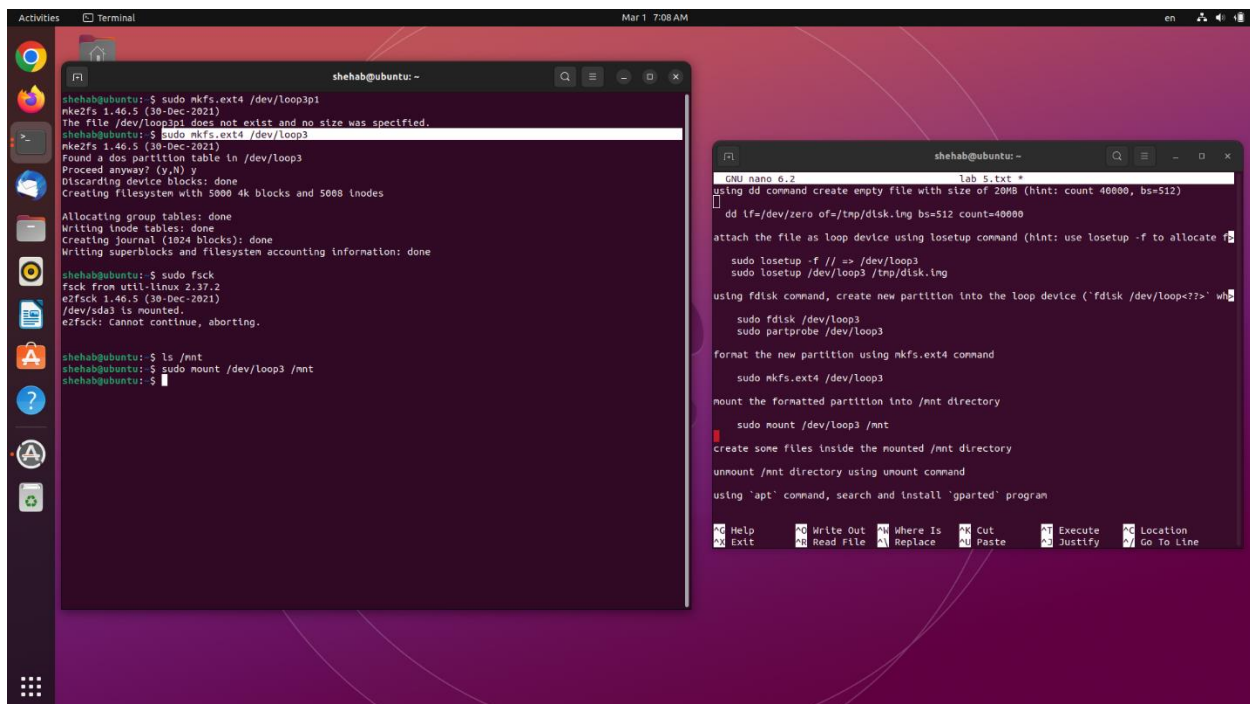
sudo partprobe /dev/loop3





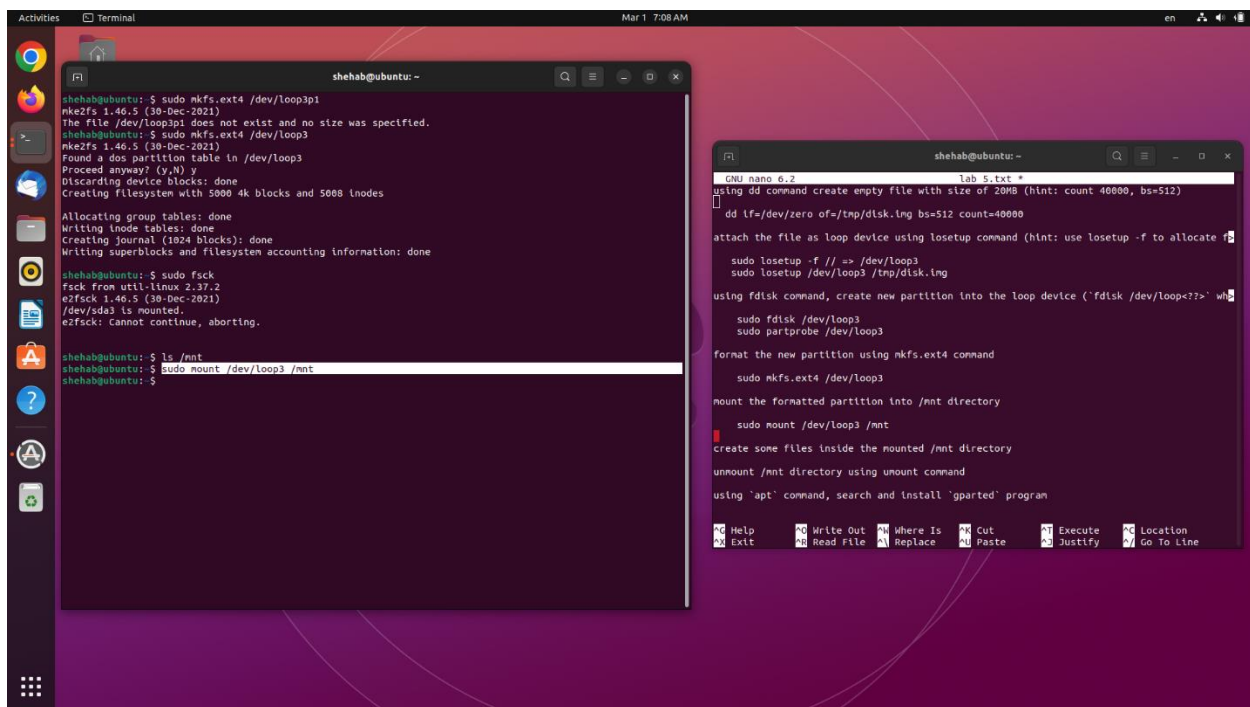
format the new partition using `mkfs.ext4` command

`sudo mkfs.ext4 /dev/loop3`



mount the formatted partition into /mnt directory

```
sudo mount /dev/loop3 /mnt
```

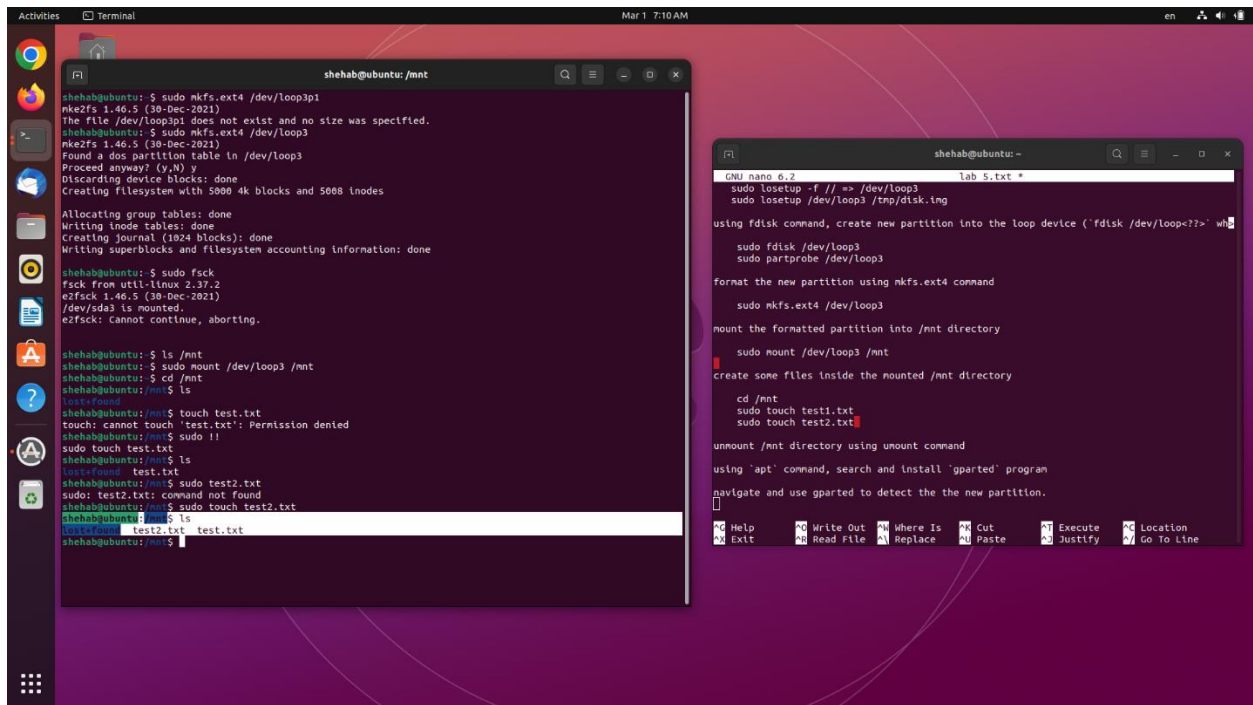


create some files inside the mounted /mnt directory

```
cd /mnt
```

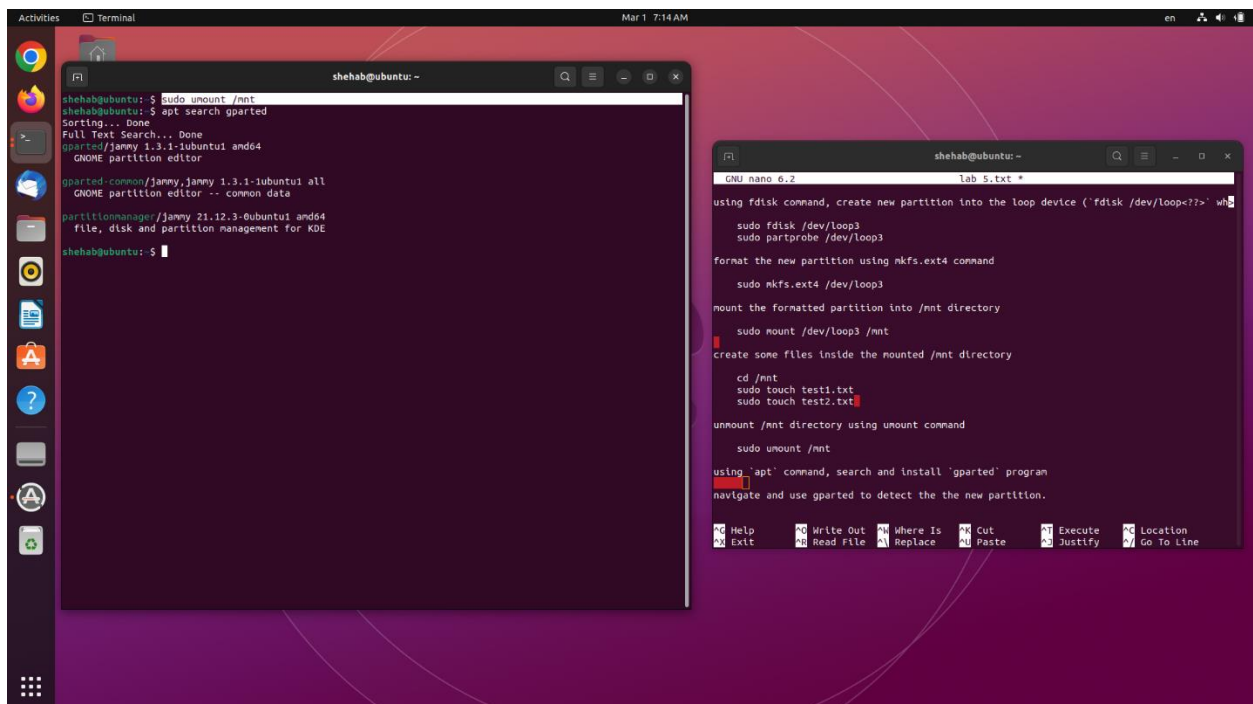
```
sudo touch test1.txt
```

```
sudo touch test2.txt
```

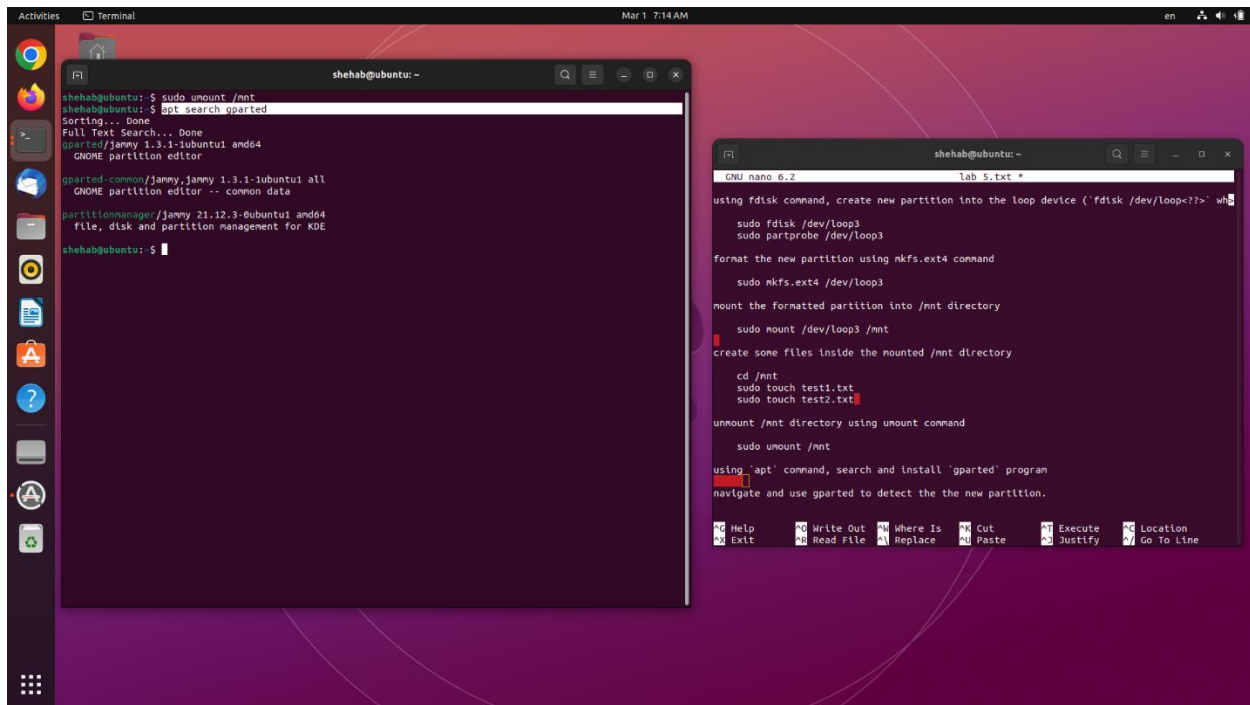
umount /mnt directory using umount command

sudo umount /mnt



using `apt` command, search and install `gparted` program

sudo apt install gparted



The screenshot shows a terminal window with the following commands and output:

```
shehab@ubuntu:~$ sudo mount /mnt
shehab@ubuntu:~$ apt search gparted
Sorting... Done
Full Text Search... Done
gparted/jammy 1.3.1-1ubuntu1 amd64
GNOME partition editor

gparted-common/jammy,jammy 1.3.1-1ubuntu1 all
GNOME partition editor -- common data

partitionmanager/jammy 21.12.3-0ubuntu1 amd64
file, disk and partition management for KDE

shehab@ubuntu:~$
```

The nano editor window shows a script with the following content:

```
lab 5.txt *
using fdisk command, create new partition into the loop device ('fdisk /dev/loop<?>' wh
sudo fdisk /dev/loop3
sudo partprobe /dev/loop3

format the new partition using mkfs.ext4 command

sudo mkfs.ext4 /dev/loop3

mount the formatted partition into /mnt directory

sudo mount /dev/loop3 /mnt

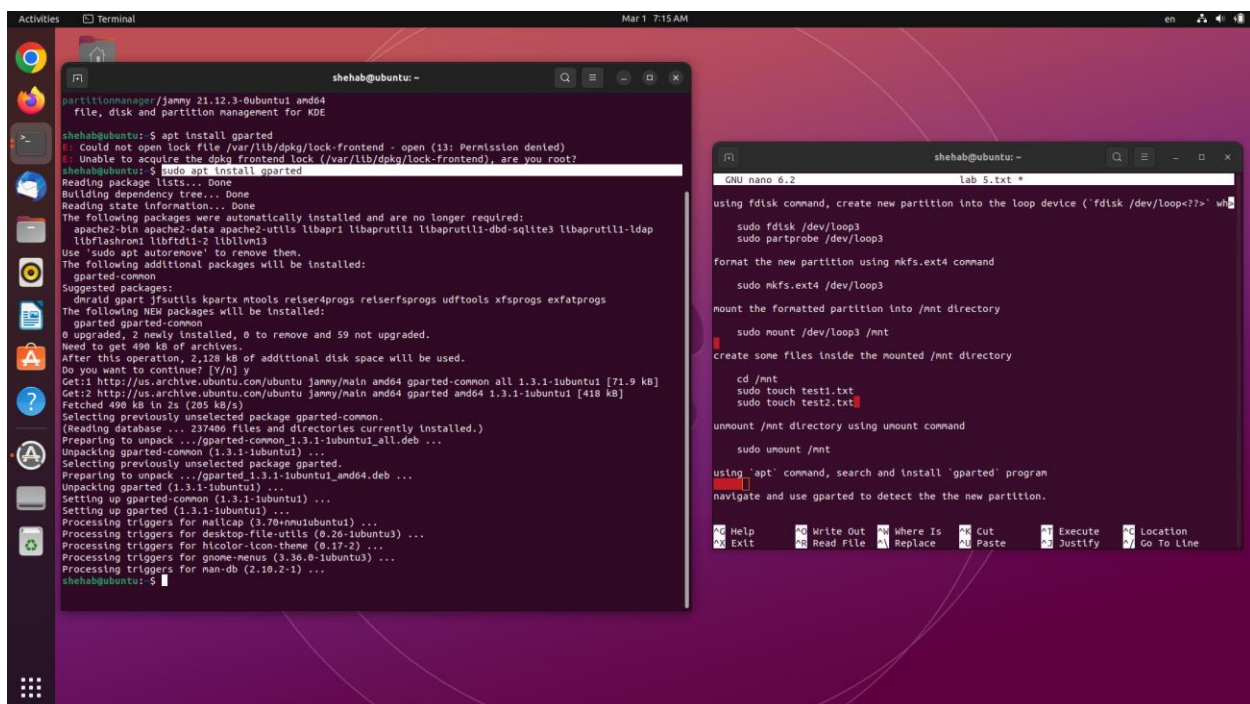
create some files inside the mounted /mnt directory

cd /mnt
sudo touch test1.txt
sudo touch test2.txt

unmount /mnt directory using unmount command

sudo unmount /mnt

using 'apt' command, search and install 'gparted' program
navigate and use gparted to detect the the new partition.
```



The screenshot shows a terminal window with the following commands and output:

```
partitionmanager/jammy 21.12.3-0ubuntu1 amd64
file, disk and partition management for KDE

shehab@ubuntu:~$ apt install gparted
E: Could not open lock file /var/lib/dpkg/lock-frontent - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontent), are you root?
shehab@ubuntu:~$ sudo apt install gparted
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apache2-bin apache2-data apache2-utils libapt1 libaptutil1 libaptutil1-dbd-sqlite3 libaptutil1-ldap
  libblashron1 libbftd1:2 libillumin1
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  gparted-common
Suggested packages:
  dmraid gpart jfsutils kpartx nttools reiser4progs reiserfsprogs udfutils xfsprogs exfatprogs
The following NEW packages will be installed:
  gparted gparted-common
0 upgraded, 2 newly installed, 0 to remove and 59 not upgraded.
Need to get 498 kB of archives.
After this operation, 2,128 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 gparted-common all 1.3.1-1ubuntu1 [71.9 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 gparted amd64 1.3.1-1ubuntu1 [418 kB]
Fetched 498 kB in 2s (265 kB/s)
Selecting previously unselected package gparted-common.
(Reading database ... 237486 files and directories currently installed.)
Preparing to unpack .../gparted-common_1.3.1-1ubuntu1_all.deb ...
Unpacking gparted-common (1.3.1-1ubuntu1) ...
Selecting previously unselected package gparted.
Preparing to unpack .../gparted_1.3.1-1ubuntu1_amd64.deb ...
Unpacking gparted (1.3.1-1ubuntu1) ...
Setting up gparted-common (1.3.1-1ubuntu1) ...
Setting up gparted (1.3.1-1ubuntu1) ...
Processing triggers for mailcap (3.70+nmuiubuntu1) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
shehab@ubuntu:~$
```

The nano editor window shows a script with the following content:

```
lab 5.txt *
using fdisk command, create new partition into the loop device ('fdisk /dev/loop<?>' wh
sudo fdisk /dev/loop3
sudo partprobe /dev/loop3

format the new partition using mkfs.ext4 command

sudo mkfs.ext4 /dev/loop3

mount the formatted partition into /mnt directory

sudo mount /dev/loop3 /mnt

create some files inside the mounted /mnt directory

cd /mnt
sudo touch test1.txt
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unmount /mnt directory using unmount command

sudo unmount /mnt

using 'apt' command, search and install 'gparted' program
navigate and use gparted to detect the the new partition.
```

navigate and use gparted to detect the the new partition.

sudo gparted

