

Raneen Mahmoud

Lab5_Linux

1)

```
raneen@raneen-VirtualBox:~$ dd if=/dev/zero of=/tmp/disk.img bs=512 count=4000
4000+0 records in
4000+0 records out
2048000 bytes (2.0 MB, 2.0 MiB) copied, 0.0240376 s, 85.2 MB/s
raneen@raneen-VirtualBox:~$
```

2)

```
raneen@raneen-VirtualBox:~$ losetup -l |grep 2
/dev/loop1      0      0      1  1 /var/lib/snapd/snaps/bare_5.snap
/dev/loop8      0      0      1  1 /var/lib/snapd/snaps/snap-store_638.s
nap            0      0      1  1 /var/lib/snapd/snaps/gtk-common-theme
s_1535.snap    0      0      1  1 /var/lib/snapd/snaps/core20_1828.snap
/dev/loop13     0      0      1  1 /var/lib/snapd/snaps/firefox_2391.sna
p              0      0      1  1 /var/lib/snapd/snaps/snapd-desktop-in
tegration_14.snap 0      0      0  0 /tmp/disk.img
/dev/loop2      0      0      1  1 /var/lib/snapd/snaps/core20_1822.snap
/dev/loop0      0      0      1  1 /var/lib/snapd/snaps/snapd_18357.snap
```

3)

```
raneen@raneen-VirtualBox:~$ sudo fdisk /dev/loop2

Welcome to fdisk (util-linux 2.37.2).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0x67837b4b.

Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (1-3999, default 1):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (1-3999, default 3999):

Created a new partition 1 of type 'Linux' and of size 2 MiB.

Command (m for help): p
Disk /dev/loop2: 1.95 MiB, 2048000 bytes, 4000 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
```

Device	Boot	Start	End	Sectors	Size	Id	Type
/dev/loop2p1		1	3999	3999	2M	83	Linux

4)

```
raneen@raneen-VirtualBox:~$ sudo partprobe /dev/loop2
raneen@raneen-VirtualBox:~$ cat /proc/partitions
major minor #blocks name

 7          0      64800 loop0
 7          1         4 loop1
 7          2      2000 loop2
 7          3    167212 loop3
 7          4    245568 loop4
 7          5    410416 loop5
 7          6     93888 loop6
 7          7     46964 loop7
11          0    1048575 sr0
 8          0   26214400 sda
 8          1     1024 sda1
 8          2    525312 sda2
 8          3   25686016 sda3
 7          8     47032 loop8
 7          9     51036 loop9
 7         10    354640 loop10
 7         11       284 loop11
 7         12       304 loop12
 7         13     64804 loop13
```

5)

```
raneen@raneen-VirtualBox:~$ sudo mkfs.ext4 /dev/loop2p1
mke2fs 1.46.5 (30-Dec-2021)

Filesystem too small for a journal
Discarding device blocks: done
Creating filesystem with 499 4k blocks and 256 inodes

Allocating group tables: done
Writing inode tables: done
Writing superblocks and filesystem accounting information: done
```

6)

```
raneen@raneen-VirtualBox:~$ sudo mount -t auto -v /dev/loop2p1 /mnt
mount: /dev/loop2p1 mounted on /mnt.
raneen@raneen-VirtualBox:~$ cd /mnt
raneen@raneen-VirtualBox:/mnt$ ls
lost+found
```

```
raneen@raneen-VirtualBox:/mnt$ sudo touch /mnt/file2.txt
raneen@raneen-VirtualBox:/mnt$ ls
file2.txt  lost+found
raneen@raneen-VirtualBox:/mnt$ sudo touch /mnt/file3.txt
raneen@raneen-VirtualBox:/mnt$ ls
file2.txt  file3.txt  lost+found
```

```
raneen@raneen-VirtualBox:/mnt$ mount -l |grep 2
/dev/loop2p1 on /mnt type ext4 (rw,relatime)
raneen@raneen-VirtualBox:/mnt$
```

7)

```
raneen@raneen-VirtualBox:/mnt$ cd
raneen@raneen-VirtualBox:~$ sudo umount /mnt
```

```
raneen@raneen-VirtualBox:~$ cd /mnt
raneen@raneen-VirtualBox:/mnt$ ls
raneen@raneen-VirtualBox:/mnt$ cd
raneen@raneen-VirtualBox:~$ sudo umount /mnt
umount: /mnt: not mounted.
```


8)

```
raneen@raneen-VirtualBox:~$ apt-cache search gparted
gparted - GNOME partition editor
gparted-common - GNOME partition editor -- common data
partitionmanager - file, disk and partition management for KDE
raneen@raneen-VirtualBox:~$ sudo apt-get install gparted
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  systemd-hwe-hwdb
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  gparted-common
Suggested packages:
  dmraid gpart jfsutils kpartx mtools reiser4progs reiserfsprogs udftools
  xfsprogs exfatprogs
The following NEW packages will be installed:
  gparted gparted-common
0 upgraded, 2 newly installed, 0 to remove and 197 not upgraded.
Need to get 490 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://eg.archive.ubuntu.com/ubuntu jammy/main amd64 gparted-common all 1
.3.1-1ubuntu1 [71.9 kB]
Get:2 http://eg.archive.ubuntu.com/ubuntu jammy/main amd64 gparted amd64 1.3.1-
1ubuntu1 [418 kB]
Fetched 490 kB in 1s (367 kB/s)
Selecting previously unselected package gparted-common.
```

9)

```
raneen@raneen-VirtualBox:~$ sudo gparted /dev/loop2p1
GParted 1.3.1
configuration --enable-libparted-dmraid --enable-online-resize
libparted 3.4
```

