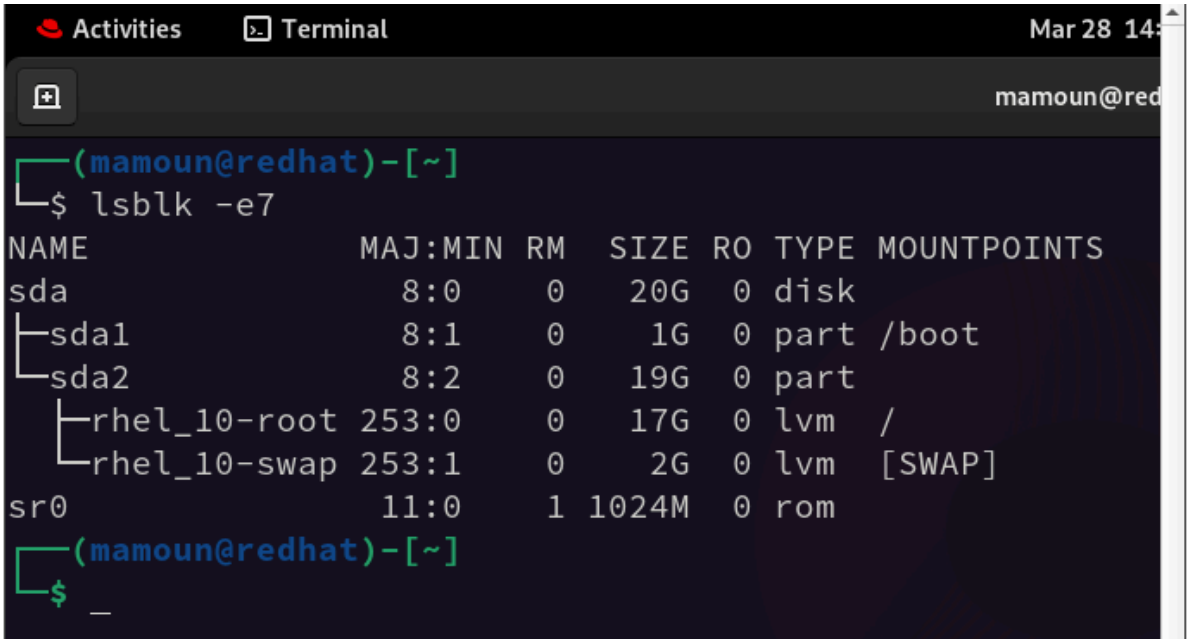
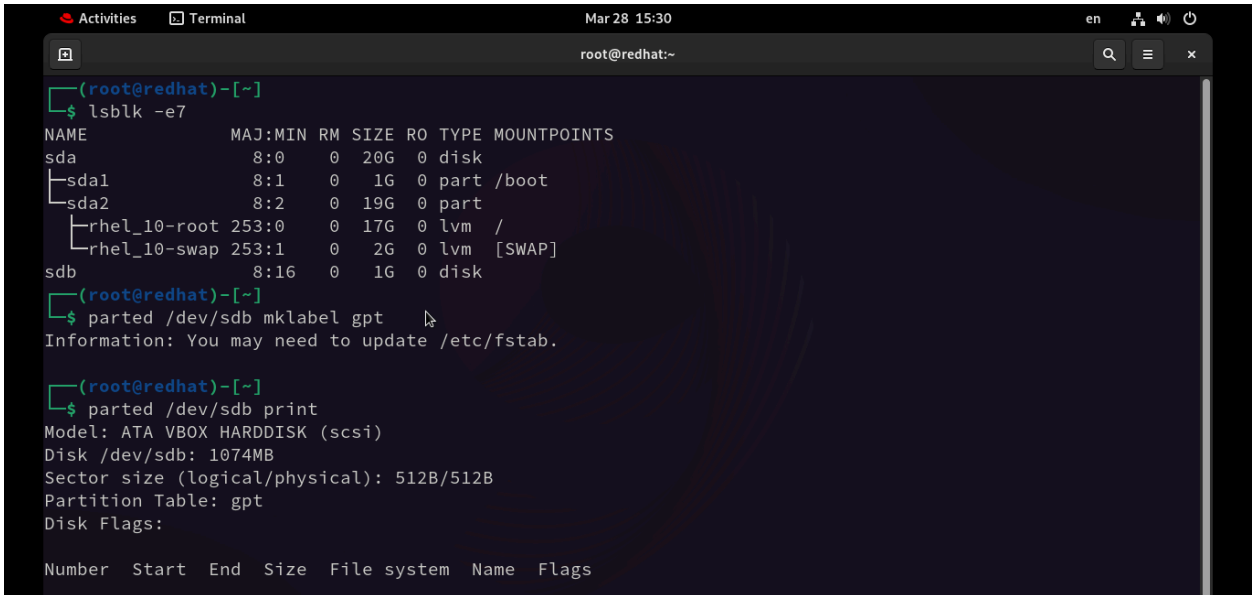
Linux Admin 2 - Lab 4

Name: Muhamad Mamoun Elsaid Hassan

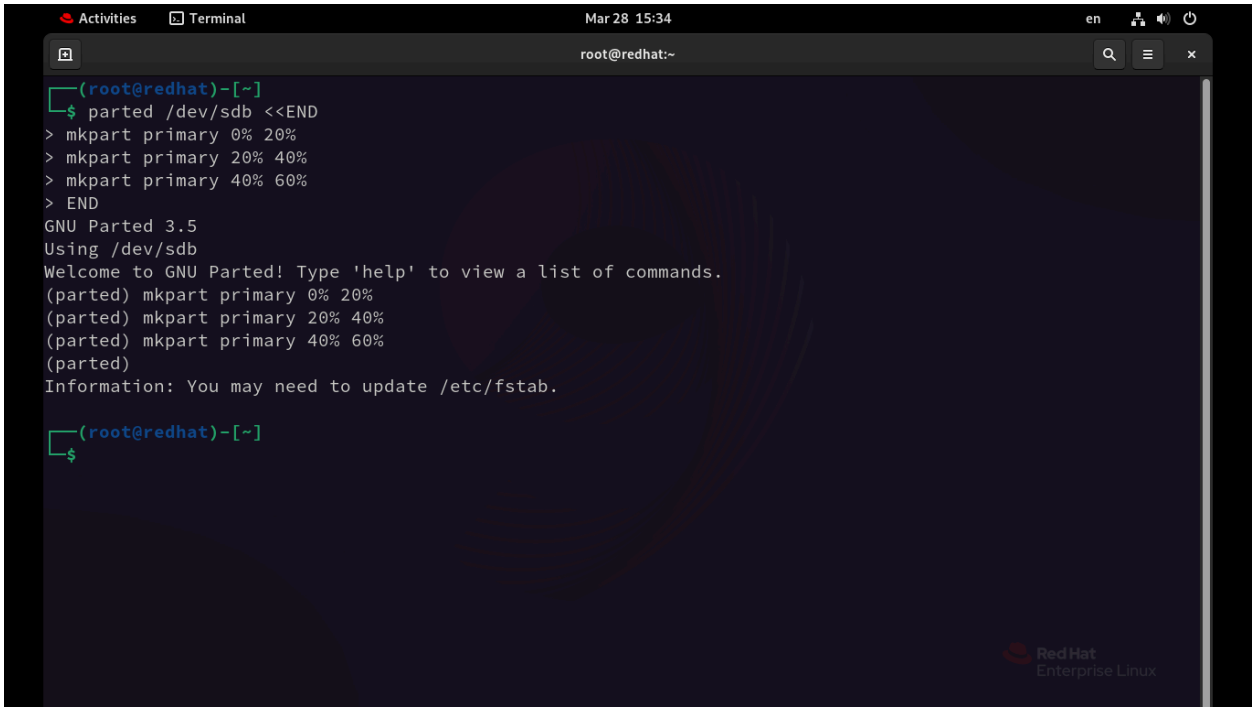
1-



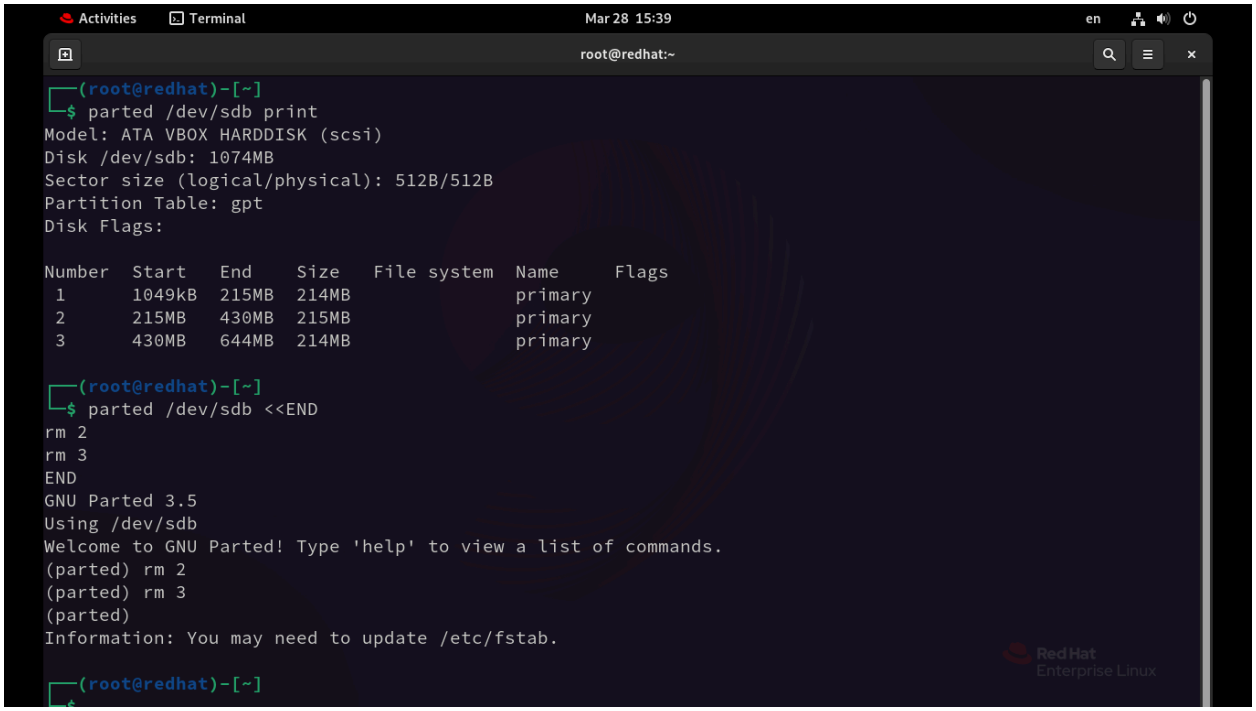
2-



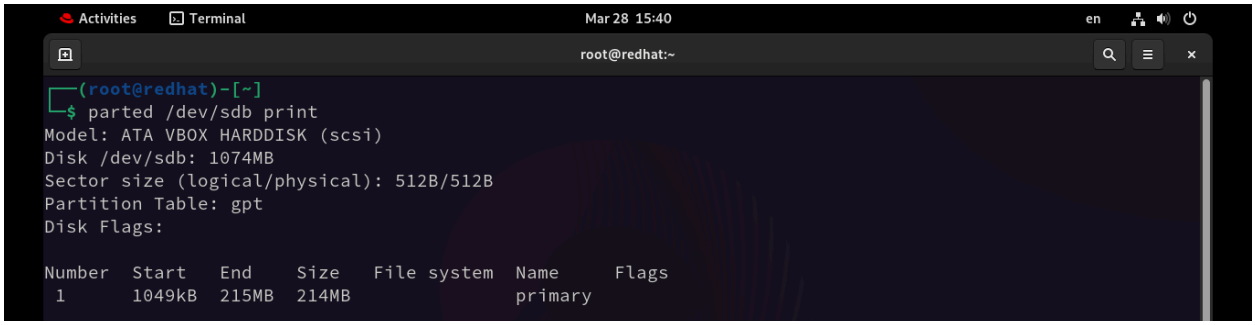
3-


Activities
Terminal
Mar 28 15:34
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/sdb <<END
> mkpart primary 0% 20%
> mkpart primary 20% 40%
> mkpart primary 40% 60%
> END
GNU Parted 3.5
Using /dev/sdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mkpart primary 0% 20%
(parted) mkpart primary 20% 40%
(parted) mkpart primary 40% 60%
(parted)
Information: You may need to update /etc/fstab.
(root@redhat)-[~]
$
Red Hat
Enterprise Linux

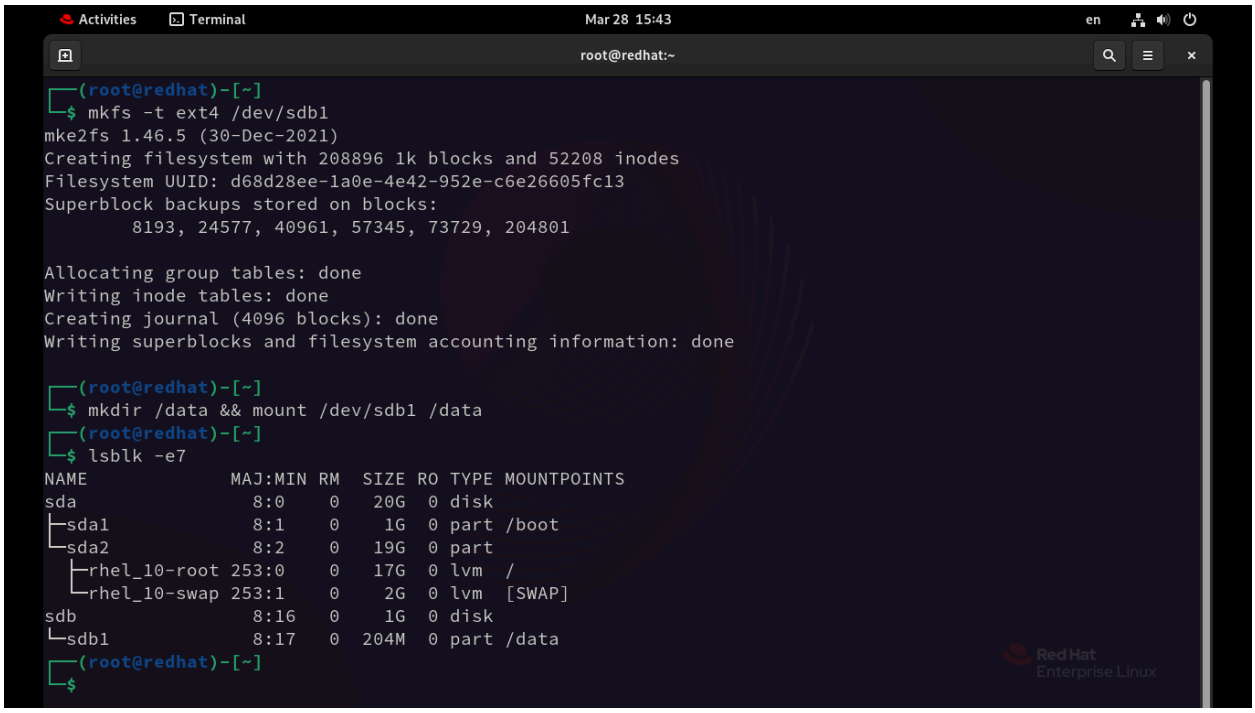
4-


Activities
Terminal
Mar 28 15:39
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/sdb print
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 1074MB
Sector size (logical/physical): 512B/512B
Partition Table: gpt
Disk Flags:
Number Start End Size File system Name Flags
1 1049kB 215MB 214MB primary
2 215MB 430MB 215MB primary
3 430MB 644MB 214MB primary
(root@redhat)-[~]
$ parted /dev/sdb <<END
rm 2
rm 3
END
GNU Parted 3.5
Using /dev/sdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) rm 2
(parted) rm 3
(parted)
Information: You may need to update /etc/fstab.
(root@redhat)-[~]
Red Hat
Enterprise Linux

5-’


Activities
Terminal
Mar 28 15:40
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/sdb print
Model: ATA VBOX HARDDISK (scsi)
Disk /dev/sdb: 1074MB
Sector size (logical/physical): 512B/512B
Partition Table: gpt
Disk Flags:
Number Start End Size File system Name Flags
1 1049kB 215MB 214MB primary

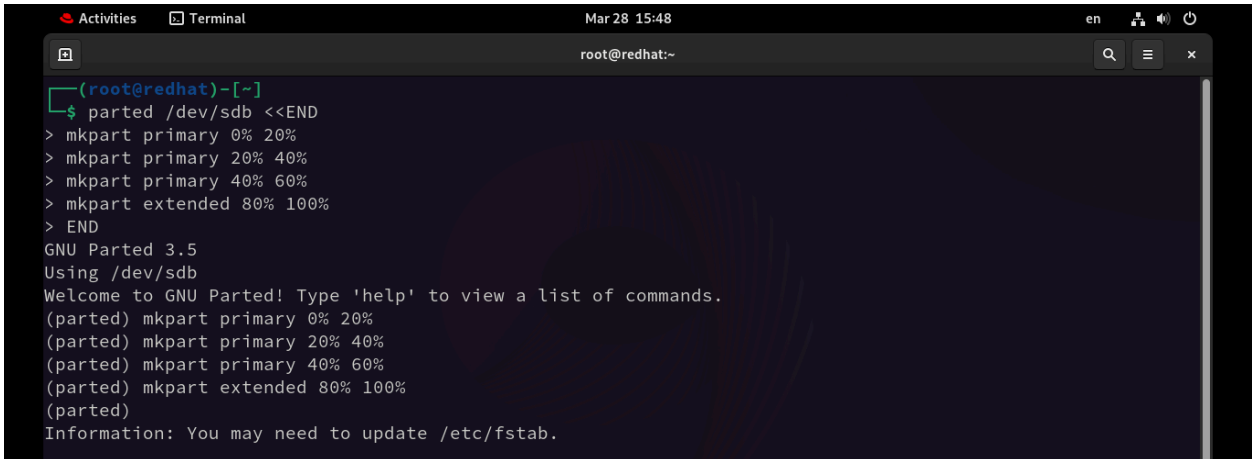
6-


Activities
Terminal
Mar 28 15:43
en
root@redhat:~
(root@redhat)-[~]
$ mkfs -t ext4 /dev/sdb1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 208896 1k blocks and 52208 inodes
Filesystem UUID: d68d28ee-1a0e-4e42-952e-c6e26605fc13
Superblock backups stored on blocks:
8193, 24577, 40961, 57345, 73729, 204801
Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
(root@redhat)-[~]
$ mkdir /data && mount /dev/sdb1 /data
(root@redhat)-[~]
$ lsblk -e7
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
sda 8:0 0 20G 0 disk
├─sda1 8:1 0 1G 0 part /boot
└─sda2 8:2 0 19G 0 part
├─rhel_10-root 253:0 0 17G 0 lvm /
└─rhel_10-swap 253:1 0 2G 0 lvm [SWAP]
sdb 8:16 0 1G 0 disk
└─sdb1 8:17 0 204M 0 part /data
(root@redhat)-[~]
$
Red Hat
Enterprise Linux

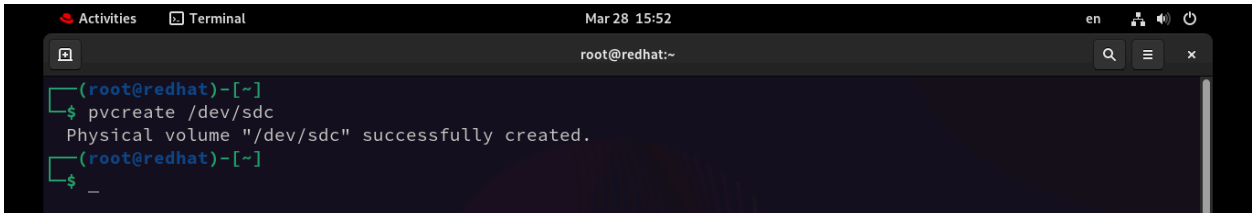
7-

Activities
Terminal
Mar 28 15:45
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/sdb mklabel msdos
Warning: Partition(s) on /dev/sdb are being used.
Ignore/Cancel? Ignore
Warning: The existing disk label on /dev/sdb will be destroyed and all data on this disk will be lost. Do you want to continue?
Yes/No? Yes
Error: Partition(s) 1 on /dev/sdb have been written, but we have been unable to inform the kernel of the change, probably because it/they are in use. As a result, the old partition(s) will remain in use. You should reboot now before making further changes.
Ignore/Cancel? Ignore
Information: You may need to update /etc/fstab.

8-


Activities
Terminal
Mar 28 15:48
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/sdb <<END
> mkpart primary 0% 20%
> mkpart primary 20% 40%
> mkpart primary 40% 60%
> mkpart extended 80% 100%
> END
GNU Parted 3.5
Using /dev/sdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mkpart primary 0% 20%
(parted) mkpart primary 20% 40%
(parted) mkpart primary 40% 60%
(parted) mkpart extended 80% 100%
(parted)
Information: You may need to update /etc/fstab.

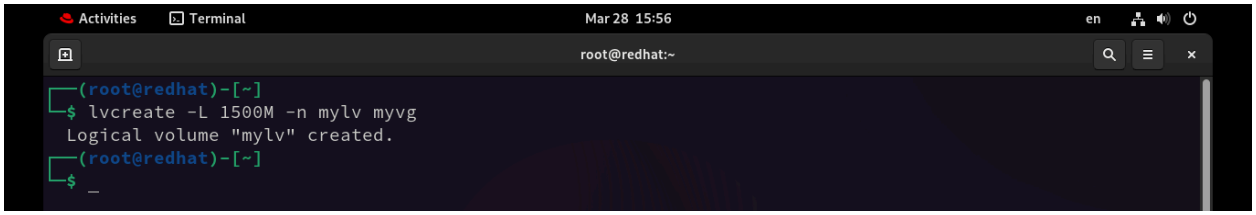
9-


Activities
Terminal
Mar 28 15:52
en
root@redhat:~
(root@redhat)-[~]
$ pvcreate /dev/sdc
Physical volume "/dev/sdc" successfully created.
(root@redhat)-[~]
$ _

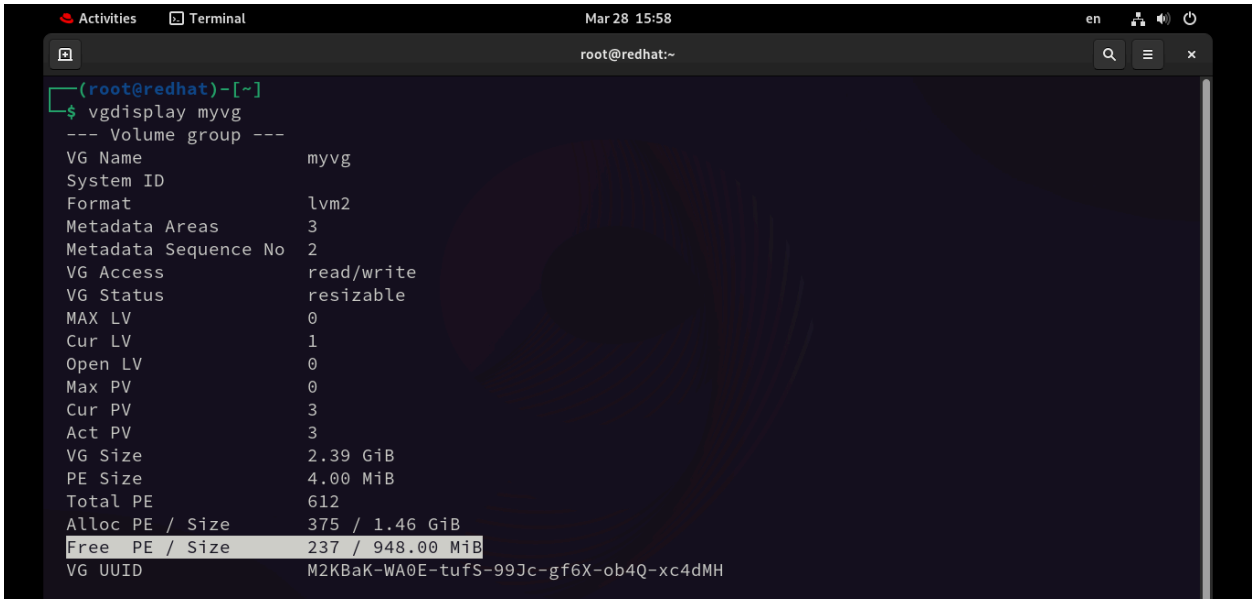
10-

Activities
Terminal
Mar 28 15:55
en
root@redhat:~
(root@redhat)-[~]
$ vgcreate myvg /dev/sdc /dev/sdb1 /dev/sdb2
WARNING: ext4 signature detected on /dev/sdb1 at offset 1080. Wipe it? [y/n]: y
Wiping ext4 signature on /dev/sdb1.
Physical volume "/dev/sdb1" successfully created.
Physical volume "/dev/sdb2" successfully created.
Volume group "myvg" successfully created
(root@redhat)-[~]
$ _

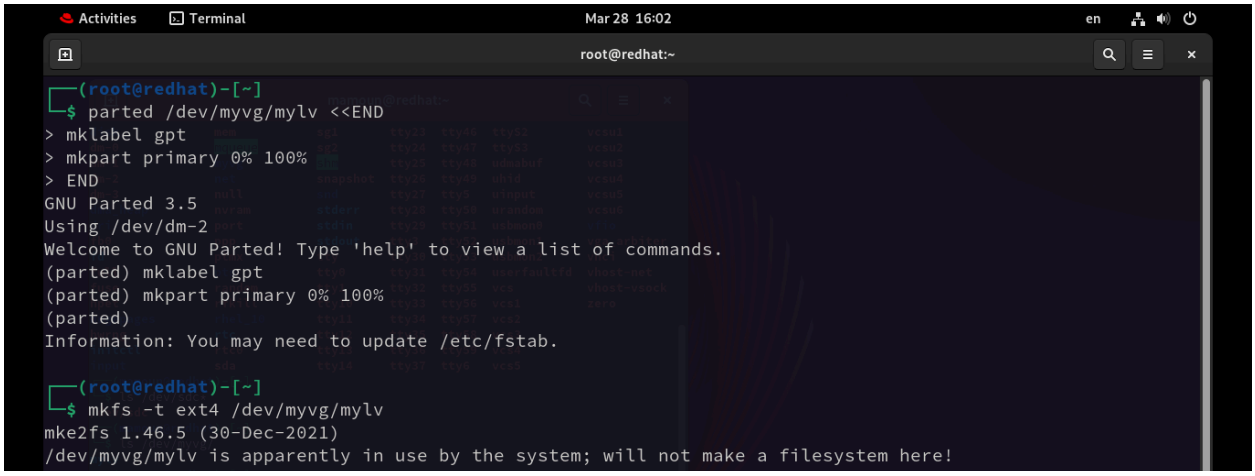
11-


Activities
Terminal
Mar 28 15:56
en
root@redhat:~
(root@redhat)-[~]
$ lvcreate -L 1500M -n mylv myvg
Logical volume "mylv" created.
(root@redhat)-[~]
$ _

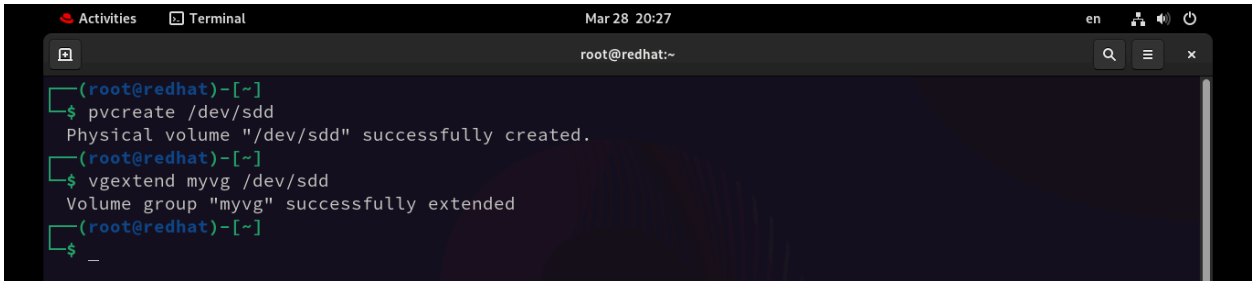
12-


Activities
Terminal
Mar 28 15:58
en
root@redhat:~
(root@redhat)-[~]
$ vgdisplay myvg
--- Volume group ---
VG Name myvg
System ID
Format lvm2
Metadata Areas 3
Metadata Sequence No 2
VG Access read/write
VG Status resizable
MAX LV 0
Cur LV 1
Open LV 0
Max PV 0
Cur PV 3
Act PV 3
VG Size 2.39 GiB
PE Size 4.00 MiB
Total PE 612
Alloc PE / Size 375 / 1.46 GiB
Free PE / Size 237 / 948.00 MiB
VG UUID M2KBaK-WA0E-tufS-99Jc-gf6X-ob4Q-xc4dMH

13-


Activities
Terminal
Mar 28 16:02
en
root@redhat:~
(root@redhat)-[~]
$ parted /dev/myvg/mylv <<END
> mklabel gpt
> mkpart primary 0% 100%
> END
GNU Parted 3.5
Using /dev/dm-2
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mklabel gpt
(parted) mkpart primary 0% 100%
(parted)
Information: You may need to update /etc/fstab.
(root@redhat)-[~]
$ mkfs -t ext4 /dev/myvg/mylv
mke2fs 1.46.5 (30-Dec-2021)
/dev/myvg/mylv is apparently in use by the system; will not make a filesystem here!

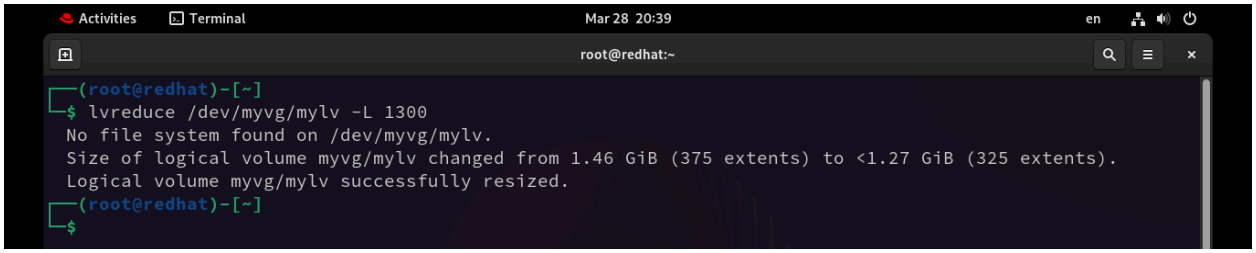
14-


Activities
Terminal
Mar 28 20:27
en
root@redhat:~
(root@redhat)-[~]
$ pvcreate /dev/sdd
Physical volume "/dev/sdd" successfully created.
(root@redhat)-[~]
$ vgextend myvg /dev/sdd
Volume group "myvg" successfully extended
(root@redhat)-[~]
$ _

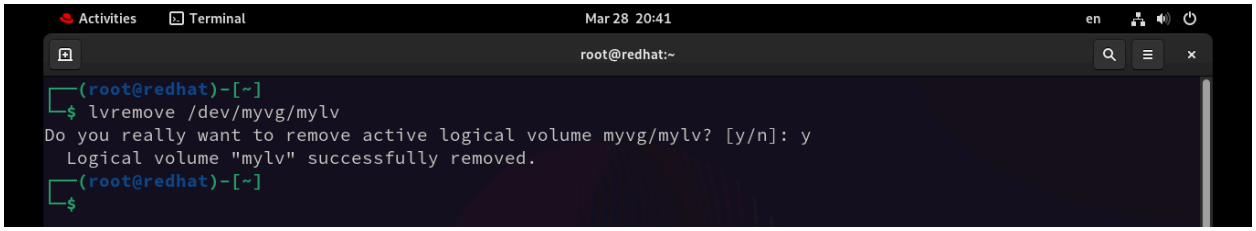
15-

Activities
Terminal
Mar 28 20:37
en
root@redhat:~
(root@redhat)-[~]
$ lvextend /dev/myvg/mylv -L 500M /dev/sdd
New size given (125 extents) not larger than existing size (374 extents)
(root@redhat)-[~]
$ lsblk -e7
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
sda 8:0 0 1G 0 disk
├─sda1 8:1 0 204M 0 part
├─sda2 8:2 0 205M 0 part
├─sda3 8:3 0 204M 0 part
└─sda4 8:4 0 1K 0 part
sdb 8:16 0 20G 0 disk
├─sdb1 8:17 0 1G 0 part /boot
└─sdb2 8:18 0 19G 0 part
├─rhel_10-root 253:0 0 17G 0 lvm /
└─rhel_10-swap 253:1 0 2G 0 lvm [SWAP]
sdc 8:32 0 2G 0 disk
└─myvg-mylv 253:2 0 1.5G 0 lvm
sdd 8:48 0 2G 0 disk
(root@redhat)-[~]
$

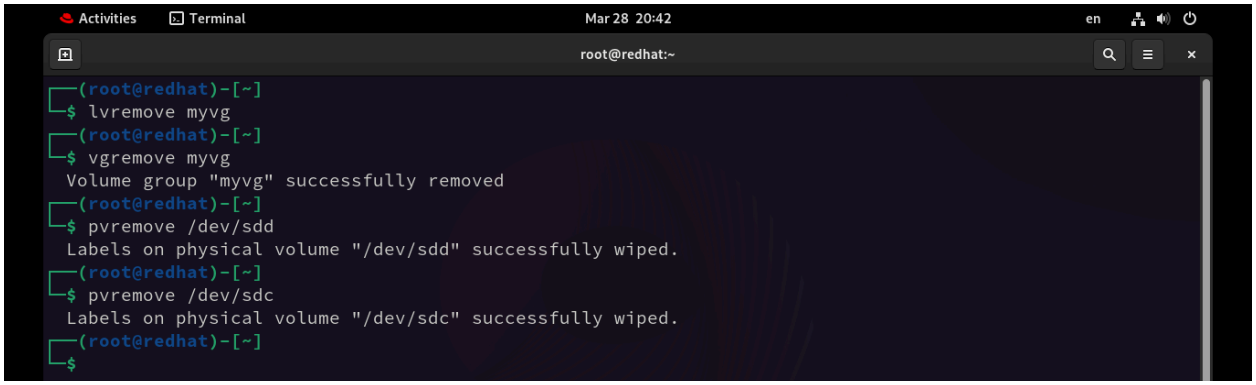
16-


Activities
Terminal
Mar 28 20:39
en
root@redhat:~
(root@redhat)-[~]
$ lvreduce /dev/myvg/mylv -L 1300
No file system found on /dev/myvg/mylv.
Size of logical volume myvg/mylv changed from 1.46 GiB (375 extents) to <1.27 GiB (325 extents).
Logical volume myvg/mylv successfully resized.
(root@redhat)-[~]
$

17-


Activities
Terminal
Mar 28 20:41
en
root@redhat:~
(root@redhat)-[~]
$ lvremove /dev/myvg/mylv
Do you really want to remove active logical volume myvg/mylv? [y/n]: y
Logical volume "mylv" successfully removed.
(root@redhat)-[~]
$

18-


Activities
Terminal
Mar 28 20:42
en
root@redhat:~
(root@redhat)-[~]
$ lvremove myvg
(root@redhat)-[~]
$ vgremove myvg
Volume group "myvg" successfully removed
(root@redhat)-[~]
$ pvremove /dev/sdd
Labels on physical volume "/dev/sdd" successfully wiped.
(root@redhat)-[~]
$ pvremove /dev/sdc
Labels on physical volume "/dev/sdc" successfully wiped.
(root@redhat)-[~]
$