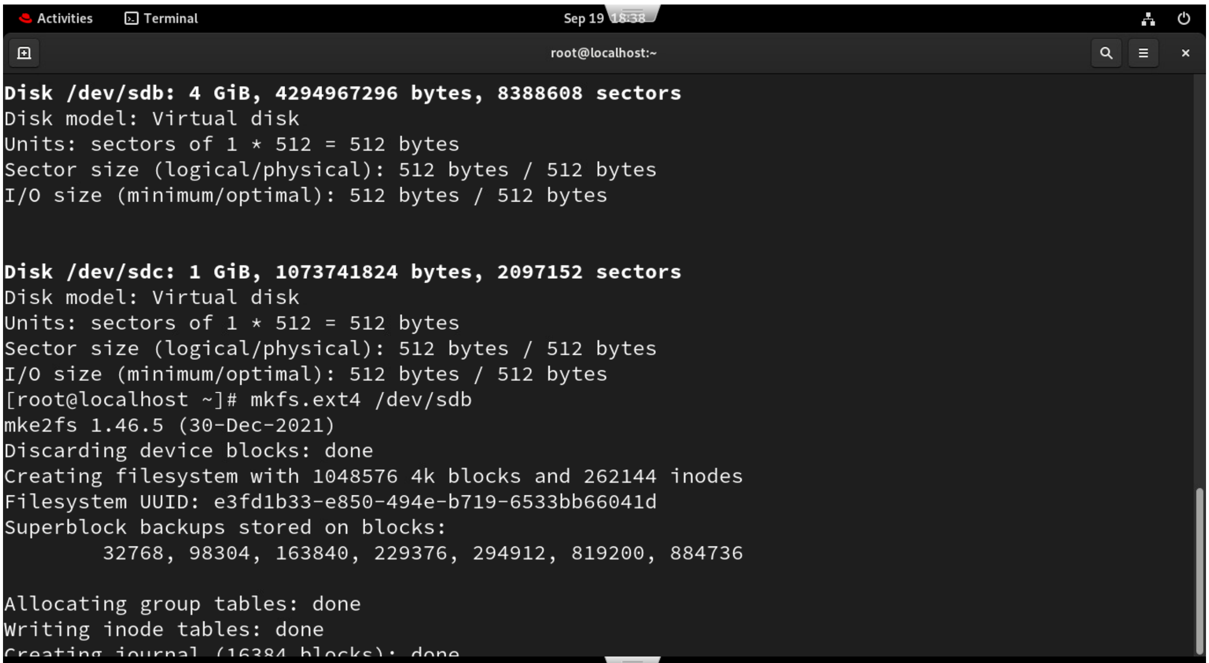
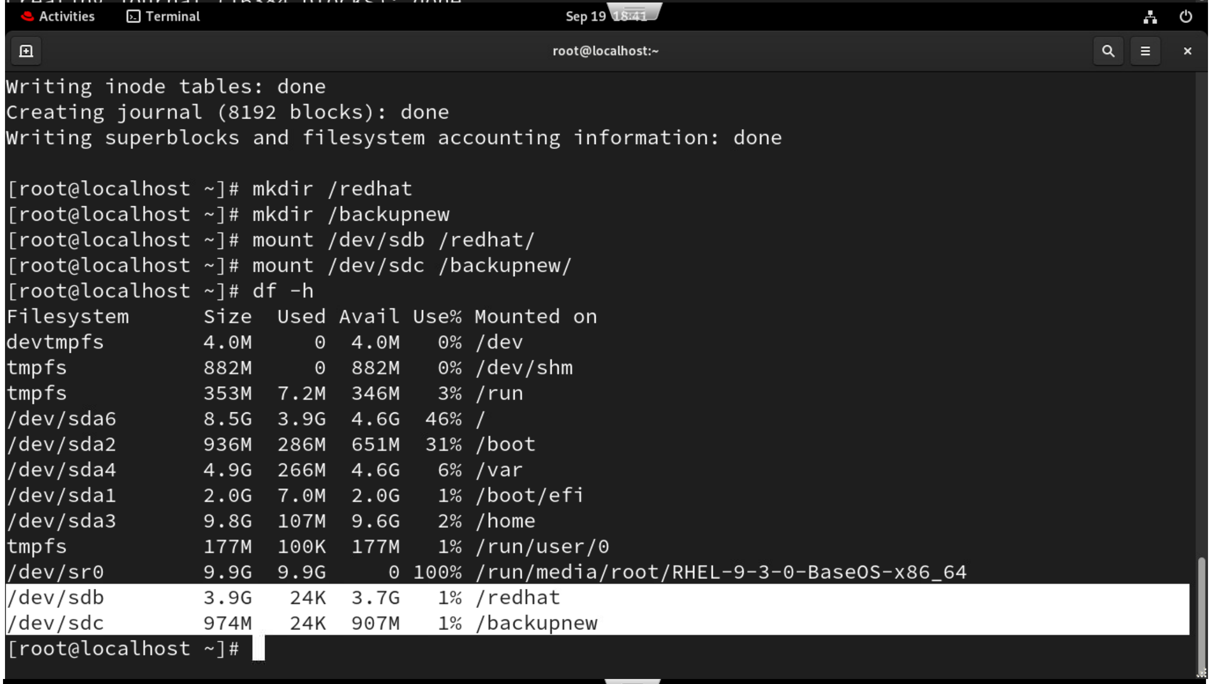
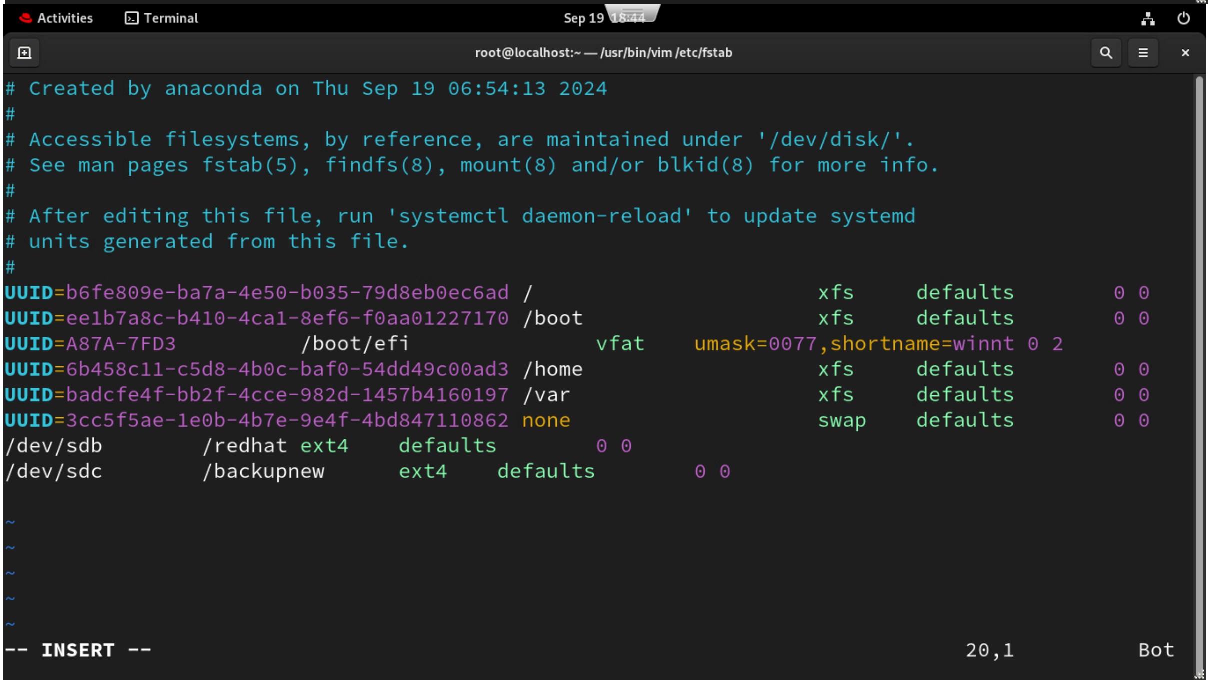
Strong technical Background in Storage, Disk Management, Logical Volume Management(LVM).



```
Disk /dev/sdb: 4 GiB, 4294967296 bytes, 8388608 sectors
Disk model: Virtual disk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/sdc: 1 GiB, 1073741824 bytes, 2097152 sectors
Disk model: Virtual disk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
[root@localhost ~]# mkfs.ext4 /dev/sdb
mke2fs 1.46.5 (30-Dec-2021)
Discarding device blocks: done
Creating filesystem with 1048576 4k blocks and 262144 inodes
Filesystem UUID: e3fd1b33-e850-494e-b719-6533bb66041d
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
```



```
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

[root@localhost ~]# mkdir /redhat
[root@localhost ~]# mkdir /backupnew
[root@localhost ~]# mount /dev/sdb /redhat/
[root@localhost ~]# mount /dev/sdc /backupnew/
[root@localhost ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M     0  4.0M   0% /dev
tmpfs           882M     0  882M   0% /dev/shm
tmpfs           353M  7.2M  346M   3% /run
/dev/sda6       8.5G  3.9G  4.6G  46% /
/dev/sda2       936M  286M  651M  31% /boot
/dev/sda4       4.9G  266M  4.6G   6% /var
/dev/sda1       2.0G  7.0M  2.0G   1% /boot/efi
/dev/sda3       9.8G  107M  9.6G   2% /home
tmpfs           177M  100K  177M   1% /run/user/0
/dev/sr0        9.9G  9.9G     0 100% /run/media/root/RHEL-9-3-0-BaseOS-x86_64
/dev/sdb        3.9G   24K  3.7G   1% /redhat
/dev/sdc        974M   24K  907M   1% /backupnew
[root@localhost ~]#
```



```
# Created by anaconda on Thu Sep 19 06:54:13 2024
#
# Accessible filesystems, by reference, are maintained under '/dev/disk/'.
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.
#
# After editing this file, run 'systemctl daemon-reload' to update systemd
# units generated from this file.
#
UUID=b6fe809e-ba7a-4e50-b035-79d8eb0ec6ad /                       xfs     defaults        0 0
UUID=ee1b7a8c-b410-4ca1-8ef6-f0aa01227170 /boot                   xfs     defaults        0 0
UUID=A87A-7FD3          /boot/efi               vfat    umask=0077,shortname=winnt 0 2
UUID=6b458c11-c5d8-4b0c-baf0-54dd49c00ad3 /home                   xfs     defaults        0 0
UUID=badcfe4f-bb2f-4cce-982d-1457b4160197 /var                    xfs     defaults        0 0
UUID=3cc5f5ae-1e0b-4b7e-9e4f-4bd847110862 none                    swap    defaults        0 0
/dev/sdb        /redhat ext4    defaults        0 0
/dev/sdc        /backupnew      ext4    defaults        0 0

~
~
~
~
~
-- INSERT --                                                               20,1          Bot
```

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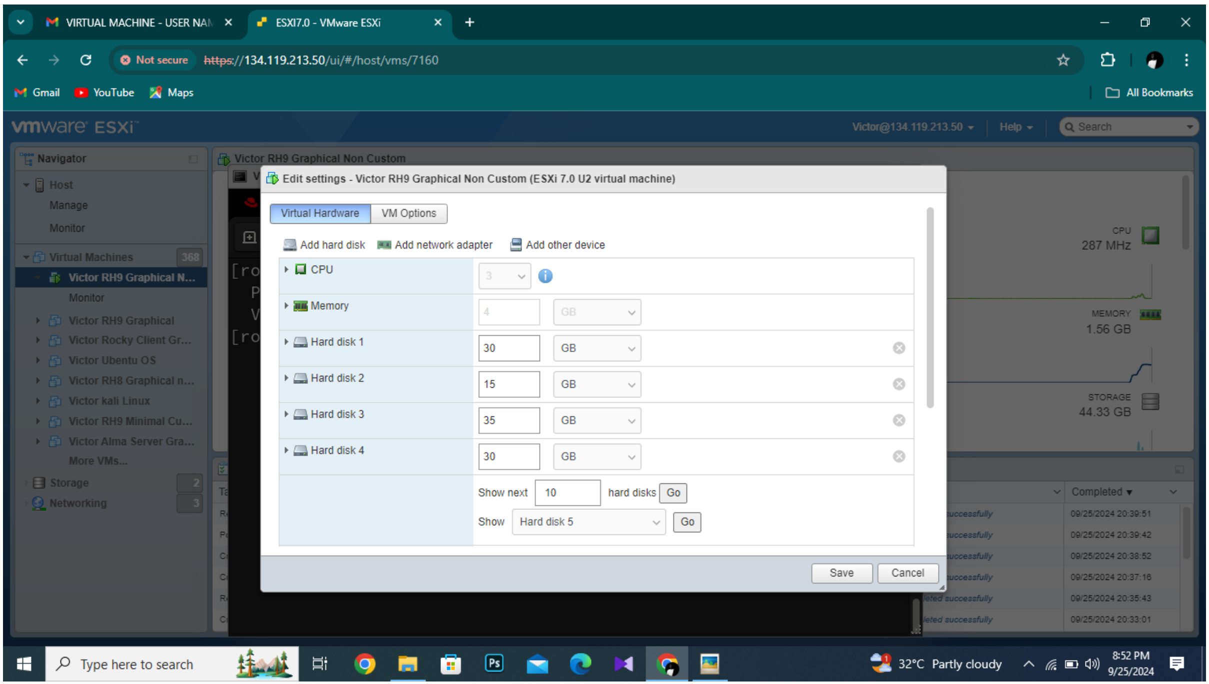

VIRTUAL MACHINE - USER NAN
ESXI7.0 - VMware ESXi
Not secure https://134.119.213.50/ui/#/host/vms/7160
Gmail
YouTube
Maps
All Bookmarks
vmware ESXi
Victor@134.119.213.50
Help
Search
Navigator
Host
Manage
Monitor
Virtual Machines
Victor RH9 Graphical N...
Victor RH9 Graphical
Victor Rocky Client Gr...
Victor Ubuntu OS
Victor RH8 Graphical n...
Victor kali Linux
Victor RH9 Minimal Cu...
Victor Alma Server Gra...
More VMs...
Storage
Networking
Victor RH9 Graphical Non Custom
CPU 287 MHz
MEMORY 1.56 GB
STORAGE 44.33 GB
Completed
Type here to search
32°C Partly cloudy
8:52 PM
9/25/2024

Edit settings - Victor RH9 Graphical Non Custom (ESXi 7.0 U2 virtual machine)

Virtual Hardware | VM Options

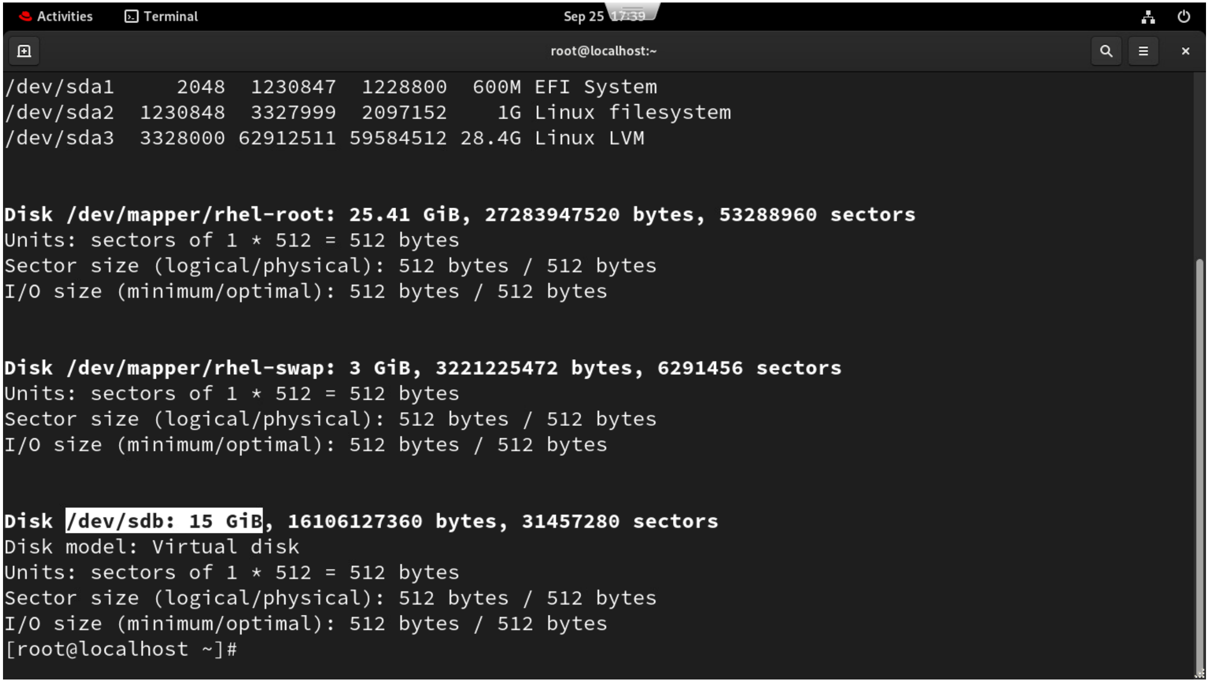
Add hard disk | Add network adapter | Add other device

CPU	3	
Memory	4	GB
Hard disk 1	30	GB
Hard disk 2	15	GB
Hard disk 3	35	GB
Hard disk 4	30	GB

Show next 10 hard disks Go

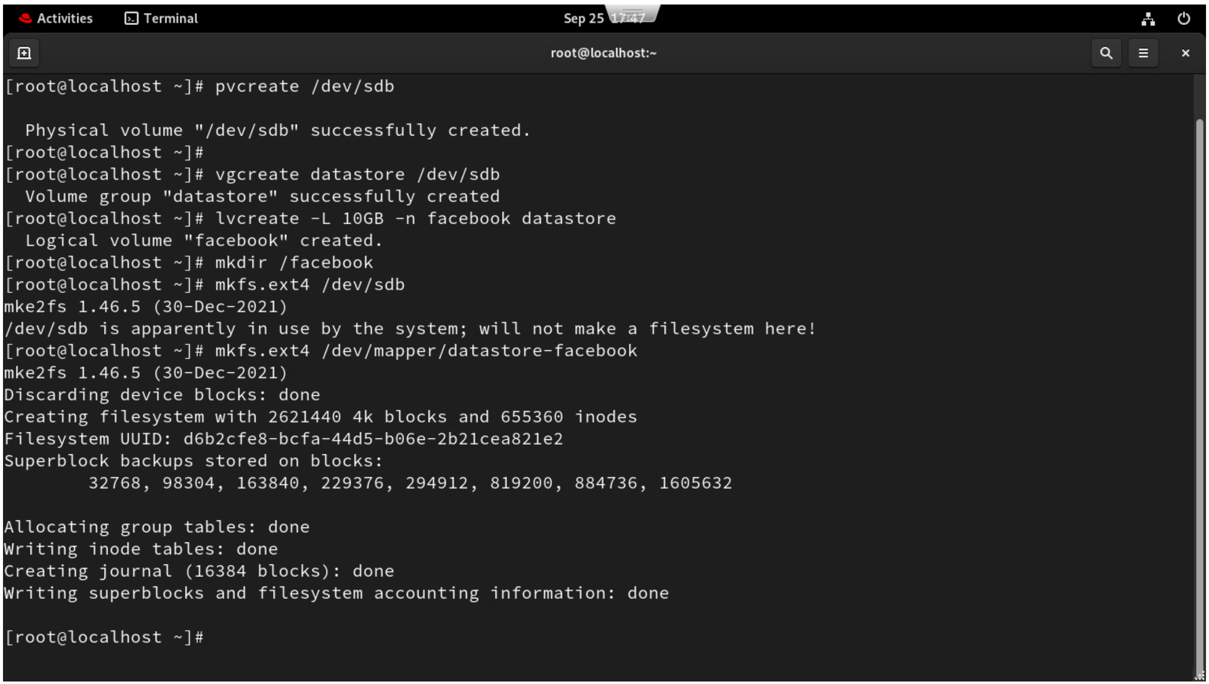
Show Hard disk 5 Go

Save Cancel

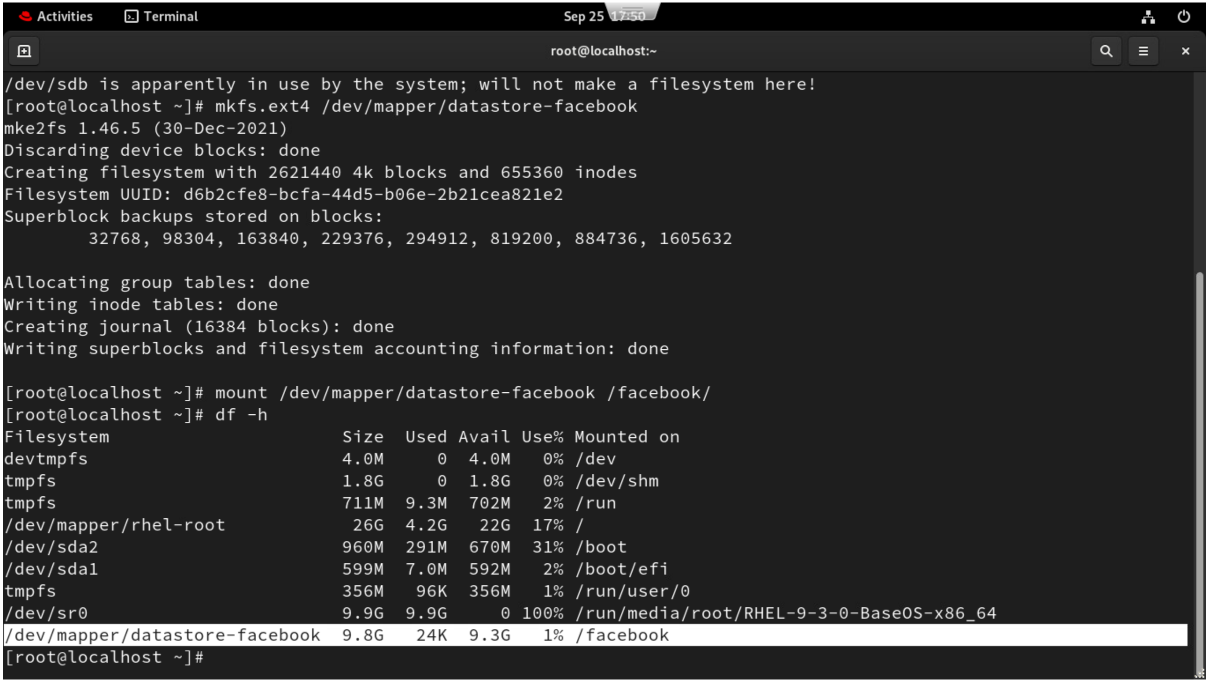

Activities
Terminal
Sep 25 17:39
root@localhost:~

```
/dev/sda1     2048  1230847  1228800  600M EFI System
/dev/sda2  1230848  3327999  2097152    1G Linux filesystem
/dev/sda3  3328000 62912511 59584512 28.4G Linux LVM


Disk /dev/mapper/rhel-root: 25.41 GiB, 27283947520 bytes, 53288960 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/mapper/rhel-swap: 3 GiB, 3221225472 bytes, 6291456 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/sdb: 15 GiB, 16106127360 bytes, 31457280 sectors
Disk model: Virtual disk
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
[root@localhost ~]#
```

Strong technical Background in Storage, Disk Management, Logical Volume Management(LVM).

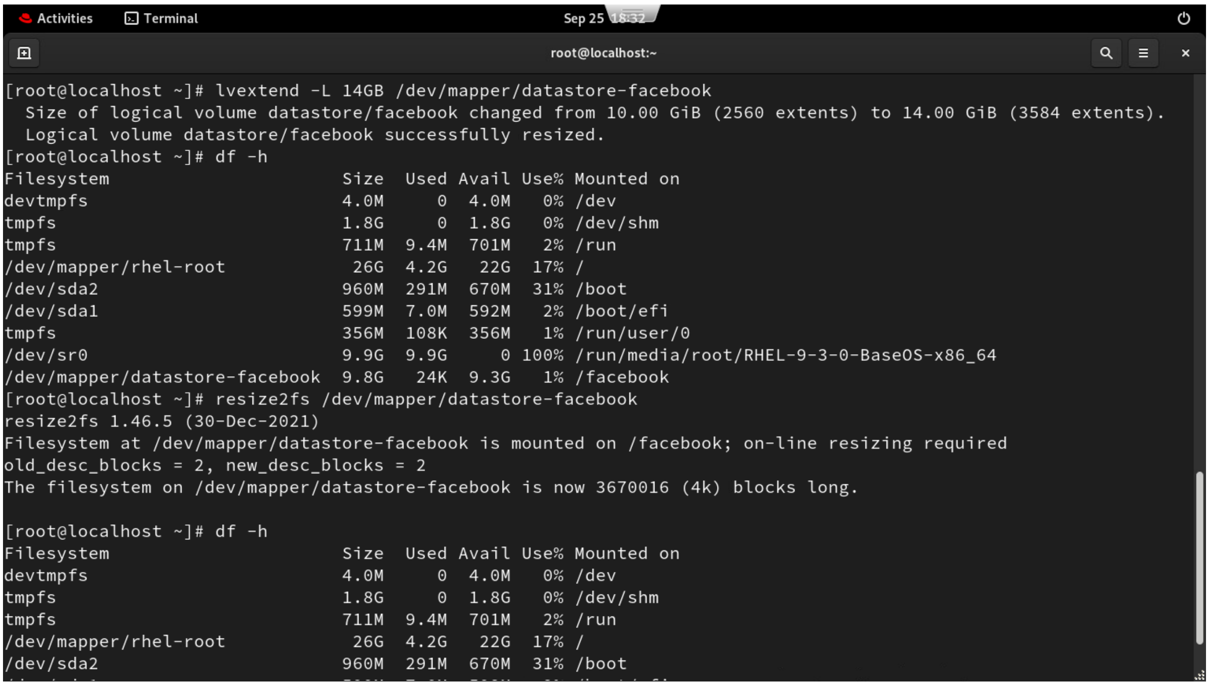


```
[root@localhost ~]# pvcreate /dev/sdb

  Physical volume "/dev/sdb" successfully created.
[root@localhost ~]#
[root@localhost ~]# vgcreate datastore /dev/sdb
  Volume group "datastore" successfully created
[root@localhost ~]# lvcreate -L 10GB -n facebook datastore
  Logical volume "facebook" created.
[root@localhost ~]# mkdir /facebook
[root@localhost ~]# mkfs.ext4 /dev/sdb
mke2fs 1.46.5 (30-Dec-2021)
/dev/sdb is apparently in use by the system; will not make a filesystem here!
[root@localhost ~]# mkfs.ext4 /dev/mapper/datastore-facebook
mke2fs 1.46.5 (30-Dec-2021)
Discarding device blocks: done
Creating filesystem with 2621440 4k blocks and 655360 inodes
Filesystem UUID: d6b2cfe8-bcfa-44d5-b06e-2b21cea821e2
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

[root@localhost ~]#
```

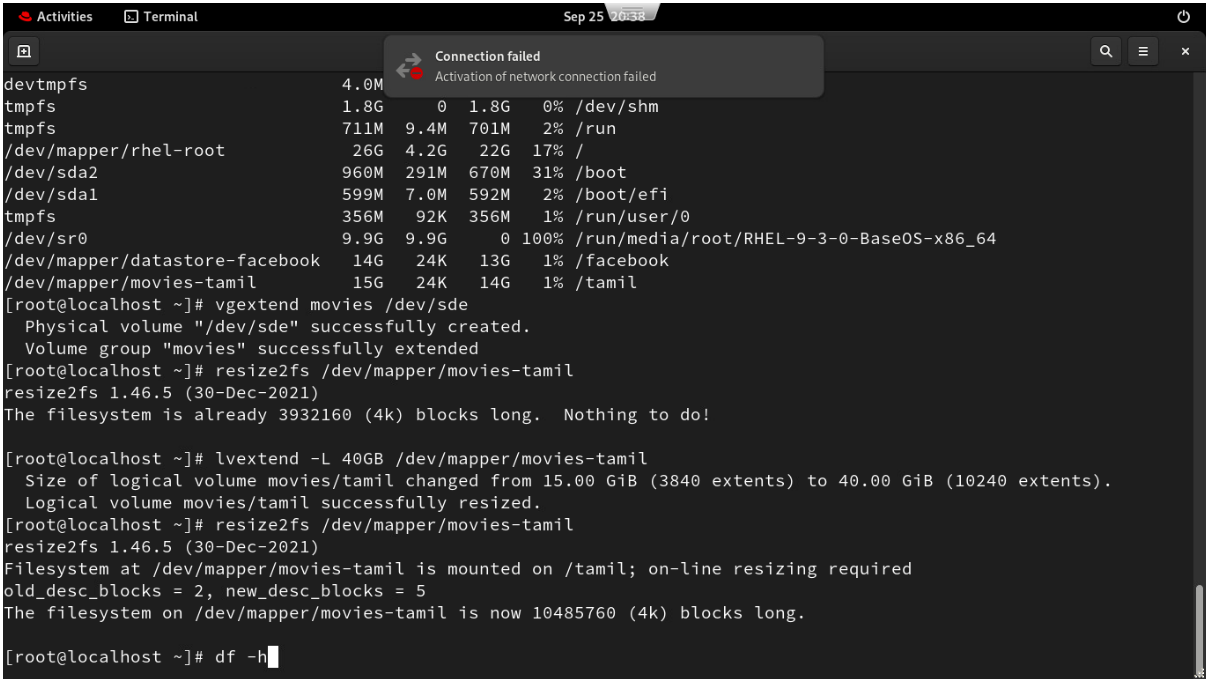


```
/dev/sdb is apparently in use by the system; will not make a filesystem here!
[root@localhost ~]# mkfs.ext4 /dev/mapper/datastore-facebook
mke2fs 1.46.5 (30-Dec-2021)
Discarding device blocks: done
Creating filesystem with 2621440 4k blocks and 655360 inodes
Filesystem UUID: d6b2cfe8-bcfa-44d5-b06e-2b21cea821e2
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

[root@localhost ~]# mount /dev/mapper/datastore-facebook /facebook/
[root@localhost ~]# df -h
Filesystem                      Size  Used Avail Use% Mounted on
devtmpfs                        4.0M     0  4.0M   0% /dev
tmpfs                           1.8G     0  1.8G   0% /dev/shm
tmpfs                           711M  9.3M  702M   2% /run
/dev/mapper/rhel-root            26G  4.2G   22G  17% /
/dev/sda2                       960M  291M  670M  31% /boot
/dev/sda1                       599M  7.0M  592M   2% /boot/efi
tmpfs                           356M   96K  356M   1% /run/user/0
/dev/sr0                        9.9G  9.9G     0 100% /run/media/root/RHEL-9-3-0-BaseOS-x86_64
/dev/mapper/datastore-facebook  9.8G   24K  9.3G   1% /facebook
[root@localhost ~]#
```

Strong technical Background in Storage, Disk Management, Logical Volume Management(LVM).



```
[root@localhost ~]# lvextend -L 14GB /dev/mapper/datastore-facebook
  Size of logical volume datastore/facebook changed from 10.00 GiB (2560 extents) to 14.00 GiB (3584 extents).
  Logical volume datastore/facebook successfully resized.
[root@localhost ~]# df -h
Filesystem                      Size  Used Avail Use% Mounted on
devtmpfs                        4.0M     0  4.0M   0% /dev
tmpfs                           1.8G     0  1.8G   0% /dev/shm
tmpfs                           711M  9.4M  701M   2% /run
/dev/mapper/rhel-root            26G  4.2G   22G  17% /
/dev/sda2                       960M  291M  670M  31% /boot
/dev/sda1                       599M  7.0M  592M   2% /boot/efi
tmpfs                           356M  108K  356M   1% /run/user/0
/dev/sr0                        9.9G  9.9G     0 100% /run/media/root/RHEL-9-3-0-BaseOS-x86_64
/dev/mapper/datastore-facebook  9.8G   24K  9.3G   1% /facebook
[root@localhost ~]# resize2fs /dev/mapper/datastore-facebook
resize2fs 1.46.5 (30-Dec-2021)
Filesystem at /dev/mapper/datastore-facebook is mounted on /facebook; on-line resizing required
old_desc_blocks = 2, new_desc_blocks = 2
The filesystem on /dev/mapper/datastore-facebook is now 3670016 (4k) blocks long.

[root@localhost ~]# df -h
Filesystem                      Size  Used Avail Use% Mounted on
devtmpfs                        4.0M     0  4.0M   0% /dev
tmpfs                           1.8G     0  1.8G   0% /dev/shm
tmpfs                           711M  9.4M  701M   2% /run
/dev/mapper/rhel-root            26G  4.2G   22G  17% /
/dev/sda2                       960M  291M  670M  31% /boot
```



Connection failed
Activation of network connection failed

```
devtmpfs                        4.0M
tmpfs                           1.8G     0  1.8G   0% /dev/shm
tmpfs                           711M  9.4M  701M   2% /run
/dev/mapper/rhel-root            26G  4.2G   22G  17% /
/dev/sda2                       960M  291M  670M  31% /boot
/dev/sda1                       599M  7.0M  592M   2% /boot/efi
tmpfs                           356M   92K  356M   1% /run/user/0
/dev/sr0                        9.9G  9.9G     0 100% /run/media/root/RHEL-9-3-0-BaseOS-x86_64
/dev/mapper/datastore-facebook   14G   24K   13G   1% /facebook
/dev/mapper/movies-tamil         15G   24K   14G   1% /tamil
[root@localhost ~]# vgextend movies /dev/sde
  Physical volume "/dev/sde" successfully created.
  Volume group "movies" successfully extended
[root@localhost ~]# resize2fs /dev/mapper/movies-tamil
resize2fs 1.46.5 (30-Dec-2021)
The filesystem is already 3932160 (4k) blocks long.  Nothing to do!

[root@localhost ~]# lvextend -L 40GB /dev/mapper/movies-tamil
  Size of logical volume movies/tamil changed from 15.00 GiB (3840 extents) to 40.00 GiB (10240 extents).
  Logical volume movies/tamil successfully resized.
[root@localhost ~]# resize2fs /dev/mapper/movies-tamil
resize2fs 1.46.5 (30-Dec-2021)
Filesystem at /dev/mapper/movies-tamil is mounted on /tamil; on-line resizing required
old_desc_blocks = 2, new_desc_blocks = 5
The filesystem on /dev/mapper/movies-tamil is now 10485760 (4k) blocks long.

[root@localhost ~]# df -h
```