

```
sunbeam@server~$ login as: sunbeam
sunbeam@192.168.59.147's password:
Web console: https://server:9090/ or https://192.168.59.147:9090/

Last login: Mon Oct 30 14:48:05 2023 from 192.168.59.1
[sunbeam@server ~]$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sr0          11:0    1 1024M  0 rom
zram0        252:0    0   3.8G  0 disk [SWAP]
nvme0n1      259:0    0    40G  0 disk
├─nvme0n1p1  259:1    0    1M  0 part
├─nvme0n1p2  259:2    0    1G  0 part /boot
├─nvme0n1p3  259:3    0   39G  0 part
└─fedora-root 253:0    0   15G  0 lvm /
nvme0n2      259:4    0    60G  0 disk
[sunbeam@server ~]$ sudo fdisk /dev/nvme0n2
[sudo] password for sunbeam:

Welcome to fdisk (util-linux 2.38.1).
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 0x2e8a1bbd.

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 (2048-125829119, default 2048):
Last sector, +/-sectors or +/-size(K,M,G,T,P) (2048-125829119, default 125829119): +15G

Created a new partition 1 of type 'Linux' and of size 15 GiB.

Command (m for help): n
Partition type
  p   primary (1 primary, 0 extended, 3 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (2-4, default 2):
First sector (31459328-125829119, default 31459328):
Last sector, +/-sectors or +/-size(K,M,G,T,P) (31459328-125829119, default 125829119): +15G

Created a new partition 2 of type 'Linux' and of size 15 GiB.

Command (m for help): n
```

```
sunbeam@server:~$ sudo fdisk /dev/sr0
Partition type
  p   primary (2 primary, 0 extended, 2 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (3,4, default 3):
First sector (62916608-125829119, default 62916608):
Last sector, +/-sectors or +/-size(K,M,G,T,P) (62916608-125829119, default 125829119): +15G
```

Created a new partition 3 of type 'Linux' and of size 15 GiB.

```
Command (m for help): n
Partition type
  p   primary (3 primary, 0 extended, 1 free)
  e   extended (container for logical partitions)
Select (default e): p
Selected partition 4
First sector (94373888-125829119, default 94373888):
Last sector, +/-sectors or +/-size(K,M,G,T,P) (94373888-125829119, default 125829119): +15G
```

Created a new partition 4 of type 'Linux' and of size 15 GiB.

Command (m for help):

Command (m for help):

Command (m for help): w

The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

```
[sunbeam@server ~]$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sr0          11:0    1 1024M  0 rom
zram0        252:0    0   3.8G  0 disk [SWAP]
nvme0n1      259:0    0   40G   0 disk
├─nvme0n1p1  259:1    0    1M   0 part
├─nvme0n1p2  259:2    0    1G   0 part /boot
├─nvme0n1p3  259:3    0   39G   0 part
└─fedora-root 253:0    0   15G   0 lvm  /
nvme0n2      259:4    0   60G   0 disk
├─nvme0n2p2  259:5    0   15G   0 part
├─nvme0n2p3  259:6    0   15G   0 part
├─nvme0n2p1  259:9    0   15G   0 part
└─nvme0n2p4  259:10   0   15G   0 part
```

```

sunbeam@server:~$ sudo mkfs -t ext4 /dev/nvme0n2p4
mkfs2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 3932160 4k blocks and 983040 inodes
Filesystem UUID: d7525476-f87e-4ed6-bfcc-0ce87520855d
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208

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

[sunbeam@server ~]$ sudo mkfs -t ext4 /dev/nvme0n2p2
mkfs2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 3932160 4k blocks and 983040 inodes
Filesystem UUID: 8440827e-f0b8-4f31-9e51-c76e035f65bb
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208

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

[sunbeam@server ~]$ sudo mkfs -t xfs /dev/nvme0n2p3
meta-data=/dev/nvme0n2p3          isize=512    agcount=4, agsize=983040 blks
                               =           sectsz=512   attr=2, projid32bit=1
                               =           crc=1        finobt=1, sparse=1, rmapbt=0
                               =           reflink=1     bigtime=1 inobtcount=1
data      =                       bsize=4096   blocks=3932160, imaxpct=25
                               =           sunit=0      swidth=0 blks
naming    =version 2              bsize=4096   ascii-ci=0, ftype=1
log       =internal log          bsize=4096   blocks=16384, version=2
                               =           sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                  extsz=4096    blocks=0, rtextents=0

[sunbeam@server ~]$ sudo mkfs -t xfs /dev/nvme0n2p4
meta-data=/dev/nvme0n2p4          isize=512    agcount=4, agsize=982976 blks
                               =           sectsz=512   attr=2, projid32bit=1
                               =           crc=1        finobt=1, sparse=1, rmapbt=0
                               =           reflink=1     bigtime=1 inobtcount=1
data      =                       bsize=4096   blocks=3931904, imaxpct=25
                               =           sunit=0      swidth=0 blks
naming    =version 2              bsize=4096   ascii-ci=0, ftype=1
log       =internal log          bsize=4096   blocks=16384, version=2
                               =           sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                  extsz=4096    blocks=0, rtextents=0
[sunbeam@server ~]$
[sunbeam@server ~]$

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```

sunbeam@server:~$
[sunbeam@server ~]$ lsblk
NAME                                MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
sr0                                11:0    1 1024M  0 rom
zram0                              252:0    0   3.8G  0 disk [SWAP]
nvme0n1                            259:0    0    40G  0 disk
├─nvme0n1p1                        259:1    0     1M  0 part
├─nvme0n1p2                        259:2    0     1G  0 part /boot
├─nvme0n1p3                        259:3    0    39G  0 part
└─fedora-root                      253:0    0    15G  0 lvm /
nvme0n2                            259:4    0    60G  0 disk
├─nvme0n2p2                        259:5    0    15G  0 part
├─nvme0n2p3                        259:6    0    15G  0 part
├─nvme0n2p1                        259:9    0    15G  0 part
└─nvme0n2p4                        259:10   0    15G  0 part
[sunbeam@server ~]$
[sunbeam@server ~]$
[sunbeam@server ~]$ ls /mnt
disk1 disk2 drive1 drive2 hgfs mydisk mydrive p1 p2
[sunbeam@server ~]$ cd /mnt
[sunbeam@server mnt]$ rm -r dri*
rm: remove write-protected directory 'drive1'?
rm: remove write-protected directory 'drive2'? ^C
[sunbeam@server mnt]$ sudo rm -r dri*
[sunbeam@server mnt]$ ls
disk1 disk2 hgfs mydisk mydrive p1 p2
[sunbeam@server mnt]$ sudo rm -r di*
[sunbeam@server mnt]$ sudo rm -r p*
[sunbeam@server mnt]$ sudo rm -r m*
[sunbeam@server mnt]$ ls
hgfs
[sunbeam@server mnt]$
[sunbeam@server mnt]$ mkdir disk1 disk2 disk3 disk4
mkdir: cannot create directory 'disk1': Permission denied
mkdir: cannot create directory 'disk2': Permission denied
mkdir: cannot create directory 'disk3': Permission denied
mkdir: cannot create directory 'disk4': Permission denied
[sunbeam@server mnt]$ sudo mkdir disk1 disk2 disk3 disk4
[sunbeam@server mnt]$
[sunbeam@server mnt]$ ls
disk1 disk2 disk3 disk4 hgfs
[sunbeam@server mnt]$
[sunbeam@server mnt]$ history | grep "mount"
495 sudo mount -t ext4 /dev/nvme0n2p1 /mnt/mydrive/
508 sudo umount /mnt/mydrive
513 sudo mount -t ext4 /dev/nvme0n2p1 /mnt/mydrive/
528 sudo mount -t ext4 /dev/nvme0n2p1 /dev/p1
529 sudo mount -t ext4 /dev/nvme0n2p1 /mnt/p1
530 sudo mount -t ext4 /dev/nvme0n2p2 /mnt/p2
543 sudo mount -t ext4 /dev/nvme0n2p1 /mnt/disk1

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```
sunbeam@server:~$ sudo systemctl restart mydisk.mount
704 sudo systemctl restart mydisk.mount
729 history | grep "mount"
[sunbeam@server mnt]$ sudo mount -t ext /dev/nvme0n2p1 disk1
mount: /mnt/disk1: unknown filesystem type 'ext'.
dmesg(1) may have more information after failed mount system call.
[sunbeam@server mnt]$ sudo mount -t ext4 /dev/nvme0n2p1 disk1
[sunbeam@server mnt]$ sudo mount -t ext4 /dev/nvme0n2p2 disk2
[sunbeam@server mnt]$ sudo mount -t xfs /dev/nvme0n2p3 disk3
[sunbeam@server mnt]$ sudo mount -t xfs /dev/nvme0n2p4 disk4
[sunbeam@server mnt]$ sudo findmnt | grep "disk"
|-/mnt/disk1          /dev/nvme0n2p1      ext4      rw,relatime,secl
abel
|-/mnt/disk2          /dev/nvme0n2p2      ext4      rw,relatime,secl
abel
|-/mnt/disk3          /dev/nvme0n2p3      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
|-/mnt/disk4          /dev/nvme0n2p4      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
[sunbeam@server mnt]$
[sunbeam@server mnt]$
[sunbeam@server mnt]$ cat > disk1/f1.txt
-bash: disk1/f1.txt: Permission denied
[sunbeam@server mnt]$ sudo cat > disk1/f1.txt
-bash: disk1/f1.txt: Permission denied
[sunbeam@server mnt]$ ls /disk1
ls: cannot access '/disk1': No such file or directory
[sunbeam@server mnt]$ sudo ls /disk1
ls: cannot access '/disk1': No such file or directory
[sunbeam@server mnt]$ ls
disk1 disk2 disk3 disk4 hgfs
[sunbeam@server mnt]$
[sunbeam@server mnt]$ cd disk1
[sunbeam@server disk1]$ ls
lost+found
[sunbeam@server disk1]$ cat > f1.txt
-bash: f1.txt: Permission denied
[sunbeam@server disk1]$ sudo cat > f1.txt
-bash: f1.txt: Permission denied
[sunbeam@server disk1]$ cd ..
[sunbeam@server mnt]$ cd disk1
[sunbeam@server disk1]$ touch f1.txt
touch: cannot touch 'f1.txt': Permission denied
[sunbeam@server disk1]$ sudo touch f1.txt
[sudo] password for sunbeam:
[sunbeam@server disk1]$ cd ..
[sunbeam@server mnt]$ cd disk2
[sunbeam@server disk2]$ sudo touch f1.txt
[sunbeam@server disk2]$ cd disk3
-bash: cd: disk3: No such file or directory
```

```
sunbeam@server:~$ cat > f1.txt
-bash: f1.txt: Permission denied
[sunbeam@server disk1]$ sudo cat > f1.txt
-bash: f1.txt: Permission denied
[sunbeam@server disk1]$ cd ..
[sunbeam@server mnt]$ cd disk1
[sunbeam@server disk1]$ touch f1.txt
touch: cannot touch 'f1.txt': Permission denied
[sunbeam@server disk1]$ sudo touch f1.txt
[sudo] password for sunbeam:
[sunbeam@server disk1]$ cd ..
[sunbeam@server mnt]$ cd disk2
[sunbeam@server disk2]$ sudo touch f1.txt
[sunbeam@server disk2]$ cd disk3
-bash: cd: disk3: No such file or directory
[sunbeam@server disk2]$ cd ..
[sunbeam@server mnt]$ cd disk3
[sunbeam@server disk3]$ sudo touch f1.txt
[sunbeam@server disk3]$ ls
f1.txt
[sunbeam@server disk3]$ cd disk4
-bash: cd: disk4: No such file or directory
[sunbeam@server disk3]$ cd ..
[sunbeam@server mnt]$ cd disk4
[sunbeam@server disk4]$ sudo touch f1.txt
[sunbeam@server disk4]$
[sunbeam@server disk4]$ history | grep "fstab"
631 sudo vim /etc/fstab
648 sudo vim /etc/fstab
665 sudo vim /etc/fstab
684 history | grep "fstab"
685 sudo vim /etc/fstab
761 history | grep "fstab"
[sunbeam@server disk4]$ sudo vim /etc/fstab
[sunbeam@server disk4]$ lsblk
NAME            MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sr0              11:0    1 1024M  0 rom
zram0           252:0    0   3.8G  0 disk [SWAP]
nvme0n1         259:0    0    40G  0 disk
├─nvme0n1p1     259:1    0     1M  0 part
├─nvme0n1p2     259:2    0     1G  0 part /boot
├─nvme0n1p3     259:3    0    39G  0 part
└─fedora-root  253:0    0    15G  0 lvm  /
nvme0n2         259:4    0    60G  0 disk
├─nvme0n2p2     259:5    0    15G  0 part /mnt/disk2
├─nvme0n2p3     259:6    0    15G  0 part /mnt/disk3
├─nvme0n2p1     259:9    0    15G  0 part /mnt/disk1
└─nvme0n2p4     259:10   0    15G  0 part /mnt/disk4
[sunbeam@server disk4]$ sudo vim /etc/fstab
[sunbeam@server disk4]$ sudo vim /etc/fstab
```

```
sunbeam@server:~$ sudo vim /etc/fstab
685 sudo vim /etc/fstab
761 history | grep "fstab"
[sunbeam@server disk4]$ sudo vim /etc/fstab
[sunbeam@server disk4]$ lsblk
NAME                                MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
sr0                                  11:0    1 1024M  0 rom
zram0                               252:0    0   3.8G  0 disk [SWAP]
nvme0n1                             259:0    0    40G  0 disk
├─nvme0n1p1                         259:1    0     1M  0 part
├─nvme0n1p2                         259:2    0     1G  0 part /boot
├─nvme0n1p3                         259:3    0    39G  0 part
└─fedora-root                       253:0    0    15G  0 lvm  /
nvme0n2                             259:4    0    60G  0 disk
├─nvme0n2p2                         259:5    0    15G  0 part /mnt/disk2
├─nvme0n2p3                         259:6    0    15G  0 part /mnt/disk3
├─nvme0n2p1                         259:9    0    15G  0 part /mnt/disk1
└─nvme0n2p4                         259:10   0    15G  0 part /mnt/disk4
[sunbeam@server disk4]$ sudo vim /etc/fstab
[sunbeam@server disk4]$ sudo vim /etc/fstab
[sunbeam@server disk4]$ sudo findmnt | grep "disk"
|-/mnt/disk1                         /dev/nvme0n2p1      ext4      rw,relatime,secl
abel
|-/mnt/disk2                         /dev/nvme0n2p2      ext4      rw,relatime,secl
abel
|-/mnt/disk3                         /dev/nvme0n2p3      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
|-/mnt/disk4                         /dev/nvme0n2p4      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
[sunbeam@server disk4]$
[sunbeam@server disk4]$ sudo init 6
[sunbeam@server disk4]$
login as: sunbeam
sunbeam@192.168.59.147's password:
Web console: https://server:9090/ or https://192.168.59.147:9090/

Last login: Mon Oct 30 15:15:14 2023 from 192.168.59.1
[sunbeam@server ~]$ sudo findmnt | grep "disk"
[sudo] password for sunbeam:
|-/disk2                             /dev/nvme0n2p2      ext4      rw,relatime,secl
abel
|-/disk1                             /dev/nvme0n2p1      ext4      rw,relatime,secl
abel
|-/mydisk                            /dev/nvme0n2p1      ext4      rw,relatime,secl
abel
|-/disk4                             /dev/nvme0n2p4      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
|-/disk3                             /dev/nvme0n2p3      xfs       rw,relatime,secl
abel,attr2,inode64,logbufs=8,logbsize=32k,noquota
[sunbeam@server ~]$
[sunbeam@server ~]$
```

sunbeam@server~

```
# cat /etc/fstab
# Created by anaconda on Wed Oct 10 01:07:02 2023
#
# See https://www.fedoraproject.org/wiki/Anaconda_Linux_FI_configuration for more info.
#
# Please edit this file, use "systemctl daemon-reload" to update systemd
# units generated from this file.
/dev/mapper/fedora-root / xfs defaults 0 0
UUID=ede02be5-cd4f-4713-9f62-bb5933aefabb /boot xfs defaults 0 0
/dev/nvme0n2p1 /disk1 ext4 defaults 0 0
/dev/nvme0n2p2 /disk2 ext4 defaults 0 0
/dev/nvme0n2p3 /disk3 xfs defaults 0 0
/dev/nvme0n2p4 /disk4 xfs defaults 0 0
```

-- INSERT --