1.

ls /dev/sd\*

/dev/sda /dev/sda1 /dev/sdb /dev/sdc /dev/sdc1 /dev/sdc2 /dev/sdc3

disk /dev/sdb

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 (MBR) disklabel with disk identifier 0x2a81d706.

Command (m for help): n

Partition type

p primary (0 primary, 0 extended, 4 free)

e extended (container for logical partitions)

Select (default p):

Using default response p.

Partition number (1-4, default 1):

First sector (2048-41943039, default 2048):

Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-41943039, default 41943039): +300MB

Created a new partition 1 of type 'Linux' and of size 286 MiB.

Command (m for help): n

Partition type

p primary (1 primary, 0 extended, 3 free)

e extended (container for logical partitions)

Select (default p):

Using default response p.

Partition number (2-4, default 2):

First sector (587776-41943039, default 587776):

Last sector, +/-sectors or +/-size{K,M,G,T,P} (587776-41943039, default 41943039): +300MB

Created a new partition 2 of type 'Linux' and of size 286 MiB.

Command (m for help): n

Partition type

p primary (2 primary, 0 extended, 2 free)

e extended (container for logical partitions)

Select (default p):

Using default response p.

Partition number (3,4, default 3):

First sector (1173504-41943039, default 1173504):

Last sector, +/-sectors or +/-size{K,M,G,T,P} (1173504-41943039, default 41943039): +300MB

Created a new partition 3 of type 'Linux' and of size 286 MiB.

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 (1759232-41943039, default 1759232):

Last sector, +/-sectors or +/-size{K,M,G,T,P} (1759232-41943039, default 41943039): +300

Created a new partition 4 of type 'Linux' and of size 150.5 KiB.

Command (m for help): t

Partition number (1-4, default 4):

Hex code or alias (type L to list all): 8e

Changed type of partition 'Linux' to 'Linux LVM'.

Command (m for help): w

The partition table has been altered.

Calling ioctl() to re-read partition table.

Syncing disks.

2.

pvcreate /dev/sdb1 /dev/sdb2 /dev/sdb3 /dev/sdb4

Physical volume "/dev/sdb1" successfully created.

Physical volume "/dev/sdb2" successfully created.

Physical volume "/dev/sdb3" successfully created.

Physical volume "/dev/sdb4" successfully created.

pvs

PV VG Fmt Attr PSize PFree

/dev/sdb1 lvm2 --- 286.00m 286.00m

/dev/sdb2 lvm2 --- 286.00m 286.00m

/dev/sdb3 lvm2 --- 286.00m 286.00m

/dev/sdb4 lvm2 --- 286.00m 286.00m

vgcreate vgdata2 /dev/sdb1 /dev/sdb2 /dev/sdb3

Volume group "vgdata2" successfully created

3.

lvcreate -n lvvol1 -L 700MB vgdata2

Logical volume "lvvol1" created.

mkfs.ext4 /dev/vgdata2/lvvol1

mke2fs 1.46.6 (1-Feb-2023)

Creating filesystem with 179200 4k blocks and 44832 inodes

Filesystem UUID: 93f1a054-7f4d-4170-b414-e658a94513f4

Superblock backups stored on blocks:

32768, 98304, 163840

Allocating group tables: done

Writing inode tables: done

Creating journal (4096 blocks): done

Writing superblocks and filesystem accounting information: done

mkdir /Ohoud

mount -t ext4 /dev/vgdata2/lvvol1 /Ohoud

df -h

Filesystem Size Used Avail Use% Mounted on

udev 941M 0 941M 0% /dev

tmpfs 197M 1.3M 196M 1% /run

/dev/sda1 79G 14G 62G 18% /

tmpfs 983M 0 983M 0% /dev/shm

tmpfs 5.0M 0 5.0M 0% /run/lock

tmpfs 197M 80K 197M 1% /run/user/1000

/dev/mapper/vgdata2-lvvol1 672M 24K 623M 1% /Ohoud

4.

user admin:

vi .bashrc

for answering this question I need to go the .bashrc and edit it this way:

umask 002

The setting described above enables full read, write, and execute permissions (rwx) for the user who owns the files and directories. The group connected to the user has the same permissions (rwx), Other users on the system can access and execute files with read-only (r-x) permissions, but not alter or delete them.

5.

netstat -a

Active Internet connections (servers and established)

Proto Recv-Q Send-Q Local Address Foreign Address State

udp 0 0 192.168.17.129:bootpc 192.168.17.254:bootps ESTABLISHED

raw6 0 0 [::]:ipv6-icmp [::]:\* 7

Active UNIX domain sockets (servers and established)

Proto RefCnt Flags Type State I-Node Path

unix 3 [ ] STREAM CONNECTED 18088 /run/user/1000/bus

unix 3 [ ] DGRAM CONNECTED 18770

unix 3 [ ] STREAM CONNECTED 18186

unix 3 [ ] STREAM CONNECTED 18191 /run/user/1000/at-spi/bus\_0

unix 3 [ ] STREAM CONNECTED 18319 /run/user/1000/bus

unix 3 [ ] STREAM CONNECTED 18125 /run/user/1000/bus

unix 3 [ ] STREAM CONNECTED 19115

unix 3 [ ] STREAM CONNECTED 13222

unix 3 [ ] STREAM CONNECTED 22559

unix 3 [ ] STREAM CONNECTED 20257

unix 3 [ ] STREAM CONNECTED 21027

unix 3 [ ] STREAM CONNECTED 19086 @/tmp/.ICE-unix/1118

unix 3 [ ] STREAM CONNECTED 20651

unix 3 [ ] STREAM CONNECTED 20172

unix 3 [ ] STREAM CONNECTED 18026

unix 2 [ ] DGRAM CONNECTED 13229

unix 3 [ ] STREAM CONNECTED 19249

unix 3 [ ] STREAM CONNECTED 18118

unix 3 [ ] STREAM CONNECTED 18108

unix 2 [ ] DGRAM CONNECTED 20018

unix 3 [ ] STREAM CONNECTED 17957

unix 3 [ ] STREAM CONNECTED 21205

unix 3 [ ] STREAM CONNECTED 21097

unix 3 [ ] STREAM CONNECTED 20189

unix 3 [ ] STREAM CONNECTED 20124

unix 3 [ ] STREAM CONNECTED 13293 /run/dbus/system\_bus\_socket

unix 2 [ ACC ] STREAM LISTENING 19811 /tmp/.X11-unix/X0

unix 3 [ ] STREAM CONNECTED 21507 /run/dbus/system\_bus\_socket

unix 3 [ ] STREAM CONNECTED 19233 @/tmp/.X11-unix/X0

unix 3 [ ] STREAM CONNECTED 20153

unix 3 [ ] STREAM CONNECTED 20149

unix 2 [ ACC ] STREAM LISTENING 20120 /tmp/ssh-XXXXXXsJo8nJ/agent.1118

unix 3 [ ] STREAM CONNECTED 20270

6.

netstat -a | grep LISTENING

unix 2 [ ACC ] STREAM LISTENING 19811 /tmp/.X11-unix/X0

unix 2 [ ACC ] STREAM LISTENING 20120 /tmp/ssh-XXXXXXsJo8nJ/agent.1118

unix 2 [ ACC ] STREAM LISTENING 19038 /tmp/.ICE-unix/1118

unix 2 [ ACC ] STREAM LISTENING 20045 /run/user/1000/systemd/private

unix 2 [ ACC ] STREAM LISTENING 20054 /run/user/1000/bus

unix 2 [ ACC ] STREAM LISTENING 20056 /run/user/1000/gnupg/S.dirmngr

unix 2 [ ACC ] STREAM LISTENING 20058 /run/user/1000/gcr/ssh

unix 2 [ ACC ] STREAM LISTENING 20060 /run/user/1000/keyring/control

unix 2 [ ACC ] STREAM LISTENING 20062 /run/user/1000/gnupg/S.gpg-agent.browser

netstat -a | grep -v LISTENING

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unix 3 [ ] STREAM CONNECTED 18186

unix 3 [ ] STREAM CONNECTED 18191 /run/user/1000/at-spi/bus\_0

unix 3 [ ] STREAM CONNECTED 18319 /run/user/1000/bus

unix 3 [ ] STREAM CONNECTED 18125 /run/user/1000/bus

unix 3 [ ] STREAM CONNECTED 19115

netstat -a | grep 1521

7.

nmap 192.168.1.\*

8.

iptables -A INPUT -p tcp --dport 3306 -s 192.168.1.0/24 -j DROP

iptables -L

Chain INPUT (policy ACCEPT)

target prot opt source destination

DROP tcp -- 192.168.1.0/24 anywhere tcp dpt:mysql

Chain FORWARD (policy ACCEPT)

target prot opt source destination

Chain OUTPUT (policy ACCEPT)

target prot opt source destination

9.

iptables -D INPUT -p tcp --dport 3306 -s 192.168.1.0/24 -j DROP

iptables -L

Chain INPUT (policy ACCEPT)

target prot opt source destination

Chain FORWARD (policy ACCEPT)

target prot opt source destination

Chain OUTPUT (policy ACCEPT)

target prot opt source destination

10.

iptables -A OUTPUT -d 156.240.9.35 -j DROP

iptables -L

Chain INPUT (policy ACCEPT)

target prot opt source destination

Chain FORWARD (policy ACCEPT)

target prot opt source destination

Chain OUTPUT (policy ACCEPT)

target prot opt source destination

DROP all -- anywhere 156.240.9.35