Viola George Kamal

Lab1_System admin2

```
vboxuser@linuxxx:~$ dd if=/dev/zero of=/tmp/disk11.img bs=1024 count=100000
100000+0 records in
100000+0 records out
102400000 bytes (102 MB, 98 MiB) copied, 0.473326 s, 216 MB/s
vboxuser@linuxxx:~$ dd if=/dev/zero of=/tmp/disk22.img bs=1024 count=100000
100000+0 records in
100000+0 records out
102400000 bytes (102 MB, 98 MiB) copied, 0.443674 s, 231 MB/s
vboxuser@linuxxx:~$ dd if=/dev/zero of=/tmp/disk33.img bs=1024 count=100000
100000+0 records in
100000+0 records out
102400000 bytes (102 MB, 98 MiB) copied, 0.703665 s, 146 MB/s
vboxuser@linuxxx:~$ dd if=/dev/zero of=/tmp/disk44.img bs=1024 count=100000
100000+0 records in
100000+0 records out
102400000 bytes (102 MB, 98 MiB) copied, 0.613346 s, 167 MB/s
```

```
vboxuser@linuxxx:~$ sudo losetup -f /tmp/disk11.img
[sudo] password for vboxuser:
vboxuser@linuxxx:~$ sudo losetup -f /tmp/disk22.img
vboxuser@linuxxx:~$ sudo losetup -f /tmp/disk33.img
vboxuser@linuxxx:~$ sudo losetup -f /tmp/disk44.img
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop30
  No device found for /dev/loop30.
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop20
  No device found for /dev/loop20.
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop16
  Physical volume "/dev/loop16" successfully created.
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop17
  Physical volume "/dev/loop17" successfully created.
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop18
  Physical volume "/dev/loop18" successfully created.
vboxuser@linuxxx:~$ sudo pvcreate /dev/loop19
  Physical volume "/dev/loop19" successfully created.
vboxuser@linuxxx:~$ sudo vgcreate vG1 /dev/loop16 /dev/loop17 /dev/loop18
  Volume group "vG1" successfully created
vboxuser@linuxxx:~$ sudo lvcreate -L 250M vG1
  Rounding up size to full physical extent 252.00 MiB
  Logical volume "lvol0" created.
```

```
vboxuser@linuxxx:~$ sudo mkfs.ext4 /dev/vG1/lvol0
mke2fs 1.46.5 (30-Dec-2021)
Discarding device blocks: done
Creating filesystem with 64512 4k blocks and 64512 inodes
Filesystem UUID: f75aaf3c-ddd2-48d1-8b53-8b5da53aa6e5
Superblock backups stored on blocks:
        32768
Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
vboxuser@linuxxx:~$ sudo mount /dev/vG1/lvol0 /mnt
vboxuser@linuxxx:~$ sudo vgextend vG1 /dev/loop19
  Volume group "vG1" successfully extended
vboxuser@linuxxx:~$ sudo lvextend /dev/vG1/lvolo -L 50M
  Logical volume lvolo not found in volume group vG1.
vboxuser@linuxxx:~$ sudo lvextend /dev/vG1/lvol0 -L 50M
  Rounding size to boundary between physical extents: 52.00 MiB.
  New size given (13 extents) not larger than existing size (63 extents)
vboxuser@linuxxx:~$ sudo umount /dev/vG1/lvol0
vboxuser@linuxxx:~$ sudo e2fsck -f /dev/vG1/lvol0
e2fsck 1.46.5 (30-Dec-2021)
Pass 1: Checking inodes, blocks, and sizes
Pass 2: Checking directory structure
Pass 3: Checking directory connectivity
Pass 4: Checking reference counts
Pass 5: Checking group summary information
/dev/vG1/lvol0: 11/64512 files (0.0% non-contiquous), 8204/64512 blocks
vboxuser@linuxxx:~$ sudo resize2fs /dev/vG1/lvol0 50M
resize2fs 1.46.5 (30-Dec-2021)
Resizing the filesystem on /dev/vG1/lvol0 to 12800 (4k) blocks.
The filesystem on /dev/vG1/lvol0 is now 12800 (4k) blocks long.
vboxuser@linuxxx:~$ ip add
1: lo: <LOOPBACK,UP,LOWER UP> mtu 65536 qdisc noqueue state UNKNOWN group defau
lt qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
      valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
      valid lft forever preferred lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER UP> mtu 1500 qdisc fq codel state UP g
roup default glen 1000
   link/ether 08:00:27:2a:2e:b8 brd ff:ff:ff:ff:ff
   inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
      valid lft 84841sec preferred lft 84841sec
   inet6 fe80::e974:c81d:4b0d:cf50/64 scope link noprefixroute
```

valid lft forever preferred lft forever

```
vboxuser@linuxxx:~S sudo apt install net-tools
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 NEW packages will be installed:
  net-tools
0 upgraded, 1 newly installed, 0 to remove and 172 not upgraded.
Need to get 204 kB of archives.
After this operation, 819 kB of additional disk space will be used.
Get:1 http://eg.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60
+git20181103.0eebece-1ubuntu5 [204 kB]
Fetched 204 kB in 1s (301 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 230862 files and directories currently installed.)
Preparing to unpack .../net-tools 1.60+git20181103.0eebece-1ubuntu5 amd64.deb
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Processing triggers for man-db (2.10.2-1) ...
vboxuser@linuxxx:~$ netstat -t
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address
                                            Foreign Address
                                                                    State
                  0 linuxxx:52186
tcp
           Θ
                                            actiontoad.canonic:http TIME WAIT
vboxuser@linuxxx:~$ sudo apt install nmap
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:
  libblas3 liblinear4 lua-lpeg nmap-common
Suggested packages:
 liblinear-tools liblinear-dev neat ndiff zenmap
The following NEW packages will be installed:
 libblas3 liblinear4 lua-lpeg nmap nmap-common
0 upgraded, 5 newly installed, 0 to remove and 172 not upgraded.
Need to get 5,972 kB of archives.
After this operation, 26.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] t
Abort.
vboxuser@linuxxx:~$ sudo apt install nmap
Reading package lists... Done
Building dependency tree... Done
```

The following package was automatically installed and is no longer required:

Reading state information... Done

systemd-hwe-hwdb

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Selecting previously unselected package nmap-common.
Preparing to unpack .../nmap-common 7.91+dfsg1+really7.80+dfsg1-2build1 all.de
Unpacking nmap-common (7.91+dfsg1+really7.80+dfsg1-2build1) ...
Selecting previously unselected package nmap.
Preparing to unpack .../nmap 7.91+dfsg1+really7.80+dfsg1-2build1 amd64.deb ...
Unpacking nmap (7.91+dfsq1+really7.80+dfsq1-2build1) ...
Setting up lua-lpeg:amd64 (1.0.2-1) ...
Setting up libblas3:amd64 (3.10.0-2ubuntu1) ...
update-alternatives: using /usr/lib/x86 64-linux-gnu/blas/libblas.so.3 to prov
de /usr/lib/x86_64-linux-gnu/libblas.so.3 (libblas.so.3-x86_64-linux-gnu) in a
to mode
Setting up nmap-common (7.91+dfsg1+really7.80+dfsg1-2build1) ...
Setting up liblinear4:amd64 (2.3.0+dfsg-5) ...
Setting up nmap (7.91+dfsg1+really7.80+dfsg1-2build1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-Oubuntu3.1) ...
vboxuser@linuxxx:~$ nmap 192.168.1.1
Starting Nmap 7.80 ( https://nmap.org ) at 2023-03-29 20:13 EET
Nmap scan report for 192.168.1.1
Host is up (0.014s latency).
Not shown: 997 filtered ports
PORT
          STATE SERVICE
23/tcp
          open telnet
80/tcp
          open http
52869/tcp open unknown
Nmap done: 1 IP address (1 host up) scanned in 9.98 seconds
```