

# RHL Assignment - LVM

Name : Visharad Baderao

Roll No :131

PRN :202101040166

## Problem Statement:

Creating Logical Volumes In this lab, you will create a physical volume.

## Commands:

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Activities Terminal Feb 27 11:41 student@workstation:~
File Edit View Search Terminal Help
[student@workstation ~]$ lab lvm-review start
Starting lab.
Preparing serverb for lab exercise work:
Checking packages for lab exercise work:
  • Ensuring lvm2 package is installed ..... SUCCESS
  • Ensuring parted package is installed ..... SUCCESS
  • Ensuring psmisc package is installed ..... SUCCESS
Checking storage for lab exercise work:
  • Ensuring /dev/vdb GPT block device is present ..... SUCCESS
  • Creating /dev/vdb1 partition ..... SUCCESS
  • Creating /dev/vdb1 physical volume ..... SUCCESS
  • Creating serverb_01_vg volume group ..... SUCCESS
  • Creating serverb_01_lv logical volume ..... SUCCESS
  • Formatting XFS filesystem ..... SUCCESS
  • Creating /storage/data1 mount point ..... SUCCESS
  • Saving /etc/fstab on serverb..... ssSUCCESS
  • Updating /etc/fstab ..... h stuSUCCESS
  • Mounting filesystem ..... dent@SUCCESS
[student@workstation ~]$ ssh student@serverb
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com/
To register this system, run: insights-client --register

Last login: Tue Feb 27 11:28:26 2024 from 172.25.250.9
[student@serverb ~]$ sudo -i
[sudo] password for student:
[root@serverb ~]# parted -s /dev/vdb mkpart primary 514MiB 1026MiB
[root@serverb ~]# parted -s /dev/vdb set 2 lvm on
[root@serverb ~]# udevadm settle
```

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Activities Terminal Feb 27 11:42 student@workstation:~
File Edit View Search Terminal Help
[root@serverb ~]# parted -s /dev/vdb set 2 lvm on
[root@serverb ~]# udevadm settle
[root@serverb ~]# pvcreate /dev/vdb2
Physical volume "/dev/vdb2" successfully created.
[root@serverb ~]# vgextend serverb_01_vg /dev/vdb2
Volume group "serverb_01_vg" successfully extended
[root@serverb ~]# lvextend -L 768M /dev/serverb_01_vg/serverb_01_lv
Size of logical volume serverb_01_vg/serverb_01_lv changed from 256.00 MiB (64 extents) to 768.00 MiB (192 extents).
Logical volume serverb_01_vg/serverb_01_lv successfully resized.
[root@serverb ~]# xfs_growfs /storage/data1
meta-data=/dev/mapper/serverb_01_vg-serverb_01_lv isize=512    agcount=4, agsize=16384 blks
        =                       sectsz=512    attr=2, projid32bit=1
        =                       crc=1        finobt=1, sparse=1, rmapbt=0
        =                       reflink=1
data      =                       bsize=4096    blocks=65536, imaxpct=25
        =                       sunit=0      swidth=0 blks
naming    =version 2           bsize=4096    ascii-ci=0, ftype=1
log        =internal log      bsize=4096    blocks=1368, version=2
        =                       sectsz=512    sunit=0 blks, lazy-count=1
realtime  =none                extsz=4096    blocks=0, rtextents=0
data blocks changed from 65536 to 196608
[root@serverb ~]# lvcreate -n serverb_02_lv -L 128M serverb_01_vg
Logical volume "serverb_02_lv" created.
[root@serverb ~]# mkfs -t xfs /dev/serverb_01_vg/serverb_02_lv
meta-data=/dev/serverb_01_vg/serverb_02_lv isize=512    agcount=4, agsize=8192 blks
        =                       sectsz=512    attr=2, projid32bit=1
        =                       crc=1        finobt=1, sparse=1, rmapbt=0
        =                       reflink=1
data      =                       bsize=4096    blocks=32768, imaxpct=25
        =                       sunit=0      swidth=0 blks
naming    =version 2           bsize=4096    ascii-ci=0, ftype=1
log        =internal log      bsize=4096    blocks=1368, version=2
        =                       sectsz=512    sunit=0 blks, lazy-count=1
realtime  =none                extsz=4096    blocks=0, rtextents=0
[root@serverb ~]# mkdir /storage/data2
[root@serverb ~]# vim /etc/fstab
[root@serverb ~]# systemctl daemon-reload
```

```
Activities Terminal Feb 27 11:42 student@workstation:~
File Edit View Search Terminal Help
[root@serverb ~]# mkdir /storage/data2
[root@serverb ~]# vim /etc/fstab
[root@serverb ~]# systemctl daemon-reload
[root@serverb ~]# mount /storage/data2
[root@serverb ~]# systemctl reboot
Connection to serverb closed by remote host.
Connection to serverb closed.
[student@workstation ~]$ lab lvm-review grade

Grading the student's work on serverb:

· serverb_01_lv is 768MiB in size ..... PASS
· serverb_02_lv is 128MiB in size ..... PASS
· serverb_02_lv is mounted at /storage/data2 ..... PASS
· serverb_02_lv is formatted with an XFS filesystem ..... PASS
· serverb_02_lv belongs to the serverb_01_vg volume group .... PASS
· serverb_01_vg has the correct size ..... PASS

Overall lab grade..... PASS

[student@workstation ~]$ lab lvm-review finish

Completing the lab on serverb:

· Unmounting /storage/data1 filesystem ..... SUCCESS
· Removing /storage/data1 directory ..... SUCCESS
· Unmounting /storage/data2 filesystem ..... SUCCESS
· Removing /storage/data2 directory ..... SUCCESS
· Restoring /etc/fstab on serverb..... SUCCESS
· Removing serverb_01_lv logical volume ..... SUCCESS
· Removing serverb_02_lv logical volume ..... SUCCESS
· Removing serverb_01_vg volume group ..... SUCCESS
· Removing physical volume /dev/vdb1 ..... SUCCESS
· Removing physical volume /dev/vdb2 ..... SUCCESS
· Cleaning up the second disk on serverb ..... SUCCESS

[student@workstation ~]$
```