**Logical Volume Manager (LVM)**

**Required Machine**

**Node1: 1GB RAM, 20 GB HDD + 20GB x 2 HDD, NAT**

**# lsblk**

**# pvcreate /dev/sdb /dev/sdc**

**# pvs**

**# pvdisplay**

**# vgcreate HPCSA /dev/sdb /dev/sdc**

**HPCSA** named volume group created

**# vgdisplay**

40 GB VG size created

**# lvcreate -n hpcsa-lab --size 2G HPCSA**

Logical volume of 2GB created

**# lvdisplay**

**# fdisk /dev/HPCSA/hpcsa-lab**

**# partprobe /dev/HPCSA/hpcsa-lab**

**# mkfs.ext4 /dev/HPCSA/hpcsa-lab**

**after running this command if error occurs that folder or disk is busy restart the machine and run this command again**

**# mkdir lab**

**# mount /dev/mapper/HPCSA-hpcsa--lab lab**

**# lsblk**

**Extend Logical Volume**

**# lvextend -L +2G /dev/mapper/HPCSA-hpcsa--lab**

Logical volume of 2GB added to present volume and now logical volume is 4GB

**Snapshot**

**# lvcreate -L 1GB -s -n demo-snap /dev/mapper/HPCSA-hpcsa--lab**

Logical volume "demo-snap" created

**# lvs**

**Merge**

**# lvconvert --merge /dev/HPCSA/demo-snap**

**# lsblk**

**Mirror**

# **lvcreate -L 2GB -m1 -n testmirror HPCSA**

Logical volume "testmirror" created

**# lsblk**

**Remove Volume**

**# lvremove /dev/mapper/HPCSA-hpcsa--lab**

**# lvremove /dev/mapper/HPCSA**

**# lsblk**