1)Make 4 VM machines with 1GB RAM, and Only 1 Core

2)First 3 machines hostname is : node1.hpcsa.in

node2.hpcsa.in

node3.hpcsa.in

3)Last machines hostname is :client.hpcsa.in

4)Add one Extra hard-disk in 3 machines.

**ON NODE 1, 2 3**

[root@node1 ~]# systemctl stop firewalld

[root@node1 ~]# systemctl disable firewalld

[root@node1 ~]# setenforce 0

[root@node1 ~]# lsblk

[root@node1 ~]# fdisk /dev/sdb

[root@node1 ~]# mkfs.xfs /dev/sdb1

[root@node1 ~]#mkdir /mnt/disk1

[root@node1 ~]#mount /dev/sdb1 /mnt/disk1

[root@node1 ~]#yum install wget centos-release-gluster epel-release glusterfs-server -y

(run this 2 times)

[root@node1 ~]# systemctl start glusterd

[root@node1 ~] systemctl enable glusterd

[root@node1 ~]#gluster peer probe node2.hpcsa.in (This peer commands has to be run only on node1)

[root@node1 ~]# gluster peer probe node3.hpcsa.in

[root@node1 ~]#gluster peer status (you can check nodes are connected or not on each node)

[root@node1 ~]# gluster pool list

[root@node1 ~]#mkdir /mnt/disk1/diskvol (run this command on all nodes)

[root@node1 ~]#gluster volume create gdisk2 replica 3 node1.hpcsa.in:/mnt/disk1/diskvol/gdisk2 [root@node1 ~]#node2.hpcsa.in:/mnt/disk1/diskvol/gdisk2 node3.hpcsa.in:/mnt/disk1/diskvol/gdisk2

[root@node1 ~]# gluster

[root@node1 ~]# gluster volume start gdisk2

CLIENT

[root@client ~]# systemctl disable firewalld

[root@client ~]# systemctl stop firewalld

[root@client ~]# setenforce 0

[root@client ~]# yum install glusterfs-fuse

[root@client ~]# mkdir /mnt/gdrive

[root@client ~]# mount -t glusterfs node1.hpcsa.in:/gdisk2 /mnt/gdrive

[root@client ~]# df -h

NODE1[DISPERSE & Redundancy]

[root@node1 ~]# ls /mnt/disk1

[root@node1 ~]# ls /mnt/disk2

ls: cannot access /mnt/disk2: No such file or directory

[root@node1 ~]# ls /mnt/gdisk2

ls: cannot access /mnt/gdisk2: No such file or directory

[root@node1 ~]# ll /mnt

[root@node1 ~]# ll /mnt/disk1/

[root@node1 ~]# gluster volume create gdisk3 disperse 3 redundancy 1 node1.hpcsa.in:/mnt/disk1/diskvol/gdisk3 node2.hpcsa.in:/mnt/disk1/diskvol/gdisk3 node3.hpcsa.in:/mnt/disk1/diskvol/gdisk3

[root@node1 ~]# gluster volume info gdisk3

client

[root@client ~]# mkdir /mnt/gdrive5

[root@client ~]# mount -t glusterfs node1.hpcsa.in:/gdisk5 /mnt/gdrive5

[root@client ~]# cd /mnt/gdrive5

[root@client gdrive5]# dd if=/dev/zero of=file1.data bs=1024 count=204652

[root@client gdrive5]# ll

[root@client gdrive5]# ll –h

ON NODE 1

[root@node1 ~]# cd /mnt/disk1/diskvol/gdisk5

[root@node1 gdisk5]# ll -h

ON NODE 2

[root@node2 ~]# cd /mnt/disk1/diskvol/gdisk5

[root@node2 gdisk5]# ll

[root@node2 gdisk5]# ll -h

ON NODE 3

[root@node3 ~]# cd /mnt/disk1/diskvol/gdisk5

[root@node3 gdisk5]# ll -h