Vendor: Red Hat

Exam Code: RH202

Exam Name: Redhat Certified Technician on Redhat

Enterprise

Version: DEMO

Includes: Part: A | Part: B | Part: C

Part: A

1: Change the root Password to redtophat

Answers:

1. Boot the system in Single user mode

2. Use the passwd command

2: Dig Server1.example.com, Resolve to successfully through DNS Where DNS server

is 172.24.254.254

Answers:

#vi /etc/resolv.conf

nameserver 172.24.254.254

dig server1.example.com

#host server1.example.com

DNS is the Domain Name System, which maintains a database that can help your computer translate domain names such as www.redhat.com to IP addresses such as 216.148.218.197. As no individual DNS server is large enough to keep a database for the entire Internet, they can refer requests to other DNS servers.

DNS is based on the named daemon, which is built on the BIND (Berkeley Internet Name Domain) package developed through the Internet Software Consortium Users wants to access by name so DNS will interpret the name into ip address. You need to specify the Address if DNS server in each and every client machine. In Redhat Enterprise Linux, you need to specify the DNS server into /etc/resolv.conf file.

After Specifying the DNS server address, you can verify using host, dig and nslookup commands.

3: Create the partition having 100MB size and mount it on /mnt/neo

Answers:

1. Use fdisk /dev/hda To create new partition.

2. Type n For New partitions

3. It will ask for Logical or Primary Partitions. Press l for logical.

4. It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.

5. Type the Size: +100M You can Specify either Last cylinder of Size here.

6. Press P to verify the partitions lists and remember the partitions name.

7. Press w to write on partitions table.

8. Either Reboot or use partprobe command.

9. Use mkfs -t ext3 /dev/hda? ->Where ? is your partition number

10. Or

11. mke2fs -j /dev/hda? To create ext3 filesystem.

12. mkdir /mnt/neo

13. vi /etc/fstab

14. Write:

15. /dev/hda? /mnt/neo ext3 defaults 1 2

16. Verify by mounting on current Sessions also:

17. mount /dev/hda? /mnt/neo

4: Your System is going use as a router for 172.24.0.0/16 and 172.25.0.0/16. Enable the IP Forwarding.

Answers:

1. echo "1" >/proc/sys/net/ipv4/ip_forward

2. vi /etc/sysctl.conf

net.ipv4.ip_forward=1

/proc is the virtual filesystem, containing the information about the running kernel. To change the parameter of running kernel you should modify on /proc. From Next reboot the system, kernel will take the value from /etc/sysctl.conf.

5: Some users home directory is shared from your system. Using showmount -e localhost command, the shared directory is not shown. Make access the shared users home directory.

Answers:

1. Verify the File whether Shared or not ? : cat /etc/exports

2. Start the nfs service: service nfs start

3. Start the portmap service: service portmap start

4. Make automatically start the nfs service on next reboot: chkconfig nfs on

5. Make automatically start the portmap service on next reboot: chkconfig portmap on

6. Verify either sharing or not: showmount -e localhost

7. Check that default firewall is running on system ? if running flush the iptables using iptables -F and stop the iptables service.

6: neo user tried by:

dd if=/dev/zero of=/home/neo/somefile bs=1024 count=70

files created successfully. Again neo tried to create file having 70K using following

command:

dd if=/dev/zero of=/home/neo/somefile bs=1024 count=70

But he is unable to create the file. Make the user can create the file less then 70K.

Answers:

Very Tricky question from redhat. Actually question is giving scenario to you to implement quota to neo user. You should apply the quota to neo user on /home that neo user shouldn't occupied space more than 70K.

1. vi /etc/fstab

LABEL=/home /home ext3 defaults,usrquota 0 0 ->

To enable the quota on filesystem you should mount the filesystem with usrquota for user

quota and grpquota for group quota.

2. touch /home/aquota.user-> Creating blank quota database file.

3. mount -o remount /home ->Remounting the /home with updated mount options.

You can verify that /home is mounted with usrquota options or not using mount command.

4. quotacheck -u /home ->Initialization the quota on /home

5. edquota -u neo /home-> Quota Policy editor

See the snapshot

1 Disk quotas for user neo (uid 500):

2 Filesystem blocks soft hard inodes soft hard

4 /dev/mapper/vo-myvol 2 30 70 1 0 0

Can you set the hard limit 70 and soft limit as you think like 30.

Verify using the repquota /home command.

7: One Logical Volume is created named as myvol under vo volume group and is mounted. The Initial Size of that Logical Volume is 124MB. Make successfully that the size of Logical Volume 245MB without losing any data. The size of logical volume 240MB to 255MB will be acceptable.

Answers:

1. First check the size of Logical Volume: lvdisplay /dev/vo/myvol

2. Increase the Size of Logical Volume: lvextend -L+121M /dev/vo/myvol

3. Make Available the size on online: resize2fs /dev/vo/myvol

4. Verify the Size of Logical Volume: lvdisplay /dev/vo/myvol

5. Verify that the size comes in online or not: df -h

We can extend the size of logical Volume using the lvextend command. As well as to decrease the size of Logical Volume, use the lvresize command. In LVM v2 we can extend the size of Logical Volume without unmount as well as we can bring the actual size of Logical Volume on online using ext2online command.

8: Quota is implemented on /data but not working properly. Find out the Problem and implement the quota to user1 to have a soft limit 60 inodes (files) and hard limit of 70 inodes (files).

Answers:

Quotas are used to limit a user's or a group of users' ability to consume disk space. This prevents a small group of users from monopolizing disk capacity and potentially interfering with other users or the entire system. Disk quotas are commonly used by ISPs, by Web hosting companies, on FTP sites, and on corporate file servers to ensure continued availability of their systems.

Without quotas, one or more users can upload files on an FTP server to the point of filling a filesystem. Once the affected partition is full, other users are effectively denied upload access to the disk. This is also a reason to mount different filesystem directories on different partitions. For example, if you only had partitions for your root (/) directory and swap space, someone uploading to your computer could fill up all of the space in

your root directory (/). Without at least a little free space in the root directory (/), your system could become unstable or even crash.

You have two ways to set quotas for users. You can limit users by inodes or by kilobytesized disk blocks. Every Linux file requires an inode. Therefore, you can limit users by the number of files or by absolute space. You can set up different quotas for different filesystems. For example, you can set different quotas for users on the /home and /tmp

directories if they are mounted on their own partitions.

Limits on disk blocks restrict the amount of disk space available to a user on your system.

Older versions of Red Hat Linux included LinuxConf, which included a graphical tool to configure quotas. As of this writing, Red Hat no longer has a graphical quota configuration tool. Today, you can configure quotas on RHEL only through the command line interface.

1. vi /etc/fstab

/dev/hda 11 /data ext3 defaults,usrquota 1 2

2. Either Reboot the System or remount the partition.

Mount -o remount /dev/hda11 /data

3. touch /data/aquota.user

4. quotacheck -ufm /data

5. quotaon -u /data

6. edquota -u user1 /data

and Specified the Soft limit and hard limit on opened file.

To verify either quota is working or not:

Soft limit specify the limit to generate warnings to users and hard limit can't cross by the user. Use the quota command or repquota command to monitor the quota information.

9: One Logical Volume named lv1 is created under vg0. The Initial Size of that Logical Volume is 100MB. Now you required the size 500MB. Make successfully the size of that Logical Volume 500M without losing any data. As well as size should be increased online.

Answers:

The LVM system organizes hard disks into Logical Volume (LV) groups. Essentially, physical hard disk partitions (or possibly RAID arrays) are set up in a bunch of equalsized chunks known as Physical Extents (PE). As there are several other concepts associated with the LVM system, let's start with some basic definitions:

Physical Volume (PV) is the standard partition that you add to the LVM mix.

Normally, a physical volume is a standard primary or logical partition. It can also be a RAID array.

Physical Extent (PE) is a chunk of disk space. Every PV is divided into a number of equal sized PEs. Every PE in a LV group is the same size. Different LV groups can have different sized PEs.

Logical Extent (LE) is also a chunk of disk space. Every LE is mapped to a

specific PE.

Logical Volume (LV) is composed of a group of LEs. You can mount a

filesystem such as /home and /var on an LV.

Volume Group (VG) is composed of a group of LVs. It is the organizational

group for LVM. Most of the commands that you'll use apply to a specific VG.

1. Verify the size of Logical Volume: lvdisplay /dev/vg0/lv1

2. Verify the Size on mounted directory: df -h or df -h mounted directory name

3. Use : lvextend -L+400M /dev/vg0/lv1

4. resize2fs /dev/vg0/lv1 to bring extended size online.

5. Again Verify using lvdisplay and df -h command.

10: Create one partitions having size 100MB and mount it on /data.

Answers:

1. Use fdisk /dev/hda-> To create new partition.

2. Type n-> For New partitions

3. It will ask for Logical or Primary Partitions. Press l for logical.

4. It will ask for the Starting Cylinder: Use the Default by pressing Enter Key.

5. Type the Size: +100M-> You can Specify either Last cylinder of Size here.

6. Press P to verify the partitions lists and remember the partitions name.

7. Press w to write on partitions table.

8. Either Reboot or use partprobe command.

9. Use mkfs -t ext3 /dev/hda?

Or mke2fs -j /dev/hda?-> To create ext3 filesystem.

10. vi /etc/fstab

Write:

/dev/hda? /data ext3 defaults 1 2

11. Verify by mounting on current Sessions also:

mount /dev/hda? /data