swapVm-1-servera

1. set hostname and IP address

2. create a repository

3. Troubleshooting SELINUX issue

4. User and group creation, adding group members and setting password

5. creating a collaborative directory and changing group ownership, giving full permission to the group and assigning group special permission.

6. Configure automatic mount of the network shared domain user home directory.

7.Crontab job scheduling

8. ACL permissions

9.NTP synchronizing our system time with NTP Provider

10.find the owner of the user file and copy to destination

11.grep the string and redirect it to file

12. Create a user with specific id and assign the password

13.backup the directory in a archived file

16.1 Set the Permission

a) All new creating files for user natasha as -r-------- as default permission.

b) All new creating directories for user natasha as dr-x------ as default permission.

16.2 Set the Password expire date

a) The password for all user in node1 should expires after 20 days.

16.3 Assign Sudo Privilege

Assign the Sudo Privilege for Group "admin" and other users can administrate without any password.

Vm -2 serverb

1. VM Password break
2. Create a repository
3. Creating a Logical Volume
4. Creating a SWAP of specific size
5. Exetending the Logical Volume

1. Vdo storage Management
2. Set the Recommended tuning profile for your VM computer

**RHCSA VERSION-8.2**

**DURATION:3hrs PASSMARK=210/300**

They provide 2 VM's

1, server-b (This is we consider VM-1, In exam give another name like alpha,red,primary)

2, server-a (This is we consider VM-2, In exam give another name like beta,blue,secondary)

|  |
| --- |
| Note:  1st VM –>1st question do only on console  2nd VM –> 2nd question do only on console |

VM-1 (we configure server-a vm)

Open server-a virtual machine and login as root user with the given password.

# root

passwd-> **redhat** (successfully login serverb VM)

**1. Set hostname and Assign ip address**

# hostnamectl set-hostname serverb.lab.example.com

# hostname

# nmcli connection show

# nmcli connection modify "Wired connection 1" ipv4.addresses 172.25.250.11/24 ipv4.gateway 172.25.250.254 ipv4.dns 172.25.250.254 ipv4.method static

# nmcli connection up "Wired connection 1"

# ping 172.25.250.11

# ping 172.25.250.254

minimize or close the serverb virtual machine console

**Ping the IP Address from Exam base system to server-b VM**

**take ssh from base machine to server-b VM**

# ssh root@172.25.250.11

**2. Create a repository**

# vi /etc/yum.repos.d/app.repo

[123]

name=app

baseurl=http://classroom.example.com/content/rhel9.0/x86\_64/dvd/AppStream

gpgcheck=0

enabled=1

[456]

name=base

baseurl=http://classroom.example.com/content/rhel9.0/x86\_64/dvd/BaseOS

gpgcheck=0

enabled=1

# yum clean all

# yum repolist

To list the two repo status

# yum install vim -y (only for exam not now)

**3. Configure webserver.**

# semanage port -l |grep http

# semanage port -a -t http\_port\_t -p tcp 82

# semanage port -l |grep http (verify the port)

# firewall-cmd --permanent --add-port=82/tcp

# firewall-cmd --reload

# firewall-cmd --list-ports (verify the port)

# yum install httpd -y

# systemctl start httpd.service

# systemctl enable httpd.service

# vim /etc/httpd/conf/httpd.conf (search the “/Listen”) and verify the port

<virtualhost 172.25.250.11:82>

servername serverb.lab.example.com

documentroot /var/www/html

</virtualhost>

Save the vim editor

# httpd -t

# systemctl restart httpd.service

output:

# curl 172.25.250.11:82/file1

(check the output this command or using firefox also)

**4. Users and groups management**

# groupadd admin

# useradd -G admin harry

# useradd –G admin natasha

# useradd -s /sbin/nologin sarah

# useradd -G admin sandy

# passwd harry

# passwd natasha

# passwd sarah

# cat /etc/shadow (verify the group info)

**5.create a directory and assign the basic permissions.**

# mkdir -p /common/admin

# ls -ld /common/admin

# chgrp admin /common/admin

# chmod 770 /common/admin

# chmod g+s /common/admin

# ls –ld /common/admin

# su – harry

# touch /common/admin/file1

# ls –l /common/admin/file1

**6. Configure the auto filesystem**

**NOT FOR EXAM:**

|  |
| --- |
| # ssh root@workstation  # lab rhcsa-compreview3 start (run from workstation VM not for Global exam)  # logout |

# yum install autofs -y

# systemctl start autofs.service

# systemctl enable autofs.service

# getent passwd production5 (verify the centralized user)

# vim /etc/auto.master

add last line (don’t' edit the existing contents)

/localhome /etc/auto.misc

# vim /etc/auto.misc

add last line

production5 -rw,soft,intr servera.lab.example.com:/home-directories/production5

# systemctl restart autofs

# su - production5

# pwd

# df -hT

# exit **(logout from remote user)**

**7. Configure crontab**

# crontab -eu harry

30 12 \* \* \* /bin/echo "hello" (note: at 12:30 pm) or

\*/3 \* \* \* \* /bin/echo "hello" (note: This is to print message hello for every 3 minutes)

\*/2 \* \* \* \* logger user.debug “hello” (note: This is to print log message hello for every 2 minutes)

# systemctl restart crond.service

# crontab -lu harry

**8. ACL permission**

# cp /etc/fstab /var/tmp

# getfacl /var/tmp/fstab

# setfacl -m u:harry:rw- /var/tmp/fstab

# setfacl -m u:natasha:--- /var/tmp/fstab

# getfacl /var/tmp/fstab

**9.NTP configuration**

# vim /etc/chrony.conf

put '#' for existing iburst argument line (or)

put ‘#’ for existing server or pool line

add a new below argument

server classroom.example.com iburst

# systemctl restart chronyd.service

# chronyc sources -v

**10.find the owner of the file**

# mkdir /root/find.user

# find / -user sarah -type f

# find / -user sarah -type f -exec cp {} /root/find.user \;

# ls -a /root/find.user

**11. grep the "home" string from /etc/passwd**

# grep home /etc/passwd

# grep home /etc/passwd >> /root/search.txt

# cat /root/search.txt

**12. Create a user with UID and set given password**

# useradd -u 1326 alies

# passwd --stdin alies

redhat

**13.backup the /var/tmp file**

# tar -zcvf /root/test.tar.gz /var/tmp (its gzip compression tool)

# tar -jcvf /root/test.tar.bz2 /var/tmp (its bzip2 compression tool)

**14th and 15th question container,s**

**16.1 Set the Permission**

#su – natasha

#ls -a (you can find out the .bash\_profile file)

#vim .bash\_profile

add last line (don't disturb the existing contents)

umask **277** (enter the calculated value)

:wq!

#source .bash\_profile

#mkdir test

#ls -ld test (To verify the permission)

#touch testfile

#ls -l testfile (To verify the permission)

**16.2 Set the Password expire date**

#vim /etc/login.defs

(find the PASS\_MAX\_DAYS line and change the value )

PASS\_MAX\_DAYS 99999 -----🡪 PASS\_MAX\_DAYS 20

:wq!

#reboot

**16.3 Assign Sudo Privilege**

#vim /etc/sudoers

:se nu (then go to line 111 the enter)

%admin ALL=(ALL) NOPASSWD: ALL

(completed VM-1 tasks Do reboot)

**16.4 Configure the application**

# su – alies

# ls –a

# vim .bash\_profile (Go to the last line and type)

RHCSA=”Welcome to Advantage Pro”

export RHCSA

echo $RHCSA

:wq!

# source .bash\_profile

# logout

# su – alies (verify the message was showing)

**.5 Create the script file**

#mkdir /root/myfiles

#vim mysearch

#!/bin/sh

find /usr/share/ -type f -size -1M -exec cp {} /root/myfiles/ \;

(or)

find /usr/share/ -type f -size -1M –perm /4000 -exec cp {} /root/myfiles/ \; (For u+s)

(or)

find /usr/share/ -type f -size +800M –size -900M –perm /2000 -exec cp {} /root/myfiles/ \; (For g+s)

(or)

find /usr/share/ -type f -size +800M –size -900 –perm /1000 -exec cp {} /root/myfiles/ \; (For o+t)

:wq! (save the file)

#chmod +x mysearch

# ./mysearch

# ls -a /root/myfiles/

After you Complete all the question in VM-1 you need to reboot and wait to system bootup then verify all outputs.

**VM-2 (we configure server-a VM)**

NOT FOR EXAM

take ssh from base machine to workstation machine

|  |
| --- |
| # ssh root@workstation    password: redhat  # ping servera  # lab boot-resetting start  # logout |

In exam you start from below steps

**1. Break the password on server-a VM**

\* open console and reboot machine

\* select send-key and choose ctrl-alt-delete

\* Automatically Rebooting the system

\* Press "e" to edit the first kernel entry and Move the cursor to the kernel command line (search the line that starts with "linux" then press “End” key in the keyboard).

\* Add "rd.break" at end of the line and Press Ctrl+x to boot with the changes.

# mount -o remount,rw /sysroot (if u facing any interrupt use “ctr+c” )

# chroot /sysroot

# passwd --stdin root

northate

# touch /.autorelabel

# exit

# exit (now rebooting the VM after reboot try to login with root user)

Minimize the servera VM

**Take ssh from base machine to serverb VM**

**#ssh root@172.25.250.10**

**2 configure repository**

# vi /etc/yum.repos.d/app.repo/

[123]

name=app

baseurl=http://classroom.example.com/content/rhel8.0/x86\_64/dvd/AppStream

enabled=1

gpgcheck=0

[456]

name=base

baseurl=http://classroom.example.com/content/rhel8.0/x86\_64/dvd/BaseOS

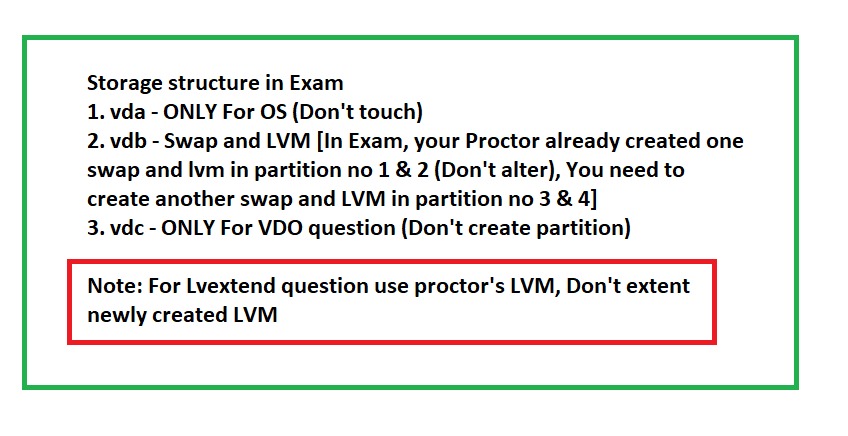
enabled=1

gpgcheck=0

# yum clean all

# yum repolist

# yum install vim -y (only for exam not now)



**3. Create a swap partition**

# free -m (check the existing swap size)

#lsblk

# fdisk /dev/vdb

-> Command (m for help): **n**

-> Select (default p): **p**

-> Partition number (3-4, default3): **3**

-> First sector (4196352-10485759, default 4196352):

-> Last sector, +sectors or +size{K,M,G,T,P} (4196352-10485759, default 10485759): **+512M**

-> Created a new partition 2 of type 'Linux' and of size 512 MiB.

-> Command (m for help): **t**

-> Partition number (1,2,3 default 3): **3**

-> Hex code (type L to list all codes): **82**

-> Changed type of partition 'Linux' to 'Linux swap / Solaris'.

-> Command (m for help): **w**

# partprobe

#lsblk

# mkswap /dev/vdb3

# blkid

# vim /etc/fstab

add last line (don’t' change the existing contents)

/dev/vdb3 swap swap defaults 0 0

# swapon -a

# free -m

**4. Create a lvm partition**

(They provide 3 different disk like VDA,VDB,VDC you don't touch VDA disk)

# lsblk

# fdisk /dev/vdb

-> Command (m for help): **n**

-> Select (default p): **p**

-> Partition number (2-4, default 2): **2**

-> First sector (2048-10485759, default 2048):

-> Last sector, +sectors or +size{K,M,G,T,P} (2048-10485759, default 10485759): **+2G**

-> Created a new partition 1 of type 'Linux' and of size 2 GiB.

-> Command (m for help): **t**

-> Selected partition :**2**

-> Hex code (type L to list all codes): **8e**

-> Changed type of partition 'Linux' to 'Linux LVM'

-> Command (m for help): **w**

# partprobe

#lsblk

# pvcreate /dev/vdb2

# vgcreate -s 8 datastore /dev/vdb2

# vgdisplay datastore

# lvcreate -l 50 -n database datastore

# lvdisplay /dev/datastore/database

# mkfs.ext3 /dev/datastore/database

# blkid

# mkdir /mnt/database

# vim /etc/fstab

add last line (don’t' disturb the existing contents)

**/dev/datastore/database /mnt/database ext3 defaults 0 0**

# mount -a

# df -hT or lsblk (verify the lvm partition)

**5. Resize the lvm partition.**

# df -hT

# lvextend -L 700M -r /dev/mapper/datastore-database

# df -hT

**6. Create a VDO Disk**

# yum install vdo\* -y (Not Now only for Exam)

# systemctl start vdo.service

# systemctl enable vdo.service

# lsblk

# vdo create --name=vectra --device=/dev/vdc --vdoLogicalSize=50G

# vdo list

# mkfs.xfs /dev/mapper/vectra

# udevadm settle

# mkdir /test

# vim /etc/fstab

add last line (don't disturb the exesting contents)

/dev/mapper/vectra /test xfs defaults,x-systemd.requires=vdo.service 0 0

# mount -a

# df -hT

# reboot

successfully created VDO disk

**Resolving Maintenance mode**

(enter root password for maintenance): redhat

# mount –o remount,rw /

# vim /etc/fstab

/dev/mapper/vectra /test xfs defaults,x-systemd.requires=vdo.service 0 0

(if you have time, correct the mistakes, else put ‘#’ in front of this line )

# mount –a

# reboot (\*must)

**7.set the tuned profile**

# yum install tuned -y (not now only for exam)

# systemctl start tuned.service

# systemctl enable tuned.service

# tuned-adm active (check the current active profile)

# tuned-adm recommend

virtual-guest -> (This one is recommended)

# tuned-adm profile virtual-guest

# tuned-adm active

After you Complete all the question in VM-2 you need to reboot and wait to system bootup then verify all outputs.