1 Create below mentioned directory structure

.

├── linux-intro

│   ├── dev

│   │   ├── git

│   │   ├── jenkins

│   │   ├── maven

│   │   └── vagrant

│   ├── ops

│   │   ├── ansible

│   │   ├── chef

│   │   ├── docker

│   │   └── vagrant

│   └── tex

│   ├── CD

│   └── CI

Ans:

# mkdir -p linux-intro/{dev/{git,jenkins,maven,vagrant},ops/{ansible,chef,docker,vagrant},tex/{CD,CI}}

2. Create two text files in every directory with name of your choice.

Out of two files one file should be hidden file.

Both the files should contain your name and its complete path.

Ans:

# vi twofiles.sh

#!/bin/bash

cd $1

# $1 = absolute path for the file to be created

echo kiran.p > visiblefile

pwd >> visiblefile

cp visiblefile .hiddenfile

# ./twofiles.sh /home/devops/linux-intro/dev/git

# ./file.sh /home/devops/linux-intro/dev/jenkins

# ./file.sh /home/devops/linux-intro/dev/maven

#./file.sh /home/devops/linux-intro/dev/vagrant

3 Create three groups

- devgr

- opsgr

- devopsgr

Ans:

# sudo groupadd devgr

# sudo groupadd opsgr

# sudo groupadd devopsgr

4 Create 5 users

dev1

dev2

ops1

ops2

vpdevops

Ans:

# sudo adduser dev1

# sudo adduser dev2

# sudo adduser ops1

# sudo adduser ops2

# sudo adduser vpdevops

5 Add dev1 and dev2 in devgr group

Add ops1 and ops2 in opsgr group

Add vpdevops in devopsgr group

Ans:

# sudo usermod -G devgr dev1

# sudo usermod -G devgr dev2

# sudo usermod -G opsgr ops1

# sudo usermod -G opsgr ops2

# sudo usermod -G devopsgr vpdevops

6. Assign devgr group ownership on dev directory

Assign opsgr group ownership on ops directory

Assign devopsgr group ownership on tex directory

Ans:

# sudo chown -R :devgr /home/devops/linux-intro/dev

# sudo chown -R :opsgr /home/devops/linux-intro/ops

# sudo chown -R :devopsgr /home/devops/linux-intro/tex

7. Find all the users with nologin shell from passwd file and redirect its output to a file named *nologinusers*. Copy *nologinusers* file to tex directory.

Ans:

# cat /etc/passwd | grep nologin > nologinusers

# cp nologinusers /home/devops/linux-intro/tex/

**>**Extract all the UID’s from passwd file and redirect its output to a file name usersuid.

Move that file to ops directoy.

Ans: # sudo cat /etc/passwd | cut -d: -f3 > userusuid

# mv usersuid /home/devops/linux-intro/ops

8. Open nologinusers file created in above step. Search for content “nologin” and replace it with “badlogin”. Do the same with sed command.

Ans: #sed ‘s/nologin/badlogin/g’ nologinusers

9. Create symbolic link for directry CI and CD in dev and ops directory.

Example shown below:

In dev directory

LinktoCI -> /home/devops/linux-intro/tex/CI

In ops directory

LinktoCD -> /home/devops/linux-intro/tex/CD

Ans:

#cd linux-intro/dev

#ln -s /home/devops/linux-intro/tex/CI LinktoCI

#ln -s /home/devops/linux-intro/tex/CD LinktoCD

#cd ops/

#ln -s /home/devops/linux-intro/tex/CD LinktoCD

#n -s /home/devops/linux-intro/tex/CI LinktoCI

10 Add vpdevops group in sudoers list with full permission

Add Ops1 user in sudoers list with full permission.

Lock user dev2.

Delete user ops2 with its home directory.

Ans: visudo

ops1 ALL=(ALL:ALL) ALL

%vpdevops ALL=(ALL:ALL) ALL

#usermod -L dev2

#userdel -r ops2

11. Create bash script which will take backup of linnux-intro directory and stores it in /home/devops/backup directory. Does below operations.

1. Take two arguments, first argument is the path of directory to be zipped/tarred, second argument will be the name of the zip/tar file.

2. Creates a tar ball with gunzip compression and move the tarred file to /home/devops/backup directory directory.

3. Creates a zip file and move it to /home/devops/backcup directory

4. Displays messages of what it is doing in every step, use echo command.

5. Use # for commenting each and every line in your script.

Ans:

vi backup.sh

#!/bin/bash

# tarring linux-intro directory

echo “creating tar file”

tar -cvf $1 $2

# Zipping linux-intro directory

echo “Zipping a file”

gzip $1

# moving Zip file to backup

echo “moving Zip file to backup”

mv $1.gz /home/devops/excercise/backup