Class 15

Compression , decompression

Linux = tar , gzip , bzip2 and xz

Window = winrar

Archive = copy many file/folder in a single bundle.

Touch aa bb cc

Tar –cvf test.tar aa bb cc (-c = create , -v = verbose , f= forcefully)

Check the data without extract

Tar –tvf test.tar (-t = list the data )

Touch dd

Add the data without extract

Tar -rvf test.tar dd

Extract the data

Tar –xvf test.tar = extract in same place (-x =extract)vf test.tar -C /rhel (-C =create)

Compression

1. Gzip = gunzip = -z = fast compression but reduce the size less
2. Bzip2 = bunzip2 = -j = average speed compression and reduce average size
3. Xz = -J = slow compression but reduce more size

Compress

1. Gzip =

Test.tar

Gzip test.tar = test.tar.gz

Gzip -d test.tar.gz = test.tar

1. Bzip2

Bzip2 test.tar = test.tar.bz2

Bzip2 –d test.tar.bz2 = test.tar

1. Xz =

Xz test.tar = test.tar.xz

Unxz test.tar.xz = test.tar

Archive + compression

/etc = 31M

1. Gzip = tar –czvf aa.tar.gz /etc = 6.3M
2. Bzip2 = tar -cjvf bb.tar.bz2 /etc = 4.6M
3. Xz = tar -cJvf cc.tar.xz /etc = 3.9M

Decompress + extract

1. Gzip = tar –xzvf aa.tar.gz
2. Bzip2 = tar –xjvf bb.tar.bz2
3. Xz = tar -xJvf cc.tar.xz

It is use in backup

Job scheduling

2 way

1. AT 2 CRON or CRONTAB
2. At - one time
3. Cron = do task again and again after a interval

At =

At 3:00

Mkdir aa

Touch bb

Ctrl+d (save and exit)

See the all scheduled task

Atq

See the content of task

At -c jobid

Delete the task

Atrm jobid

User aa bb

Non-privilege user also schedule the job

300 user

5 allow

/etc/at.allow = only allow user

Deny the user

/etc/at.deny = deny the user

1. Schedule task at coming 10:00 AM

At 10:00 AM

1. Schedule task at coming 10:00 AM coming Sunday

At 10:00 AM sun

1. Schedule task at coming 10:00 AM coming 25 dec

At 10:00 AM dec 25

1. Schedule task at coming 10:00 AM on coming 1 feb 2030

At 10:00 AM 2/1/2030

Or 10:00 AM 2.1.2030

1. Schedule task at coming 10:00 AM on same date at next month

At 10:00 AM next month

1. Schedule task at coming 10:00 AM tomorrow

At 10:00 AM tomorrow

1. Schedule the task to run just after 1 hour

At now +1 hour

1. Schedule task to just after 30 min

At now +30 min

1. Schedule task to run just after 1 week

At now +1 week

1. Schedule task to run just after 1 year

at now +1 year

1. Schedule task at midnight

At midnight

2 . Cron or crontab

Crontab -e (edit)

\* \* \* \* \* task

1.\* = minutes (0-59)

2.\* = hour (0-23)

3.\* = date (1-31)

4.\* = month (1-12)

5. \* = day of week (0 = sun , 1=mon,2=tues,3=wed,4=thurs,5=fri,6=sat,7=sun)

20 nov 6:20PM shutdown

20 18 20 11 \* init 0

21 dec 12:02 AM make a folder

2 12 21 12 \* mkdir abc

Everyday 8:00 PM copy /mnt /media = backup

0 20 \* \* \* cp –rvf /mnt/\* /media

Every 2 hours

\* \*/2 \* \* \*

Every 30 min

\*/30 \* \* \* \*

Every 6 month

\* \* \* \*/6 \*

Every 15 30 to take backup

\* \* 15,30 \* \*

To see the all scheduled job

Crontab -l

User = aa bb cc

Crontab –e -u aa = give the job for aa user

See the cron job file

Cd /var/spool/cron

Systemctl crond restart = restart the service

Deny any user

Vim /etc/cron.deny

Delete the all crontab entry

Crontab –r

5 client

India

America

London

New York

China

See the all zones

Cd /usr/share/zoneinfo

Crontab –e

CRON\_TZ=Europe/London

Q = 8PM = backup = 7-11PM

Ans = yes , anacron = it check the file , if any task is pending the it will do immediately

Q - stop the anacron service

Vim /etc/anacrontab

Comment last 3 lines

Run-level or targets

It is mode of OS

0 = poweroff = poweroff.target = init 0

1 = single user = rescue.target = to troubleshoot the OS problem (break the root password , grub recover)

2 = multiuser without networking = it not in use

3 = multiuser with networking = CLI mode = multi-user.target

4 = research = it not in use

5 = GUI = graphical = graphical.target

6 = restart = reboot.target = init 6

Check current runlevel

Systemctl get-default or runlevel or who –r

Change the runlevel

Systemctl set-default multi-user.target

Restart

6 = restart = restart

Runlevel file

Cd /lib/systemd/system

Ls runlevel\*target

Attributes

It is use to secure the file

3 types of aatributes

1. e= editable
2. a =append
3. I = immutable

1.editable = in this mode we can edit , remove the file , by default every file in editable mode

Lsattr

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2..Append = in the mode we can only add the data not edit , delete the file

Chattr +a filename

Lsattr

-----a--------------

Echo “this is a class” >> filename

Remove the append mode

Chattr -a filename

3.. immutable = in this mode only see the data

Chattr +I filename

Lsattr

----i---------------

Crontab part 2 , runlevel ,attributes

3 wrong password , 2 hours

IP ,nfs