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
2. Bzip2
   Bzip2 test.tar = test.tar.bz2
   Bzip2 –d test.tar.bz2   = test.tar
3. 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
1. At - one time
2. 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

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1. Schedule task at coming 10:00 AM
   At 10:00 AM
2. Schedule task at coming 10:00 AM   coming Sunday
   At 10:00 AM sun
3. Schedule task at coming 10:00 AM coming 25 dec
   At 10:00 AM dec 25
4. 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
5. Schedule task at coming 10:00 AM   on same date at next month
   At 10:00 AM next month
6. Schedule task at coming 10:00 AM tomorrow

At 10:00 AM tomorrow
7. Schedule the task to run just after 1 hour
   At now +1 hour
8. Schedule task to just after 30 min

At now +30 min

9. Schedule task to run just after 1 week
   At now +1 week
10. Schedule task to run just after 1 year
    at now +1 year
11. Schedule task at midnight
    At midnight

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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

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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

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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

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