Cron - time

Crontab command is used to schedule tasks.

Crontab (CRON TABle) is a file which contains the schedule of cron entries to be run and at specified times

Cron job or cron schedule is a specific set of execution instructions specifing day, time and command to execute. crontab can have multiple execution statments.

```
minute (0 - 59)

hour (0 - 23)

day of the month (1 - 31)

month (1 - 12)

day of the week (0 - 6) (Sunday to Saturday;

7 is also Sunday on some systems)
```

Crontab -e \rightarrow edit the cron file (schedule tasks)

crontab – $r \rightarrow remove$ the cronrab

crontab - $1 \rightarrow$ lists the crontab entries/table

#root @linux →crontab -u user1 -l

#root @linux → crontab -u user1 -e (edit user1 crontab)

- cron executes scheduled jobs automatically in the backend at a specific time.
- Each user can have their own ctrontab, and this can be found it in "/var/spool".
- cron jobs can be allowed or disallowed for any users by adding a user in the "cron.allow" and "cron.deny" file.

Package name

yum install cronie (or) crontabs

service name – crond

Syntax

MIN	HOUR	Day of month	Month	Day of Weel	k Command
0-59	0-23	1-31	1-12	0-6 A	ny Linux command or script

- @daily
- @reboot
- @hourly
- @yearly

Examples

min	hour	day/month	month	day/week	Execution time
30	0	1	1,6,12	*	— 00:30 Hrs on 1st of Jan, June & Dec.
0	20	*	10	1-5	-8.00 PM every weekday (Mon-Fri) only in Oct.
0	0	1,10,15	*	*	midnight on 1st ,10th & 15th of month
5,10	0	10	*	1	— At 12.05,12.10 every Monday & on 10th of every month

*/2 9-16 * * * echo 'Hello World' >> /tmp/output.txt

25 14 * * * /home/username/script.sh>>/tmp/output.txt

User crontab files

```
/var/spool/cron/user_name
```

/var/spool/cron

/var/log/cron

/etc/cron.deny

/etc/cron.allow

/etc/cron.hourly

/etc/cron.daily

/etc/cron.monthly

/etc/cron.weekly

the timings for each are set in /etc/anacrontab except hourly. (run cat cmd to check)

for hourly → /etc/cron.d/0hourly

<u>Note</u>

might be different timezone

If User account and password expired cron job will not work.

If crond service is stopped cron job will not work.

If var filesystem utilized 100% also cron job will not work.

- @hourly. The job will run once an hour.
- **@daily** or **@midnight**. These strings will run the task every day at midnight.
- @weekly. A string for scheduling tasks once a week at midnight on Sunday.
- @monthly. This special string runs a command once on the first day of every month.
- **@yearly**. Use this string to run a task once a year at midnight on January 1st.
- **@reboot**. This string runs the cron job once during a system startup.

Script file - open vi editor and save as script.sh
#!/bin/bash
date
echo "Hi from script"

Give chmod +x to the file script.sh run the file ./script.sh or sh script.sh

<u>Note</u>: even if the file is not given x (executable permission), it can be run using **sh script.sh**