********** Crontab
****

```
[root@localhost ~]# rpm -qa  crontabs
crontabs-1.11-6.20121102git.el7.noarch
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# systemctl   status crond
crond.service - Command Scheduler
   Loaded: loaded (/usr/lib/systemd/system/crond.service;
enabled)
   Active: active (running) since Tue 2019-06-25 13:48:23
IST; 5h 12min left
 Main PID: 894 (crond)
   CGroup: /system.slice/crond.service
           └─894 /usr/sbin/crond -n

Jun 25 13:48:23 localhost.localdomain systemd[1]: Started
Command Scheduler.
Jun 25 13:48:24 localhost.localdomain crond[894]: (CRON)
INFO (RANDOM_DELAY w...
Jun 25 08:18:26 localhost.localdomain crond[894]: (CRON)
INFO (running with i...
Hint: Some lines were ellipsized, use -l to show in full.
[root@localhost ~]#
[root@localhost ~]# cat  /etc/crontab
SHELL=/bin/bash
PATH=/sbin:/bin:/usr/sbin:/usr/bin
```

```
MAILTO=root

# For details see man 4 crontabs

# Example of job definition:
# .---------------- minute (0 - 59)
# |  .------------- hour (0 - 23)
# |  |  .---------- day of month (1 - 31)
# |  |  |  .------- month (1 - 12) OR jan,feb,mar,apr ...
# |  |  |  |  .---- day of week (0 - 6) (Sunday=0 or 7)
OR sun,mon,tue,wed,thu,fri,sat
# |  |  |  |  |
# *  *  *  *  * user-name  command to be executed

[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# echo   "hello"
hello
[root@localhost ~]#
[root@localhost ~]# which echo
/usr/bin/echo
[root@localhost ~]#
[root@localhost ~]# /usr/bin/echo    "hello"
hello

[root@localhost ~]# crontab  -e

*/2     *       *       *       *       /usr/bin/echo
"hello root"
```

save and exit from this file

```
[root@localhost ~]# crontab  -l
*/2     *       *       *       *       /usr/bin/echo
"hello root"
[root@localhost ~]#
[root@localhost ~]# mail
Heirloom Mail version 12.5 7/5/10.  Type ? for help.
"/var/spool/mail/root": 3 messages 1 new
1 (Cron Daemon)         Tue Jun 25 08:52  26/878   "Cron
<root@localhost>"
& 1  (Press 1 to read the mail)
Date: Tue, 25 Jun 2019 08:52:01 +0530 (IST)
Status: RO

hello root

& q    (press q to quit)

[root@localhost ~]# crontab   -r
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# crontab   -l
no crontab for root

[root@localhost ~]#
[root@localhost ~]# useradd   kapil

[root@localhost ~]# crontab   -e  -u  kapil

*/2     *       *       *       *       /usr/bin/echo
"send the apache server report"
```

save and exit from this file.

```
[root@localhost ~]# crontab   -l  -u  kapil

*/2     *       *       *       *       /usr/bin/echo
"send the apache server report"

[root@localhost ~]# su - kapil
Last login: Tue Jun 25 09:09:49 IST 2019 on pts/1
[kapil@localhost ~]$
[kapil@localhost ~]$ mail
Heirloom Mail version 12.5 7/5/10.  Type ? for help.
"/var/spool/mail/kapil": 1 message
>   1 (Cron Daemon)         Tue Jun 25 09:00  26/931
"Cron <kapil@localhost"

&1    (press 1 to read the mail)
Date: Tue, 25 Jun 2019 09:00:02 +0530 (IST)
Status: RO

plz give the apache report

& q    (press q to quit)

[kapil@localhost ~]$ exit
logout
[root@localhost ~]#
```

How to find the all running crontab report in all user accounts ?

```
[root@localhost ~]# crontab   -l  -u  kapil

*/2     *       *       *       *       /usr/bin/echo
"send the apache server report"


[root@localhost ~]# cd /var/spool/cron
[root@localhost cron]#
[root@localhost cron]# ls
kapil
[root@localhost cron]#
[root@localhost cron]# cat kapil
*/2     *       *       *       *       /usr/bin/echo
"hello root"
[root@localhost cron]#
[root@localhost cron]# cd
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# crontab  -r  -u  kapil
[root@localhost ~]#
[root@localhost ~]# ls  /var/spool/cron       {Now there
is not file here}
[root@localhost ~]#


what is the log file of crontab  ?

[root@localhost ~]# tail  -f  /var/log/cron
Jun 25 10:01:01 localhost
```

```
run-parts(/etc/cron.hourly)[5303]: finished 0anacron
Jun 25 10:01:01 localhost
run-parts(/etc/cron.hourly)[5291]: starting
0yum-hourly.cron
Jun 25 10:01:01 localhost
run-parts(/etc/cron.hourly)[5309]: finished
0yum-hourly.cron
Jun 25 10:01:01 localhost anacron[5301]: Will run job
`cron.daily' in 31 min.
Jun 25 10:01:01 localhost anacron[5301]: Will run job
`cron.monthly' in 71 min.
Jun 25 10:01:01 localhost anacron[5301]: Jobs will be
executed sequentially
Jun 25 10:02:01 localhost CROND[5358]: (kapil) CMD
(/usr/bin/echo ^I"hello root")
Jun 25 10:02:39 localhost crontab[5486]: (root) LIST
(kapil)
Jun 25 10:04:01 localhost CROND[5531]: (kapil) CMD
(/usr/bin/echo ^I"hello root")
Jun 25 10:04:31 localhost crontab[5556]: (root) DELETE
(kapil)


Press CTRL + C      (to quit )
[root@localhost ~]#
```

How to allow and deny crontab service for any users ?

```
[root@localhost ~]# vim  /etc/cron.deny
```

```
kapil
sachin
deepak


save and exit from the file.

[root@localhost ~]# su - kapil

Last login: Tue Jun 25 08:59:03 IST 2019 on pts/0

[kapil@localhost ~]$
[kapil@localhost ~]$ crontab -e
You (kapil) are not allowed to use this program (crontab)
See crontab(1) for more information
[kapil@localhost ~]$
[kapil@localhost ~]$ crontab -l
You (kapil) are not allowed to use this program (crontab)
See crontab(1) for more information
[kapil@localhost ~]$
[kapil@localhost ~]$ exit
logout
[root@localhost ~]#

[root@localhost ~]#  >  /etc/cron.deny           { to
delete all entry from this file }
[root@localhost ~]#
[root@localhost ~]# cat  /etc/cron.deny
[root@localhost ~]#
[root@localhost ~]# vim  /etc/cron.allow
```

```
root
kapil
```

save and exit from the file.

```
[root@localhost ~]# useradd  soniya
[root@localhost ~]#
[root@localhost ~]# su   - soniya
[soniya@localhost ~]$
[soniya@localhost ~]$ crontab  -e
You (soniya) are not allowed to use this program
(crontab)
See crontab(1) for more information
[soniya@localhost ~]$
[soniya@localhost ~]$ exit
logout
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# echo  "soniya"  >>  /etc/cron.allow
[root@localhost ~]#
[root@localhost ~]# cat  /etc/cron.allow
root
kapil
soniya
[root@localhost ~]#
[root@localhost ~]# su - soniya
Last login: Tue Jun 25 09:11:57 IST 2019 on pts/1
[soniya@localhost ~]$
[soniya@localhost ~]$ crontab  -l
no crontab for soniya
```

```
[soniya@localhost ~]$
[soniya@localhost ~]$ exit
logout
[root@localhost ~]#
```

How to create any shell script file to run by using crontab.

```
[root@localhost ~]# vim   /root/dailytask.sh
```

```
#!/bin/bash
echo  "welcome"
date
cal
useradd  deep
for i in 1 2 3 4 5
do
echo  "numbers are = $i"
done
rsync  -av  /etc   /tmp
echo  "all task has been successfully completed"
```

save and exit from the file.

how to run any script manually ?

```
[root@localhost ~]# sh   /root/dailytask.sh
welcome
```

```
Tue Jun 25 09:25:19 IST 2019
      June 2019
Su Mo Tu We Th Fr Sa
                   1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30
numbers are = 1
numbers are = 2
numbers are = 3
numbers are = 4
numbers are = 5
sending incremental file list
etc/
etc/.pwd.lock
etc/DIR_COLORS

...........
...........

total size is 28110510  speedup is 0.99
all task has been successfully completed
[root@localhost ~]#
```

how to run any script file by using crontab ?

```
[root@localhost ~]# which sh
/usr/bin/sh
[root@localhost ~]# crontab  -e
```

```
05      22      *       *       *       /usr/bin/sh
/root/dailytask.sh
```

save and exit from the file.

```
[root@localhost ~]#
[root@localhost ~]# crontab   -l
05      22      *       *       *       /usr/bin/sh
/root/dailytask.sh
[root@localhost ~]#
```

**********   at   command **********

```
[root@localhost ~]# date
Tue Jun 25 09:36:41 IST 2019
[root@localhost ~]#
[root@localhost ~]# at  09:40 AM
at> echo "hello"
at> date
at> cal
at> <EOT>     (Press CTRL+d to save and exit)

job 1 at Tue Jun 25 09:40:00 2019
[root@localhost ~]#
[root@localhost ~]# atq
1       Tue Jun 25 09:40:00 2019 a root
```

```
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at -c  1
.......................
.......................

echo "hello"
date
cal

marcinDELIMITER32adcdce

root@localhost ~]#
[root@localhost ~]# atrm  1
[root@localhost ~]#
[root@localhost ~]# atq
[root@localhost ~]#
[root@localhost ~]# at  09:10  AM
at> sh  /root/dailytask.sh
at> <EOT>
job 2 at Wed Jun 26 09:10:00 2019
[root@localhost ~]#
[root@localhost ~]# atq
2       Wed Jun 26 09:10:00 2019 a root
[root@localhost ~]#
[root@localhost ~]# atrm   2
[root@localhost ~]#
[root@localhost ~]# atq
[root@localhost ~]#

[root@localhost ~]# at 10:00 AM
at> echo "hello"
```

```
at> <EOT>
job 3 at Tue Jun 25 10:00:00 2019
[root@localhost ~]#
[root@localhost ~]# at 10:00 AM Sun
at> echo  "hello"
at> <EOT>
job 4 at Sun Jun 30 10:00:00 2019
[root@localhost ~]#
[root@localhost ~]# at  10:00 AM July 25
at> echo  "hello"
at> <EOT>
job 5 at Thu Jul 25 10:00:00 2019
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  10:00 AM 6/22/2020
at> echo "hello"
at> <EOT>
job 6 at Mon Jun 22 10:00:00 2020
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  10:00 AM tomorrow
at> echo "hello"
at> <EOT>
job 7 at Wed Jun 26 10:00:00 2019
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  10:00 AM next month
at> echo  "hello"
at> <EOT>
job 8 at Thu Jul 25 10:00:00 2019
[root@localhost ~]#
[root@localhost ~]# at  now + 1 hour
```

```
at> echo  "hello"
at> <EOT>
job 9 at Tue Jun 25 10:44:00 2019
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  now + 30 minutes
at> echo "hello"
at> <EOT>
job 10 at Tue Jun 25 10:14:00 2019
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  now + 1 week
at> echo "hello"
at> <EOT>
job 11 at Tue Jul  2 09:45:00 2019
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  now  + 1  year
at> echo "hello"
at> <EOT>
job 12 at Thu Jun 25 09:45:00 2020
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  now  + 2  years
at> echo "hello"
at> <EOT>
job 13 at Fri Jun 25 09:45:00 2021
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# at  midnight
```

```
at> echo "hello"
at> <EOT>
job 14 at Wed Jun 26 00:00:00 2019
[root@localhost ~]#

[root@localhost ~]# atq
3       Tue Jun 25 10:00:00 2019 a root
4       Sun Jun 30 10:00:00 2019 a root
5       Thu Jul 25 10:00:00 2019 a root
6       Mon Jun 22 10:00:00 2020 a root
7       Wed Jun 26 10:00:00 2019 a root
8       Thu Jul 25 10:00:00 2019 a root
9       Tue Jun 25 10:44:00 2019 a root
10      Tue Jun 25 10:14:00 2019 a root
11      Tue Jul  2 09:45:00 2019 a root
12      Thu Jun 25 09:45:00 2020 a root
13      Fri Jun 25 09:45:00 2021 a root
14      Wed Jun 26 00:00:00 2019 a root
[root@localhost ~]#


**************************************   Finish
**************************
```