JOB Automation or Task Scheduling
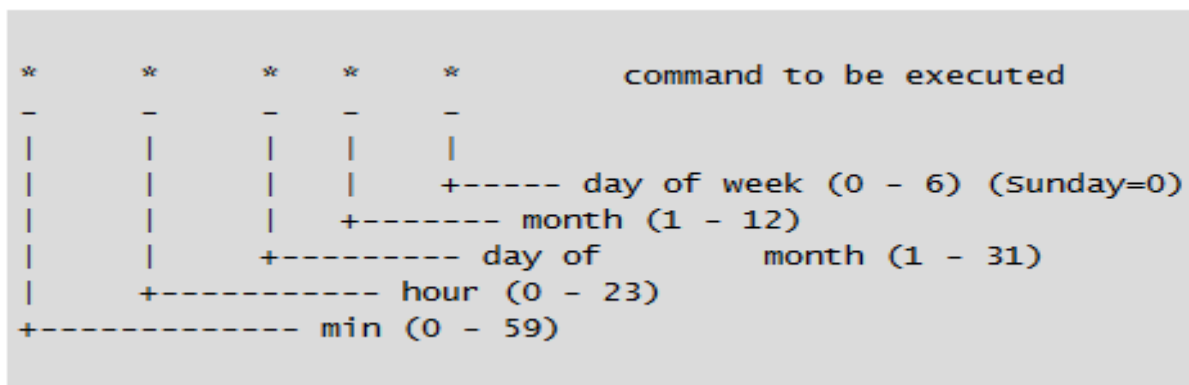
There are two utilities available for this purpose
- **corn:** schedule the specified job repeatedly for specific time. We can say repeated job
- at: can be scheduled for job which need to execute only once. We can say onetime job

Important Files related to "**cron**" and "**at** "
- **/etc/crontab** is the file which stores all scheduled jobs
- **/etc/cron.deny** is the file used to restrict the users from using cron jobs.
- **/etc/cron.allow** is used to allow only users whose names are mentioned in this file to use cron jobs. (this file does not exist by default)
- **/etc/at.deny** same as cron.deny for restricting at jobs
- **/etc/at.allow** same as cron.allow for allowing user to use at jobs.

Crontab File Format: -

```
*       *       *     *     *            command to be executed
_       _       _     _     _
|       |       |     |     |
|       |       |     |     +----- day of week (0 - 6) (Sunday=0)
|       |       |     +------- month (1 - 12)
|       |       +--------- day of         month (1 - 31)
|       +----------- hour (0 - 23)
+------------- min (0 - 59)
```

 Options used with each field of crontab file: -

Options	Explanation
*	It is treated as a wild card, which means any possible value
*/5	It is treated as every 5 minutes, hours, days, or months. Replacing 5 with another numerical value will change this option
2,4,6	Treated as an OR, so if placed in the hours field, which means at 2,4 or 6 o'clock
9-15	Treats for any value between 9 and 15. So if placed in day of month filed then it means it will be days 9 through 15 or if put in hour then it would be between 9 to 15 hr.

C R E A T E D   B Y : -   **V I V E K   G A N D H I**

JOB Automation or Task Scheduling

Check the console on which you are working by following command

```
[root@vivek /]# tty
/dev/pts/0
[root@vivek /]#
```

Note: /dev/pts/0 is the console address

Schedule the task by editing the crontab file as shown

```
[root@vivek /]# crontab -e
```
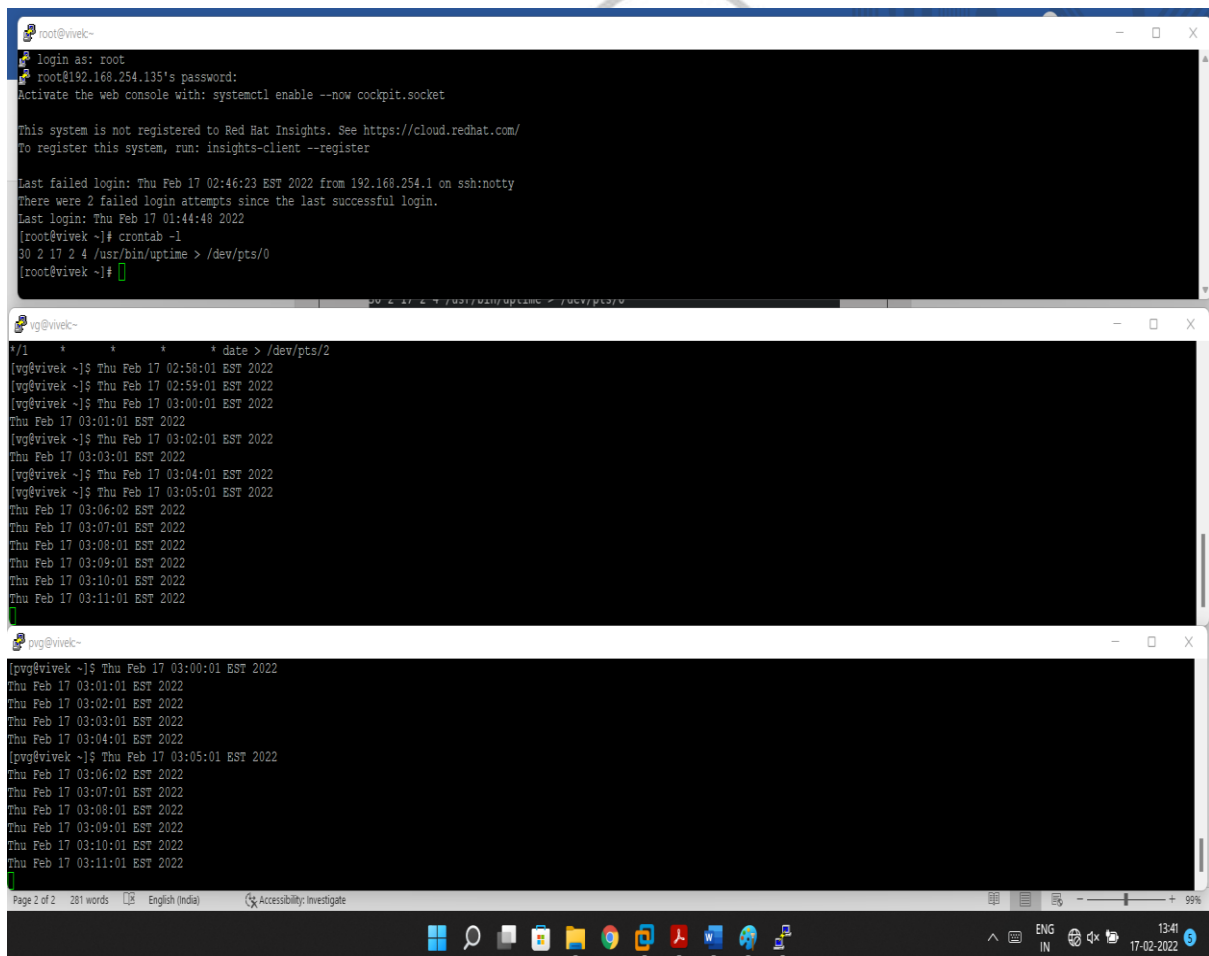
```
30 2 17 2 4 /usr/bin/uptime > /dev/pts/0
```

```
[root@vivek /]# systemctl reload crond
```

Output

```
[root@vivek /]#  02:30:01 up  1:10,  1 user,  load average: 0.01, 0.01, 0.00
```

Same more

```
1      *      *      *      * date > /dev/pts/0
~
```

JOB Automation or Task Scheduling

crontab –e –u <user name>

```
[root@vivek ~]# crontab -e -u pvg
crontab: no changes made to crontab
[root@vivek ~]# crontab -l -u pvg
*/1      *       *       *       * date > /dev/pts/3
45       3       17      2       4       echo "meeting at 4 pm today"    >       /dev/pts/3


[root@vivek ~]#
```
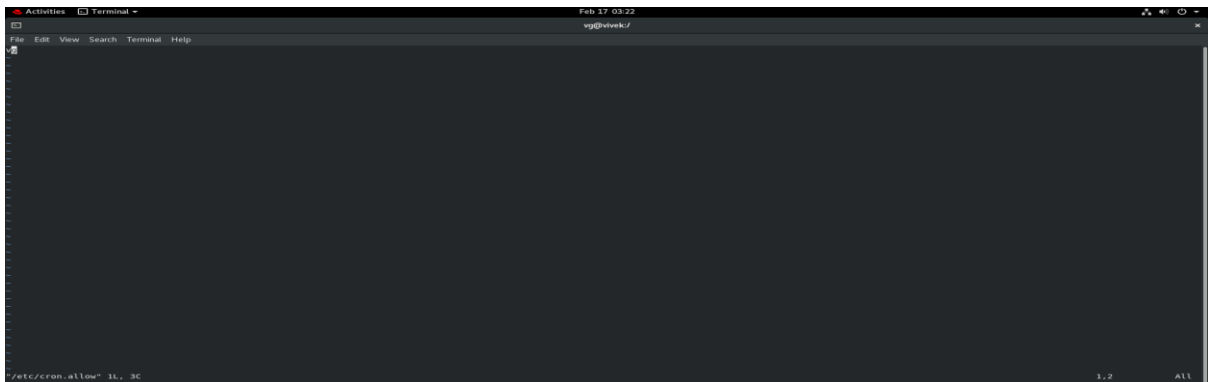
Output

```
meeting at 4 pm today
Thu Feb 17 03:45:01 EST 2022
[pvg@vivek ~]$
```

create /etc/cron.allow

```
Password.
[root@vivek /]# vim /etc/cron.allow
```
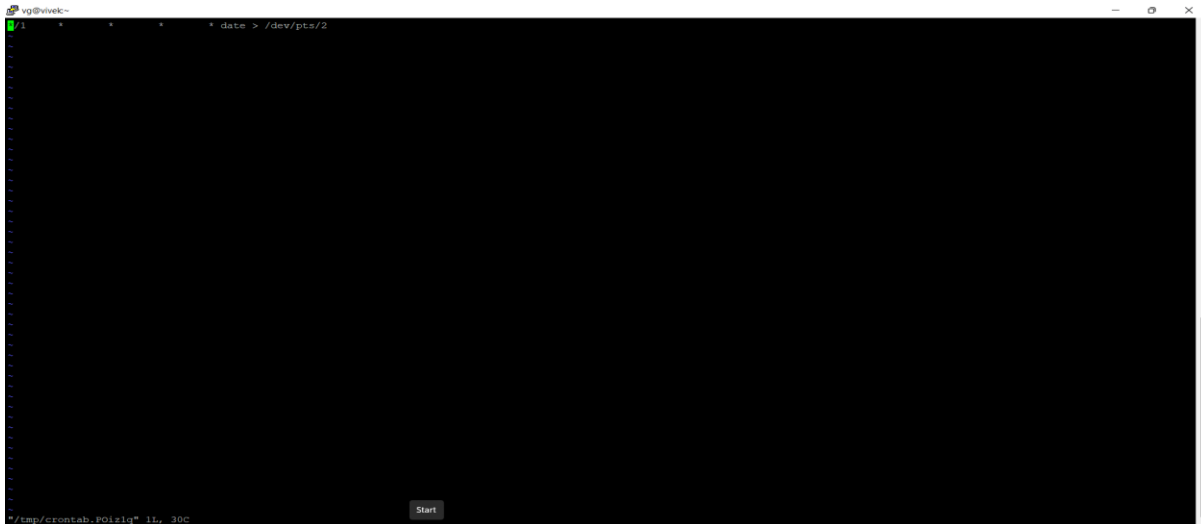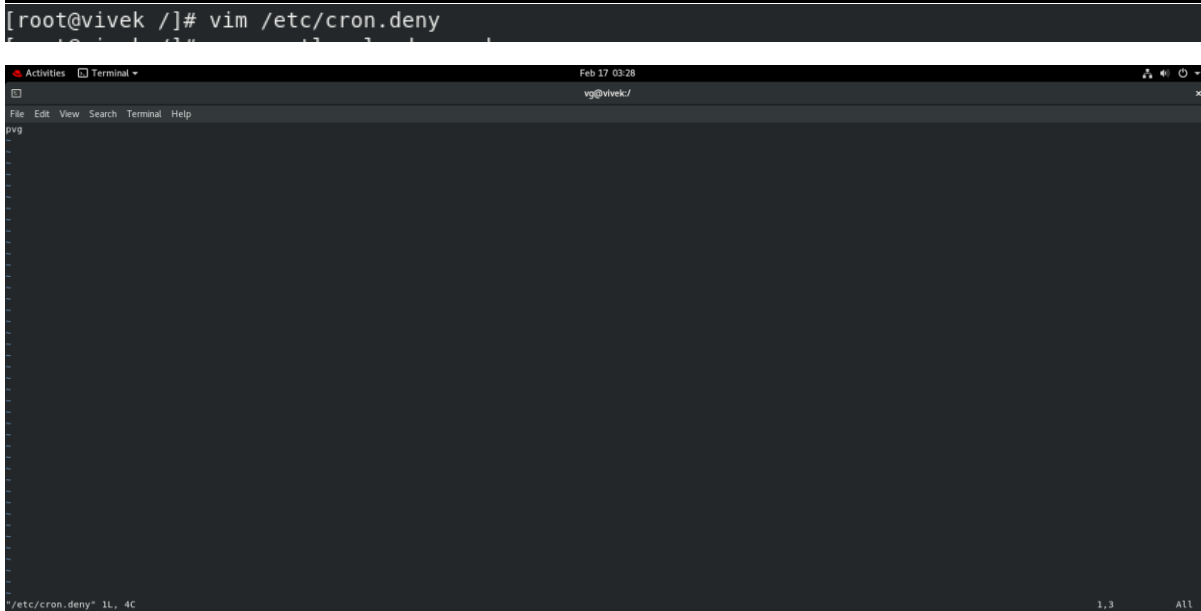

Output

```
[vg@vivek ~]$ crontab -e
```

Allow to edit option
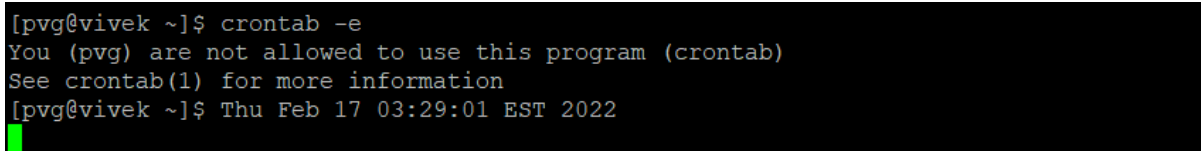
Create /etc/cron.deny

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


Output

```
[pvg@vivek ~]$ crontab -e
You (pvg) are not allowed to use this program (crontab)
See crontab(1) for more information
[pvg@vivek ~]$ Thu Feb 17 03:29:01 EST 2022
```

Crontab not allow edit file but schedule run automatic