**JOB / TASK SCHEDULING**

* **Job scheduling is a feature that allows a user to submit a command or program for execution at a specified time in the future.**
* **On a Linux server , it is important that certain tasks run at certain times the execution of the command or program cound be on time or periodically based on a pre-determined time schedule.**
* **At :- single time execution.(non-periodic)**
* **Crontab :- periodic execution**
* **Anacron :- periodic execution(desktop server)**

**(it performs the task even the machine is switch off )**

* **Commands :-**

1. **at :- single time execution > non periodic >**

**atq :- to check**

**syntax :- at “ <time> <date> ”**

**eg. at “ 4:00 18 may 2023”**

**at > touch /root/txt.1 (job1)**

**at> mkdir /root/practice(job2)**

**ctrl + D to save and exit**

**atq :- to check**

* **atrm <task no> :- to remove /delete task/job.**
* **CRONTAB**

**Multiple time execution > periodic**

**crontab < option >**

* **-e :- edit cron table**
* **-l :- list cron table .**
* **-r :- remove cron table**
* **-u :- specify user**
* **-e-u :- edit cron table for specific user**
* **-l-u :- list cron table for specific user.**
* **-r-u :- remove cron table of specific user**

**Field :-**

**Minute : Hour : Day : Month :Week**

**Vim /etc/crontab**

**Shell = /bin/bash**

**Path = /sbin:/bin:/usr/sbin:/usr/bin**

**MAILTO = root**

**Example of job definition:-**

1. **Minute( 0-59)**
2. **Hour (0-23)**
3. **Day of month ( 1-31)**
4. **Month (1-12)**
5. **Day of week (0-6) or (Sunday = 0 then 0-6 or if Sunday =1 then 1-7)**

**Minute : Hour : Day : Month : Week**

**1 2 3 4 5**

**( 0-59 ) (0-23) (1-31) (1-12) (0-6)**

**Fields of crontab**

**\* \* \* \* \***

**Minute : Hour : Day : Month : Week**

**\* :- any value**

**‘ :- value list separator**

**- :- range of value**

**/ :-**

**0-23 :-**

* + **Crontab -r :- to remove cron table**
  + **Systemctl status crond :- used to check running status of daemon service (crond).**