**GETTING STARTED**

**WITH**

**SCHEDULING\_JOBS**

* **SCHEDULING JOBS:**
* Scheduling jobs also known as **“Automating System Tasks”.**
* **Tasks**, also known as **jobs**, can be configured to run automatically within a specified period.
* Red Hat Linux is pre-configured to run important system tasks to keep the system updated.
* Task utilities are:
* at
* batch
* cron and anacron

**AT JOBS:**

* To schedule a **one-time task**, also called a job, to run once at a specific time.

**SYNTAX:** **$at [options]**

**-l :** Lists all jobs in the queue

**-d :** Removes job from the queue

**-c :** Job Description

* To execute the job at 15:00, run:

**$at 15:00**

* To execute the job on August 20 2030, run:

**$at August 20 2030 (or) $at 082030**

* To execute the job 5 days from now, run:

**$at now + 5 days**

* To run a script at 3pm:

**$at 15:00**

at> **sh /opt/my-script.sh** [Press Ctrl+D to save]

* To view the list of pending jobs:

**$atq (or) $at -l**

* To get a job description:

**$at -c jobid**

* To delete a scheduled job:

**$at -d jobid (or) $atrm jobid**

**$atq**

**BATCH JOBS:**

* To schedule a one-time task, also called a job, to run when the system loads average drops below the specified value (0.8).
* This can be useful for performing resource-demanding tasks or for preventing the system from being idle.
* The prerequisites for batch jobs are the same as for at jobs.

**SYNTAX:** $batch

**NOTE:** **Batch** does not accept any parameters.

* At the displayed at> prompt, enter the command to execute and press Enter:

**$batch**

at> **sh /opt/my-script.sh**

* **CRON & ANACRON:**
* These are daemons that can schedule execution of **Recurring tasks** to a certain point in time.
* A cron job is only executed if the system is running on the scheduled time.
* If the system is not running on at the time when a job is scheduled, the job is not executed.
* **Anacron** remembers the scheduled jobs if the system is not running at the time when the job is scheduled. The job is then executed as soon as the system is up.

**CRONTAB FORMAT:**

* **Minute** **:** From 0 to 59
* **Hour** **:** From 0 to 23
* **Day** **:** From 1 to 31
* **Month** **:** From 1 to 12
* **Day of week** **:** From 0 to 7, where 0 or 7 represents Sunday
* **Username** **:** Specifies the user under which the jobs are run
* **Command** **:** The command to be executed

**SYNTAX:**

**$crontab [options] [-u user]**

**-e :** Edit the user crontab

**-l :** Lists the user crontab

**-r :** Deletes the user crontab

**-i :** Prompts before deleting user’s job

**CRONTAB EXAMPLES:**

* **To open a crontab editor for current user:**

**$crontab -e**

**0 10 \* \* \* date Run at 10:00am every day**

**5 12 \* \* \* ls /opt Run at 12:15pm every day**

**0 18 \* \* mon-fri sh script.sh Run at 6:00pm every mon-fri.**

**0 8 1 \* \* cp file1 file2 Run at 8:00am every 1st day**

**of the month**

**0/5 \* \* \* \* uptime Run every 5 minutes**

* **To list scheduled jobs:**

**$crontab -l**