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| *Agnel Charities*  **Fr.C. Rodrigues Institute of Technology, Vashi Department of Electronics and Telecommunication Engg.**  **Skill Laboratory - Linux & Networking & Server Configuration (LNSC) (ECL604)** | | |  |
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| **EXPT NO** | **09** |  |
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| **AIM** | **Scheduling using at and crontab**  Use of Crontab, at commands as super user and system control. | |
| **SOFTWARE**  **THEORY** | Linux on UBUNTU software  Cron is named after Greek word “Chronos” that is used for time. It is a system process that will automatically perform tasks as per the specific schedule. It is a set of commands that are used for running regular scheduling tasks. Crontab stands for “cron table”. It allows to use job scheduler, which is known as cron to execute tasks.  Crontab is also the name of the program, which is used to edit that schedule. It is driven by a crontab file, a config file that indicates shell commands to run periodically for the specific schedule. Reasons for using Cronjobs in Linux:   * Helps OS to take a scheduled backup of log files or database. * Delete old log files * Archive and purge database tables * Send out any notification email such as Newsletters, Password expiration email * Regular clean-up of cached data * Crontab is an ideal option to automate linux jobs. * It is used to automate system maintenance   User can edit their crontab jobs with the help of following crontab command:  $ crontab -u -e | |
| **How to INSTALL:**  **TASK :**  **TASK SOLUTION**  **CONCLUSION** | https://www.guru99.com/images/1/011720_0741_CrontabinLi1.png  **Installing Cron**  Almost every Linux distribution has some form of cron installed by default. However, if you’re using an Ubuntu machine on which cron isn’t installed, you can install it using APT.  Before installing cron on an Ubuntu machine, update the computer’s local package index:   1. sudo apt update   Then install cron with the following command:   1. sudo apt install cron   You’ll need to make sure it’s set to run in the background too:   1. sudo systemctl enable cron   Output  Synchronizing state of cron.service with SysV service script with /lib/systemd/systemd-sysv-install.  Executing: /lib/systemd/systemd-sysv-install enable cron  Following that, cron will be installed on your system and ready for you to start scheduling jobs.  Together, tasks scheduled in a crontab are structured like the following:  minute hour day\_of\_month month day\_of\_week command\_to\_run  Here’s a functional example of a cron expression. This expression runs the command curl http://www.google.com every Tuesday at 5:30 PM:  30 17 \* \* 2 curl http://www.google.com  Here are some more examples of how to use cron’s scheduling component:   * \* \* \* \* \* - Run the command every minute. * 12 \* \* \* \* - Run the command 12 minutes after every hour. * 0,15,30,45 \* \* \* \* - Run the command every 15 minutes. * \*/15 \* \* \* \* - Run the command every 15 minutes. * 0 4 \* \* \* - Run the command every day at 4:00 AM.   1.Login as root  2. Deny a user user1 from using at command  3. Display “WELCOME TO RADIANT “ at 11.30 AM on console  4. Remove an at job  5. Display the at jobs waiting to be executed  6. Delete an at job  7. Allow only an user user1 to use at command other than Superuser  8. Remove a file at midnight using at command  9. Using crontab execute a command at 6.30 AM everyday  10. Delete a user crontab file 11. Display a user crontab file  12. Restrict a user user1 from using crontab  13. Allow only user1, user2, user3 to use crontab   1. $ sudo su or S su enter password…to login as system admin /as root 2. # vi /etc/at.deny   ……………… enter the login name of the user to be denied user1  :wq!  3. # at 11:30 at> echo WELCOME TO EXTC>/dev/console  4. get the jobs information #atq #atrm  5. #atq 6. /var/spool/at  7. atrm  8. at –d  9. # vi /etc/at.allow ………….. enter the login name……………… user1 wq!  10. # at midnight at> rm wq! 11. # crontab –e ……………enter the values like this………………… 3006 \*\*\*  :wq  In this above experiment we studied how to install cron and how it works in ubuntu software. There are a lot of commands that were known. The role of super user (su). We implemented system administration functionality 3 and working of crontab thoroughly. | |