Assessment 3– Advance Linux

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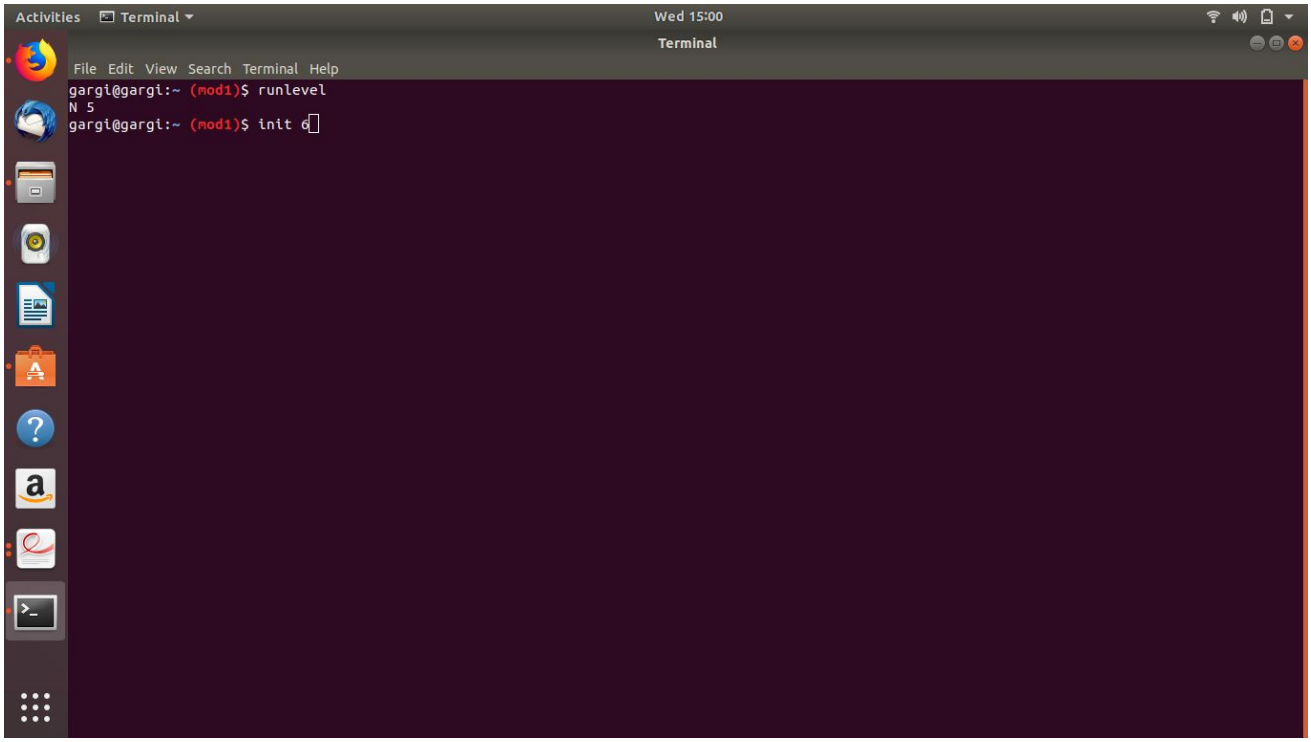
1. What is the size of MBR and what does it contain?

Ans. MBR stands for Master Boot Record. Its size is 512 Bytes.Each hard-drive (or Cd or other drive or device) has only 1 Master Boot Record. It is in a fixed position on the hard-drive and is mainly just for pointing to where the boot-loader is stored on the system. MBR provides address to grub loader.

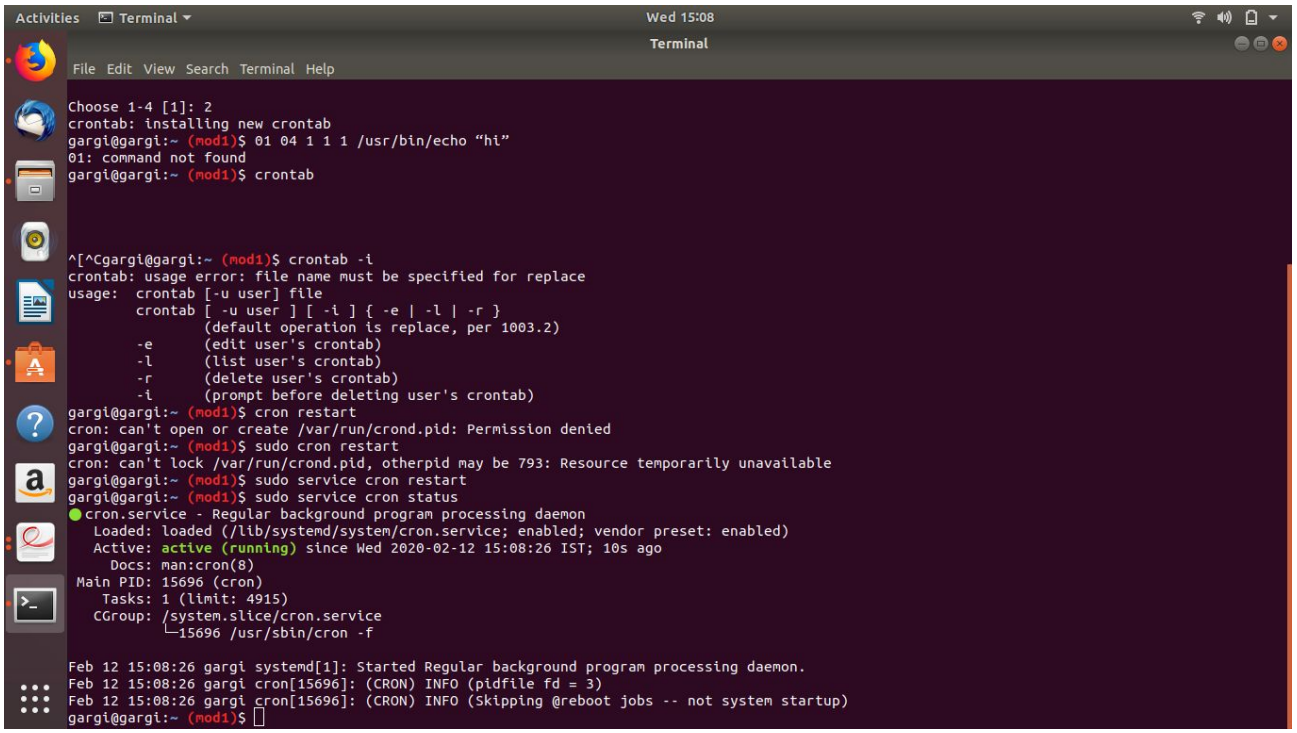
2. In which file you can write commands which you want to run whenever Linux system starts/restarts?

Ans. We can use the 'rc.local' file located in '/etc/' to execute our scripts and commands at startup. We will make an entry to execute the script in the file & every time when our system starts, the script will be executed. But we need to make this file /etc/c.local, executable. rc. local is not present already. But if we want to execute some command at run time, rc. Local can be created in /etc and commands can be executed.

3. Reboot the system using runlevel.



4. Restart cron service.



5. Create an ext4 filesystem
   Command: mkfs .ext4 /dev/sdb

6. Mount the created filesystem on /partition directory.
   Command: mount /dev/xvdf1 /test
   Where test is the mount point and /dev/xvdf1 is the partition to be mounted

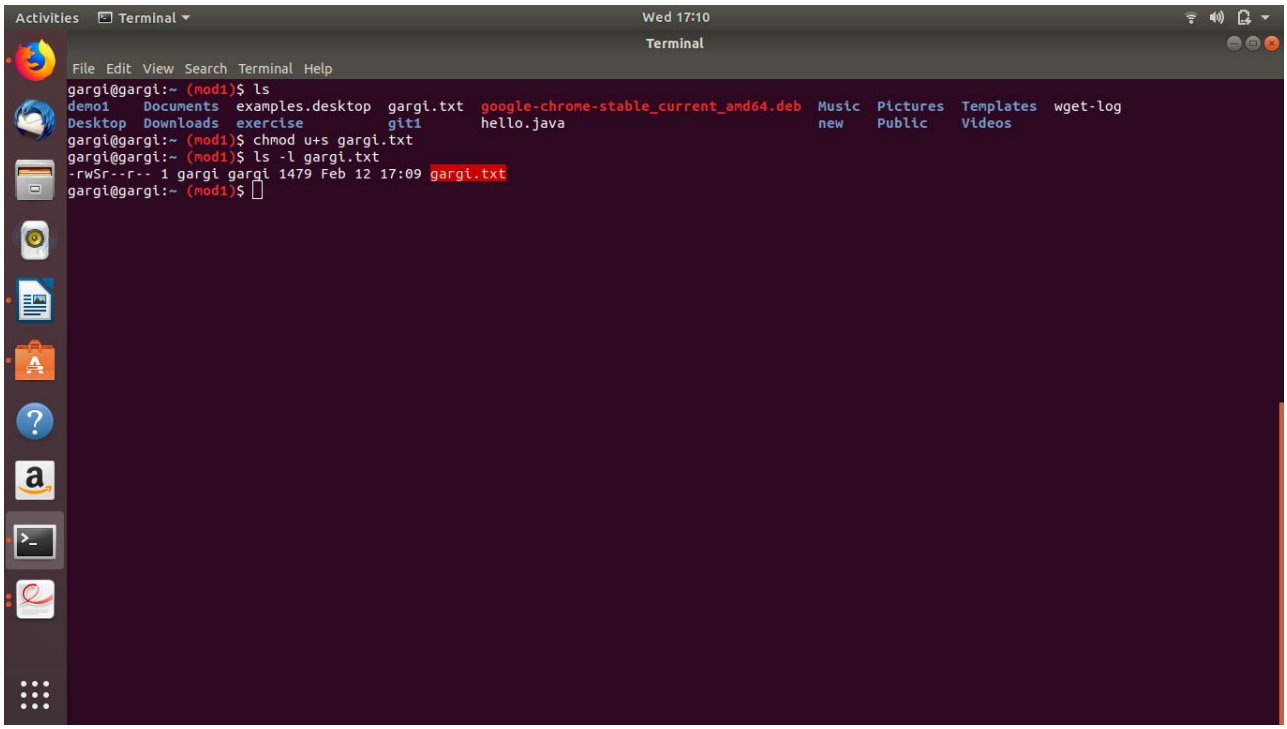
7. Difference between LVM and RAID.

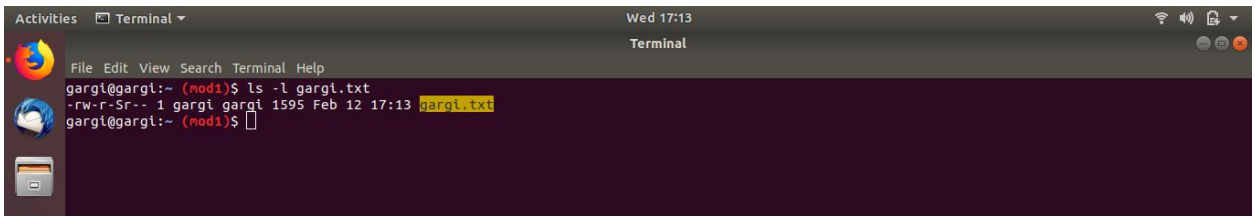
Ans. RAID and LVM are two concepts of storing data. Difference in these two is the way the data is stored.

RAID is basically used for redundancy (base concept) which can be achieved by RAID 1 and RAID 5 (and some higher levels). **Whereas**, LVM provides more disk space at any point (i.e. you can increase the FS space by adding more disks at run time).

RAID used for redundancy. For example, when your data gets lost due to disk failure u shall get recovered by RAID. It is different from backup. A type of raid like disk mirroring writes the data to a mirror drive, so that you won't lose your data. **Whereas**, LVM is a way in which u partition the hard disk logically .

8. Set setuid and setgid on two different file.



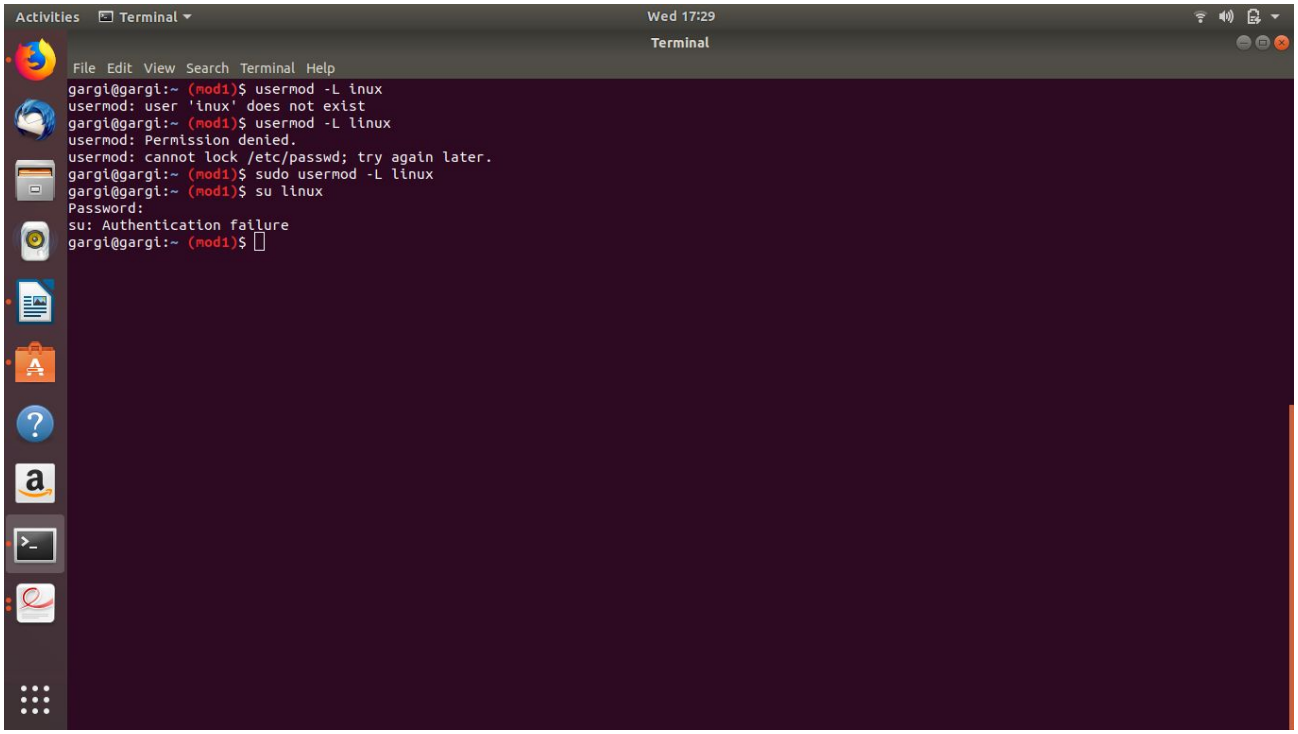


9. What is the use of Sticky bit.

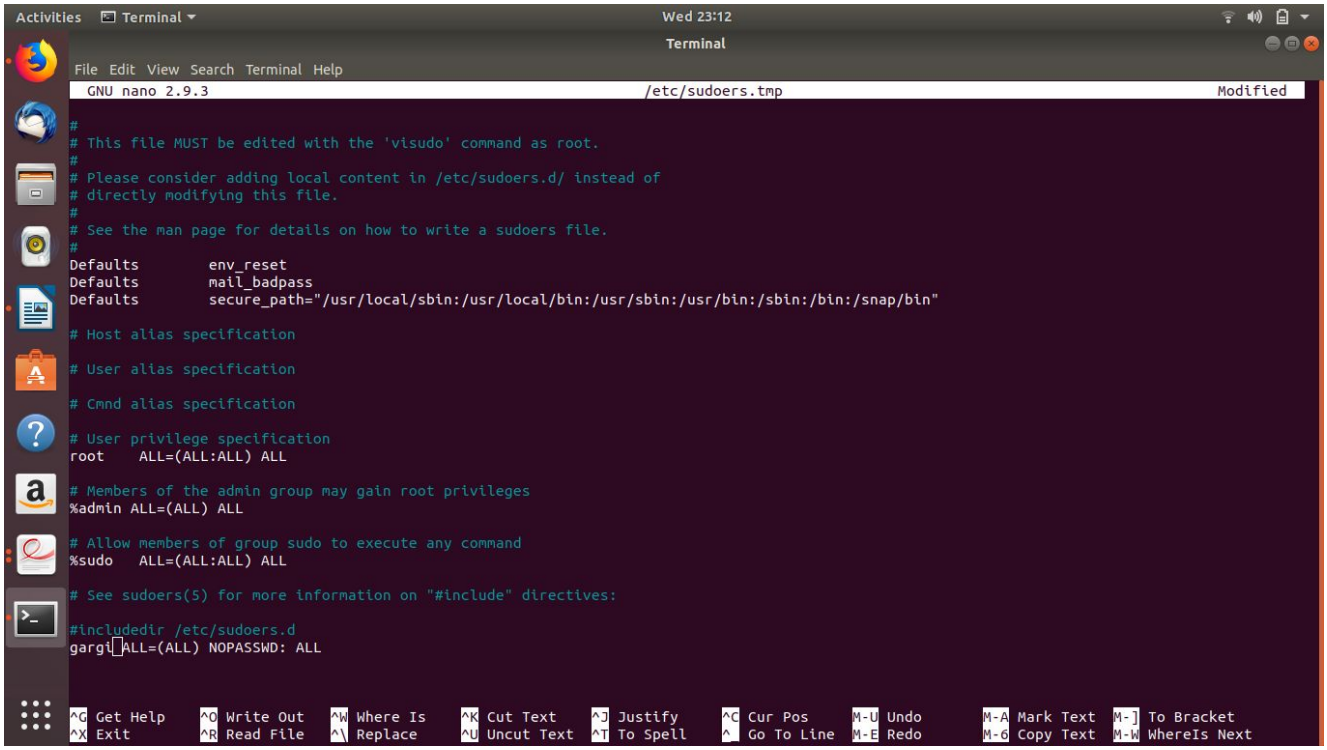
Ans. When a directory has the sticky bit set, its files can be deleted or renamed only by the file owner, directory owner and the root user.
Command: chmod +t

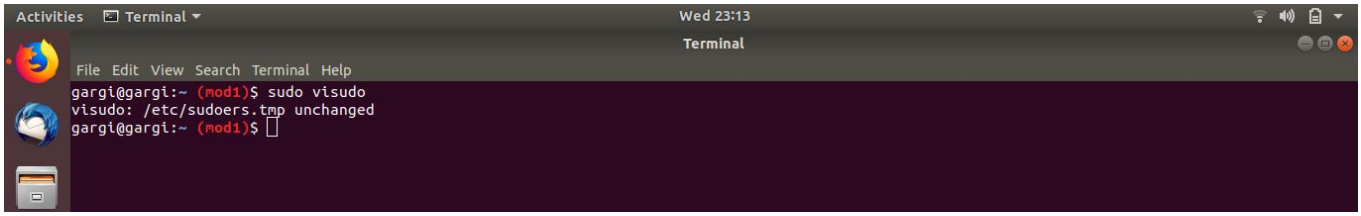
10. Create a user and add it to one secondary group.

11. Lock this user.

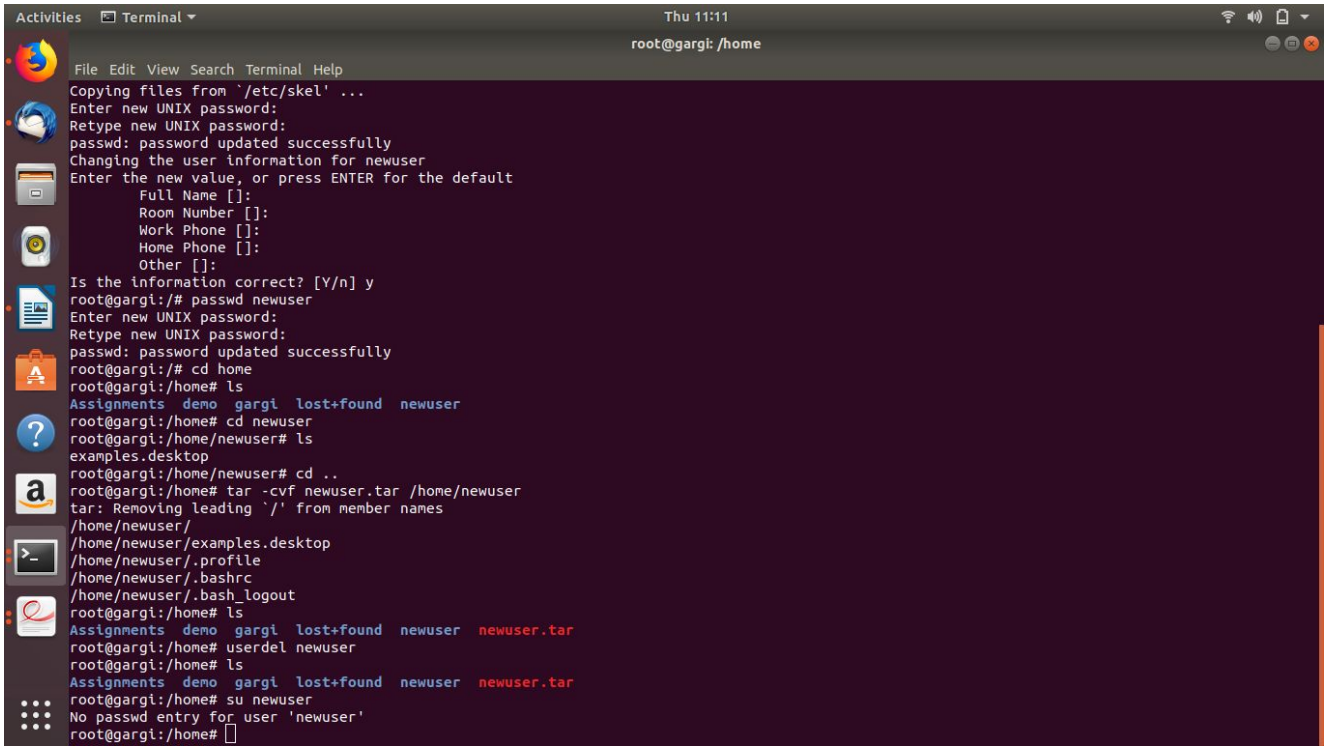


12. Give this user full access (without password).

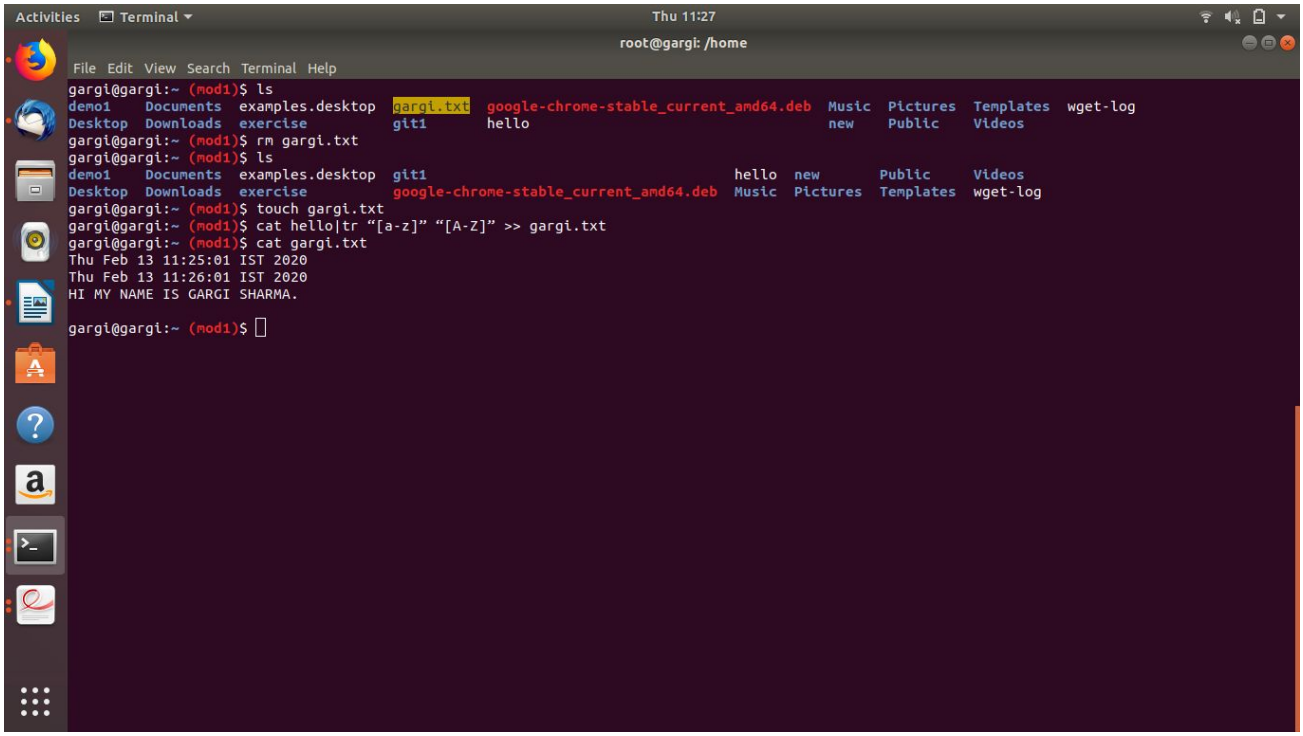




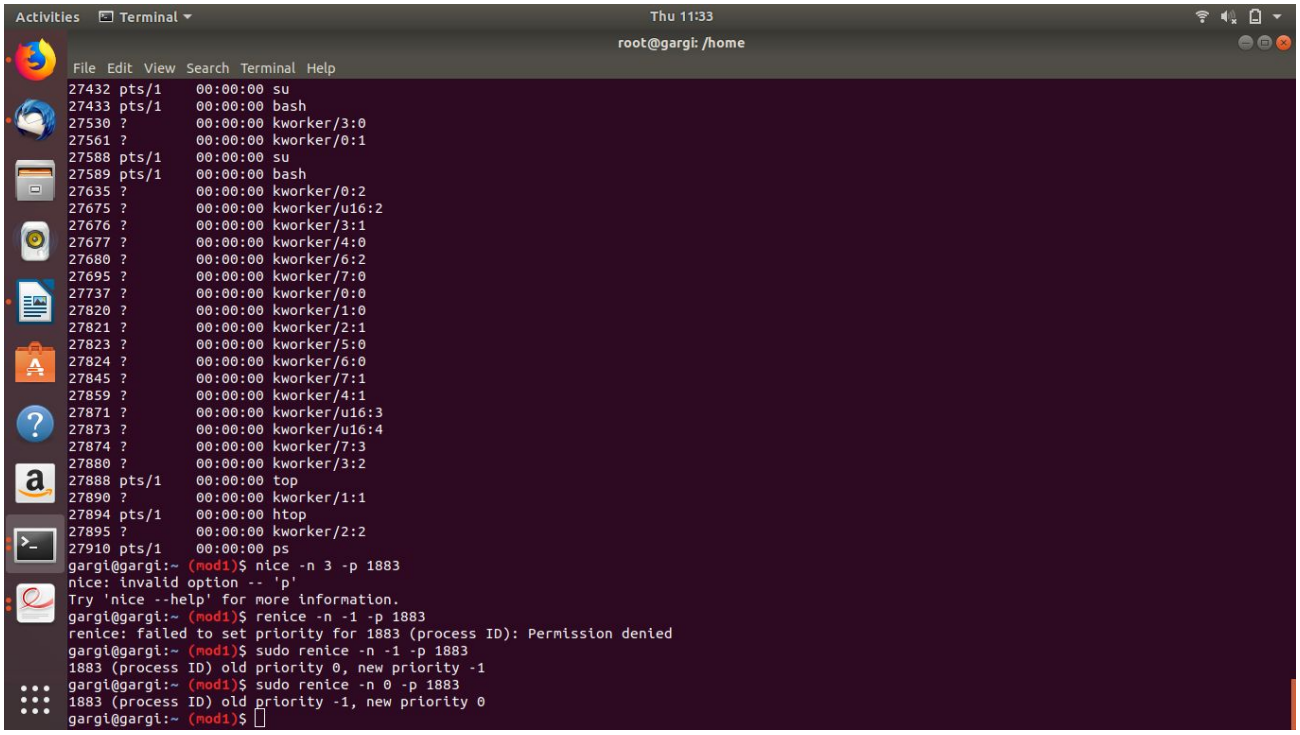
13. Delete the create user after taking backup of it home directory.



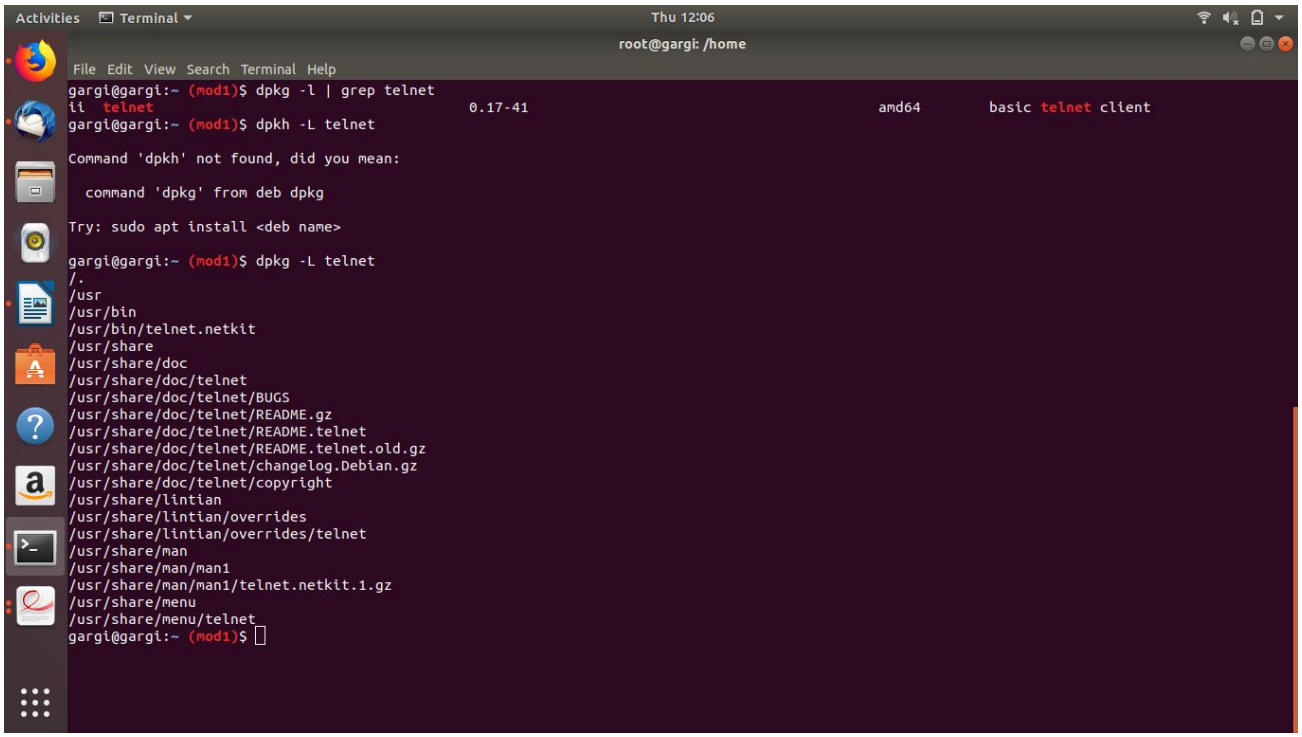
14. Create a file with some content. Change all lower case letter to upper case letter and save output to another file using redirections.



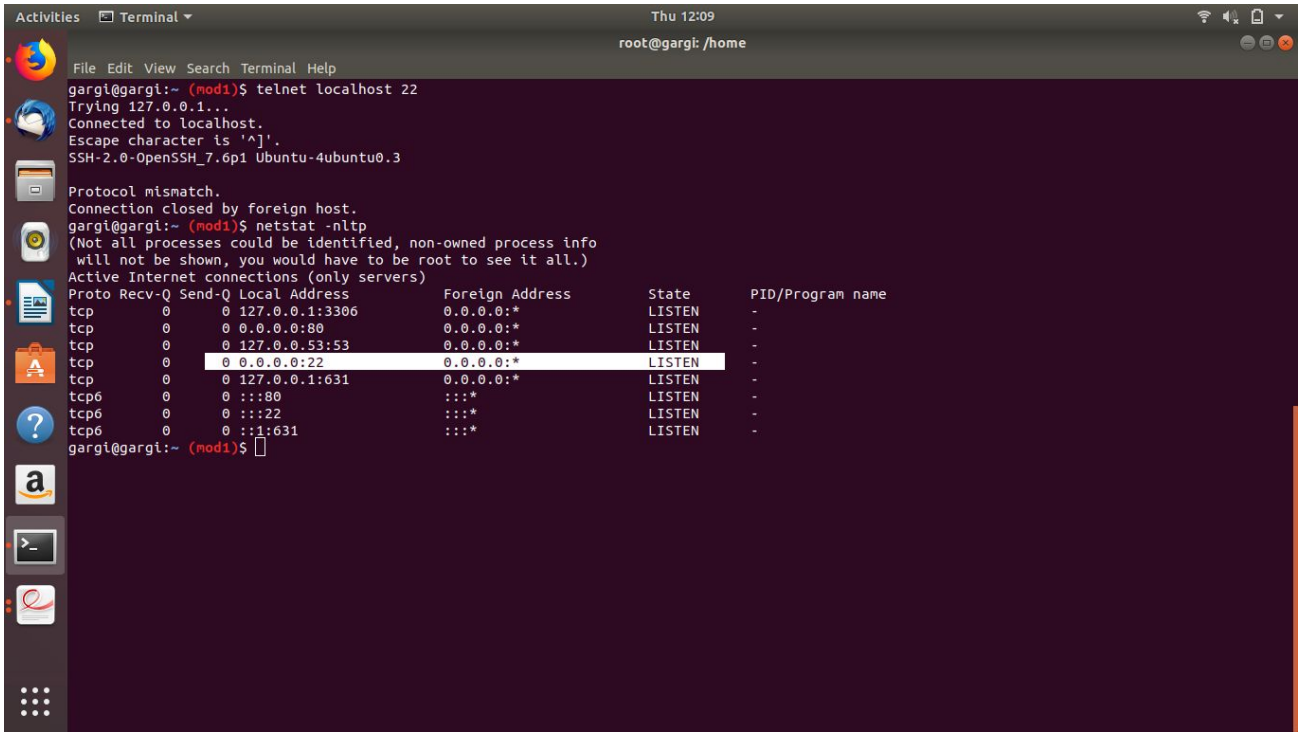
15. Set nice value of a process to -1.



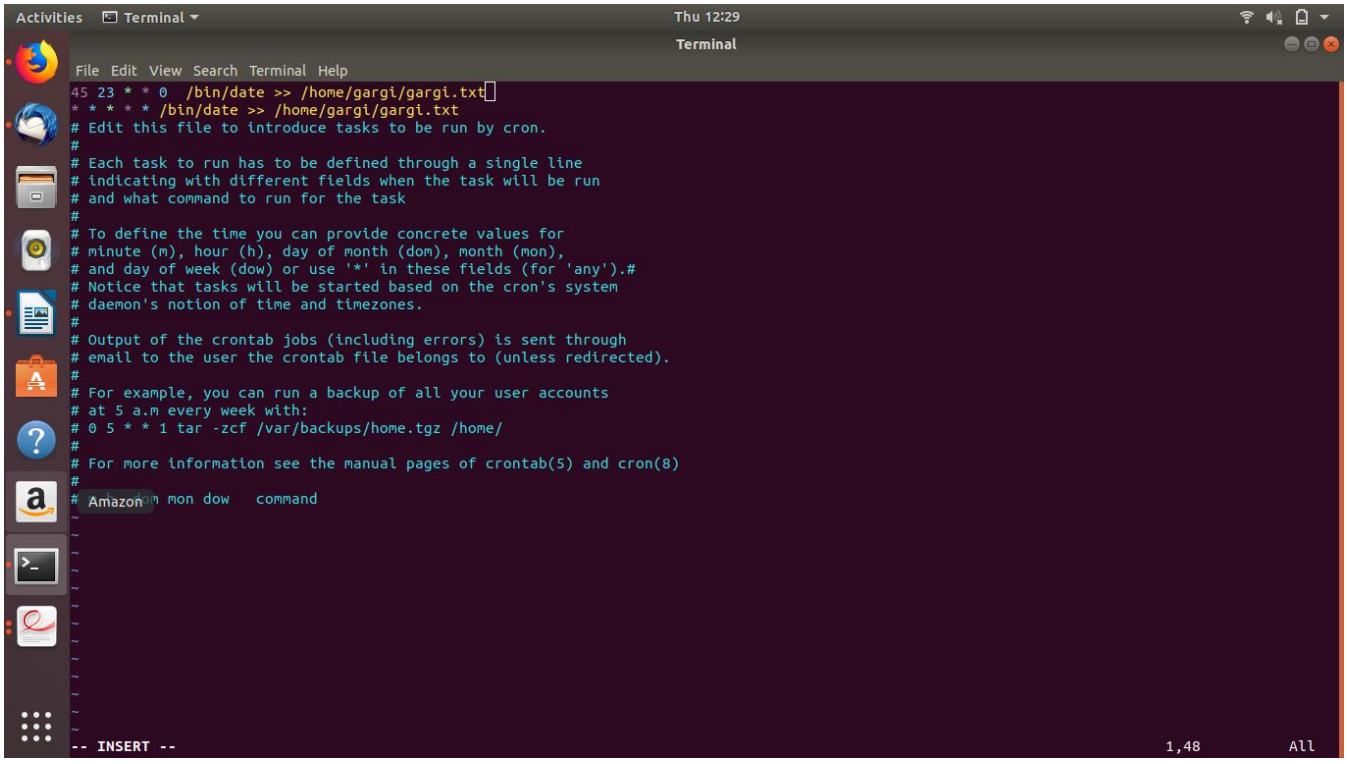
16. Get list of all files used by “telnet”.
    Command: dpkg -L telnet



17. Check if port 22 is listening using netstat and telnet command.



18. Create a cron job which runs once in a week at 23:45.
    Cron Job: 45 23 * * 0



19. Difference between dig and traceroute

Dig: Dig stands for domain name groper. It is a network administration command-line tool for querying Domain Name System (DNS) name servers. It is useful for verifying and troubleshooting DNS problems and also to perform DNS lookups and displays the answers that are returned from the name server that were queried.
Traceroute: It is a command in Linux that prints the route that a packet takes to reach the host.It shows the hops it takes to reach a particular host.