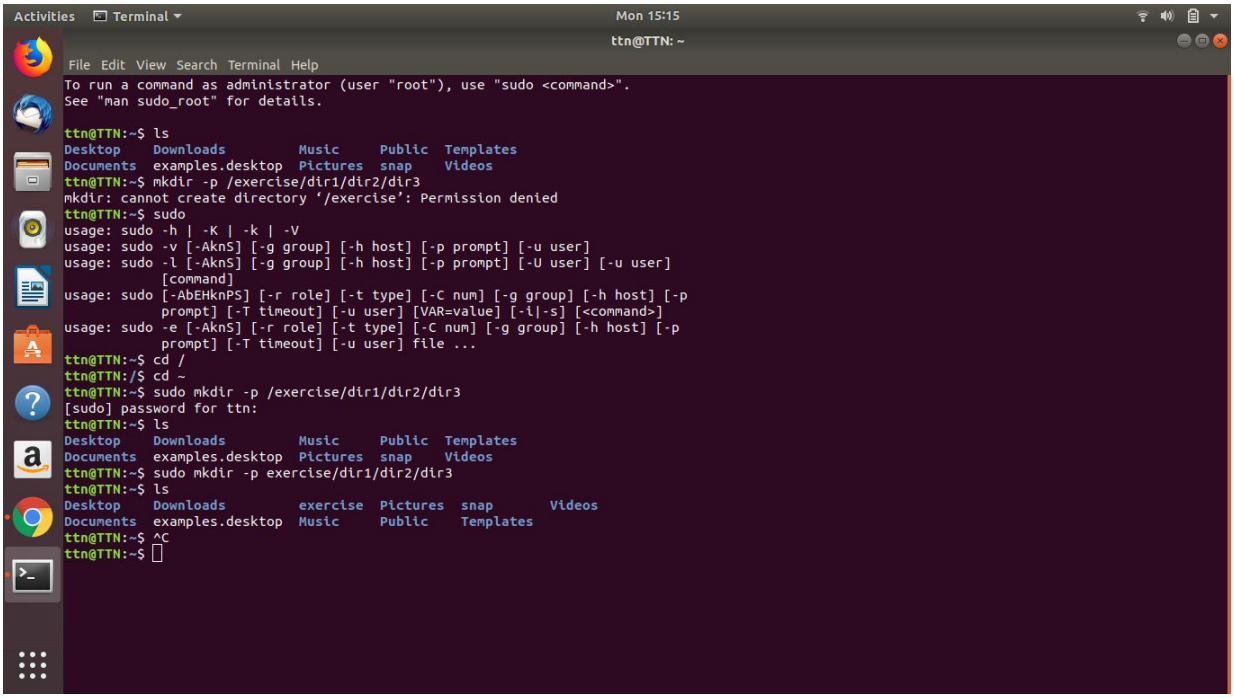
Exercise 1

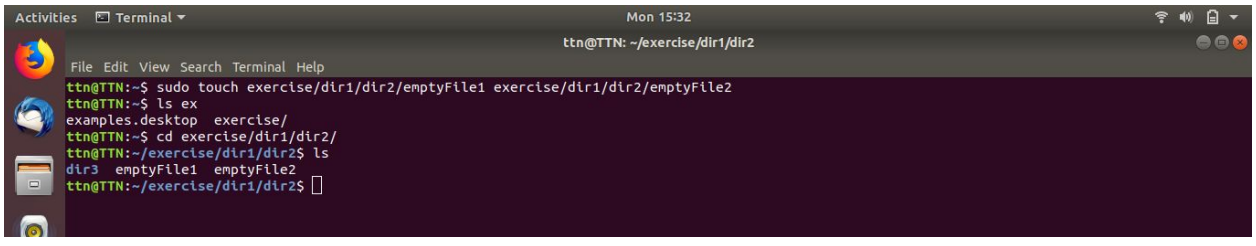
1. Create a directory "exercise" inside your home directory and create nested(dir1/dir2/dir3) directory structure inside "excerise" with single command.

Command : sudo mkdir -p exercise/dir1/dir2/dir3



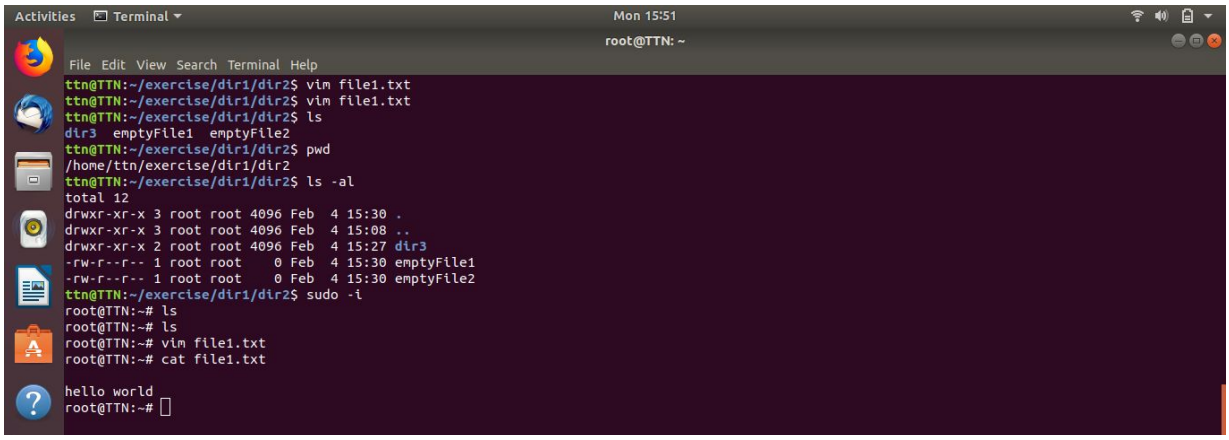
2. Create two empty files inside dir2 directory: emptyFile1,emptyFile2 in single command

Command : touch exercise/dir1/dir2/dir3/emptyFile1.txt exercise/dir1/dir2/dir3/emptyFile1.txt



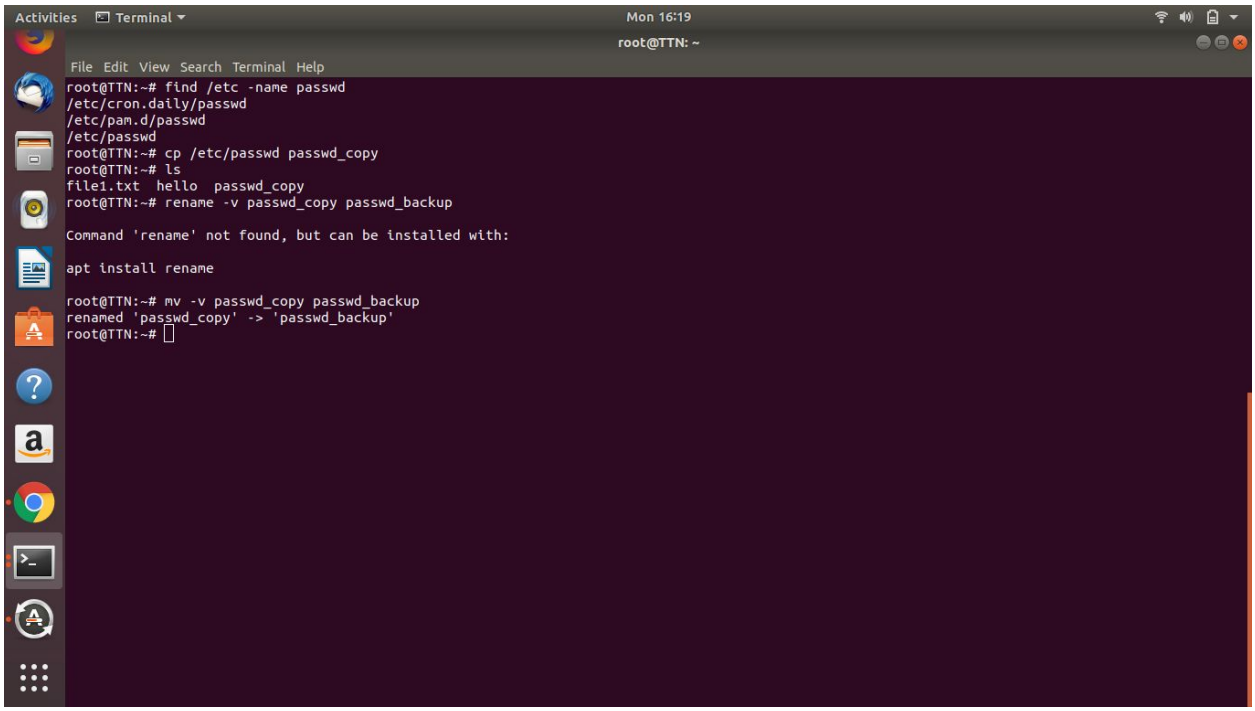
3. Create one file file1.txt containing text "hello world" and save it.

Command : echo “hello world”>file1.txt
cat file1.txt



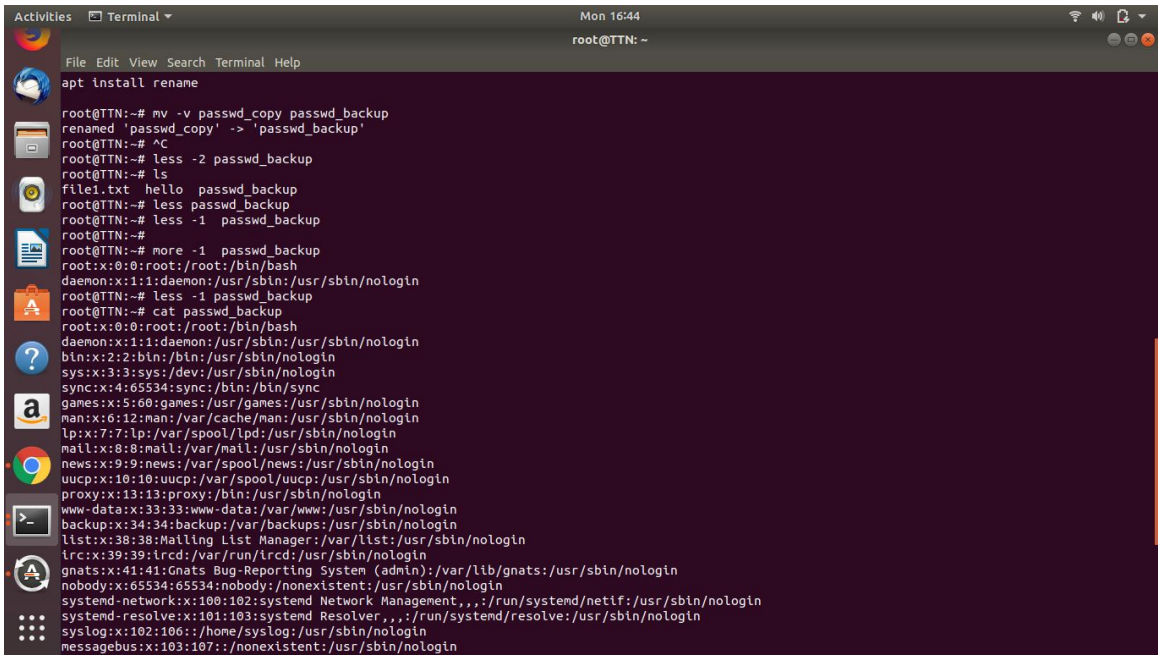
4. Find a "passwd" file using find command inside /etc. copy this files as passwd_copy and then rename this file as passwd_backup.

Command : find /etc -name passwd
cp /etc/passwd passwd_copy
mv -v passwd_copy passwd_backup

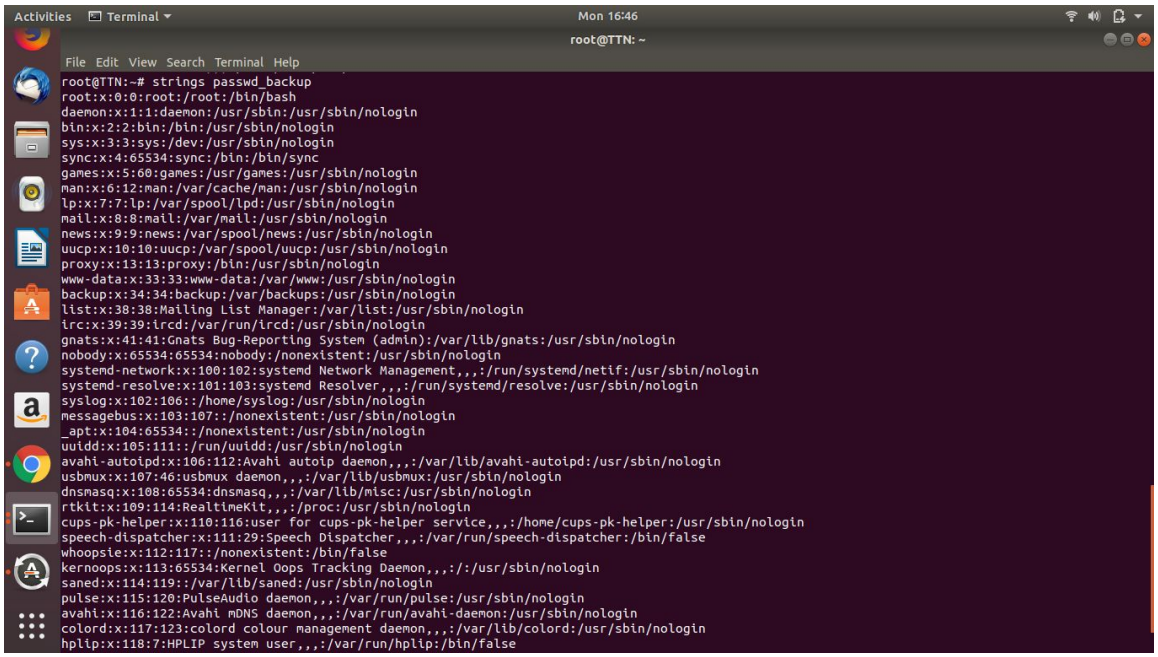


5. Try reading passwd_backup file in multiple tools: less,more,cat,strings etc and find the difference in their usage.

Command : **less passwd_backup**
more -2 passwd_backup

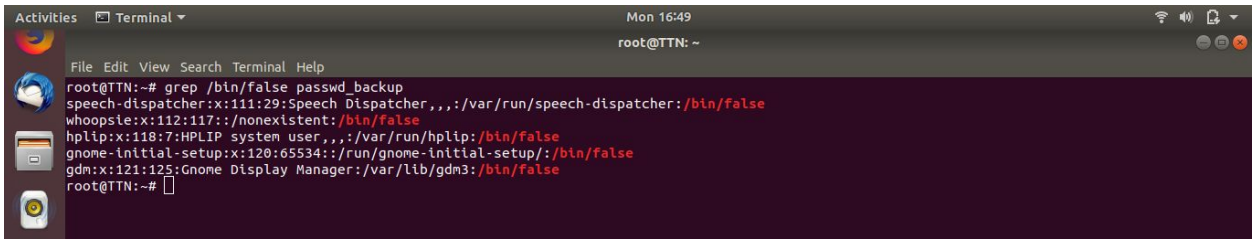


Command : **cat passwd_backup**
strings passwd_backup



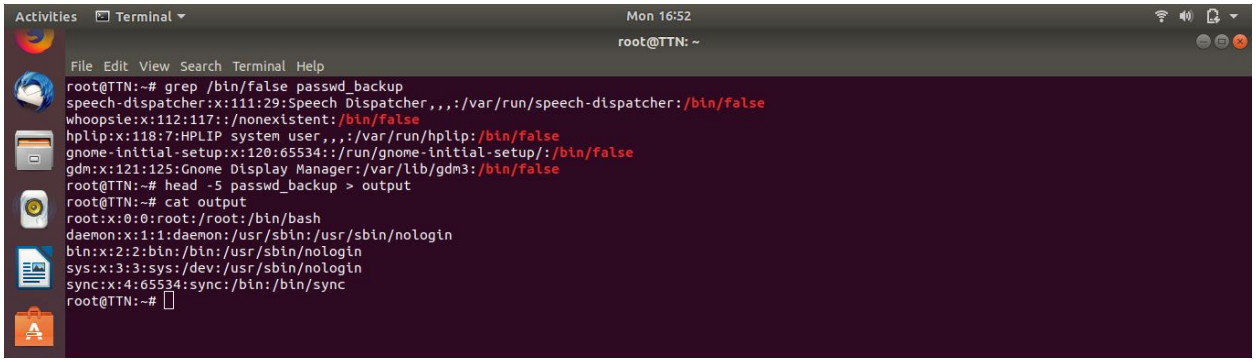
6. Find out the number of line in password_backup containing "/bin/false".

Command : grep /bin/false passwd_backup



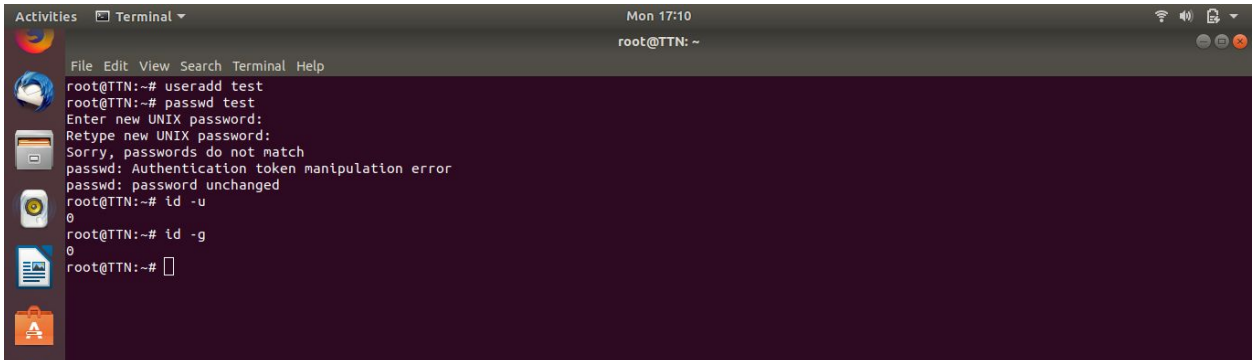
7. Get the first 5 lines of a file “password_backup” and Redirect the output of the above commands into file "output".

Command : head -5 passwd_backup > output



8. Create a "test" user,create its password and find out its uid and gid.

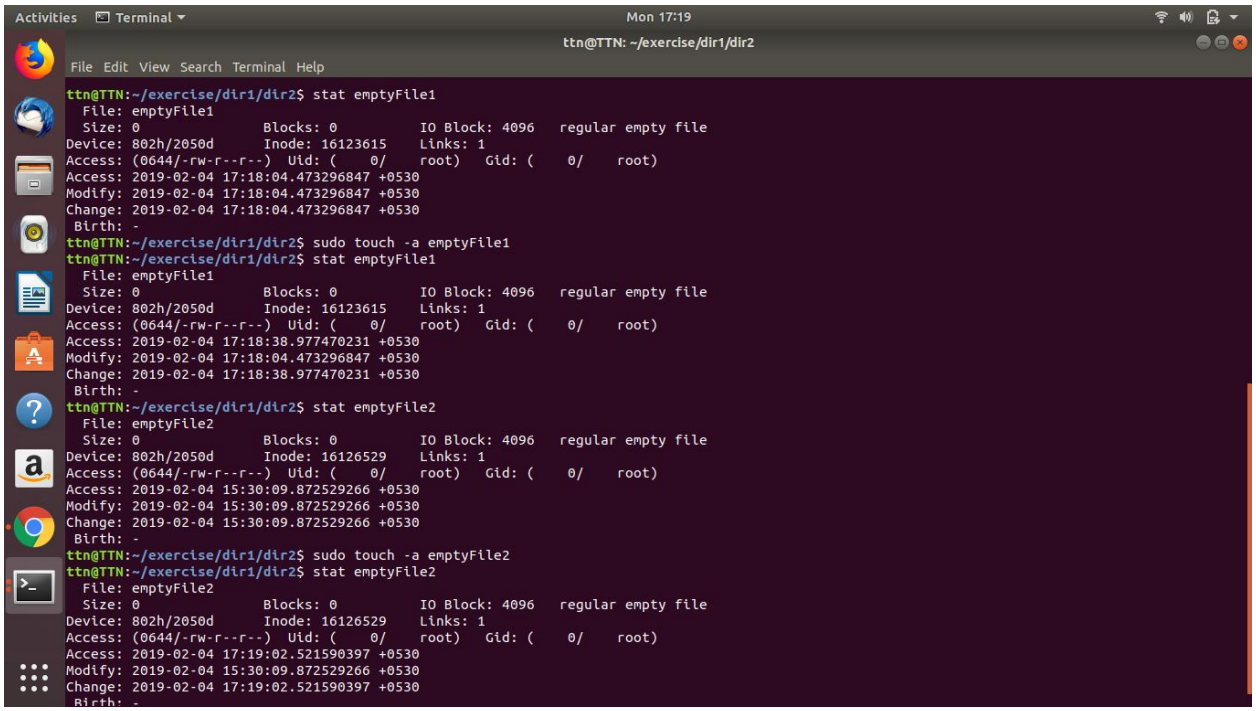
Command : useradd test
passwd test
id -u
id -g



9. Change the timestamp of emptyFile1,emptyFile2 which are exist in dir2

Command : **sudo touch -a emptyFile1**

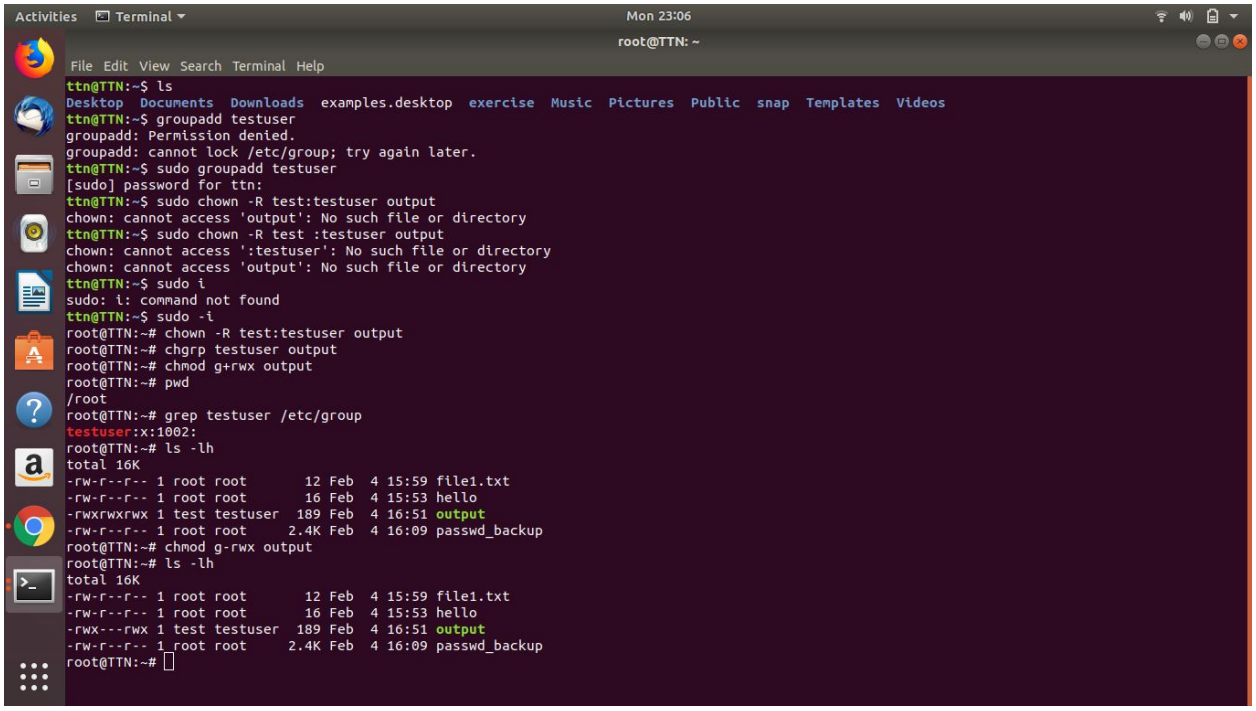
sudo touch -a emptyFile2



10. Login as test user and edit the "output" file created above. Since the permission won't allow you to save the changes. Configure such that test user can edit it.

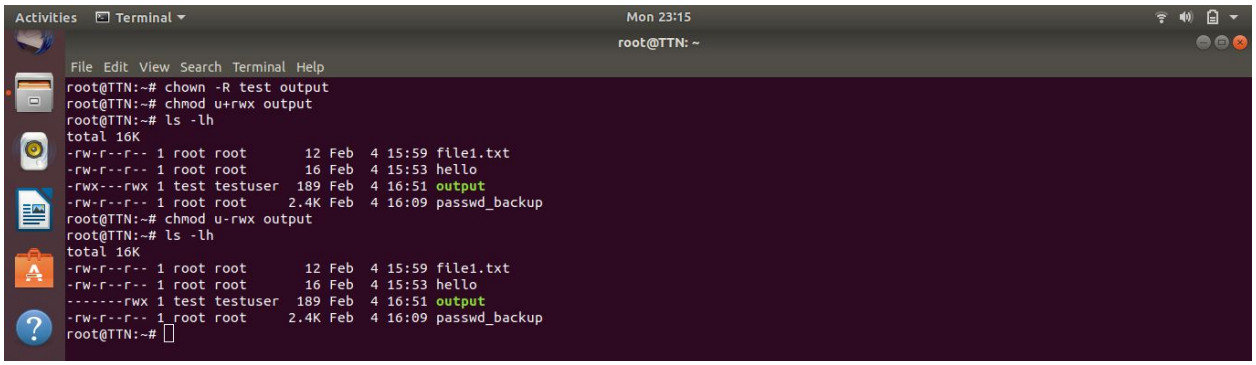
    1. Add group owner of the "output" file as the secondary group of testuser and check/change the "output" file permission if it is editable by group. Once done revert the changes

Command : **groupadd testuser**
chown -R test:testuser output
chgrp testuser output
chmod g+rwx output
chmod g-rwx output



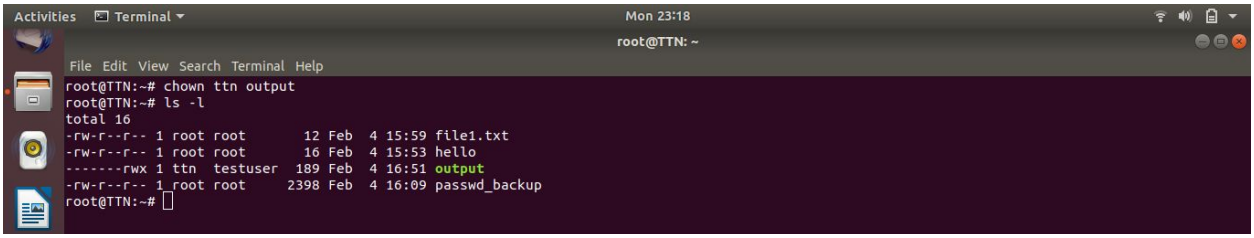
2. Make the file editable to the world so that test user can access it. Revert the changes after verification

Command : **chown -R test output**
chmod u+rwx output
chmod u-rwx output



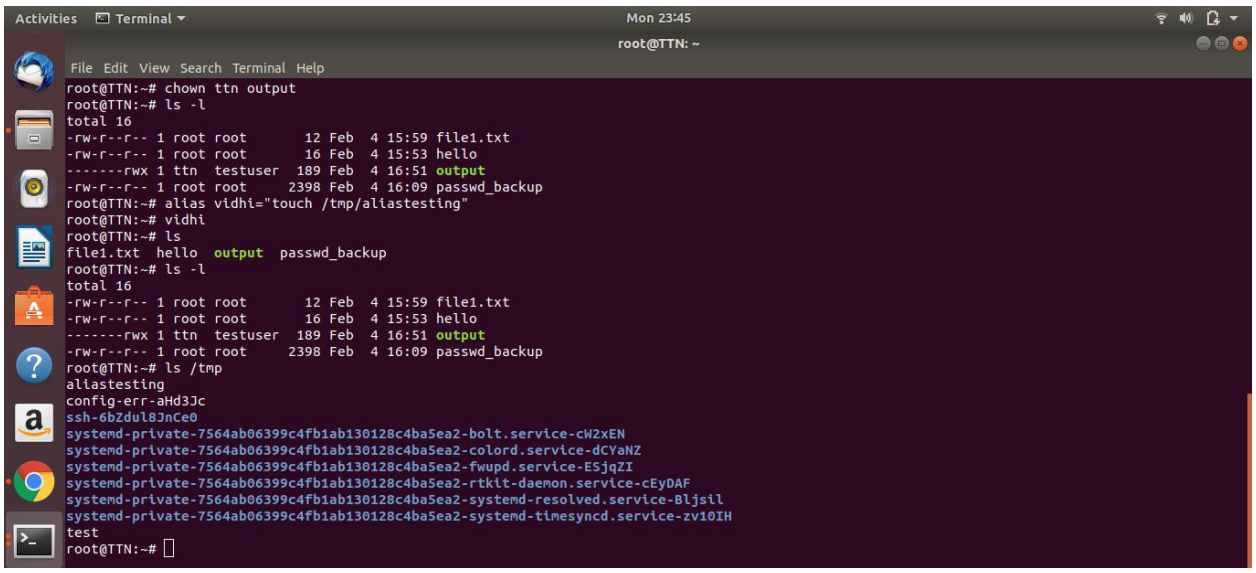
3. Change the ownership to edit the file.

Command : **chown ttn output**



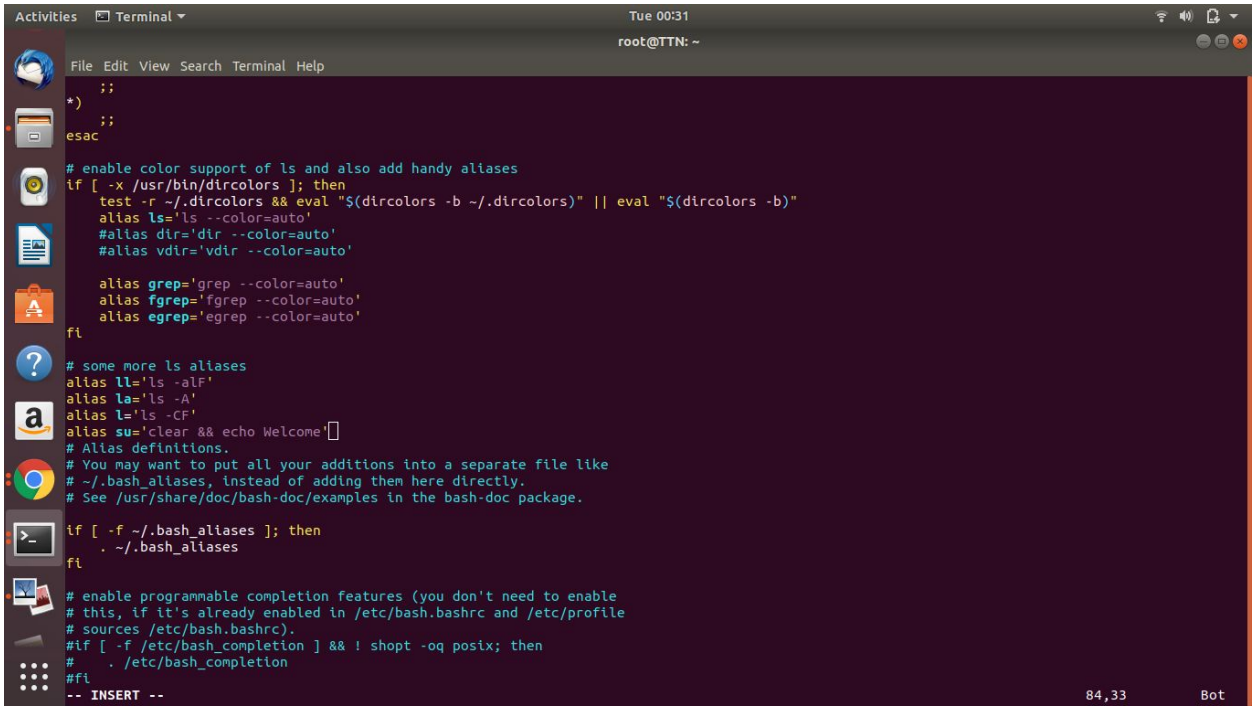
11. Create alias with your name so that it creates a file as "/tmp/aliastesting".

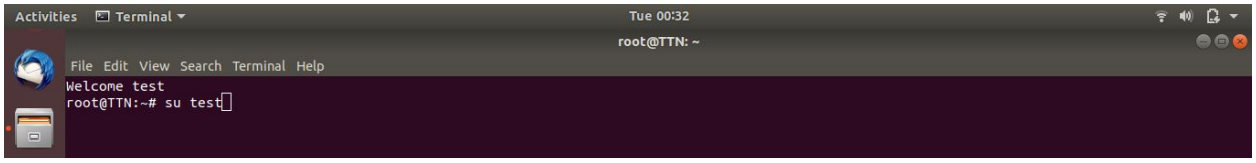
Command : **alias vidhi='touch /tmp/aliastesting'**

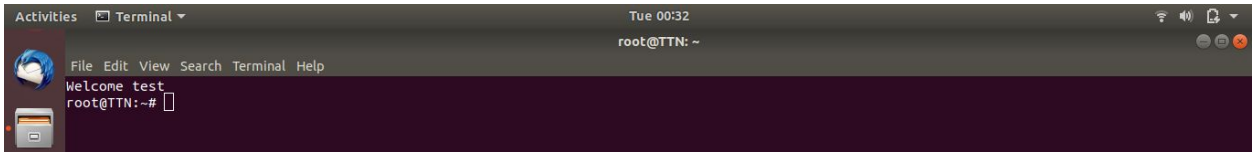


12. Edit ~/.bashrc file such that when you change to "test" user it should clear the screen and print "Welcome".

Command : **vim ~/.bashrc**
alias su=’’clear && echo Welcome”
su test

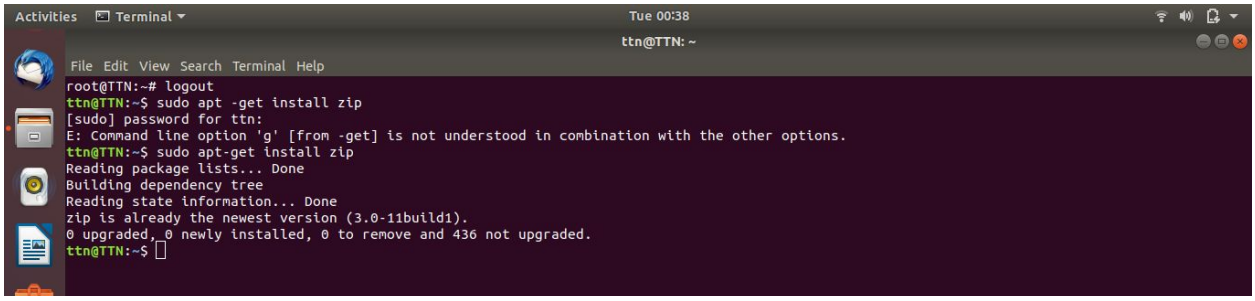






13. Install “zip” package.

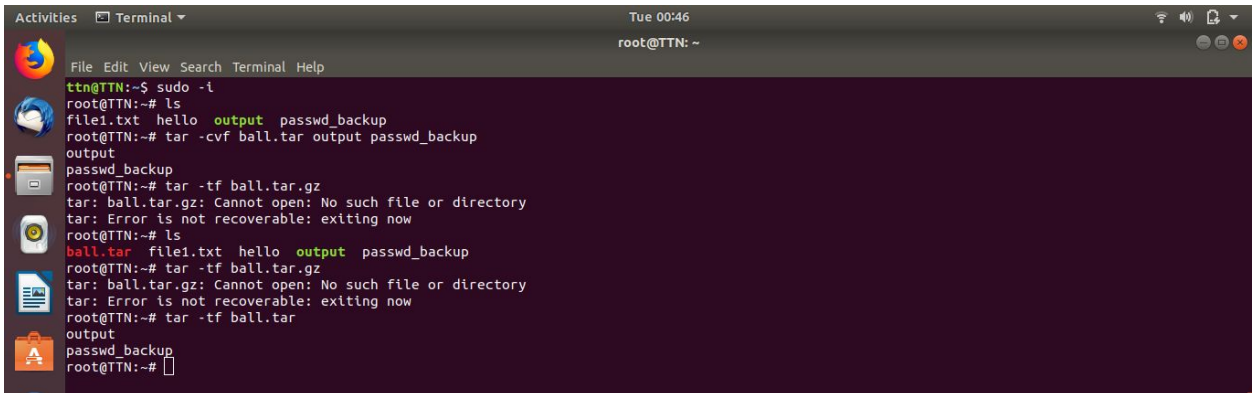
Command : **sudo apt-get install zip**



14. Compress "output" and "password_backup" files into a tar ball. List the files present inside the tar created.

Command : **tar -cvf ball.tar output passwd_backup**

tar -tf ball.tar



15. scp this file to test user

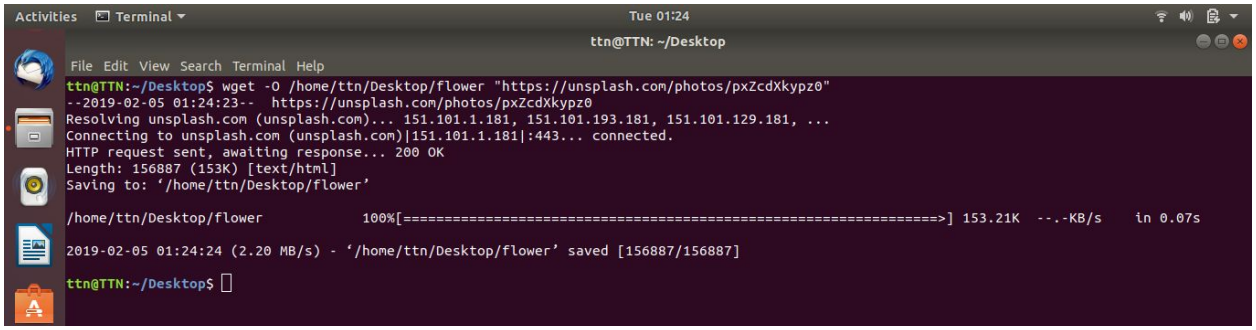
Command : **scp ttn@localhost:/ball.tar test**

16. Unzip this tar bar by logging into the remote server

Command : tar czv ball.tar | ssh root@remoteserver 'cat | tar xz -C /remotedir'

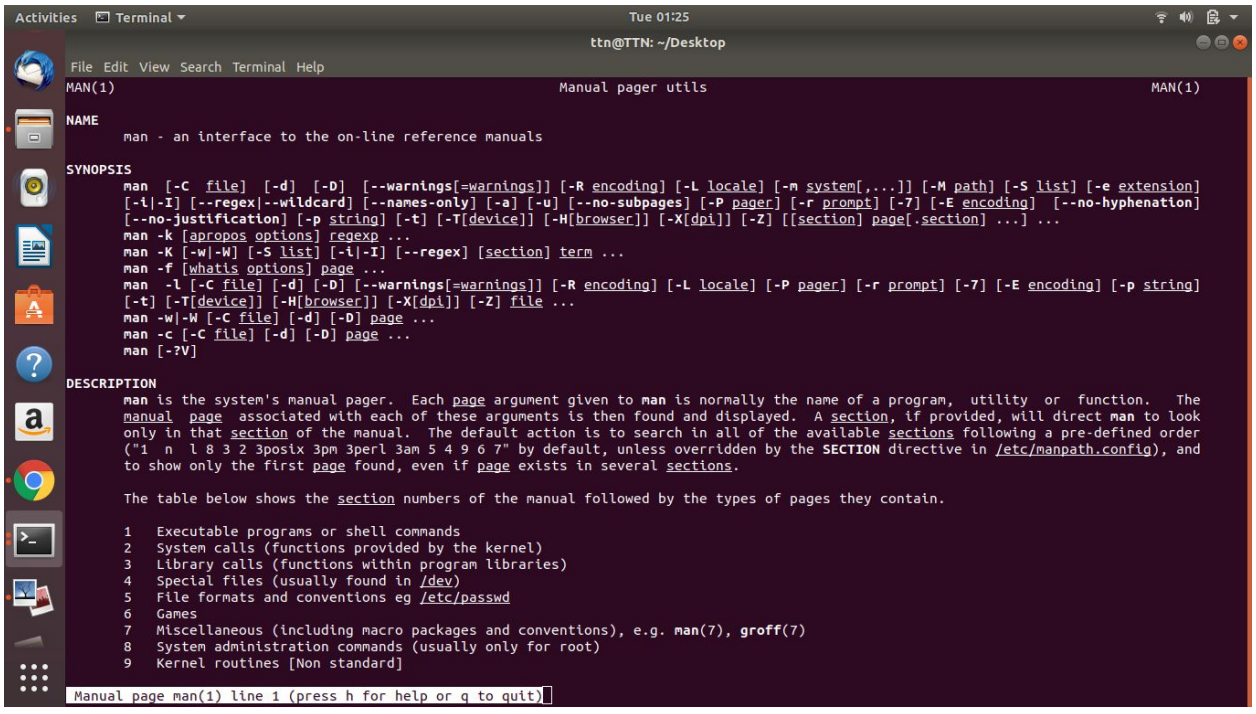
17. Download any image from web and move to desktop

Command : wget -O /home/ttn/Desktop/flower ‘https://unsplash.com/photos/pxZcdXkypz0’



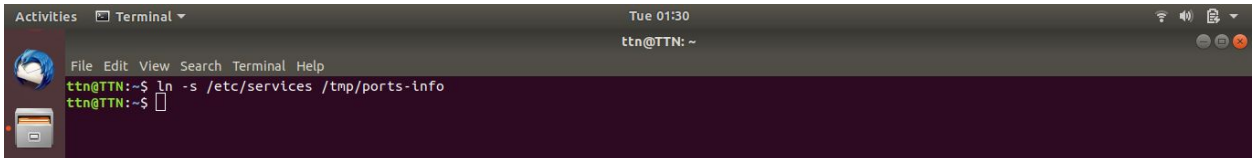
18. How to get help of commands usages.

Command : man

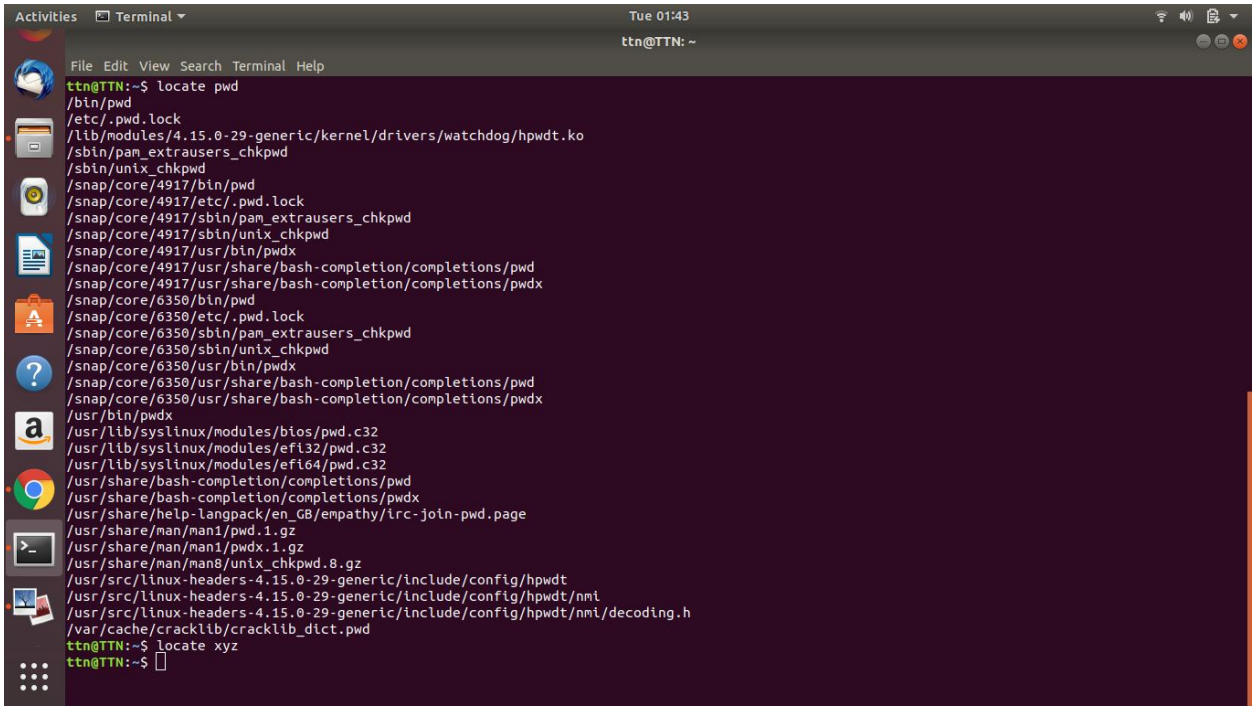


19. Create a symlink of /etc/services into /tmp/ports-info

Command : **ln -s /etc/services /tmp/ports-info**



20. You are appointed as a Software/DevOps Engineer in ABC media services. On your first day you need to troubleshoot a problem. There is a command “xyz” somewhere installed in that linux system. But as a new joinee you do not have any idea about where is that Installed. How can you check that?

Command : **locate xyz**

or **whereis xyz**