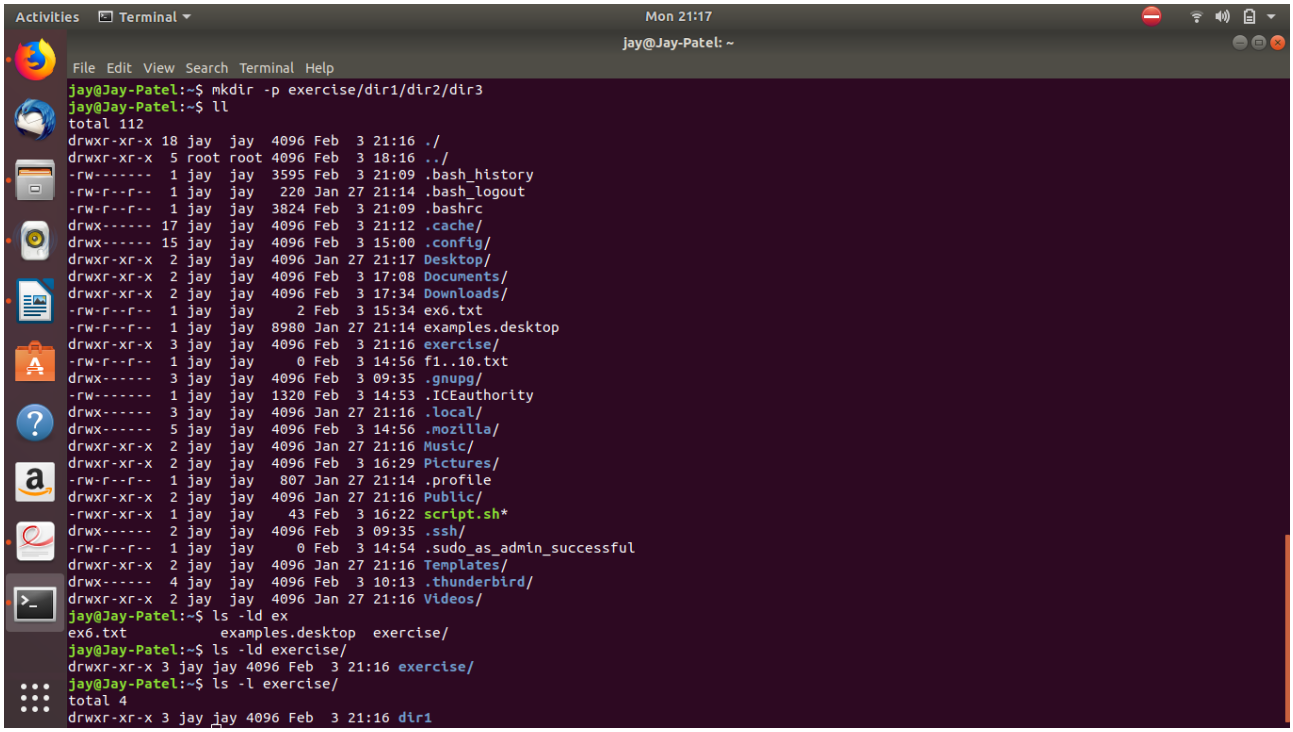
Session : Introduction to Linux

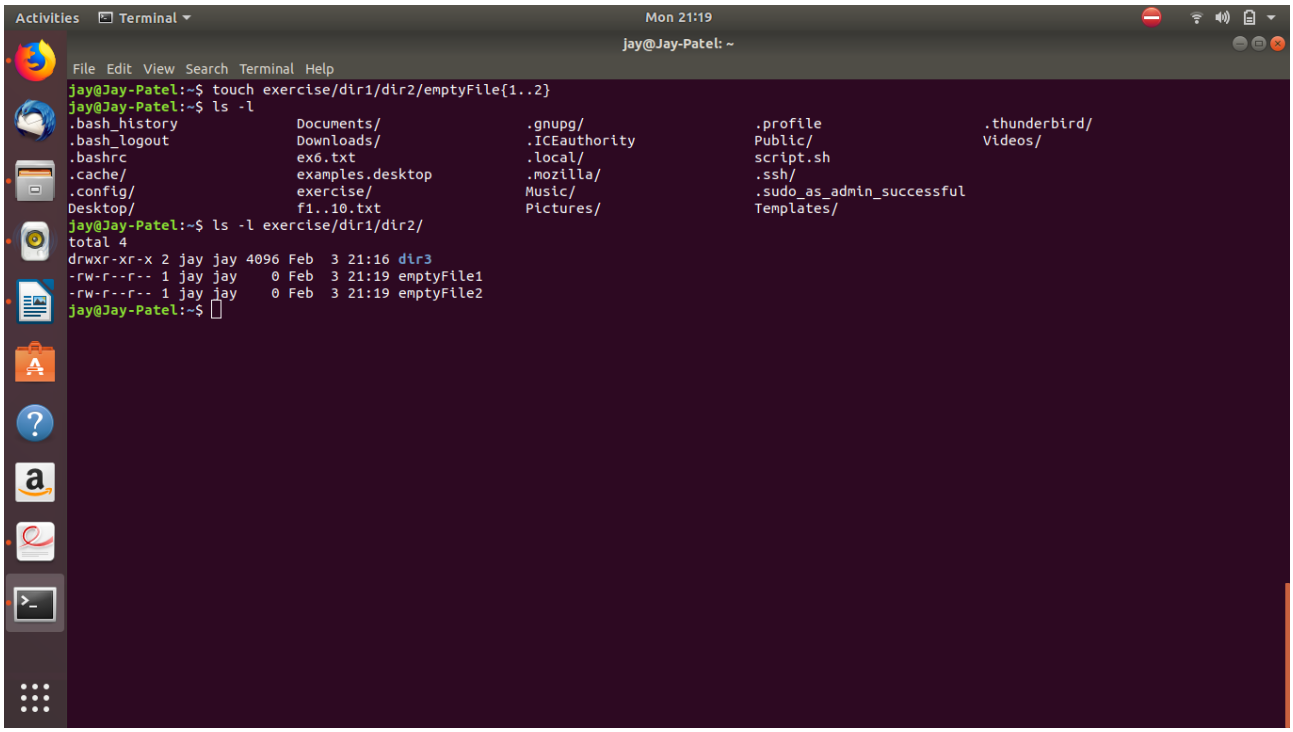
Exercise 1: Create a directory "exercise" inside your home directory and create nested(dir1/dir2/dir3) directory structure inside "excerise" with single command.

Mkdir -p exercise/dir1/dir2/dir3



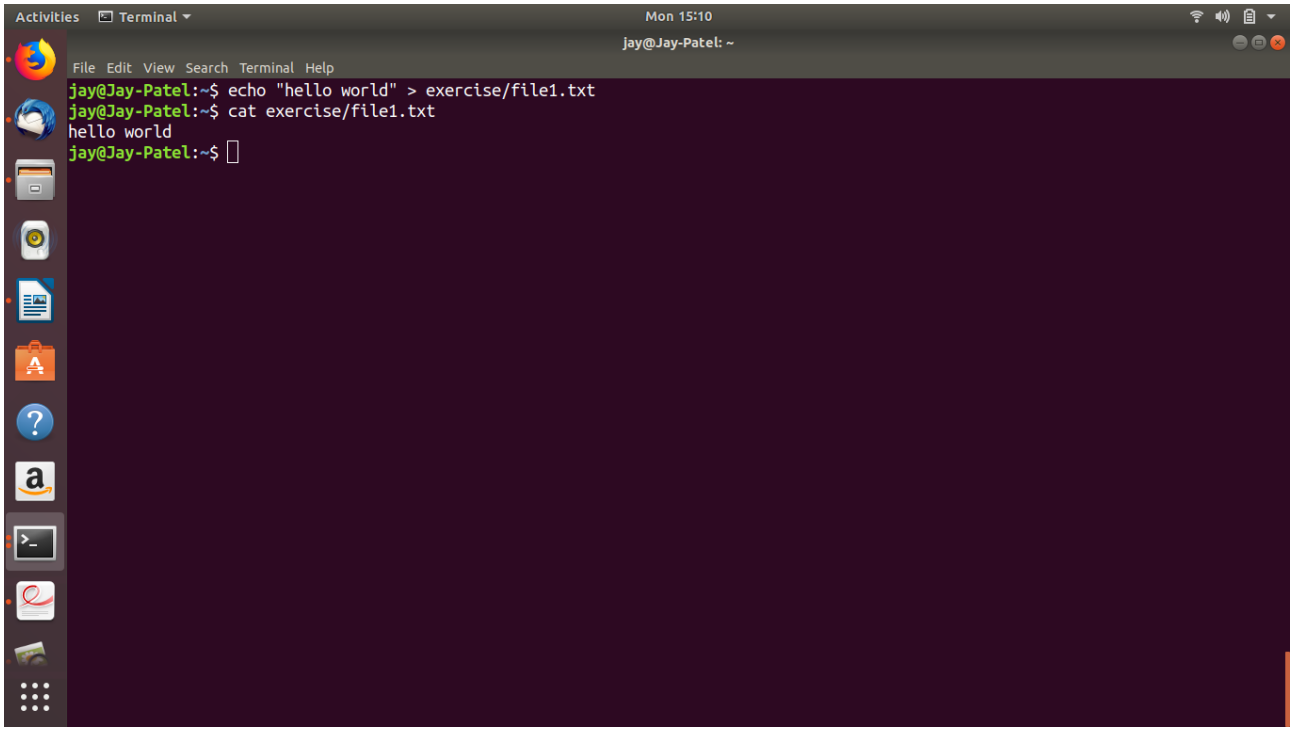
Exercise 2: Create two empty files inside dir2 directory: emptyFile1,emptyFile2 in single command

touch exercise/dir1/dir2/emptyFile{1..2}



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

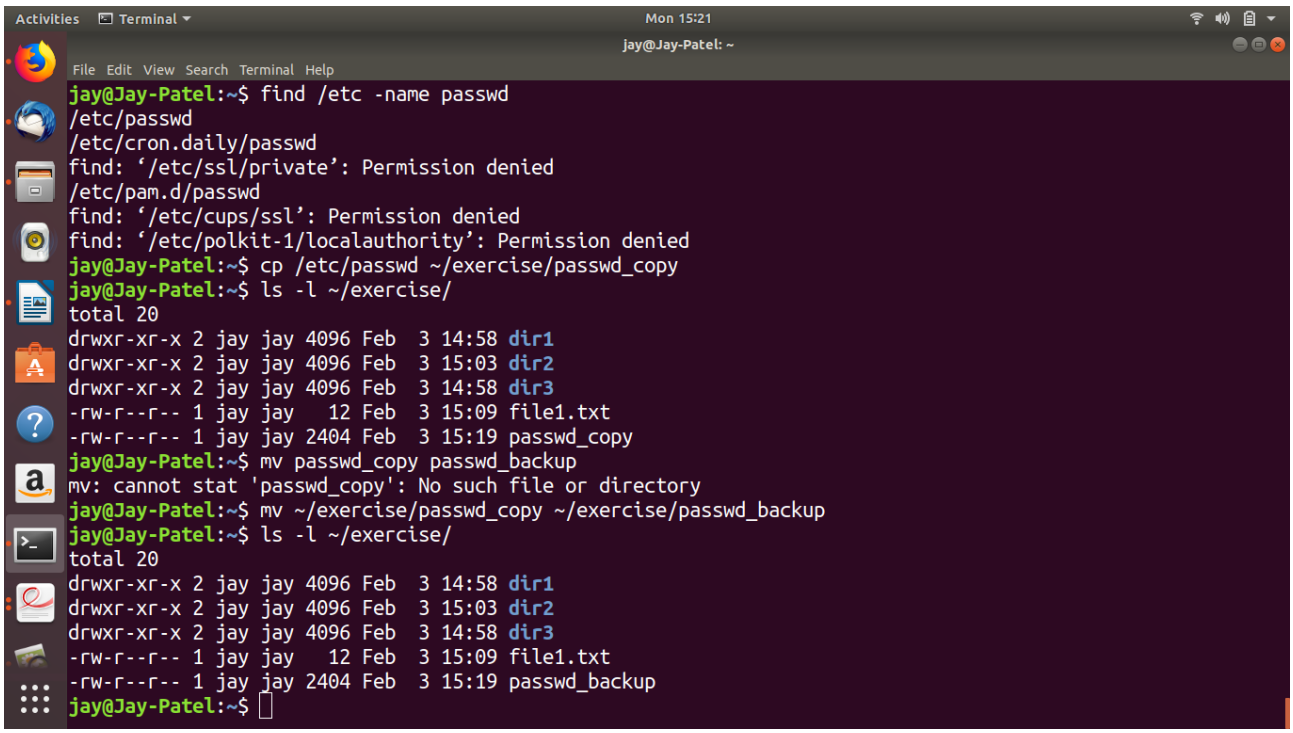
$ echo "hello world" > exercise/file1.txt



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

find /etc -name passwd
cp /etc/passwd ~/exercise/passwd_copy

mv passwd_copy passwd_backup



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

Answer :
In less is type of pager in which we navigate using up and down arrow keys and then by passing q we can exit.

Man less – for more info

In more is also type of pager in which we navigate through space bar and after reaching at end of the file it automatically send to command line mode

man more –for more info

In cat command is used to display the file on terminal and we can not navigate the file in terminal and it only display the output of a file
cat - concatenate files and print on the standard output

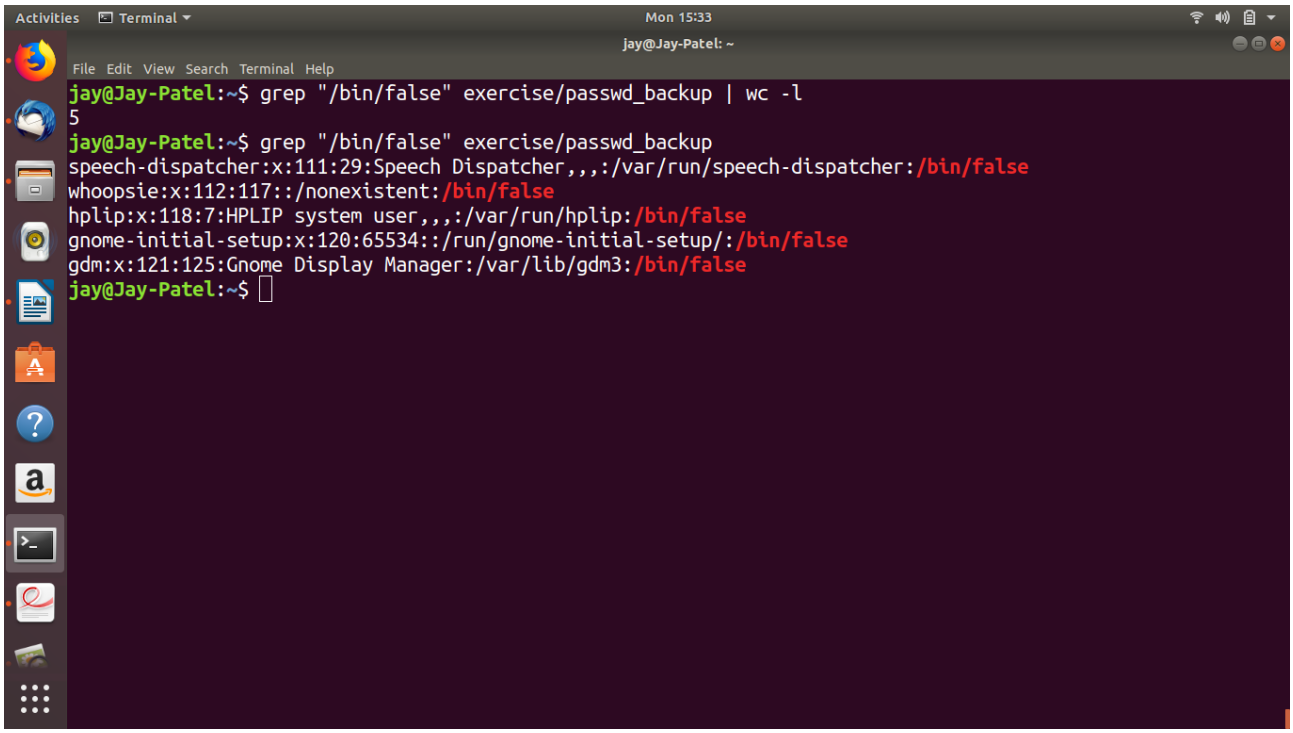
man cat –for more info

In string comands also works like cat command strings - print the strings of printable characters in files.

Man strings – for more info

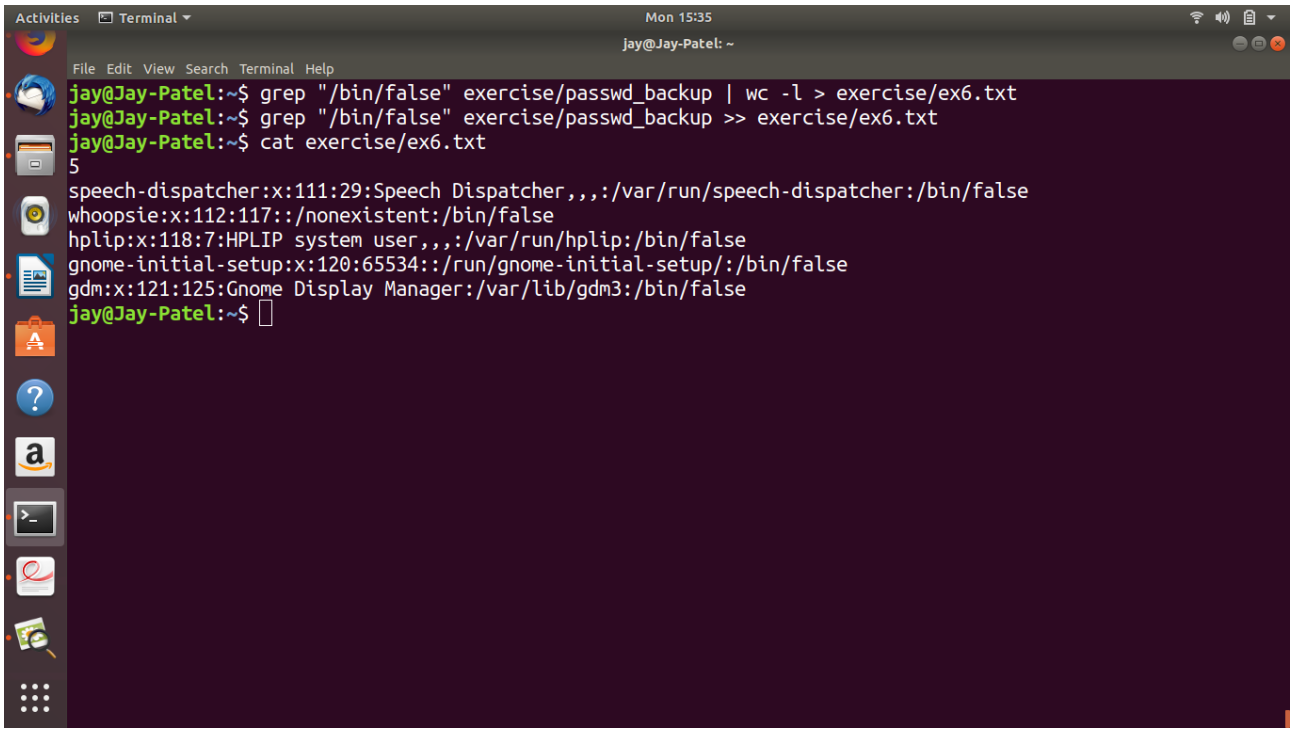
Exercise 6 :Find out the number of line in password_backup containing "/bin/false".

grep "/bin/false" exercise/passwd_backup | wc -l

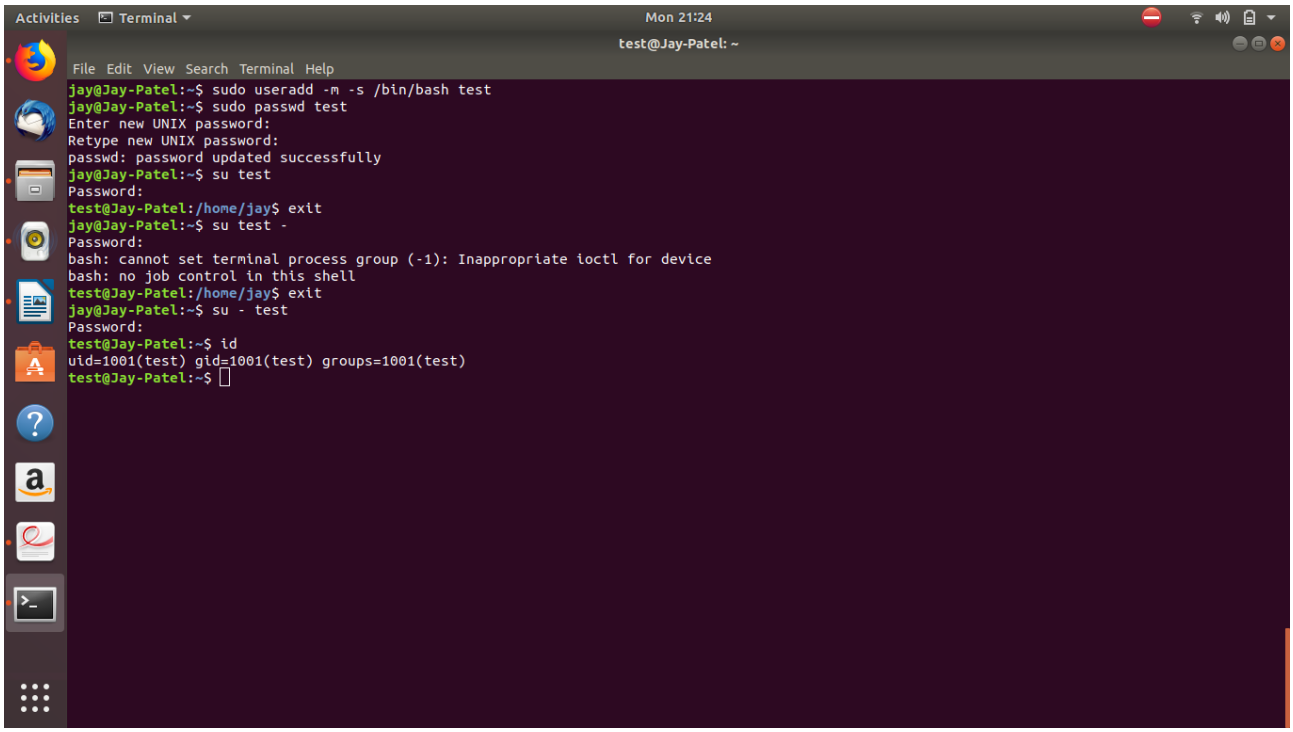


Exercise 7: Redirect the output of the above commands into file "output".

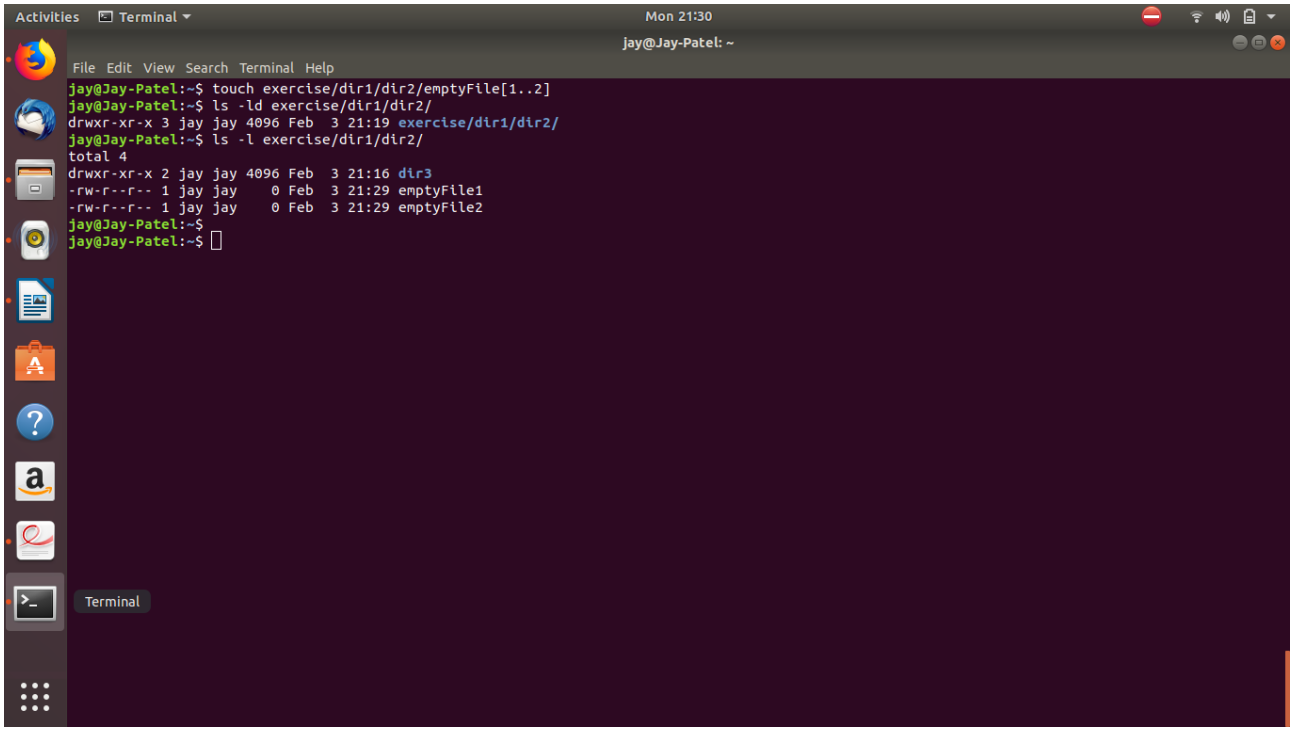
jay@Jay-Patel:~$ grep "/bin/false" exercise/passwd_backup | wc -l > exercise/ex6.txt
jay@Jay-Patel:~$ grep "/bin/false" exercise/passwd_backup >> exercise/ex6.txt
jay@Jay-Patel:~$ cat exercise/ex6.txt



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

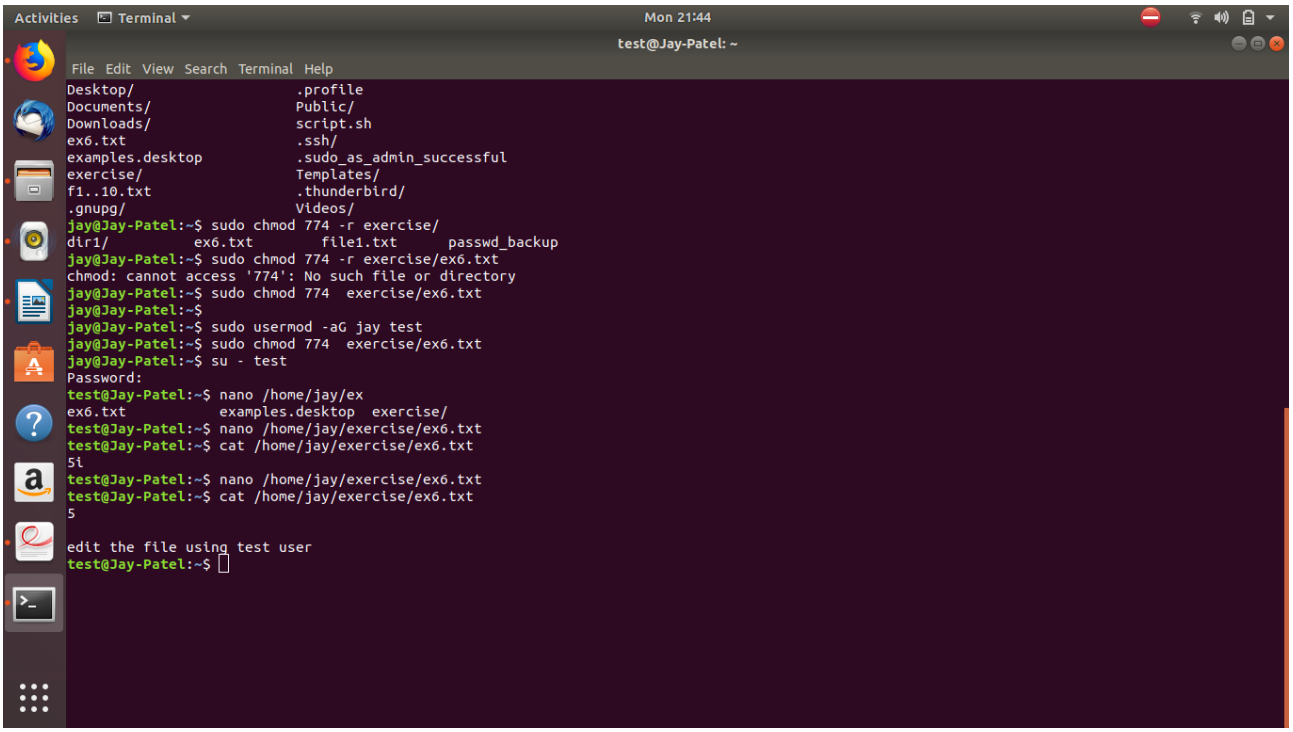


Exercise 9 : Change the timestamp of emptyFile1,emptyFile2 which are exist in dir2



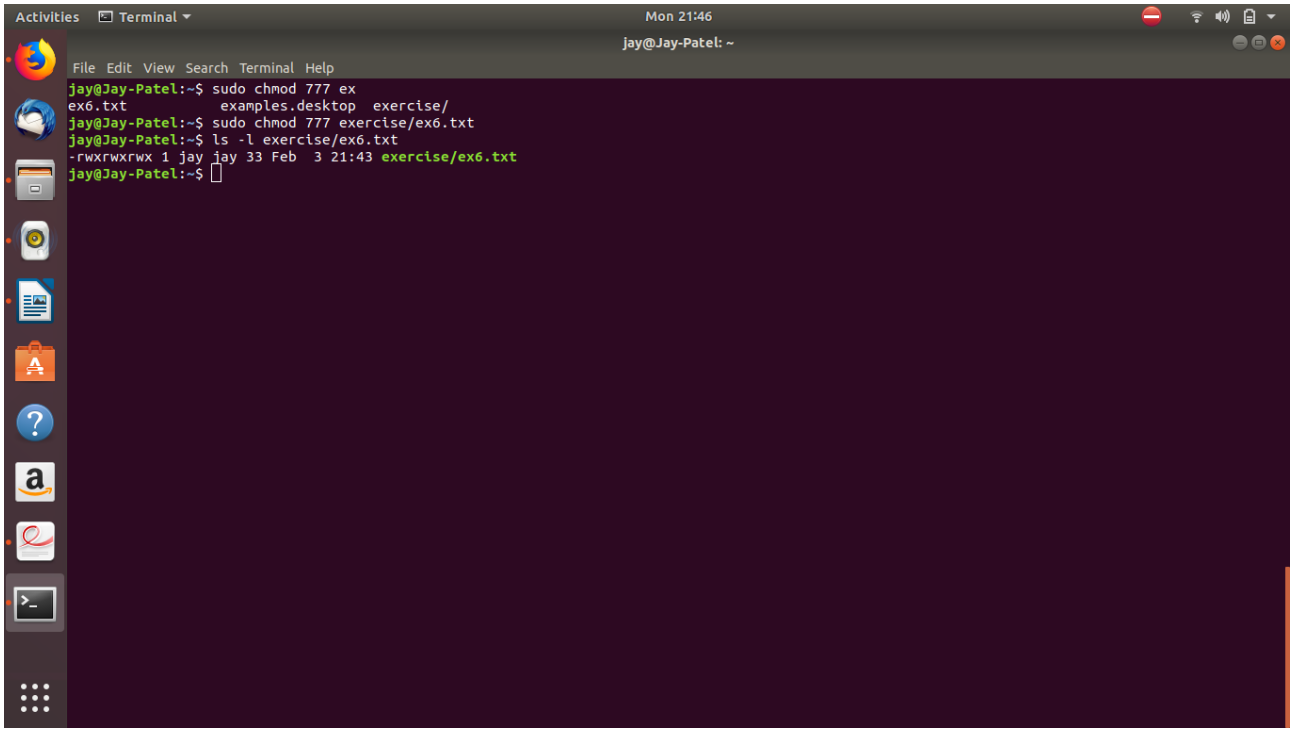
Exercise 10: Login as test user and edit the "output" file created above. Since the permission wont allow you to save the changes. Configure such that test user can edit it.

10.a 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

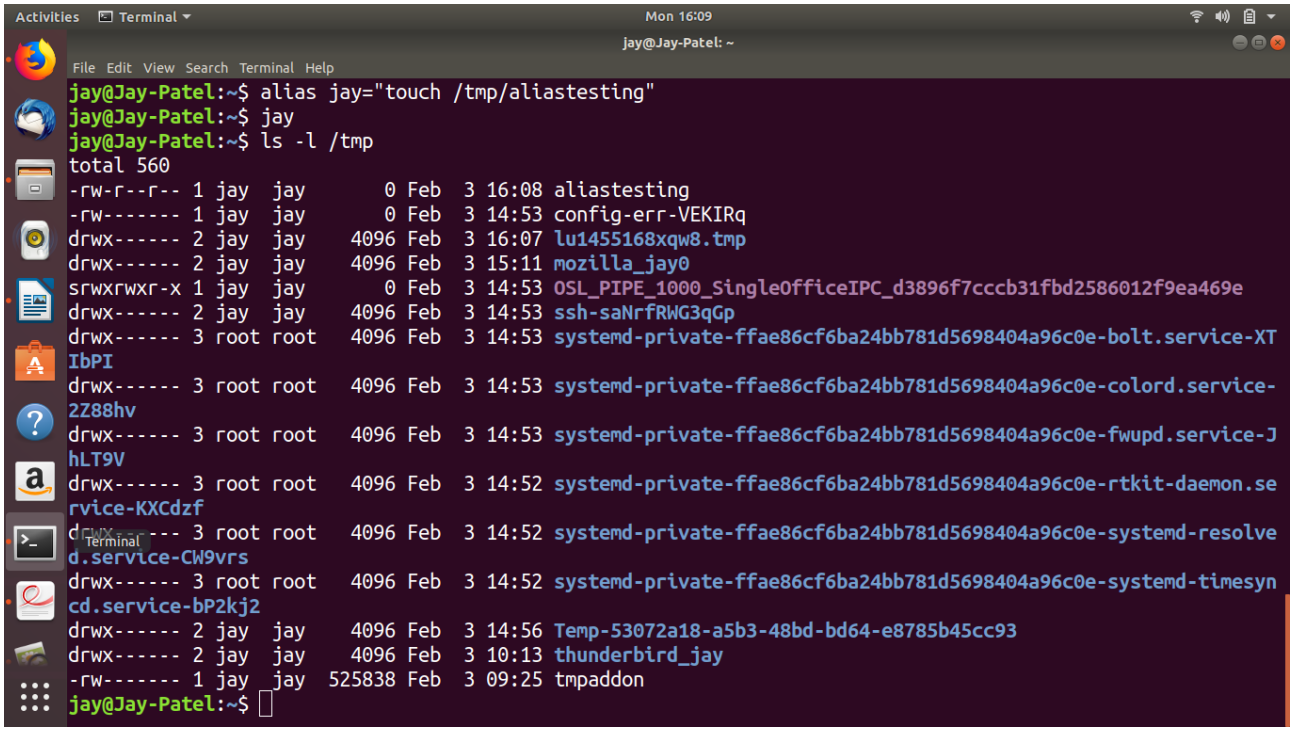


10.b Make the file editable to the world so that test user can access it. Revert the changes after verification

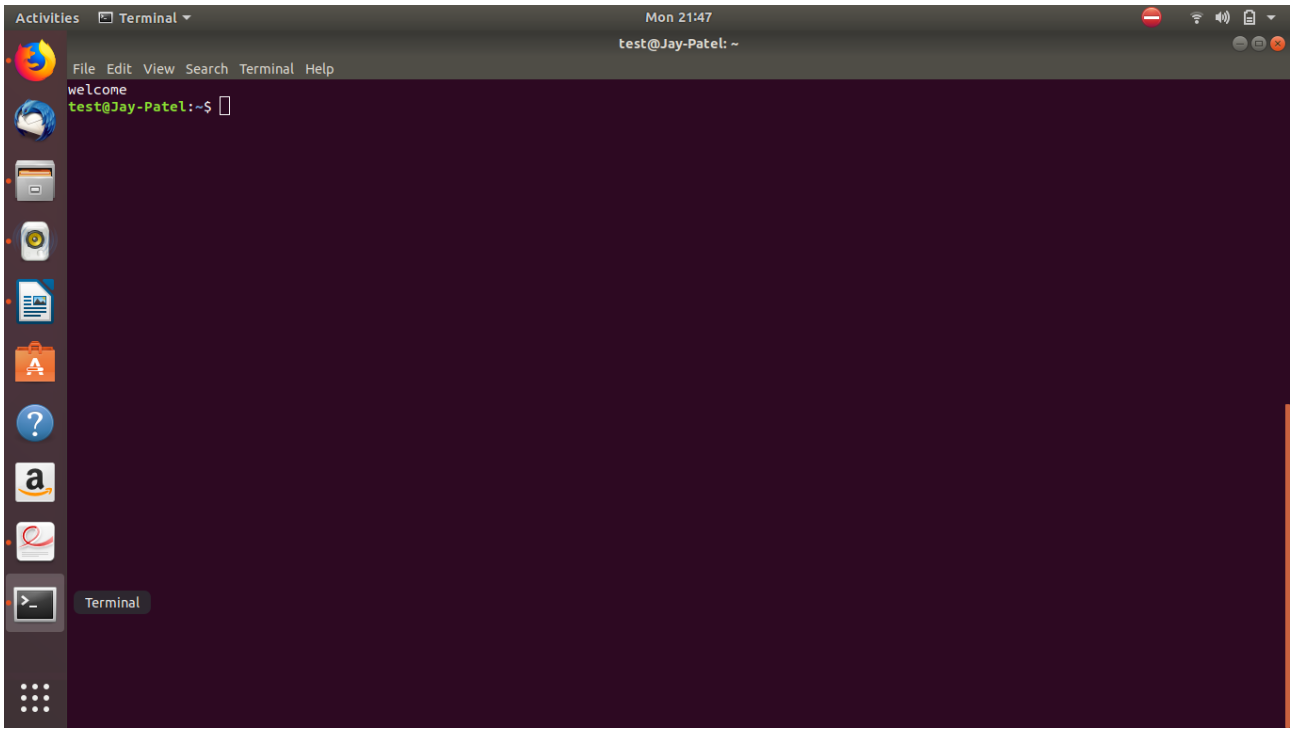
10.c Change the ownership to edit the file


Activities
Terminal
Mon 21:46
jay@Jay-Patel: ~
File Edit View Search Terminal Help
jay@Jay-Patel:~$ sudo chmod 777 ex
ex6.txt examples.desktop exercise/
jay@Jay-Patel:~$ sudo chmod 777 exercise/ex6.txt
jay@Jay-Patel:~$ ls -l exercise/ex6.txt
-rwxrwxrwx 1 jay jay 33 Feb 3 21:43 exercise/ex6.txt
jay@Jay-Patel:~$

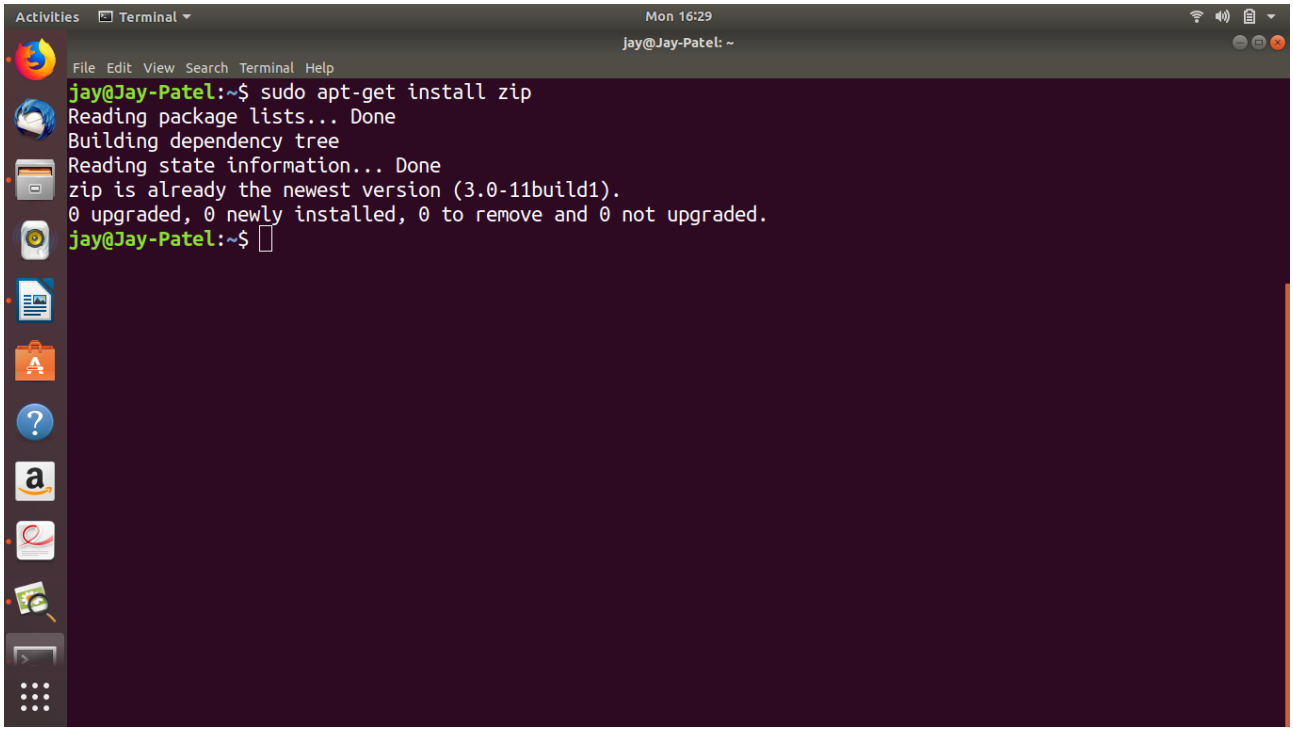
Exercise 11 : Create alias with your name so that it creates a file as "/tmp/aliastesting".



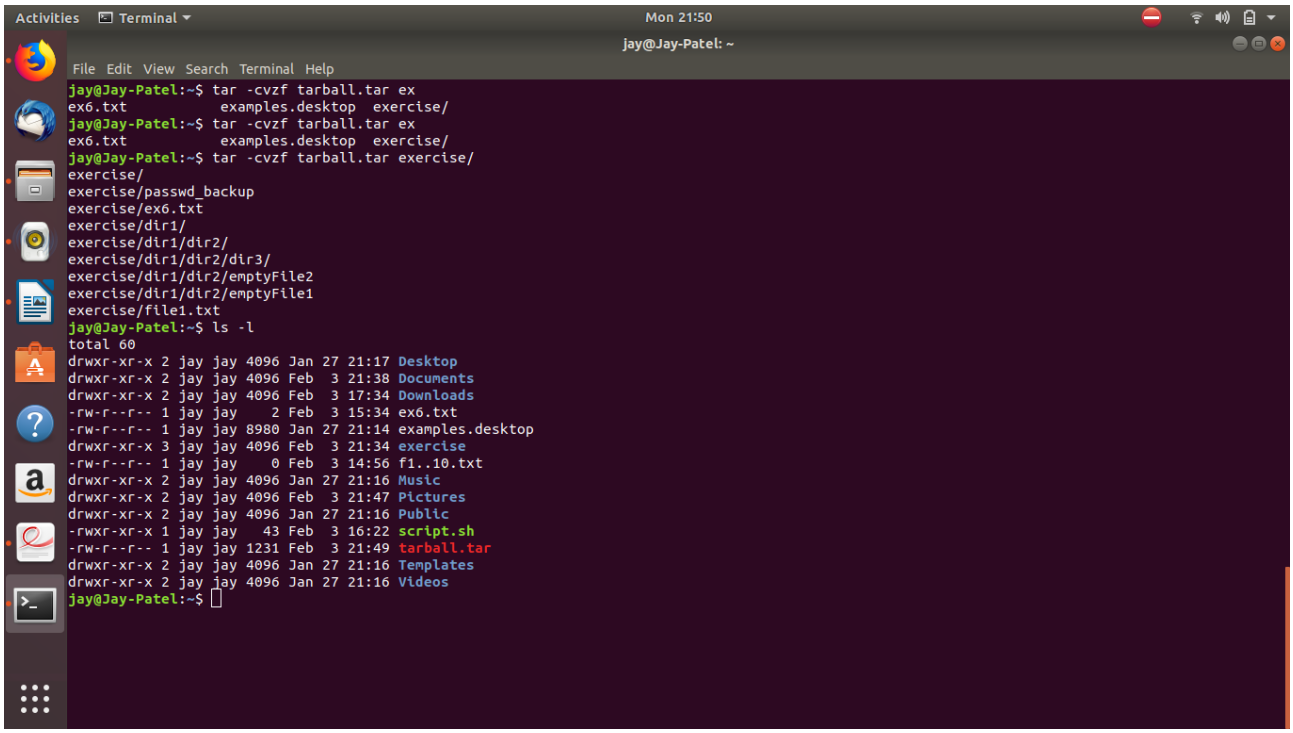
Exercise 12 :Edit ~/.bashrc file such that when you change to "test" user it should clear the screen and print "Welcome".



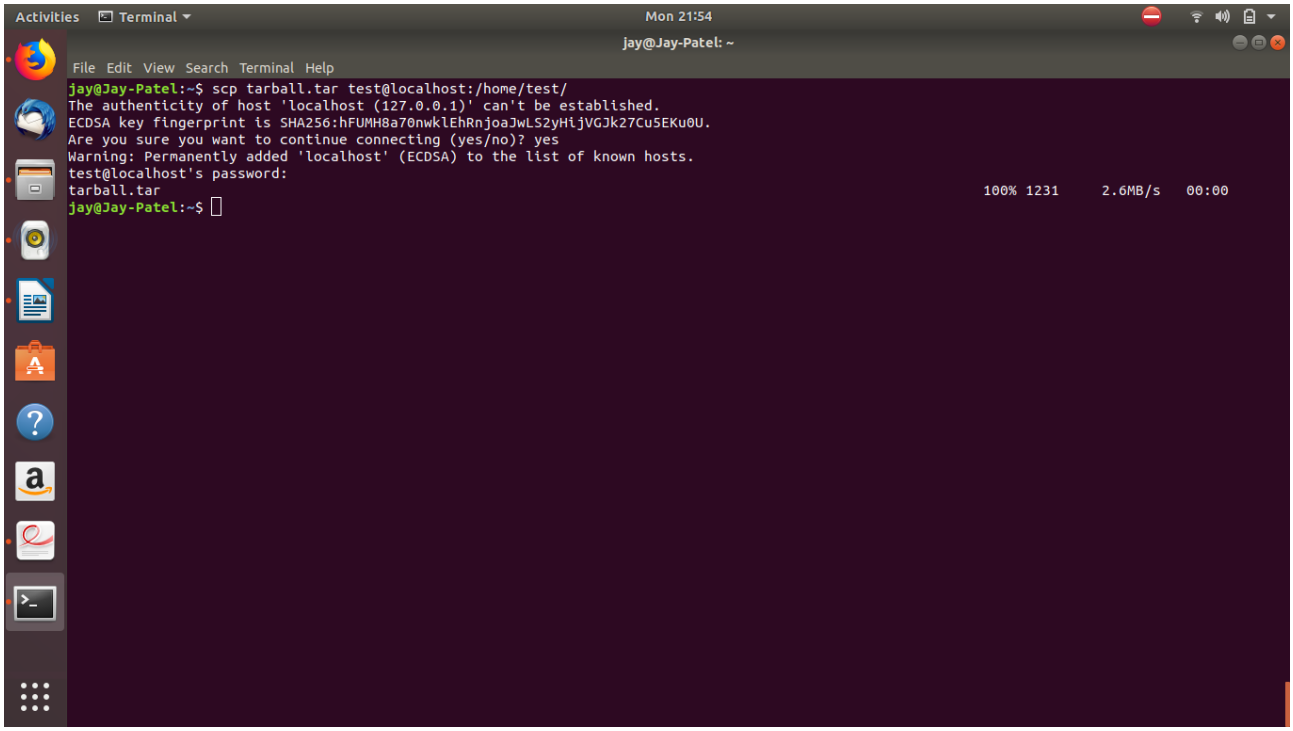
Exercise13 : Install “zip” package.



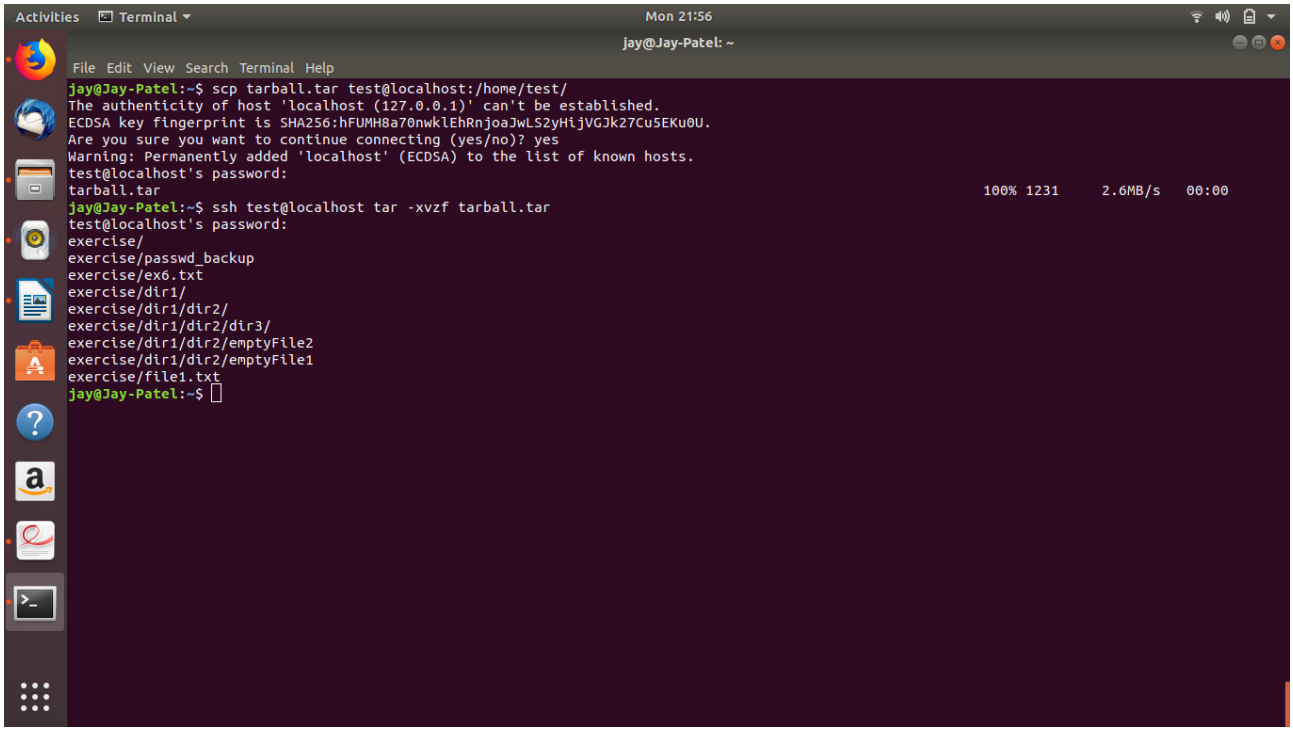
Exercise 14: Compress "output" and "password_backup" files into a tar ball. List the files present inside the tar created.



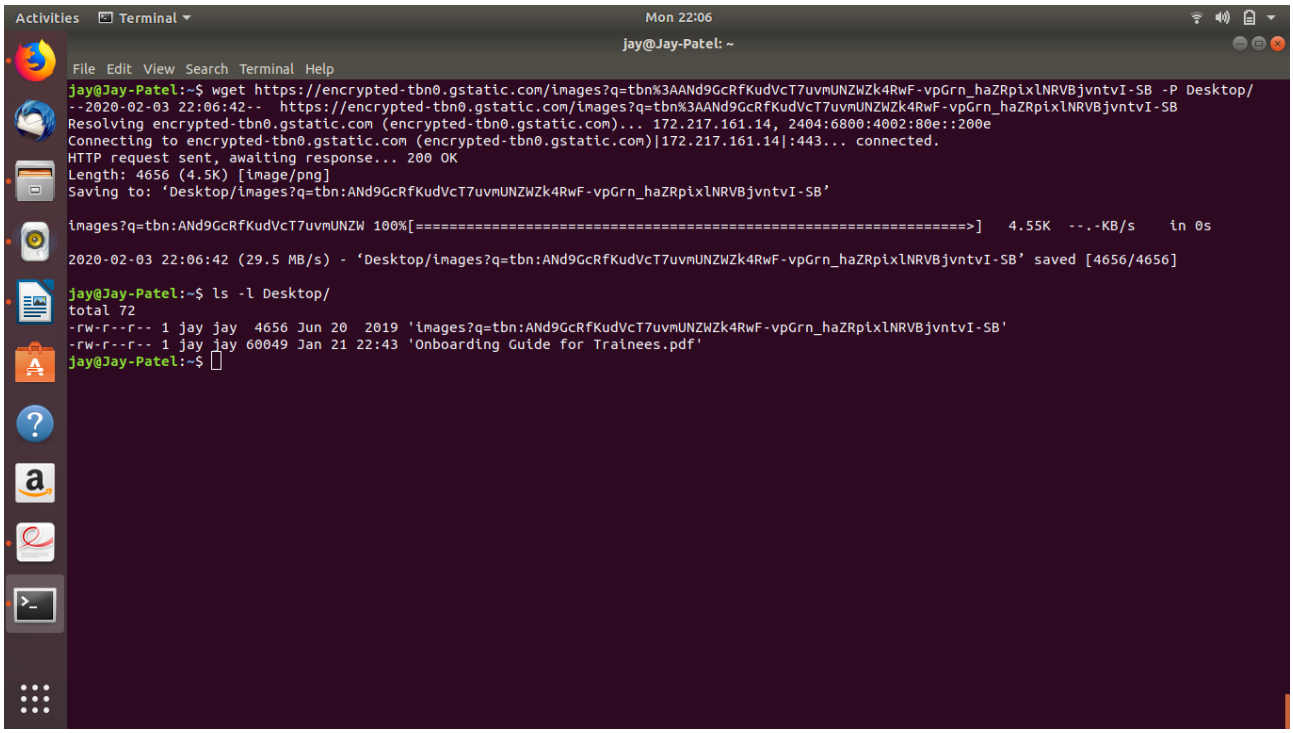
Exercise 15 : scp this file to test user



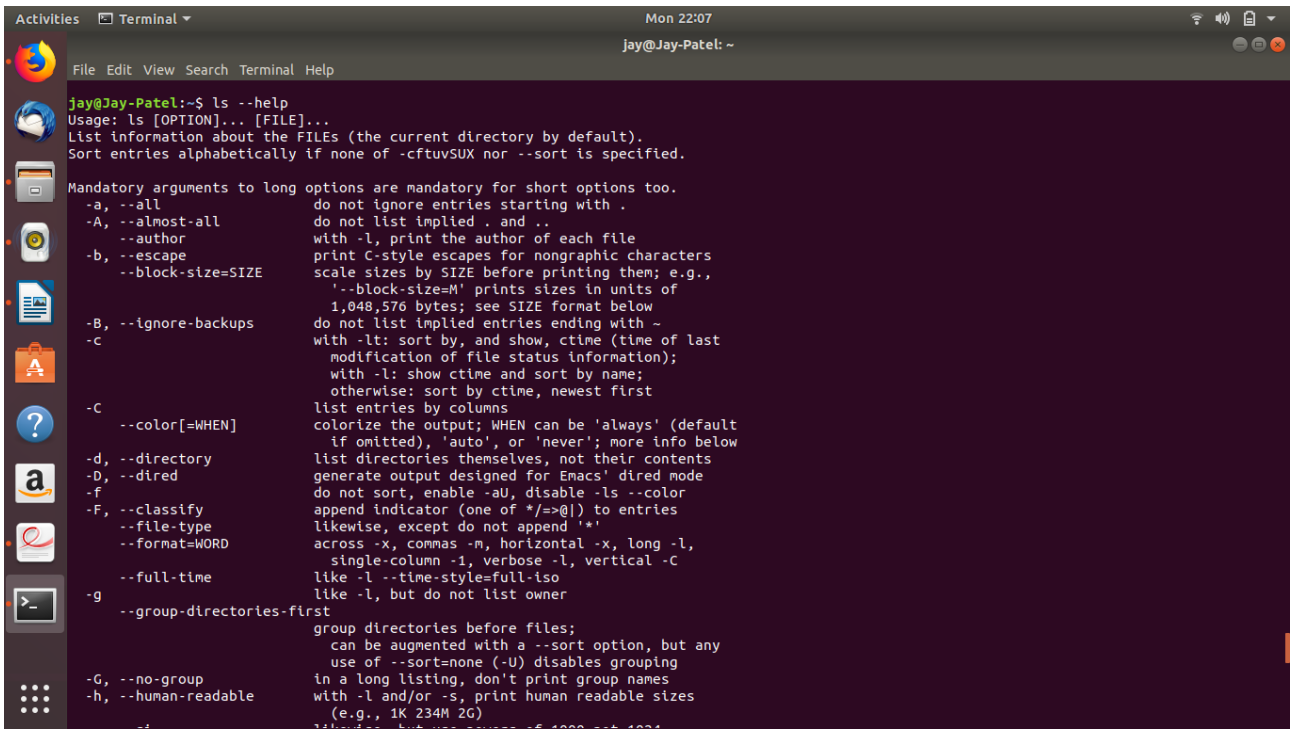
Exercise 16 :Unzip this tar bar by logging into the remote server



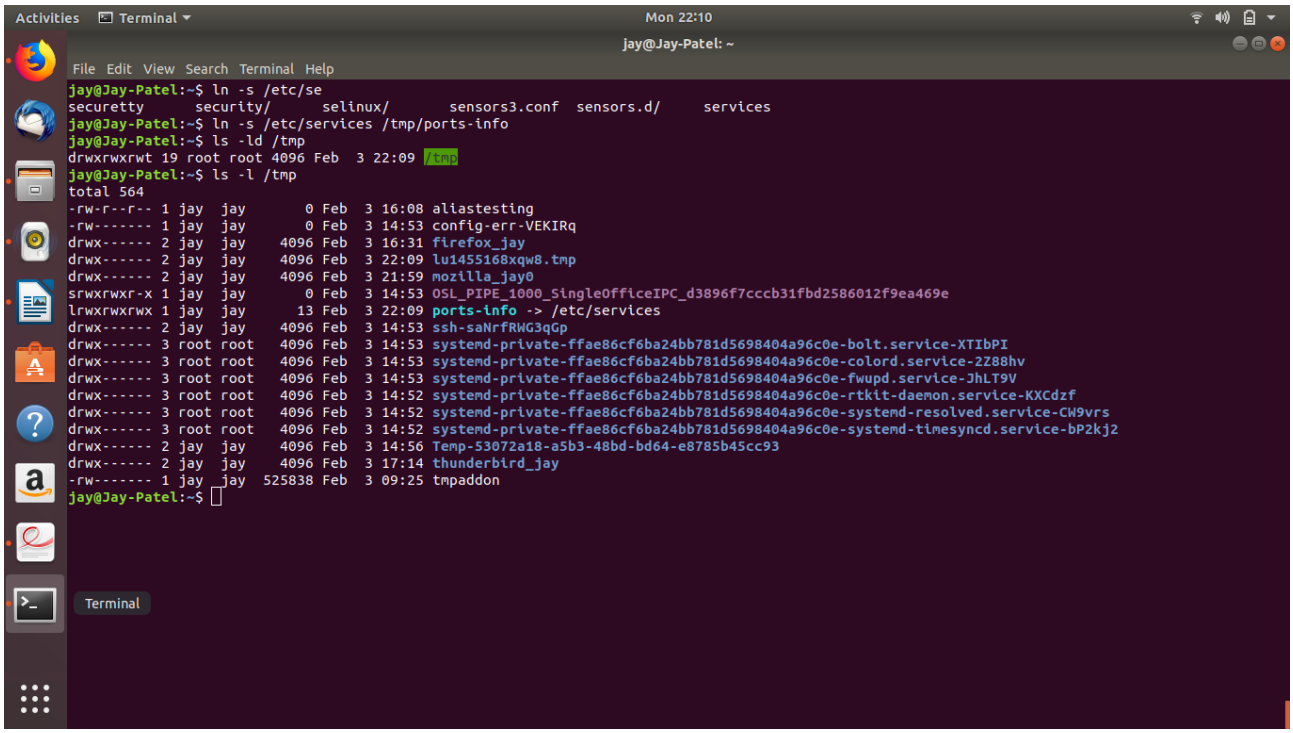
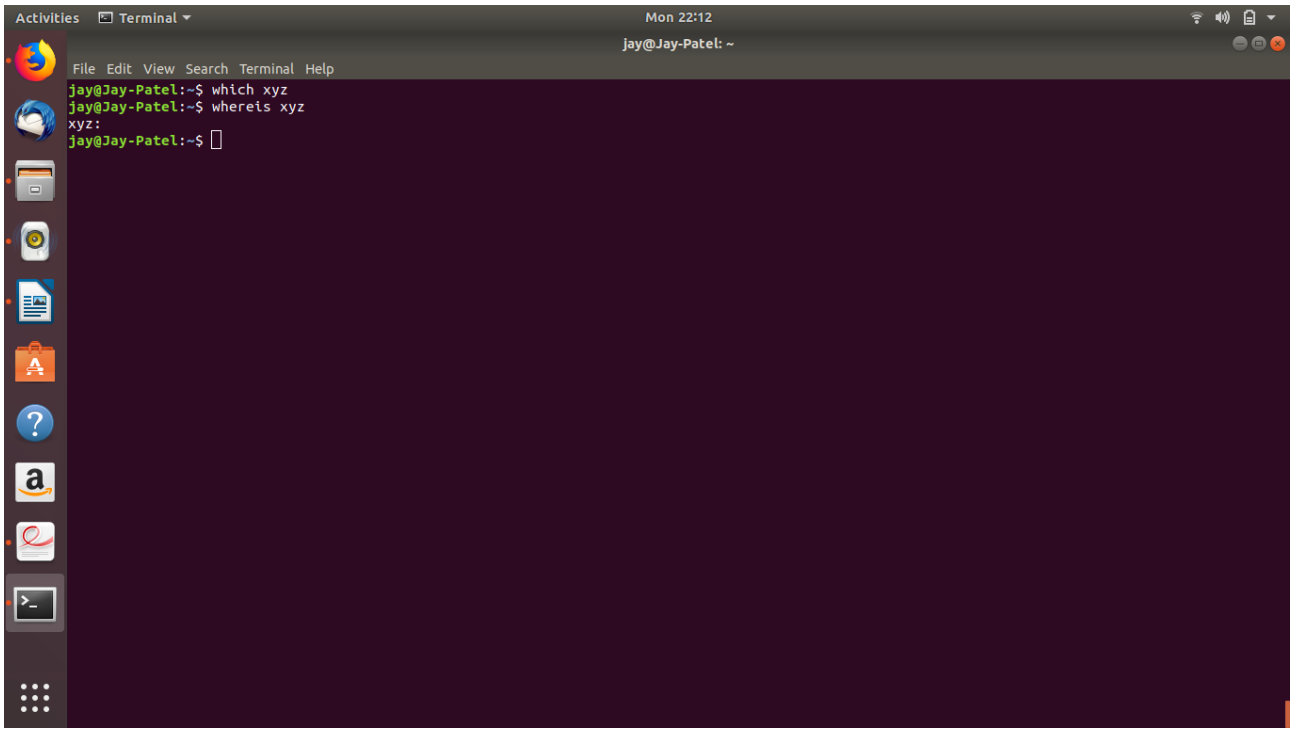
Exercise 17 :Download any image from web and move to desktop



Exercise 18 : How to get help of commands usages.’



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



Exercise 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?