CYSE 270: Linux System for Cybersecurity

Assignment: Lab 4 – Group and User Accounts

CYSE 270: Linux System for Cybersecurity

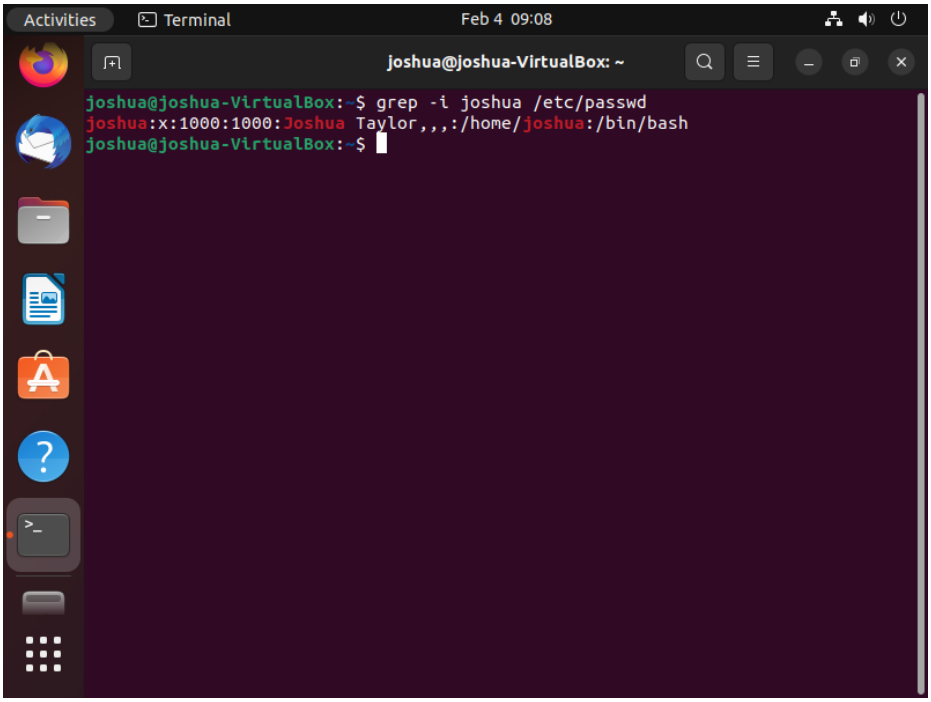
The goal of this lab is to practice basic group and account management. You can choose the Ubuntu VM on your local PC or VMware to complete this assignment.

In this assignment, you should replace xxxxx with your MIDAS ID in all occurrences.

Task A – User Account management (8 * 5 = 40 points)

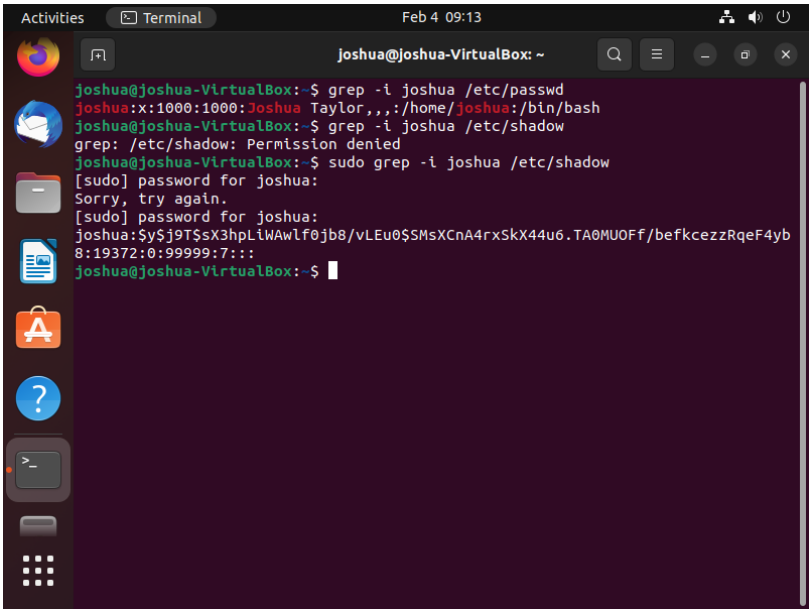
1. Open a terminal window in VM and execute the correct command to display user account information (including the login shell and home directory) for the current user using grep.

   A) command is "grep -i joshua /etc/passwd"



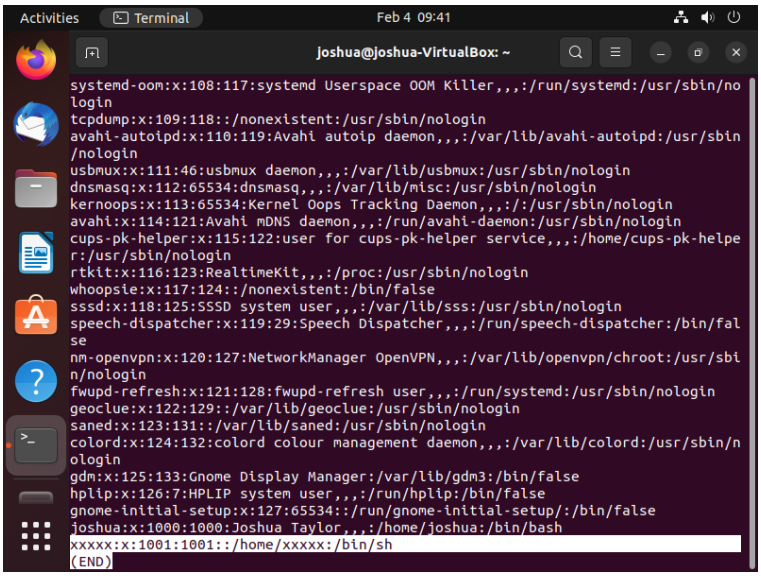
2. Execute the correct command to display user password information (including the encrypted password and password aging) for the current user using grep.

   A) Command is " sudo grep -i joshua /etc/shadow "



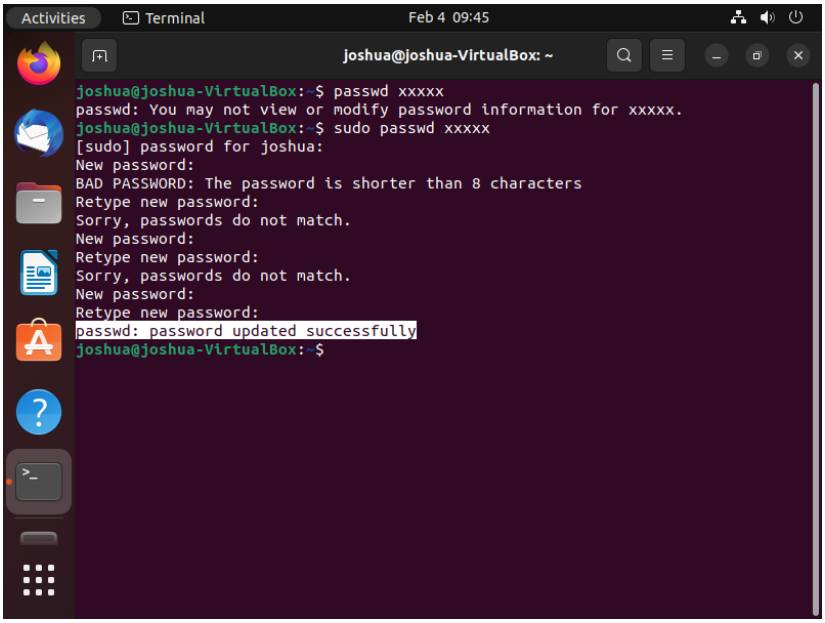
3. Create a new user named xxxxx and explicitly use options to create the home directory /**home/xxxxx** for this user.

   A) Command is " sudo useradd -m xxxxx "



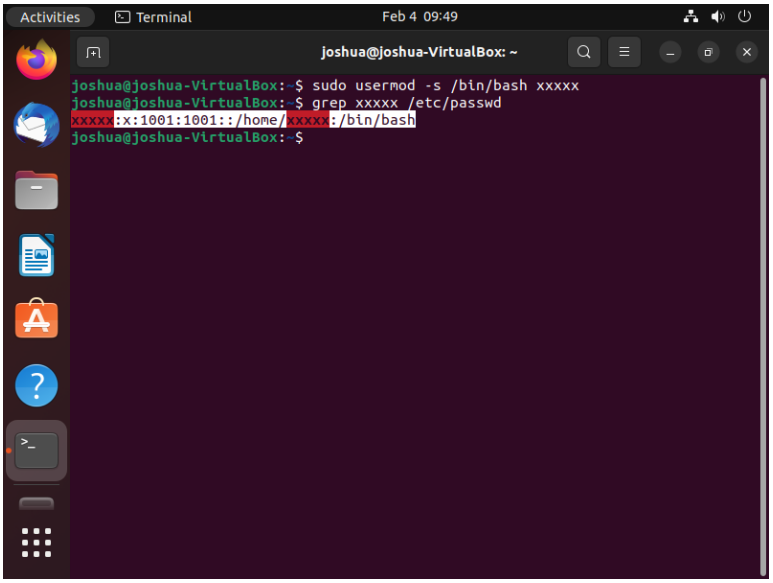
4. Set a password for the new user.

   A) Command is " sudo passwd xxxxx "



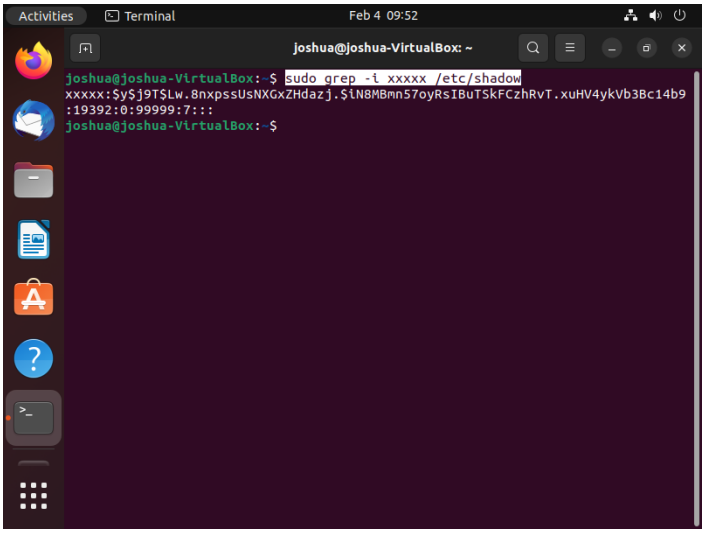
5. Set bash shell as the default login shell for the new user xxxxx, then verify the change.

   A) Commands are " sudo usermod -ssudo /bin/bash xxxxx" and " grep xxxxx /etc/passwd "



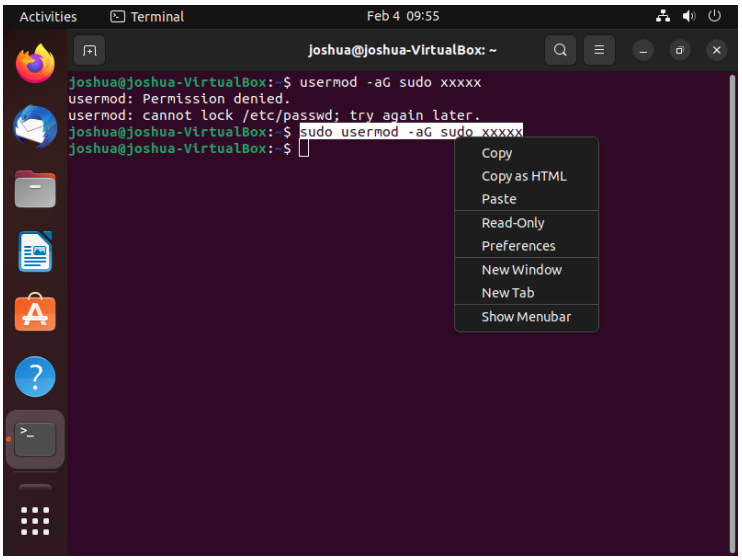
6. Execute the correct command to display user password information (including the encrypted password and password aging) for the new user xxxxx using grep.

   A) Command is " sudo grep -i xxxxx /etc/shadow "



7. Add the new user xxxxx to sudo group without overriding the existing group membership.

   A) Command is " sudo usermod -aG sudo xxxxx "



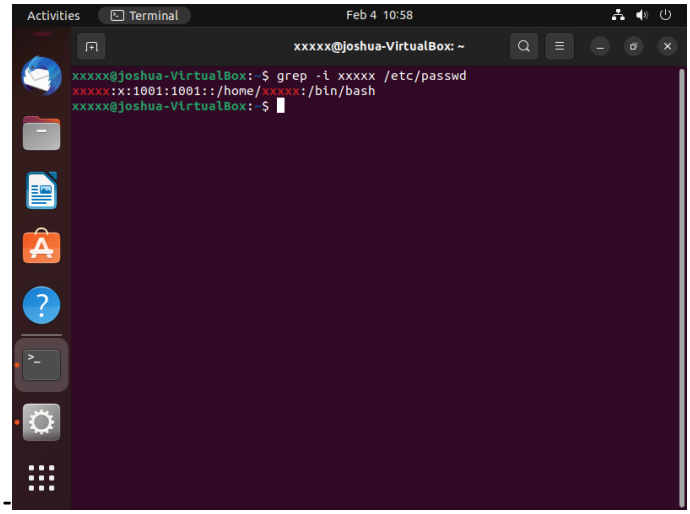
8. Switch to the new user's account**.**

Task B – Group account management (12 * 5 = 60 points)

Use Linux commands to execute the following tasks:

1. Return to your home directory and determine the shell you are using.

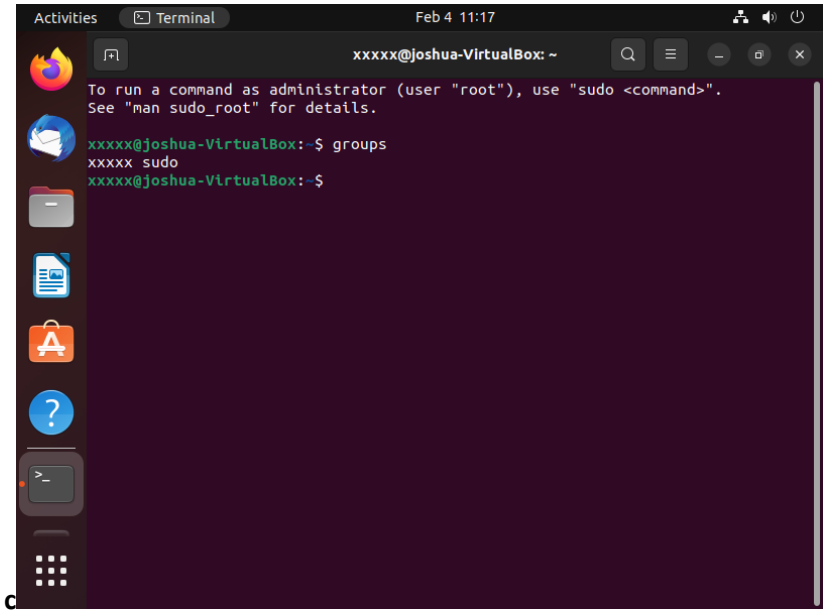
   A) command is " grep -i xxxxx /etc/passwd "



-

2. Display the current user's ID and group membership.

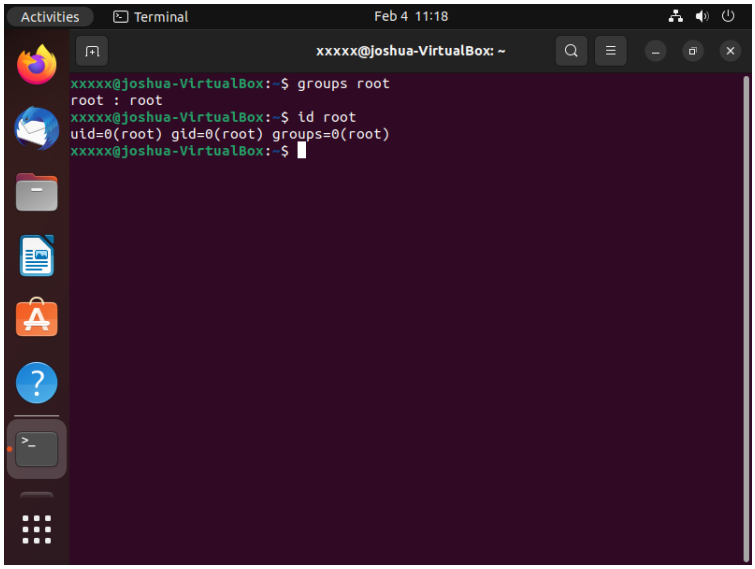
   A) command is " groups "



c

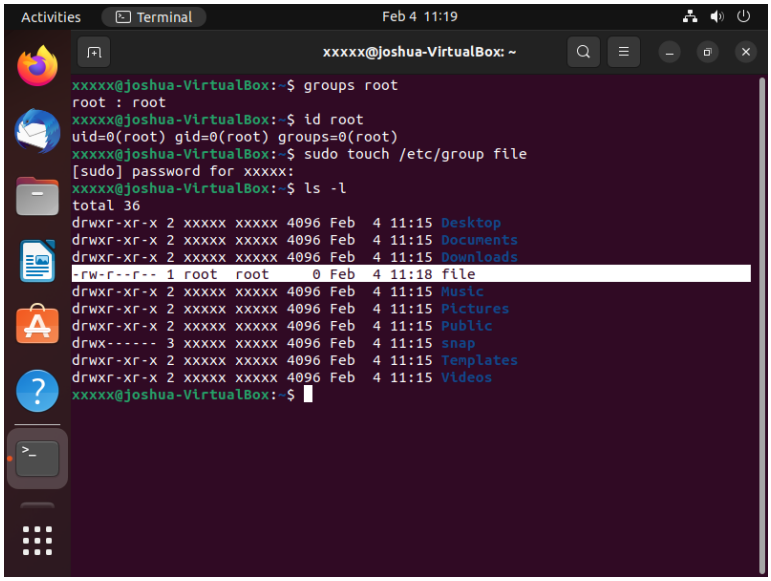
3. Display the group membership of the root account.

   A) command is " groups root " / " id root "



4. Run the correct command to determine the user owner and group owner of the /etc/group file.

   A) command is "sudo touch /etc/group file "

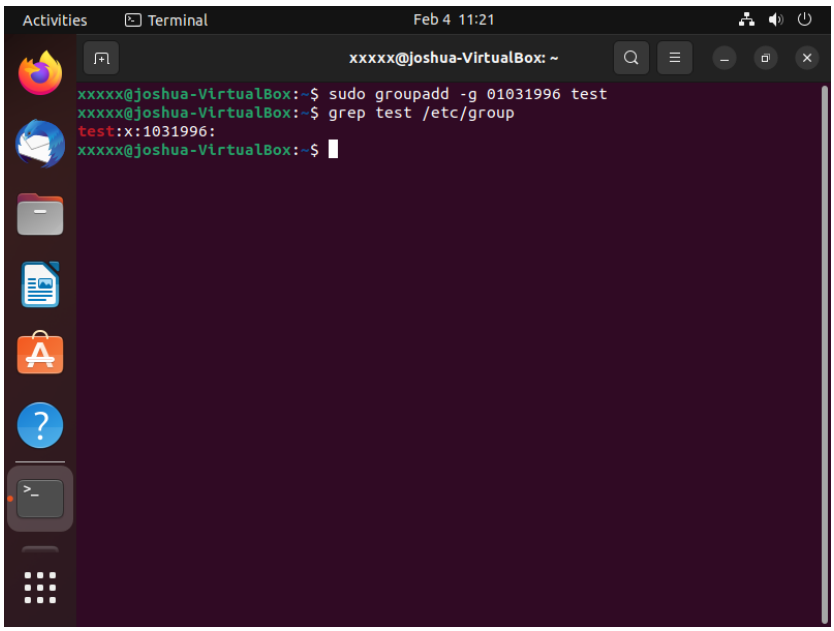


5. Create a new group named **test** and use your UIN as the GID.

   A) command is " sudo groupadd -g 01031996 test " **screenshot in Q6 response**

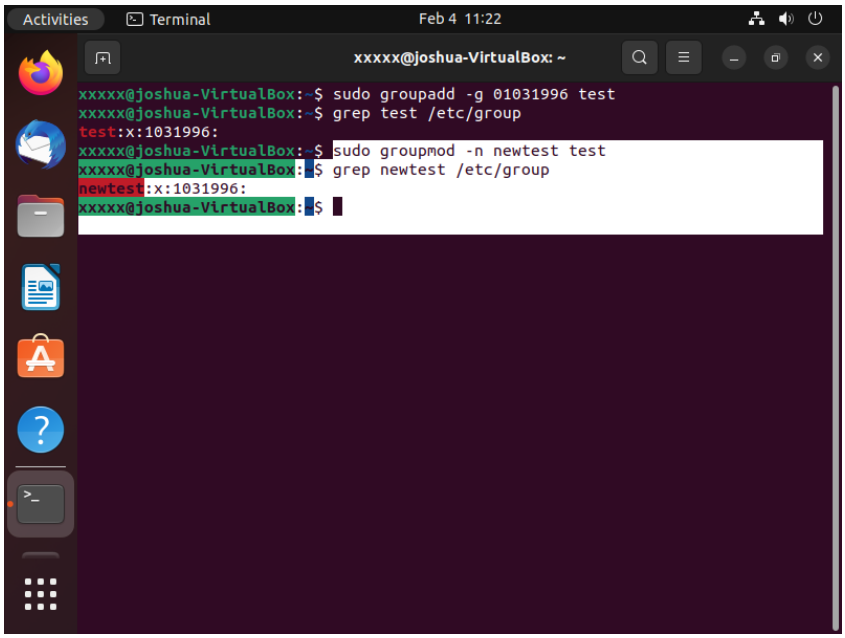
6. Display the group account information for the test group using grep.

   A) command is " grep test /etc/group "

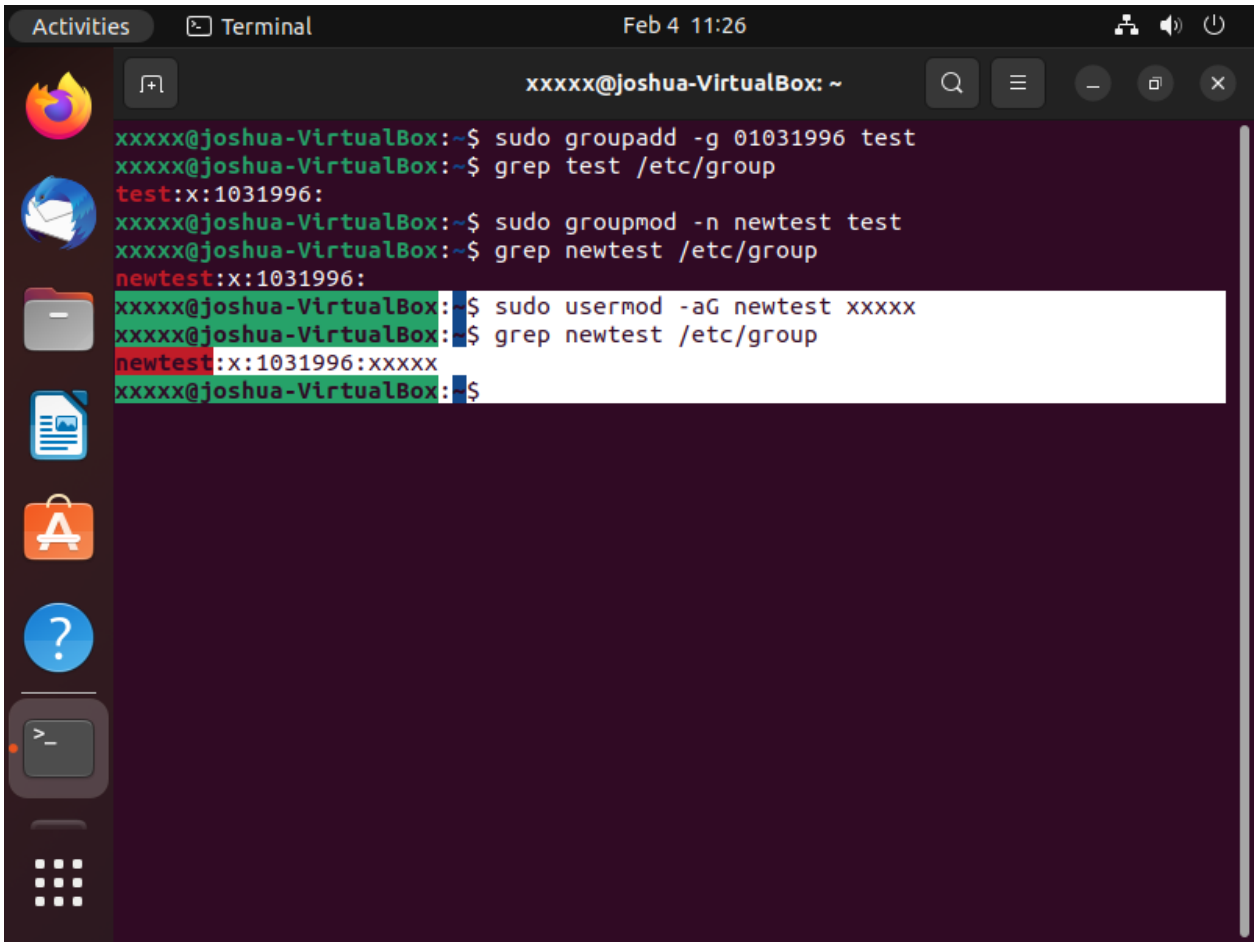


7. Change the group name of the test group to **newtest**.

   A) command is "sudo groupmod -n newtest test "

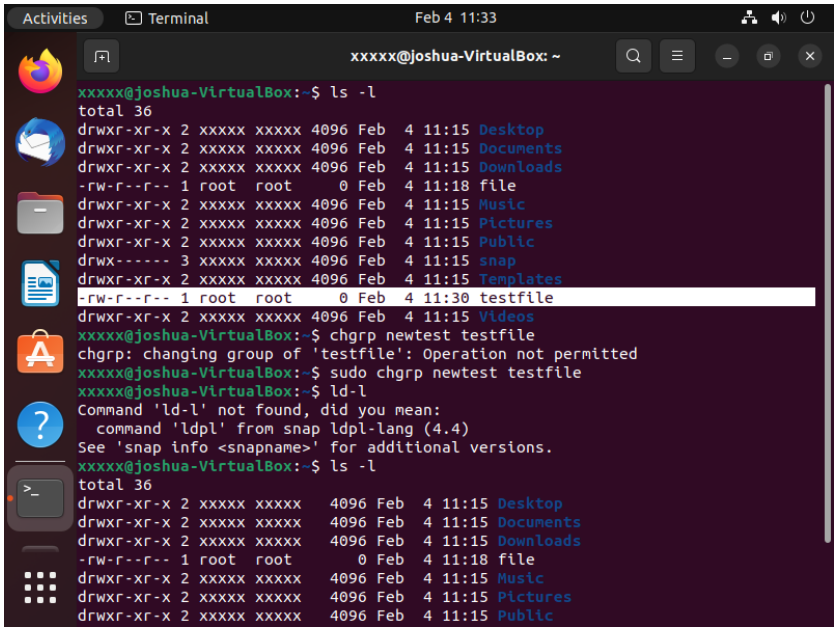


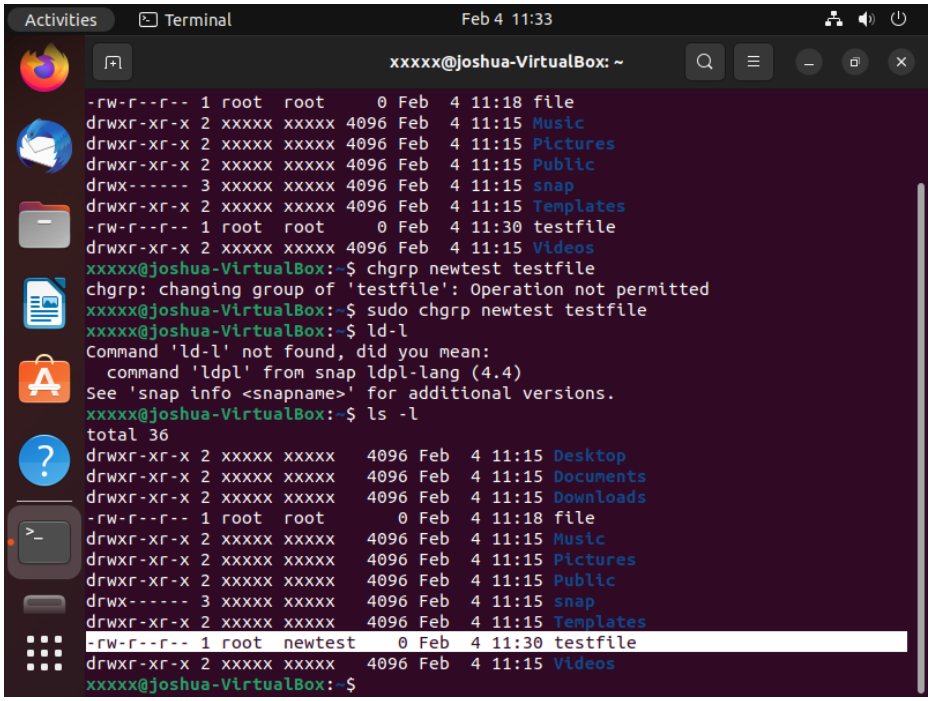
8. Add the current account (xxxxx) as a secondary member of the **newtest** group without overriding this user's current group membership.



9. Create a new file testfile in the account's home directory, then change the group owner to **newtest**.

   A) commands are " sudo touch testfile " & " sudo chgrp newtest testfile "



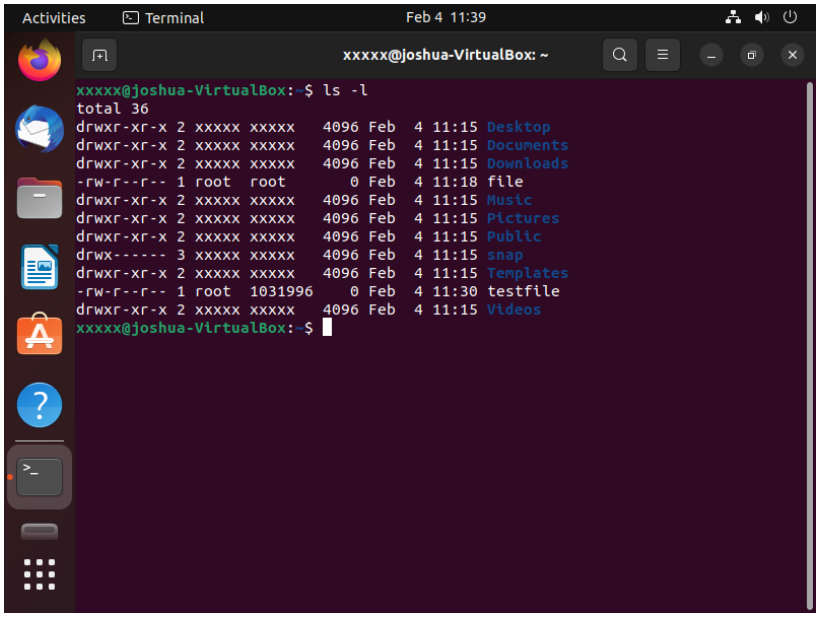


10. Display the user owner and group owner information of the file **testfile**.

    A) command is " ls -l " and shown in previous screenshot

11. Delete the **newtes**t group, then repeat the previous step. What do you find?

    A) command is " sudo groupdel newtest " and I found that the group owner changed to the GID that was given to it; My UIN.



12. Delete the user xxxxx along with the home directory using a single command.

A) command is " sudo userdel -rf xxxxx "