# OLD DOMINION UNIVERSITY

## CYSE 270 LINUX SYSTEM FOR CYBERSECURITY

# Assignment #4 Group and User Accounts

Lawrencia Agyemang 01085944

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



To view user account information, the login shell, and the home directory, use the "grep -i lawrencia /etc/passwd" command.

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



I tried "grep -i lawrencia /etc/shadow," but was denied access. I then added the sudo command, " sudo grep -i lawrencia /etc/shadow," and was given the encrypted password and password age.

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



I entered "sudo useradd -m -k /etc/skel cyse301" to create the user "cyse301," then displayed the /etc/passwd directory to see account details. Next, type "sudo passwd cyse301" and set the password to "toor."

6. Execute the correct command to display user password information (including the encrypted

password and password aging) for the new user xxxxx using grep.



To verify the changes, type "sudo usermod -s /bin/bash cyse301" and "echo \$SHELLsu ".

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



To see the password for the cyse301 user, type "sudo grep -i cyse301 /etc/shadow."

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



I added cyse301 (lagye001) to the sudo group with "sudo usermod -A -G sudo cyse301," and then switched accounts with "su -cyse301."

3. Display the group membership of the root account.



The membership of the root account was set to "groups cyse301."

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

- 5. Create a new group named test and use your UIN as the GID.
- 6. Display the group account information for the test group using grep.



The command was changed to "tail -5 /etc/group" because the one before did not work to show the last 5 lines of /etc/group. Then I used "sudo groupadd -g 01085944 test" to create a test group with my UIN, then "grep test /etc/group" to display information about group.

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



To modify the name of the test group to newtest, type "sudo groupmod -n newtest test," then "grep newtest /etc/group."

8. Add the current account (xxxxx) as a secondary member of the newtest group without overriding

this user's current group membership.



To move cyse301 into the newtest group, I used "sudo usermod -G newtest cyse301" here.

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

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

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To create a new file in the cyse301 (lagye001) home directory, type "sudo touch newfile.txt," then "sudo chgrp newtest newfile.txt," then "ls -l" to see who owns it.

11. Delete the newtest group, then repeat the previous step. What do you find?



To delete the newtest group, use "sudo groupdel newtest," and then "Is -I" to see who owns newfile.txt. 'root' was given ownership of the file instead of newtest.

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