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CYSE 270
Assignment 4 - Group and User Management
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Task A – User Account management

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.

Command: grep “^kali” /etc/passwd

-shows the username, UID, GID, home directory and login shell

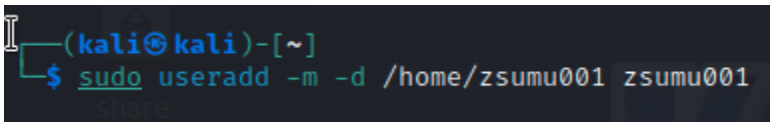
2. Execute the correct command to display user password information (including the encrypted password and password aging) for the current user using grep.

Command: sudo grep "^kali" /etc/shadow

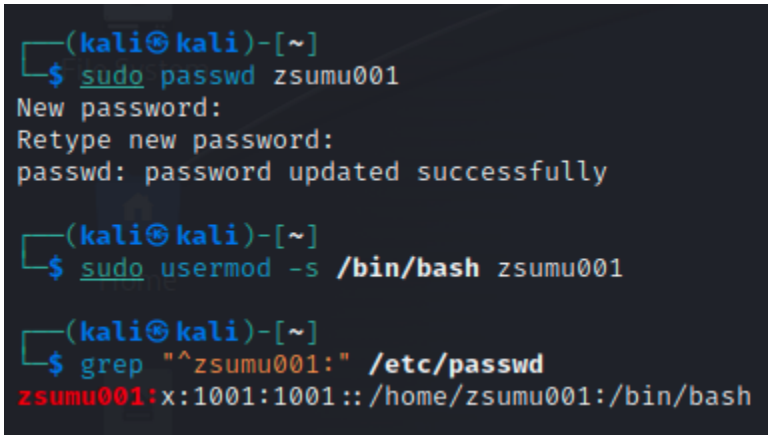
3. Create a new user named xxxxx and explicitly use options to create the home directory /home/xxxxx for this user.

Command: sudo useradd -m -d /home/zsumu001 zsumu001

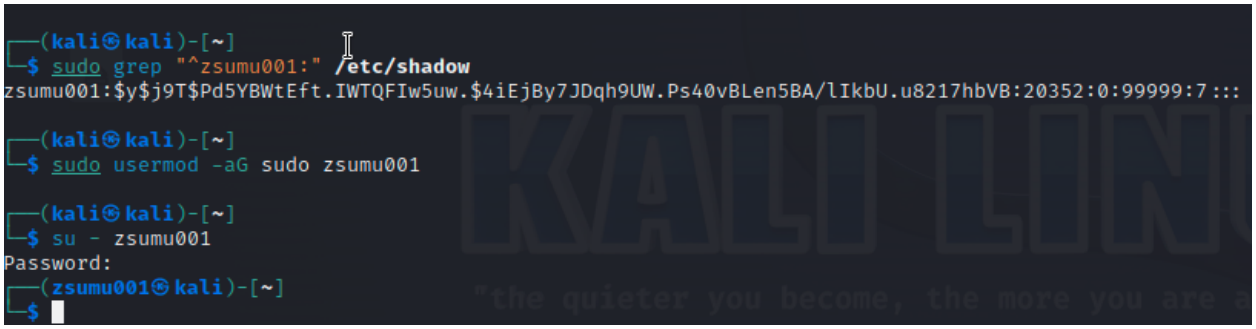
-m creates home directory, -d /home/zsumu001 explicitly ensures the home directory follows



4. Set a password for the new user.
    Command: sudo passwd zsumu001
5. Set bash shell as the default login shell for the new user xxxxx, then verify the change.
    Command: usermod -s /bin/bash zsumu001
        grep “^zsumu001:” /etc/passwd
    -s specifies the login shell for user



6. Execute the correct command to display user password information (including the encrypted password and password aging) for the new user xxxxx using grep.
    Command: sudo grep "^zsumu001:" /etc/shadow
    -/etc/shadow stores password hashes
7. Add the new user xxxxx to sudo group without overriding the existing group membership.
    Command: sudo usermod -aG sudo zsumu001
    - -a adds the user to group, -G without removing from other groups
8. Switch to the new user’s account.
    Command: su - zsumu001
    - su - switch user

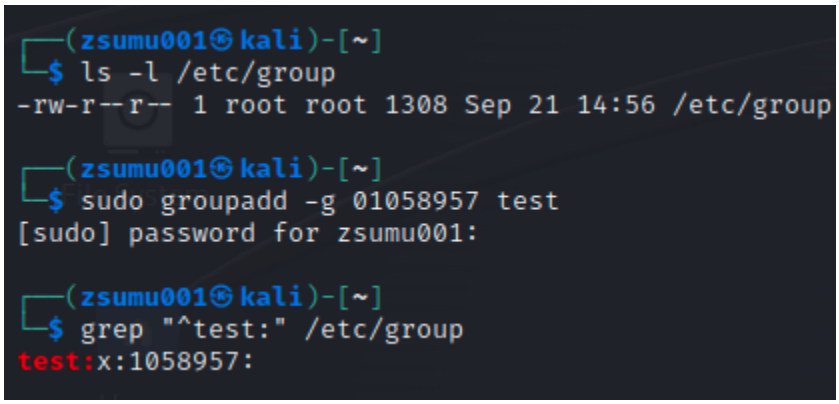


Task B – Group account management

Use Linux commands to execute the following tasks:

1. Return to your home directory and determine the shell you are using.
   Command: cd ~
   echo $SHELL
   - cd changes current directory to home directory, ~ is a shortcut for home
   - echo $SHELL shows default shell for user
2. Display the current user's ID and group membership.
   Command: id
   - displays uid, gid, and groups
3. Display the group membership of the root account.
   Command: groups root
   - lists all groups the root user belongs to

4. Run the correct command to determine the user owner and group owner of the /etc/group file.
   Command: ls -l /etc/group
   - shows the user owner and group owner as root
5. Create a new group named test and use your UIN as the GID.
   Command: sudo groupadd -g 01058957 test
   - -g xxxxxxxx specifies the GID
6. Display the group account information for the test group using grep.
   Command:grep "^test:" /etc/group
   - displays test as group name, x as password placeholder, and my UIN as the GID.



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

Command: sudo groupmod -n newtest test

- groupmod modifies existing group, -n sets new group name,

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

Command: sudo usermod -aG newtest zsumu001

- usermod modifies user account, -aG adds user to group without overriding users other group memberships

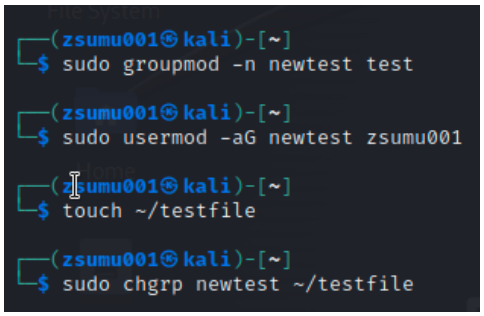
9. Create a new file testfile in the account's home directory, then change the group owner to newtest.

Command: touch ~/testfile

sudo chgrp newtest ~/testfile

- touch creates files (~) in home directory, after / would be name of the file

- chgrp changes group ownership of file, newtest is the new group to assign, ~/testfile the file that is being changed



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

Command: ls -l ~/testfile

- ls -l lists files in long format, showing owner, group, size etc.

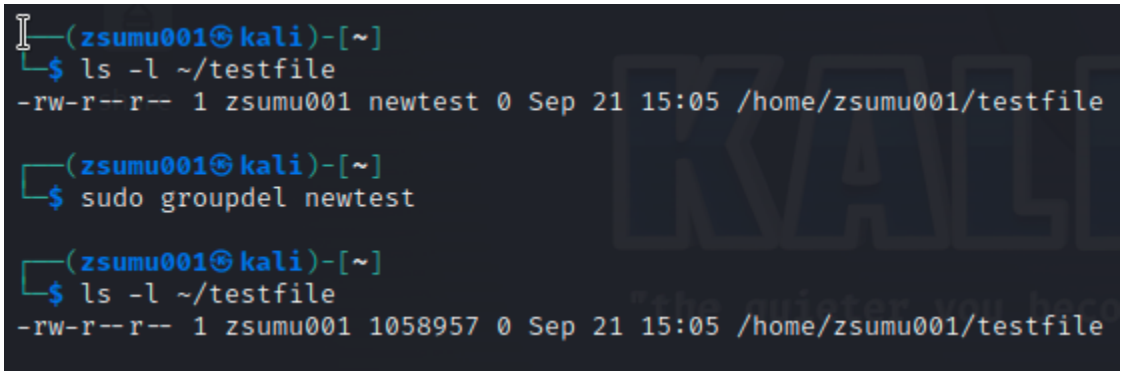
11. Delete the newtest group, then repeat the previous step. What do you find?

Command:sudo groupdel newtest

ls -l ~/testfile

- groupdel newtest deleted the newtest group

- The group owner does not exist so, ls -l displayed the former GID of newtest, it being my UIN



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

Command: sudo userdel -r -f zsumu001

- userdel deletes a user account, -r removes the users home directory, -f force deletion, zsumu001 being the user

-I verified the account was deleted by exiting and attempting to log in to the account