Exercise 16: Administering the System - Part 1

I. Prepare the environment
II. Manage user and group

1. Login to the CentOS system with user student.
2. Display the information in /etc/passwd file and describe the fields information.
3. Display the /etc/shadow file and describe the fileds information.
4. Create a new user named student1 and set password for it
5. Display the information of student1's password
6. Switch to student1 from student with su command as follows
   $ su – student1

   After login successfully, exit from student1 session
7. Lock the student1 password
8. Try to switch to student1 again. Could you autheticate successfully?
9. Unlock the student1 password.
10. Change the default shell of student1 user to prevent this user from logging into the system.
11. Try to switch to student1. You could not log into the system.
12. Change back the default shell of student1 to /bin/bash.
13. Set the home directory for student1 to /home/student1
14. Create group class1
15. Create the /home/class1 directory by root privileges.
16. Change the group owner to class1 and change the directory mode to 770
17. Switch user to student1 and try to cd into the /home/class1. Could you cd into the class1.
18. Add user student1 to group class1 and try to cd into the /home/class1 again.
19. Display all groups that student1 belong to
20. Make class1 default for student1 user.
21. Delete user student1 with his home directory
22. Delete group class1

Exercise Instructions

I. Prepare the environment
II. Managing files utilities

1. Log int to the CentOS system with the user name and password provided: **student/lpic1@123**

2. Display the information in /etc/passwd file and describe the fields information.
   $ more /etc/passwd
   Explain the 7 fileds information of /etc/passwd

3. Display the /etc/shadow file and describe the fileds information.
   $ sudo more /etc/shadow
   Explain the 9 fields information of /etc/shadow

4. Create a new user named student1 and set password for it
   $ sudo useradd student1
   $ sudo passwd student1

5. Display the information of student1's password
   $ sudo passwd -S student1
   Or
   $ chage -l student1

6. Switch to student1 from student with su command as follows
   $ su – student1

   After login successfully, exit from student1 session
   $ su – student1
   $ exit

7. Lock the student1 password
   $ sudo passwd -l student1

8. Try to switch to student1 again. Could you autheticate successfully?
   $ su – student1
   You could not switch to student1 because the user password is locked

9. Unlock the student1 password.
   $ sudo passwd -u student1

10. Change the default shell of student1 user to prevent this user from logging into the system.
    $ sudo usermod -s /sbin/nologin student1

11. Try to switch to student1. You could not log into the system.

$ su – student1
You'll get a message that you cannot login.

12. Change back the default shell of student1 to /bin/bash.
    $ sudo usermod -s /bin/bash student1

13. Set the home directory for student1 to /home/student1
    $ sudo usermod -md /home/student1 student1

14. Create group class1
    $ groupadd class1

15. Create the /home/class1 directory by root privileges.
    $ sudo mkdir /home/class1

16. Change the group owner to class1 and change the directory mode to 770
    $ sudo chgrp class1 /home/class1
    $ sudo chmod 770 /home/class1

17. Switch user to student1 and try to cd into the /home/class1. Could you cd into the class1.
    $ su – student1
    $ cd /home/class1
    You could not cd into this directory because of insufficient privileges.

18. Add user student1 to group class1 and try to cd into the /home/class1 again.
    $ sudo usermod -G class1 student1

19. Display all groups that student1 belong to
    $ groups student1

20. Make class1 default for student1 user.
    $ sudo usermod -g class1 student1

21. Delete user student1 with his home directory
    $ sudo userdel -r student1

22. Delete group class1
    $ sudo groupdel class1