Dept. of CSE, Bennett University
Linux and Shell programming lab
Lab Assignment – 3

User management in Linux

In this lab we will learn about user management in Linux. This will allow us to add, modify, delete users and groups. Following commands (not limited to) may come handy for these operations:

- **adduser:** add a user to the system.
- **userdel**: delete a user account and related files.
- **addgroup:** add a group to the system.
- **delgroup:** remove a group from the system.
- **usermod:** modify a user account.
- **chage:** change user password expiry information.
- **sudo**: run one or more commands as another user (typically with superuser permissions).

Relevant files: /etc/passwd (user information), /etc/shadow (encrypted passwords), /etc/group (group information)
and /etc/sudoers (configuration for sudo).

Superuser permissions can be gained either by changing to the root user with the su command or using sudo. The latter approach is used by default in Ubuntu and derivatives, and is preferred over the former in other distributions as well.

Now here is the situation:
Thanos are planning to gain control of infinity gauntlet and planning to delete half of living universe. We need to assemble the avengers to stop Thanos the mad titan. You are suppose to perform following tasks to mimic this scenario:

- Create a user named Thanos via adduser command.
- Create a group named Gauntlet and add Thanos to this group.
- Allow the group to execute all the commands similar to sudo group by configuring the /etc/sudoers file.

Now Thanos being a part of Gauntlet group has sudo powers (aka infinity gauntlet in Linux). Our next task is to assemble Avengers.

Create a new user called Ironman and allow him to execute the useradd command by configuring the /etc/sudoers file.

● Ironman will create other avengers namely, Cap, Thor, Hulk, Widow and Hawkeye. These member account have to follow these conditions:

  a) Each account has a default password at the time of creation.
  b) The user must change the password during the first system login.
  c) Password must be changed every 3 months.
  d) The kind of shell will be /bin/bash.
  e) Account expires 1st January 2022.

● Thanos snapped his finguers and killed half of the universe. Widow and hawkeye were dead. Login to thanos and delete Widow and hawkeye via userdel.

● Avengers fight back and finally Iron man has the gauntlet and he snapped and defeated Thanos as per following steps:

  a) Switch to root and add Iron man to Gauntlet group.
  b) Login to Iron man account and delete Thanos account.
  c) As Thanos is dead now, Iron man destroyed the infinity gauntlet by deleting the Gauntlet group.

Reference:

https://www.geeksforgeeks.org/user-management-in-linux/

https://www.redhat.com/sysadmin/linux-user-account-management

https://www.computernetworkingnotes.com/linux-tutorials/linux-user-management-explained-with-examples.html

Submission Instruction:

1. Create a log file (word or text) to store every command you run and their respective output. Save this file with your Roll_no@Lab3 name.
2. Use proper comments where required.
3. Submit the assignment on your LMS/ CollPoll page.
4. Deadline to submit this is one week from the date of launch.
5. Do not copy from others, Plagiarism will attract penalty.