

Topic: User Management

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1) How to add a New Group?

We have to use addgroup command. For this sudo permission is required. sudo means superuser do.

\$ sudo addgroup pythongroup

Note: We can see all created groups information inside /etc/group file.

2) How to add User:

We have to use adduser command. For this sudo permission is required.

\$ sudo adduser --ingroup pythongroup milky

Note: While creating new user, if we are not specifying groupname, then a new group will be created with the same name as username.

3) Switching from One User to another User:

We have to use su command.

su means switch user.

syntax: su newuser

\$ whoami

ec2-user

\$ su milky

Password:

\$ whoami

milky

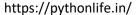
\$ exit

exit

\$ whoami

ec2-user

Note: If we use su command without any argument, then it will switch to root user. Hence the following 2 commands are equal. (But in ubuntu this option is not working)



S su root

In Ubuntu, to switch to root user, we have to use:

\$ sudo –i



su with and without - Option:

If we use su command without - option, then only user will be switched but environment won't be switched If we use - option with su command, then both user and environment will be switched

How to Delete User

We have to use deluser command.

To delete user compulsory sudo permission must be required.

\$ sudo deluser milky

Removing user 'milky' ...

Note: We can check whether user deleted or not by using /etc/passwd file

How to Delete Group

We have to use delgroup command. For this sudo access must be required and no user associated with the group. \$ sudo delgroup pythongroup

How to Change Ownership of a File:

We can change by using chown command. But for this sudo permission required.

How to Change Group Membership of a File?

We have to use chgrp command.

chgrp means change group.

To use this command compulsory sudo permission must be required.

How to Change Group of a User:

We have to use usermod command.

Syntax: \$ usermod -g groupname username

Add a User to Multiple Groups:

While assigning the secondary groups to a user account, we can easily assign multiple groups at once by separating the list with a comma.

\$ usermod -a -G group1,group2,group3 username

How to Change Password of User:

To change a password for user named milky: \$ sudo passwd milky

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What is the difference between adduser and useradd in Linux?

Useradd is built-in Linux command that can be found on any Linux system. However, creating new users with this low-level is a difficult and lengthy task. First we have to creater user and then we have to provide password and extra information separately.

Adduser is not a standard Linux command. It is essentially a Perl script that uses the useradd command in the background. This high-level utility is more efficient in properly creating new users on Linux. Default parameters for all new users can also be set through the adduser command.

sudo Command:

sudo means Super User Do.

We can use sudo command to execute commands as another user, mostly root user.

sudoers File:

Which commands can be executed by using sudo of a particular user, information is configured in sudoers file, which is present in /etc directory.

System Administrators are responsible to configure this file.

\$ Is -I /etc/sudoers

User privilege specification

root ALL=(ALL:ALL) ALL

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

Topic: Package Management

Package:

Package is nothing but a collection of files. It contains data and metadata like description, version and dependencies etc.

Package Manager:

- It is responsible to installs, upgrades and removes packages.
- It is responsible to manage dependencies.
- It will track all installed packages.
- Eg: yum is the package manager in RedHat Linux.
- apt is the package manager in ubuntu.

Advanced Packaging Tool (apt):

1) Searching for Packages:

\$ apt-cache search string
It will search for packages based on given search string.
\$ apt-cache search xeyes
x11-apps - X applications





2) Install a New Package:

\$ apt-get install package

3) To remove Package without removing Configuration:

\$ apt-get remove package

Only package will be removed but not configuration

4) To remove Package and its Configuration:

\$ apt-get purge package

both package and its configuration will be removed.

5) To get Information about a Package:

\$ apt-cache show package
Display information about the package

6) dpkg Command:

\$ dpkg -l List all installed packages

Topic: Memory related Commands

1) df Command:

df means disk fragmentation.

It displays file system disk space usage. It provides information about the space available on all currently mounted file systems.

\$ df

Filesystem 1K-blocks Used Available Use% Mounted on udev 1404040 0 1404040 0% /dev tmpfs 285584 1584 284000 1% /run /dev/sda1 10253588 5512804 4200216 57% / tmpfs 1427912 0 1427912 0% /dev/shm tmpfs 5120 4 5116 1% /run/lock tmpfs 1427912 0 1427912 0% /sys/fs/cgroup

We can use multiple options with df command.

- -h → Human Readable Format
- -m → In Mega Bytes
- -k → In Kilo Bytes (It is Default)

2) du Command:

du - estimate file space usage

It displays directory wise disk usage in the form of blocks. Each block is 1024 bytes.





- 4 ./dir10
- 4 ./Downloads/java/corejava
- 8 ./Downloads/java
- 12 ./Downloads

We can use multiple options with du command.

- -h → Human Readable Format
- -m → In Mega Bytes
- -k → In Kilo Bytes (It is Default)

3) free Command:

It displays amount of free and used memory in the system.

\$ free

total used free shared buff/cache available

Mem: 2855828 1205468 646652 51552 1003708 1434376

Swap: 483800 0 483800

We can use multiple options with free command.

- -h → Human Readable Format
- -m → In Mega Bytes
- -k → In Kilo Bytes (It is Default)

Note: We can use -I and -t options also.

-l, --lohi

Show detailed low and high memory statistics.

-t, --total

Display a line showing the column totals