

Advanced Computer Networks Lab

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Roll No:23

1. usermod

- usermod command is used to change the properties of a user in Linux through the command line
- command-line utility that allows you to modify a user's login information
- #usermod --help
- #usermod -u 2000 Tom

```
antonyscaria@DESKTOP-IU405JG: ~  
antonyscaria@DESKTOP-IU405JG:~$ usermod --help  
Usage: usermod [options] LOGIN  
  
Options:  
-b, --badnames          allow bad names  
-c, --comment COMMENT   new value of the GECOS field  
-d, --home HOME_DIR     new home directory for the user account  
-e, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE  
-f, --inactive INACTIVE set password inactive after expiration  
                        to INACTIVE  
-g, --gid GROUP          force use GROUP as new primary group  
-G, --groups GROUPS     new list of supplementary GROUPS  
-a, --append             append the user to the supplemental GROUPS  
                        mentioned by the -G option without removing  
                        the user from other groups  
-h, --help              display this help message and exit  
-l, --login NEW_LOGIN   new value of the login name  
-L, --lock              lock the user account  
-m, --move-home         move contents of the home directory to the  
                        new location (use only with -d)  
-o, --non-unique         allow using duplicate (non-unique) UID  
-p, --password PASSWORD use encrypted password for the new password  
-R, --root CHROOT_DIR   directory to chroot into  
-P, --prefix PREFIX_DIR prefix directory where are located the /etc/* files  
-s, --shell SHELL       new login shell for the user account  
-u, --uid UID            new UID for the user account  
-U, --unlock            unlock the user account  
-v, --add-subuids FIRST-LAST add range of subordinate uids  
-V, --del-subuids FIRST-LAST remove range of subordinate uids  
-w, --add-subgids FIRST-LAST add range of subordinate gids  
  
antonyscaria@DESKTOP-IU405JG:~$ usermod -u 2000 antonyscaria  
usermod: user antonyscaria is currently used by process 8  
antonyscaria@DESKTOP-IU405JG:~$
```

2. groupadd • groupadd command creates a new group account using the values specified on the command line and the default values from the system.

- #groupadd student

```
antonyscaria@DESKTOP-IU405JG:~$ sudo groupadd student  
[sudo] password for antonyscaria:  
antonyscaria@DESKTOP-IU405JG:~$
```

3. groups - print the groups a user is in

- #groups alice

```
antonyscaria@DESKTOP-IU405JG:~$ groups antonyscaria  
antonyscaria : antonyscaria adm dialout cdrom floppy sudo audio dip video plugdev netdev  
antonyscaria@DESKTOP-IU405JG:~$
```

4. groupdel

- groupdel command modifies the system account files, deleting all entries that refer to group. The named group must exist

- #groupdel marketing

```
antonyscaria@DESKTOP-IU405JG:~$ sudo groupdel student  
antonyscaria@DESKTOP-IU405JG:~$
```

5. groupmod

- The groupmod command modifies the definition of the specified group by modifying the appropriate entry in the group database.

groupmod -n group1 group2

```
antonymscaria@DESKTOP-IU405JG:~$ sudo groupmod -n student2 student1
antonymscaria@DESKTOP-IU405JG:~$
```

6. chmod

- To change directory permissions of file/ Directory in Linux.

#chmod whowhatwhich file/directory

- chmod +rwx filename to add permissions.
- chmod -rwx directoryname to remove permissions.
- chmod +x filename to allow executable permissions.
- chmod -wx filename to take out write and executable permissions.

#chmod u+x test

#chmod g-rwx test #chmod o-r test 4

```
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$ chmod +rwx quest.txt
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$
```

7. chown

- The chown command allows you to change the user and/or group ownership of a given file, directory.

#chown Tom Test

```
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$ chown antonymscaria capital.txt
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$
```

8. id

- id command in Linux is used to find out user and group names and numeric ID's (UID or group ID) of the current user.

- #id

```
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$ id
uid=1000(antonymscaria) gid=1000(antonymscaria) groups=1000(antonymscaria),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),117(netdev)
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$
```

9. ps

- The ps command, short for Process Status, is a command line utility that is used to display or view information related to the processes running in a Linux system.

- PID – This is the unique process ID
- TTY – This is the type of terminal that the user is logged in to
- TIME – This is the time in minutes and seconds that the process has been running
- CMD – The command that launched the process

#ps -a 5

```
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$ ps -a
  PID TTY          TIME CMD
    8 tty1      00:00:00 bash
   85 tty1      00:00:00 ps
antonymscaria@DESKTOP-IU405JG:/mnt/c/Users/antony/Downloads$
```

10. top

- top command is used to show the Linux processes. It provides a dynamic real-time view of the running system

#top -u rose

```
top - 20:13:55 up 37 min, 0 users, load average: 0.52, 0.58, 0.59
Tasks:  4 total,  1 running,  3 sleeping,  0 stopped,  0 zombie
%Cpu(s):  0.6 us,  0.5 sy,  0.0 ni, 98.8 id,  0.0 wa,  0.1 hi,  0.0 si,  0.0 st
MiB Mem :  7577.4 total,  3249.3 free,  4104.1 used,  224.0 buff/cache
MiB Swap: 23552.0 total, 23319.9 free,   232.1 used.  3342.7 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
8	antony+	20	0	18080	3584	3468	S	0.0	0.0	0:00.55	bash
87	antony+	20	0	18928	2196	1524	R	0.0	0.0	0:00.04	top