

ASSIGNMENT

ON

Advanced Computer Network Lab

Submitted to

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Submitted by

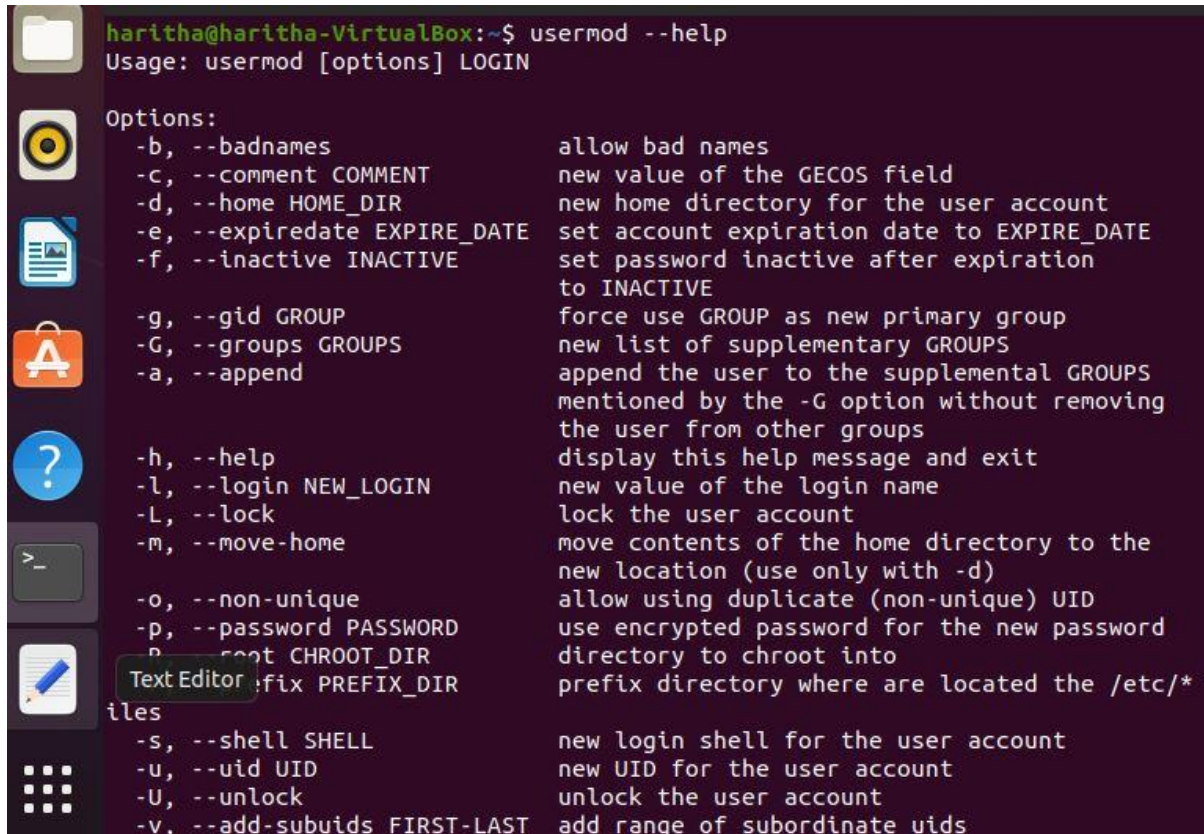
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MCA S2 A

Rollno: 40

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

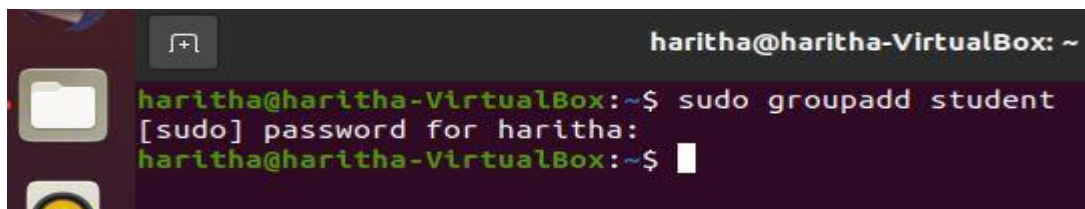
A terminal window with a dark purple background and light green text. The prompt is 'haritha@haritha-VirtualBox:~\$'. The command 'usermod --help' has been executed. The output shows the usage and a list of options with their descriptions. The options are: -b, --badnames (allow bad names), -c, --comment 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), -P, --prefix CHROOT_DIR (directory to chroot into), -s, --shell 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).

```
haritha@haritha-VirtualBox:~$ 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
  -P, --prefix CHROOT_DIR       directory to chroot into
  -s, --shell 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
```

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

A terminal window with a dark purple background and light green text. The prompt is 'haritha@haritha-VirtualBox:~\$'. The command 'sudo groupadd student' has been executed. The output shows the password prompt for haritha and the successful execution of the command.

```
haritha@haritha-VirtualBox:~$ sudo groupadd student
[sudo] password for haritha:
haritha@haritha-VirtualBox:~$
```

3. group- s

- print the groups a user is in
 - #groups alice

```
haritha@haritha-VirtualBox:~$ sudo groupadd student
[sudo] password for haritha:
haritha@haritha-VirtualBox:~$ groups haritha
haritha : haritha adm cdrom sudo dip plugdev lpadmin lxd sambashare
haritha@haritha-VirtualBox:~$
```

4. groupdel

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

```
haritha@haritha-VirtualBox:~$ sudo groupdel student
haritha@haritha-VirtualBox:~$
```

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

```
haritha@haritha-VirtualBox:~$ sudo groupadd student
haritha@haritha-VirtualBox:~$
haritha@haritha-VirtualBox:~$ sudo groupmod -n student2 student
haritha@haritha-VirtualBox:~$
```

6. chmod

- To change directory permissions of file/ Directory in Linux.
- #chmod whowhatwhich file/directory
- **chmod +rwx file a m e** To add permissions.
 - **chmod -rwx directory n a m e** To remove permissions.
 - **chmod +x file a m e** To allow executable permissions.
 - **chmod -wx file a m e** to take out write and executable permissions.

#chmod u+x test

#chmod g-rwx test

#chmod o-r test

```
haritha@haritha-VirtualBox:~$ chmod +rwx file3.txt
haritha@haritha-VirtualBox:~$
```

7. chown

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

#chown Tom Test

```
haritha@haritha-VirtualBox:~$ chown haritha file3.txt
```

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

```
haritha@haritha-VirtualBox:~$ id
uid=1000(haritha) gid=1000(haritha) groups=1000(haritha),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),120(lpadmin),131(lxd),132(sambashare)
haritha@haritha-VirtualBox:~$
```

9. ps

- The ps command, **short for Process S**, its a **at cuosmmand** 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

```
haritha@haritha-VirtualBox:~$ ps -a
  PID TTY          TIME CMD
   764 tty2          00:00:29 Xorg
   894 tty2          00:00:00 gnome-session-b
  2265 pts/0          00:00:00 ps
```

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

```
haritha@haritha-VirtualBox:~$ top -u haritha
```

```
top - 20:06:45 up 44 min,  1 user,  load average: 0.15, 0.08, 0.09
Tasks: 175 total,   1 running, 174 sleeping,   0 stopped,   0 zombie
%Cpu(s):  2.1 us,  3.0 sy,  0.0 ni, 94.9 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :  1987.1 total,   670.2 free,   690.4 used,   626.5 buff/cache
MiB Swap:   929.4 total,   929.4 free,    0.0 used.  1137.2 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1041	haritha	20	0	4193920	325696	121888	S	7.3	16.0	1:06.91	gnome-+
764	haritha	20	0	835604	69896	42364	S	4.0	3.4	0:34.06	Xorg
1389	haritha	20	0	823288	51408	38924	S	1.0	2.5	0:09.15	gnome-+