



NETWORKING AND SYSTEM ADMINISTRATION LAB

ASSIGNMENT 3 - BASIC LINUX COMMANDS

**SUBMITTED TO
MEERA MISS**

**SUBMITTED BY
SWATHY KRISHNA P R
S2 RMCA B
ROLL NO: 31**

Q.Explain linux commands usermod, groupadd, groups, groupmod, groupdel, chmod, chown, id, ps, top with examples

COMMANDS

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 swathy

```
swathy@LAPTOP-1TOUJQNG:~$ usermod -u 2000 swathy
usermod: user swathy is currently used by process 10
swathy@LAPTOP-1TOUJQNG:~$ usermod --help
Usage: usermod [options] LOGIN
```

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

```
swathy@LAPTOP-1TOUJQNG:~$ sudo groupadd student
[sudo] password for swathy:
```

3. groups

Groups command print the groups a user is in

```
swathy@LAPTOP-1TOUJQNG:~$ sudo groups swathy
swathy : swathy adm dialout cdrom floppy sudo audio dip video plugdev netdev
```

4. groupdel

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

```
swathy@LAPTOP-1TOUJQNG:~$ sudo groupadd -g 1010 mygroup1
[sudo] password for swathy:
swathy@LAPTOP-1TOUJQNG:~$ getent group mygroup1
mygroup1:x:1010:
swathy@LAPTOP-1TOUJQNG:~$ sudo groupadd swathy12
swathy@LAPTOP-1TOUJQNG:~$ getent group swathy12
swathy12:x:1011:
swathy@LAPTOP-1TOUJQNG:~$ groupdel swathy12
groupdel: Permission denied.
groupdel: cannot lock /etc/group; try again later.
swathy@LAPTOP-1TOUJQNG:~$ getent group swathy12
swathy12:x:1011:
swathy@LAPTOP-1TOUJQNG:~$ sudo groupdel swathy12
```

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

```
swathy@LAPTOP-1TOUJQNG:~$ sudo groupadd student2
swathy@LAPTOP-1TOUJQNG:~$ groupmod -n swathy12 student2
groupmod: Permission denied.
groupmod: cannot lock /etc/group; try again later.
swathy@LAPTOP-1TOUJQNG:~$ sudo groupmod-n swathy12 student2
sudo: groupmod-n: command not found
swathy@LAPTOP-1TOUJQNG:~$ sudo groupmod -n swathy12 student2
```

6. chmod

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

#chmod whowhatwhich file/directory.

```
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ chmod +rwx text.txt.txt
```

7. chown

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

```
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ chown HP text.txt.txt
chown: invalid user: 'HP'
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ chown swathy text.txt.txt
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/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.

```
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ chown swathy text.txt.txt
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ id
uid=1000(swathy) gid=1000(swathy) groups=1000(swathy),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),117(netdev)
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/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

```
swathy@LAPTOP-1TOUJQNG:/mnt/c/Users/HP/Downloads$ ps -a
PID TTY          TIME CMD
  10 tty1          00:00:00 bash
  11 tty2          00:00:00 bash
 202 tty1          00:00:00 ps
```

10. top

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

```
top - 22:44:54 up 1:33, 0 users, load average: 0.52, 0.58, 0.59
Tasks: 6 total, 1 running, 5 sleeping, 0 stopped, 0 zombie
%Cpu(s): 12.9 us, 4.1 sy, 0.0 ni, 82.9 id, 0.0 wa, 0.1 hi, 0.0 si, 0.0 st
MiB Mem : 6086.8 total, 2360.2 free, 3502.7 used, 224.0 buff/cache
MiB Swap: 18432.0 total, 18294.6 free, 137.4 used. 2453.5 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR S  %CPU  %MEM    TIME+  COMMAND
   10 swathy    20   0  18088   3612  3496 S   0.0   0.1   0:00.67 bash
   11 swathy    20   0  18088   3588  2108 S   0.0   0.1   0:00.34 bash
  203 swathy    20   0  18924   2184  1524 R   0.0   0.0   0:00.07 top
```