

BASIC LINUX COMMANDS 3

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 .

```
user@user-HP-Laptop-15-da0xxx: ~/silja$ usermod
Usage: usermod [options] LOGIN

Options:
  -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
                              him/her 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
  -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
  -W, --del-subgids FIRST-LAST remove range of subordinate gids
  -Z, --setlinux-user SEUSER  new SELinux user mapping for the user account
```

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

```
user@user-HP-Laptop-15-da0xxx:~/silja$ groupadd
Usage: groupadd [options] GROUP

Options:
  -f, --force                exit successfully if the group already exists,
                              and cancel -g if the GID is already used
  -g, --gid GID              use GID for the new group
  -h, --help                  display this help message and exit
  -k, --key KEY=VALUE        override /etc/login.defs defaults
  -o, --non-unique            allow to create groups with duplicate
                              (non-unique) GID
  -p, --password PASSWORD    use this encrypted password for the new group
  -r, --system                create a system account
  -R, --root CHROOT_DIR      directory to chroot into
  --extrausers                Use the extra users database

user@user-HP-Laptop-15-da0xxx:~/silja$
```

3. **groups** : print the groups a user is in#groups alice.

```
user@user-HP-Laptop-15-da0xxx:~/silja$ groups
user adm cdrom sudo dip plugdev lpadmin sambashare
user@user-HP-Laptop-15-da0xxx:~/silja$
```

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

```
user@user-HP-Laptop-15-da0xxx:~/silja$ groupdel
Usage: groupdel [options] GROUP

Options:
  -h, --help                display this help message and exit
  -R, --root CHROOT_DIR     directory to chroot into
  -f, --force                delete group even if it is the primary group of a user

user@user-HP-Laptop-15-da0xxx:~/silja$
```

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 .

```
user@user-HP-Laptop-15-da0xxx:~/silja$ groupmod
Usage: groupmod [options] GROUP

Options:
  -G, --gid GID          change the group ID to GID
  -h, --help             display this help message and exit
  -n, --new-name NEW_GROUP change the name to NEW_GROUP
  -o, --non-unique       allow to use a duplicate (non-unique) GID
  -p, --password PASSWORD change the password to this (encrypted)
                        PASSWORD
  -R, --root CHROOT_DIR  directory to chroot into

user@user-HP-Laptop-15-da0xxx:~/silja$
```

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

```
user@user-HP-Laptop-15-da0xxx:~/silja$ chmod --help
Usage: chmod [OPTION]... [OWNER][GROUP] FILE...
or: chmod [OPTION]... --reference=RFILE FILE...
Change the owner and/or group of each FILE to OWNER and/or GROUP.
With --reference, change the owner and group of each FILE to those of RFILE.

  -c, --changes           like verbose but report only when a change is made
  -f, --silent, --quiet  suppress most error messages
  -v, --verbose           output a diagnostic for every file processed
  -d, --dereference       affect the referent of each symbolic link (this is
                        the default), rather than the symbolic link itself
  -h, --no-dereference   affect symbolic links instead of any referenced file
                        (useful only on systems that can change the
                        ownership of a symlink)
  --from=CURRENT_OWNER:CURRENT_GROUP
                        change the owner and/or group of each file only if
                        its current owner and/or group match those specified
                        here, either may be omitted, in which case a match
                        is not required for the omitted attribute
  --no-preserve-root     do not treat '/' specially (the default)
  --preserve-root        fail to operate recursively on '/'
  --reference=RFILE      use RFILE's owner and group rather than
                        specifying owner:group values
  -R, --recursive        operate on files and directories recursively

The following options modify how a hierarchy is traversed when the -R
option is also specified. If more than one is specified, only the final
one takes effect.

  -H                    if a command line argument is a symbolic link
                        to a directory, traverse it
  -L                    traverse every symbolic link to a directory
                        encountered
  -P                    do not traverse any symbolic links (default)

  --help               display this help and exit
  --version            output version information and exit

Owner is unchanged if missing. Group is unchanged if missing, but changed
to login group if implied by a ':' following a symbolic OWNER.
OWNER and GROUP may be numeric as well as symbolic.

Examples:
  chmod root /u          Change the owner of /u to "root".
  chmod root:staff /u     Likewise, but also change its group to "staff".
  chmod -R root /u        Change the owner of /u and subfiles to "root".

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/chmod>
or available locally via: info '(coreutils) chmod invocation'
```

7. chown :The chown command allows you to change the user and/or group ownership of a given file, directory. #chownTom Test

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`

```
user@user-HP-Laptop-15-da0xxx:~$ id
uid=1000(user) gid=1000(user) groups=1000(user),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare)
user@user-HP-Laptop-15-da0xxx:~$
```

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`

```
user@user-HP-Laptop-15-da0xxx:~$ ps
  PID TTY          TIME CMD
 2171 pts/0    00:00:00 bash
 2222 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`

```
File Edit View Search Terminal Help
top - 02:22:41 up 10 min, 1 user, load average: 0.40, 0.45, 0.33
tasks: 199 total, 3 running, 149 sleeping, 0 stopped, 0 zombie
%CPU(s):  9.0 us, 1.0 sy,  0.0 ni, 89.8 id,  0.1 wa,  0.0 hi,  0.1 st
KiB Mem : 3952728 total, 2466640 free, 774600 used, 711488 buff/cache
KiB Swap: 2097148 total, 2097148 free,  0 used, 2689376 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR   S    %CPU  %MEM     TIME+ COMMAND
 1027 user        20   0 3960744 271788 71388  R    23.4   6.9   0:07.22 gnome-shell
 874  user        20   0 501700   51192 38280  R    2.0   1.3   0:14.65 Xorg
 2000 user        20   0 863740   61188 36744  R    2.0   1.5   0:02.83 nautilus
23220 user        20   0 355892   20392 15848  R    1.7   0.5   0:00.05 gnome-control-c
2345  user        20   0 353676  20436 15916  R    1.3   0.4   0:00.04 gnome-screensho
1009  user        20   0 377608   9788  8130  R    0.7   0.2   0:03.70 ibus-daemon
 202  root        0   0  95956  15356 14308  S    0.3   0.1   0:01.46 systemd-journ
880   root        0   0  226784   6920  6220  S    0.3   0.2   0:00.18 at-spi2-registr
1297  user        20   0 220996   8192  7372  S    0.3   0.2   0:01.13 ibus-engine-sin
2270  user        20   0 603140  38608 28184  S    0.3   1.0   0:02.10 gnome-terminal-
2343  user        20   0  51380   4024  3368  R    0.3   0.1   0:02.26 top
    1  root        0   0  225496   9260  6724  S    0.0   0.2   0:02.92 systemd
    2  root        0   0      0     0     0  S    0.0   0.0   0:00.00 kthreadd
   23 root        0   0      0     0     0  S    0.0   0.0   0:00.00 rcu_gp
   24 root        0   0      0     0     0  S    0.0   0.0   0:00.00 rcu_per_cpu_gp
   25 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/0:0H-kb
   26 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/u6:0-eva
   27 root        0   0      0     0     0  S    0.0   0.0   0:00.00 mm_percpu_wq
   28 root        0   0      0     0     0  S    0.0   0.0   0:00.00 ksoftirqd/0
   29 root        0   0      0     0     0  S    0.0   0.0   0:00.00 rcu_sched
   30 root        0   0      0     0     0  S    0.0   0.0   0:00.00 rcu_bh
   31 root        0   0      0     0     0  S    0.0   0.0   0:00.00 migration/0
   32 root        0   0      0     0     0  S    0.0   0.0   0:00.00 watchdog/0
   33 root        0   0      0     0     0  S    0.0   0.0   0:00.00 cpuhp/0
   34 root        0   0      0     0     0  S    0.0   0.0   0:00.00 watchdog/3
   35 root        0   0      0     0     0  S    0.0   0.0   0:00.00 migration/3
   36 root        0   0      0     0     0  S    0.0   0.0   0:00.00 ksoftirqd/1
   37 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/u6:0-eva
   38 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/1:0H-kb
   39 root        0   0      0     0     0  S    0.0   0.0   0:00.00 cpuhp/2
   40 root        0   0      0     0     0  S    0.0   0.0   0:00.00 watchdog/2
   41 root        0   0      0     0     0  S    0.0   0.0   0:00.00 migration/2
   42 root        0   0      0     0     0  S    0.0   0.0   0:00.00 ksoftirqd/2
   43 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/1:0H-kb
   44 root        0   0      0     0     0  S    0.0   0.0   0:00.00 cpuhp/3
   45 root        0   0      0     0     0  S    0.0   0.0   0:00.00 watchdog/3
   46 root        0   0      0     0     0  S    0.0   0.0   0:00.00 migration/3
   47 root        0   0      0     0     0  S    0.0   0.0   0:00.00 ksoftirqd/3
   48 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/3:0H-kb
   49 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kdevtmpfs
   50 root        0   0      0     0     0  S    0.0   0.0   0:00.00 nfsd
   51 root        0   0      0     0     0  S    0.0   0.0   0:00.00 rcu_tasks_kthre
   52 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kauditd
   53 root        0   0      0     0     0  S    0.0   0.0   0:00.00 kworker/0:2-mm_
   54 root        0   0      0     0     0  S    0.0   0.0   0:00.00 hungtaskd
   55 root        0   0      0     0     0  S    0.0   0.0   0:00.00 dmcc-raspt
```