# Linux User Management Commands

### User Account Creation and Deletion

* **useradd**: Creates a new user account on the system.
* useradd sachin
* *Output:* (No output on a successful execution.)
* ➡️ *Tip:* After creating a user, you can verify by:
* grep sachin /etc/passwd
* It should show Sachin’s entry.
* **passwd**: Sets or changes a user's password.
* passwd sachin
* *Output:*
* Changing password for user sachin.  
  New password:  
  Retype new password:  
  passwd: all authentication tokens updated successfully.
* 💡 *Note:* If you enter mismatched passwords, it will ask you to retry.
* **userdel**: Deletes a user account. Using the **-r** option also removes the user's home directory.
* userdel -r harry
* *Output:* (No output on a successful execution.)
* 👉 *Check after deletion:*
* ls /home
* You should no longer see Harry’s home directory.

### Viewing User Information

* **grep /etc/passwd**: Searches the /etc/passwd file to display a user's account properties.
* grep sachin /etc/passwd
* *Output:*
* sachin:x:1001:1001::/home/sachin:/bin/bash
* 🔎 *Breakdown:*
  + sachin → Username
  + x → Password is stored in /etc/shadow
  + 1001 → UID (User ID)
  + 1001 → GID (Group ID)
  + /home/sachin → Home directory
  + /bin/bash → Default shell
* **grep /etc/shadow**: Displays a user's encrypted password and password aging information from the secure /etc/shadow file.
* grep sachin /etc/shadow
* *Output:*
* sachin:$6$qg3B...:19299:0:99999:7::1
* 💡 *Note:* You need **root privileges** to view this file.
* **whoami**: Prints the name of the current user.
* whoami
* *Output:*
* root
* 👉 *Try this:* Switch user with su sachin and run whoami again.

### Session and Account Control

* **su**: Switches to another user account.
* su sachin
* *Output:*
* [sachin@vbox ~]$
* 💡 *Note:* Use su - sachin for a full login shell with environment variables.
* **exit**: Logs out of the current shell or user session.
* exit
* *Output:*
* logout
* 👉 *Interactive Flow:*
  + Login as root
  + Switch to user sachin
  + Type exit → You’ll be back to root

### usermod - Modify a User Account

The usermod command is used to modify an existing user's properties. The output for these commands is shown in the format of a user's /etc/passwd entry.

The starting user entry is:

deepak:x:1001:1001:actor:/home/deepak:/bin/bash

**a. Change Login Name (-l)** *Definition:* Changes a user's login name.

usermod -l kumar deepak

*Output:* kumar:x:1001:1001:actor:/home/deepak:/bin/bash

👉 *Tip:* The home directory remains /home/deepak unless you also use -d.

**b. Change User ID (-u)** *Definition:* Modifies a user's unique ID number.

usermod -u 5555 deepak

*Output:* deepak:x:5555:1001:actor:/home/deepak:/bin/bash

💡 *Note:* UID must be unique.

**c. Add or Change a Comment (-c)** *Definition:* Adds or changes a user's full name or comment.

usermod -c "Software Developer" deepak

*Output:* deepak:x:1001:1001:Software Developer:/home/deepak:/bin/bash

👉 This “comment” often appears in GUI login prompts or finger command outputs.

**d. Change Home Directory (-d)** *Definition:* Changes the path to a user's home directory.

usermod -d /home/developer deepak

*Output:* deepak:x:1001:1001:actor:/home/developer:/bin/bash

💡 Use -m along with -d to move existing files to the new directory.

**e. Change Login Shell (-s)** *Definition:* Modifies a user's default shell program.

usermod -s /sbin/nologin deepak

*Output:* deepak:x:1001:1001:actor:/home/deepak:/sbin/nologin

👉 Prevents login access while keeping files intact.

**f. Lock a User Account (-L)** *Definition:* Locks a user's password, preventing them from logging in.

usermod -L deepak

*Output:* deepak:x:1001:1001:actor:/home/deepak:/bin/bash

💡 This adds a ! in front of the password hash inside /etc/shadow.

**g. Unlock a User Account (-U)** *Definition:* Unlocks a user's password.

usermod -U deepak

*Output:* deepak:x:1001:1001:actor:/home/deepak:/bin/bash

**h. Set Account Expiry Date (-e)** *Definition:* Sets a date when the user's account will expire.

usermod -e 2025-09-30 deepak

*Output:* deepak:x:1001:1001:actor:/home/deepak:/bin/bash

👉 After expiry, the account cannot be used to log in.

### Other Commands

**a. chage**: Interactively changes a user's password aging information.

chage user1

*Output:*

Changing the aging information for user1  
Minimum number of days between password change [0]:  
Maximum number of days between password change [99999]:  
Number of days of warning before password expires [7]:

💡 Use chage -l user1 to view settings without changing them.

**b. vim /etc/login.defs**: Opens the system-wide policy file that sets default values for all new users.

vim /etc/login.defs

*Output:* (This command opens the file in the terminal for editing.)

# /etc/login.defs - Useradd defaults  
  
PASS\_MAX\_DAYS 99999  
PASS\_MIN\_DAYS 0  
...

👉 These defaults apply when you create a new user with useradd.