# Users & groups

In Ubuntu, managing users and groups is an important aspect of system administration. You can create, modify, and delete users and groups to control access and permissions. Below is an overview of common tasks for managing users and groups in Ubuntu.

## 1. Adding Users

adduser: A high-level command for adding users (preferred in Ubuntu because it prompts for more details).

sudo adduser username

This command will:

- Create the user.
- Create a home directory /home/username.
- Prompt for a password and other user details (such as full name).

useradd: A lower-level command for adding users without prompts (requires additional options to configure the user fully).

sudo useradd -m -s /bin/bash username

- -m: Creates the home directory.
- -s: Specifies the user's shell (e.g., /bin/bash).

## 2. Setting User Passwords

To set or update the password for a user:

sudo passwd username

## 3. Deleting Users

To remove a user without deleting their home directory:

sudo deluser username

To remove a user **and** their home directory:

sudo deluser --remove-home username

## 4. Adding/Removing Users from Groups

Groups help manage permissions by allowing multiple users to share access to files, directories, or system functions.

**Adding a user to a group**:

sudo usermod -aG groupname username

-aG: Appends the user to the specified group(s) without removing them from other groups

**Removing a user from a group:**

sudo deluser username groupname

## 5. Viewing User and Group Information

**View a user's groups**:

groups username

**View all system users**:

The list of users is stored in /etc/passwd. You can view it with:

cat /etc/passwd

**View all groups**:

Group information is stored in /etc/group. To list all groups:

cat /etc/group

## 6. Creating and Deleting Groups

**Create a group**:

sudo addgroup groupname

**Delete a group**:

sudo delgroup groupname

## 7. Switching Between Users

To switch to another user's account:

su - username

Alternatively, if you're logged in as a non-root user with     sudo privileges, you can use:

sudo su - username

## 8. Managing Sudo Privileges

The **sudo** command allows users to perform administrative tasks. The sudo privileges are usually controlled by adding users to the sudo group.

**Add a user to the** sudo **group**:

sudo usermod -aG sudo username

This grants the user sudo privileges.

## 9. Locking and Unlocking User Accounts

**Lock a user account** (disables login for the user):

sudo usermod -L username

**Unlock a user account**:

sudo usermod -U username

## 10. Changing User Information

To change a user's details (like full name, room number, etc.), use:

sudo chfn username

This command opens a prompt to update various user details.

## Files to Know

/etc/passwd: Contains a list of users and their basic information.

/etc/shadow: Stores hashed passwords and password-related information.

/etc/group: Contains group information.

/etc/sudoers: The configuration file that controls who has sudo privileges. You should edit it with visudo to avoid syntax errors:

sudo visudo

These commands and tools will help you manage users and groups efficiently in Ubuntu!