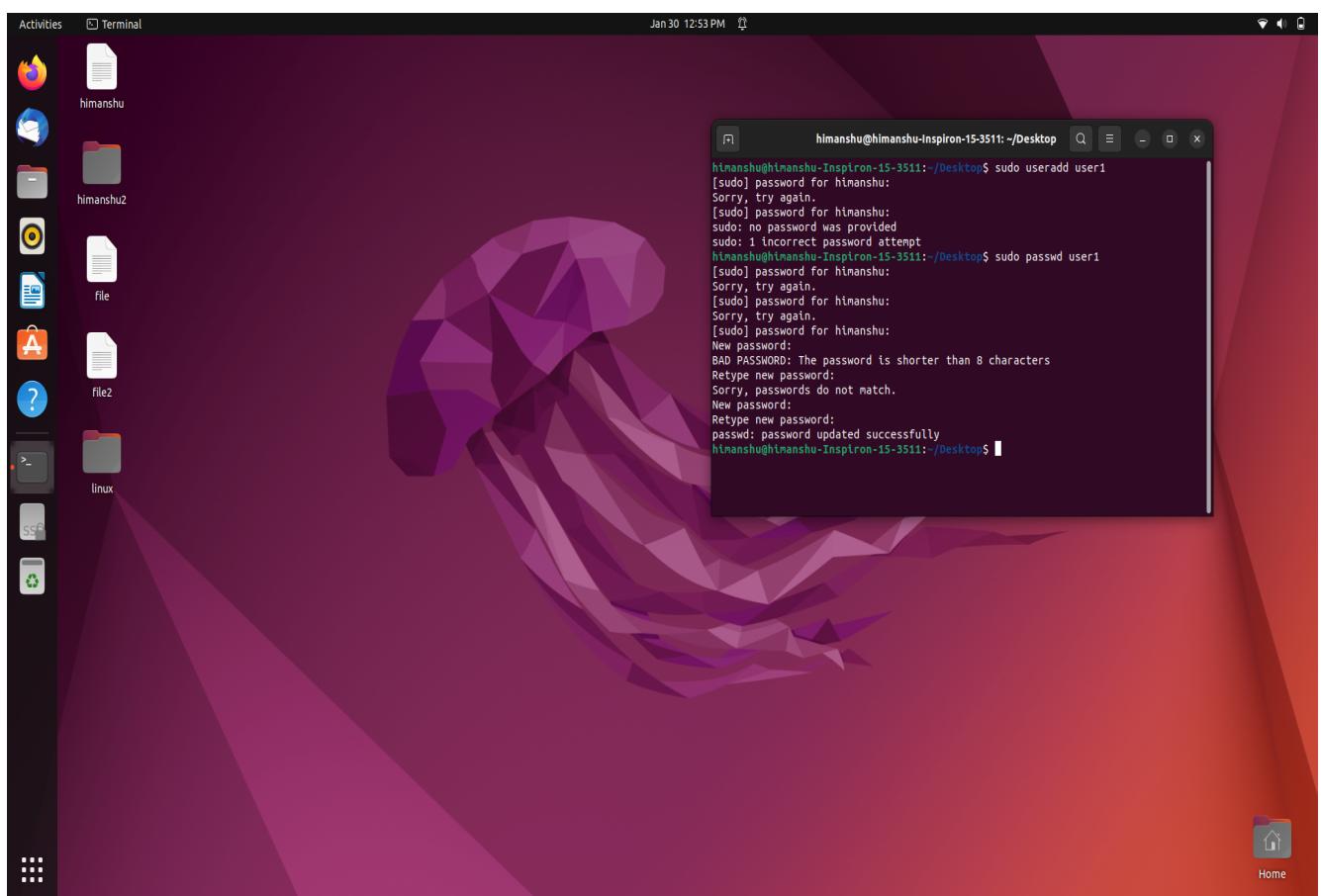


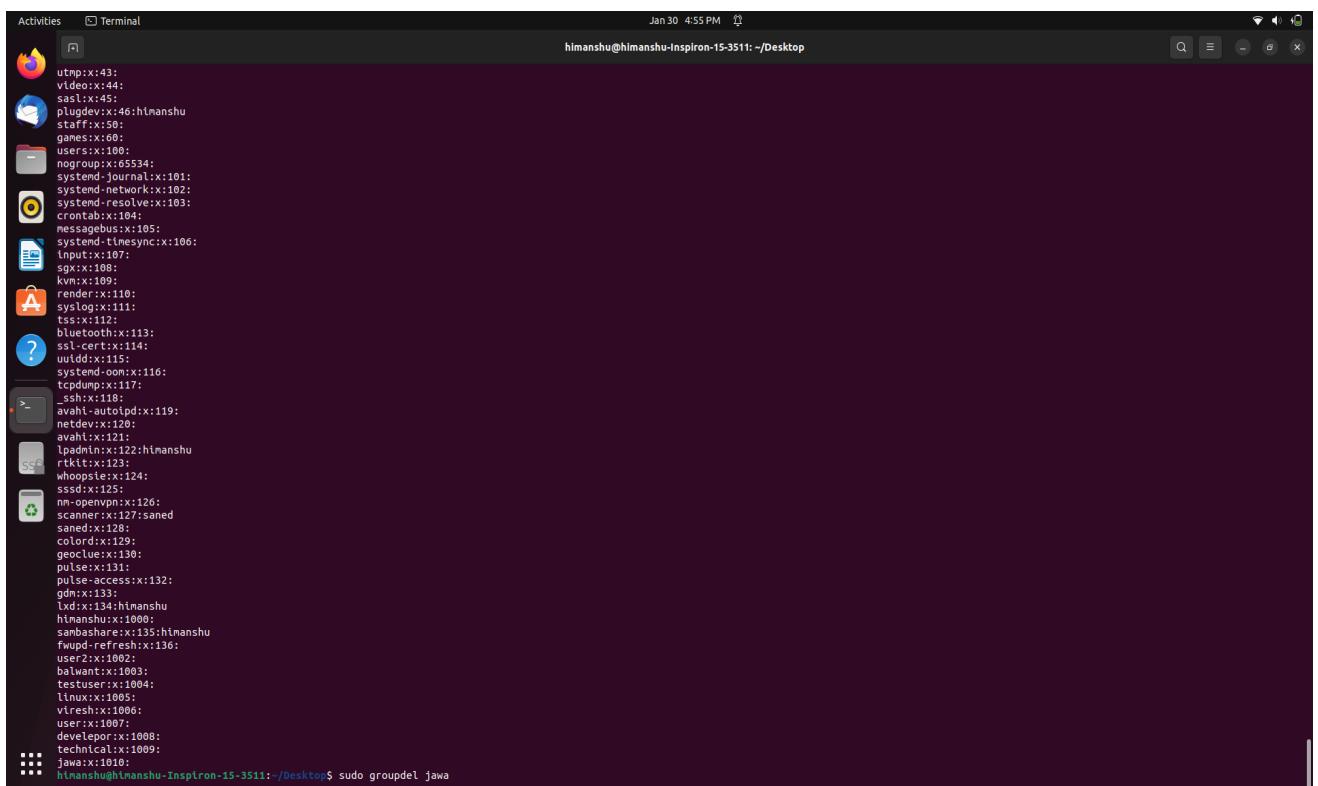
. USERADD COMMAND

Useradd is a linux command for creating a new user . it requires various options to add and set up an active user account. Additionally , the command allows changing default values for the user creation process .



. USERDEL COMMAND

The userdel command removes the user account identified by the login parameter. The command removes a user's attributes without removing the user's home directory by default . the user name must already exist . if the -r flag is specified , the userdel command also removes the users home directory .

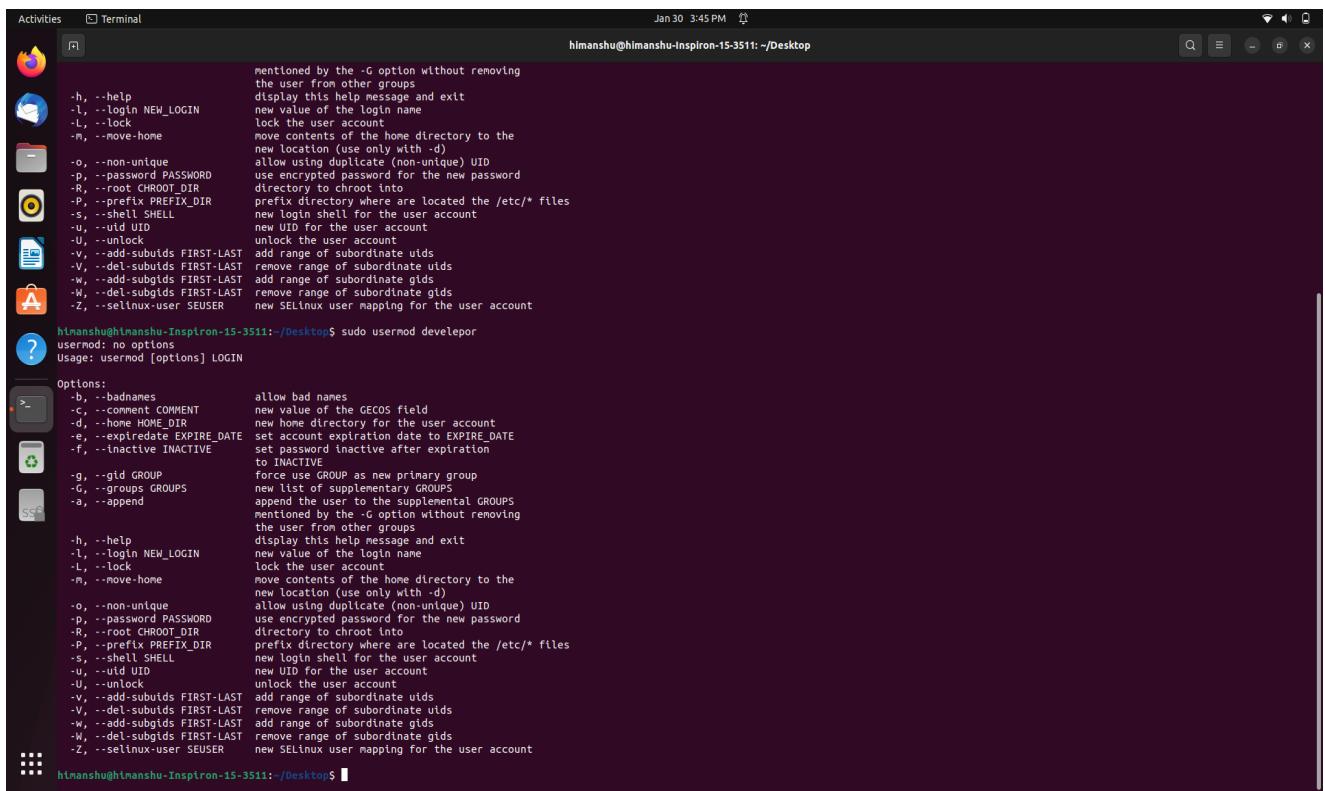


A screenshot of a Linux desktop environment showing a terminal window. The terminal window has a dark background and displays a list of user accounts from the /etc/passwd file. The user 'java' is highlighted with a cursor. The terminal title is 'Activities Terminal'. The system status bar at the top shows 'Jan 30 4:55 PM' and the user 'himanshu@himanshu-Inspiron-15-3511: ~/Desktop'. The desktop background is dark with various icons visible in the dock.

```
Activities Terminal Jan 30 4:55 PM himanshu@himanshu-Inspiron-15-3511: ~/Desktop
utmp:x:43:
video:x:44:
sasl:x:45:
plugdev:x:46:himanshu
staff:x:50:
games:x:66:
users:x:100:
nogroup:x:65534:
systemd-journal:x:101:
systemd-network:x:102:
systemd-resolve:x:103:
crontab:x:104:
mesg:x:105:
systemd-timesync:x:106:
input:x:107:
spx:x:108:
kvm:x:109:
render:x:110:
syslog:x:111:
tss:x:112:
bluetooth:x:113:
ssl-cert:x:114:
uuldd:x:115:
systemd-oom:x:116:
tcpdump:x:117:
_ssm:x:118:
avahi-autopid:x:119:
netdevx:x:120:
avahi:x:121:
lpadmin:x:122:himanshu
rtkitx:x:123:
whoopsie:x:124:
sssd:x:125:
nm-openvpn:x:126:
scanner:x:127:saned
saned:x:128:
colorx:x:129:
geoclue:x:130:
pulseaudio:x:131:
pulse-accesss:x:132:
gdm:x:133:
lxde:x:134:himanshu
himanshu:x:1000:
sambashare:x:135:himanshu
fwupd-refresh:x:136:
user2xx:x:1002:
balwantx:x:1003:
testuserx:x:1004:
linux:x:1005:
vireshx:x:1006:
user:x:1007:
develporx:x:1008:
technicalx:x:1009:
jawax:x:1010:
himanshu@himanshu-Inspiron-15-3511:~/Desktop$ sudo groupdel java
```

. USERMOD COMMAND

The usermod command is one of the several linux commands system administrators have at their disposal . for user management . It is used to modify existing user account details , such as username , password , home directory location , default shell and more .



```
Activities Terminal Jan 30 3:45 PM himanshu@himanshu-Inspiron-15-3511: ~/Desktop
himanshu@himanshu-Inspiron-15-3511:~/Desktop$ sudo usermod --help
mentioned by the -G option without removing
the user from other groups
display this help message and exit
new value of the login name
lock the user account
move contents of the home directory to the
new location (use only with -d)
allow using duplicate (non-unique) UID
use encrypted password for the new password
directory to chroot into
prefix directory where are located the /etc/* files
new login shell for the user account
new UID for the user account
unlock the user account
add range of subordinate uids
remove range of subordinate uids
add range of subordinate gids
remove range of subordinate gids
new SELinux user mapping for the user account

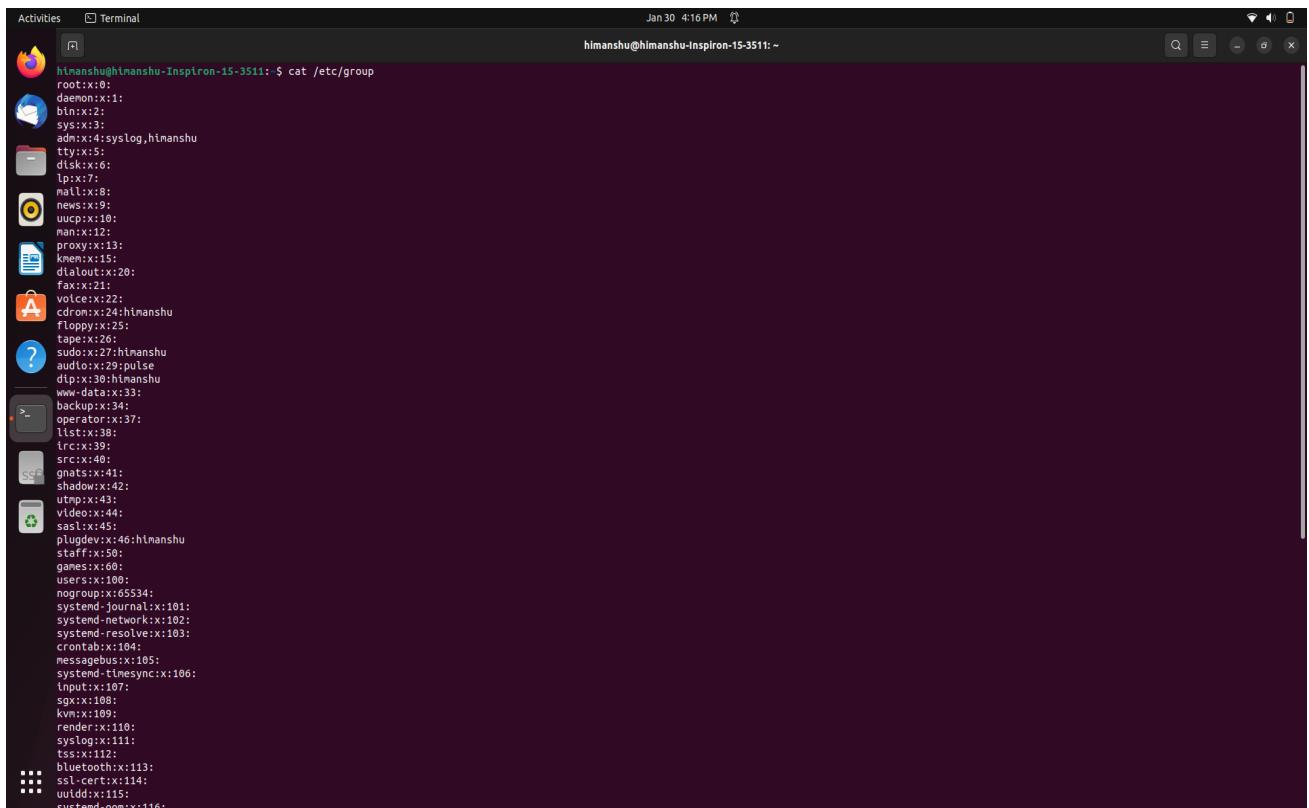
himanshu@himanshu-Inspiron-15-3511:~/Desktop$ sudo usermod no options
usermod: no options
Usage: usermod [options] LOGIN

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
-R, --root CHROOT_DIR   directory to chroot into
-P, --prefix 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
-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, --selinux-user SEUSER   new SELinux user mapping for the user account

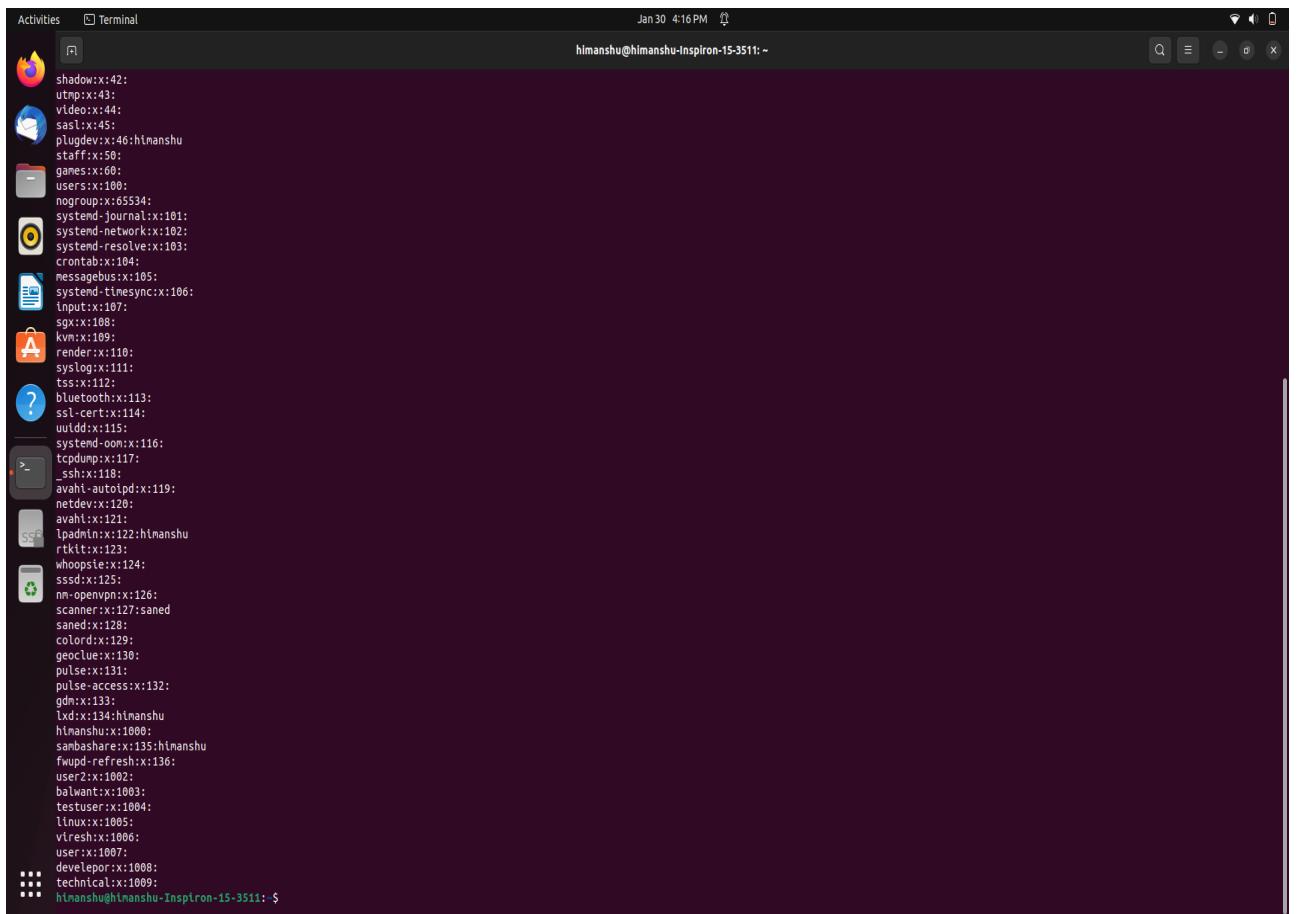
himanshu@himanshu-Inspiron-15-3511:~/Desktop$
```

. GROUPADD COMMAND

The groupadd command creates a new group account using the values specified on the command line plus the default values from the system . the new group will be entered into the system files as needed .

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, terminal, and system settings. The main area shows a terminal window titled 'Terminal' with the command 'cat /etc/group' running. The output of the command is displayed, listing numerous groups with their GID and members. The terminal window has a dark theme, and the desktop background is also dark.

```
himanshu@himanshu-Inspiron-15-3511:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,himanshu
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
nucix:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
volce:x:22:
cdrom:x:24:himanshu
floppy:x:25:
tape:x:26:
sudo:x:27:himanshu
audio:x:29:pulse
dip:x:30:himanshu
www-data:x:33:
backup:x:34:
operator:x:37:
operator:x:37:
list:x:38:
irc:x:39:
src:x:40:
gauts:x:41:
shadow:x:42:
utmp:x:43:
video:x:44:
sasl:x:45:
pludev:x:46:himanshu
staff:x:50:
games:x:60:
users:x:100:
nogroup:x:65534:
systemd-journal:x:101:
systemd-network:x:102:
systemd-resolve:x:103:
crontab:x:104:
messagebus:x:105:
systemd-timesync:x:106:
input:x:107:
sgx:x:108:
kvm:x:109:
render:x:110:
syslog:x:111:
tss:x:112:
bluetooth:x:113:
ssl-cert:x:114:
uuid:x:115:
systemd-nanny:x:116:
```



A screenshot of a Linux desktop environment showing a terminal window. The terminal window title is "Terminal" and the date and time are "Jan 30 4:16 PM". The command entered is "groups" and the output lists numerous groups with their respective IDs. The list includes: shadow:x:42:, utmp:x:43:, videotx:44:, sasl:x:45:, plugdev:x:46:, himanshu:x:50:, games:x:60:, users:x:100:, nogroup:x:65534:, systemd-journal:x:101:, systemd-network:x:102:, systemd-resolve:x:103:, crontab:x:104:, messagebus:x:105:, systemd-timesync:x:106:, inputx:107:, sgx:x:108:, kvm:x:109:, render:x:110:, syslog:x:111:, tss:x:112:, bluetooth:x:113:, ssl-cert:x:114:, uuldd:x:115:, systemd-oom:x:116:, tcpdump:x:117:, _ssh:x:118:, avahi-autopd:x:119:, netdev:x:120:, avahlx:x:121:, lpadmIn:x:122:, himanshu:rtkitx:x:123:, whoopsie:x:124:, sssdix:x:125:, nm-openvpn:x:126:, scanner:x:127:, saned:x:128:, colord:x:129:, geoclue:x:130:, pulsex:x:131:, pulse-access:x:132:, gdm:x:133:, lxd:x:134:, himanshu:1000:, sambashare:x:135:, himanshu:fwupd-refresh:x:136:, user2x:x:1002:, balwantx:x:1003:, testuserx:x:1004:, linuxx:x:1005:, vireshx:x:1006:, userx:x:1007:, developerx:x:1008:, technicalx:x:1009:. The command concludes with "himanshu@himanshu-Inspiron-15-3511: ~".

. GROUPDEL COMMAND

To delete a group from linux , use the command groupdel . there is no option . If the group to be deleted is the initial group of one of the users , you can not delete the group . The files changed by the groupdel command are two files “ /etc/group and “/etc/gshadow .

Activities Terminal Jan 30 4:55 PM himanshu@himanshu-Inspiron-15-3511: ~/Desktop

```
utmp:x:43:  
video:x:44:  
sasl:x:45:  
plugdev:x:46:himanshu  
staff:x:50:  
games:x:60:  
users:x:100:  
nogroup:x:65534:  
systemd-journal:x:101:  
systemd-network:x:102:  
systemd-resolve:x:103:  
crontab:x:104:  
messagebus:x:105:  
systemd-timesync:x:106:  
input:x:107:  
sgx:x:108:  
kvm:x:109:  
render:x:110:  
syslog:x:111:  
tss:x:112:  
bluetooth:x:113:  
ssl-cert:x:114:  
uuldd:x:115:  
systemd-oom:x:116:  
tcpdump:x:117:  
_ssh:x:118:  
avahi-autopid:x:119:  
netdev:x:120:  
avahi:x:121:  
lpadmin:x:122:himanshu  
rtkit:x:123:  
whoopsie:x:124:  
sssd:x:125:  
nm-openvpn:x:126:  
scanner:x:127:saned  
saned:x:128:  
colord:x:129:  
geoclue:x:130:  
pulse:x:131:  
pulse-access:x:132:  
gdm:x:133:  
lxde:x:134:himanshu  
himanshu:x:1000:  
sambashare:x:135:himanshu  
fwupd-refresh:x:136:  
user2:x:1002:  
balwant:x:1003:  
testuser:x:1004:  
linux:x:1005:  
vireshi:x:1006:  
user:x:1007:  
develeror:x:1008:  
technical:x:1009:  
java:x:1010:  
himanshu@himanshu-Inspiron-15-3511:~/Desktop$ sudo groupdel java
```

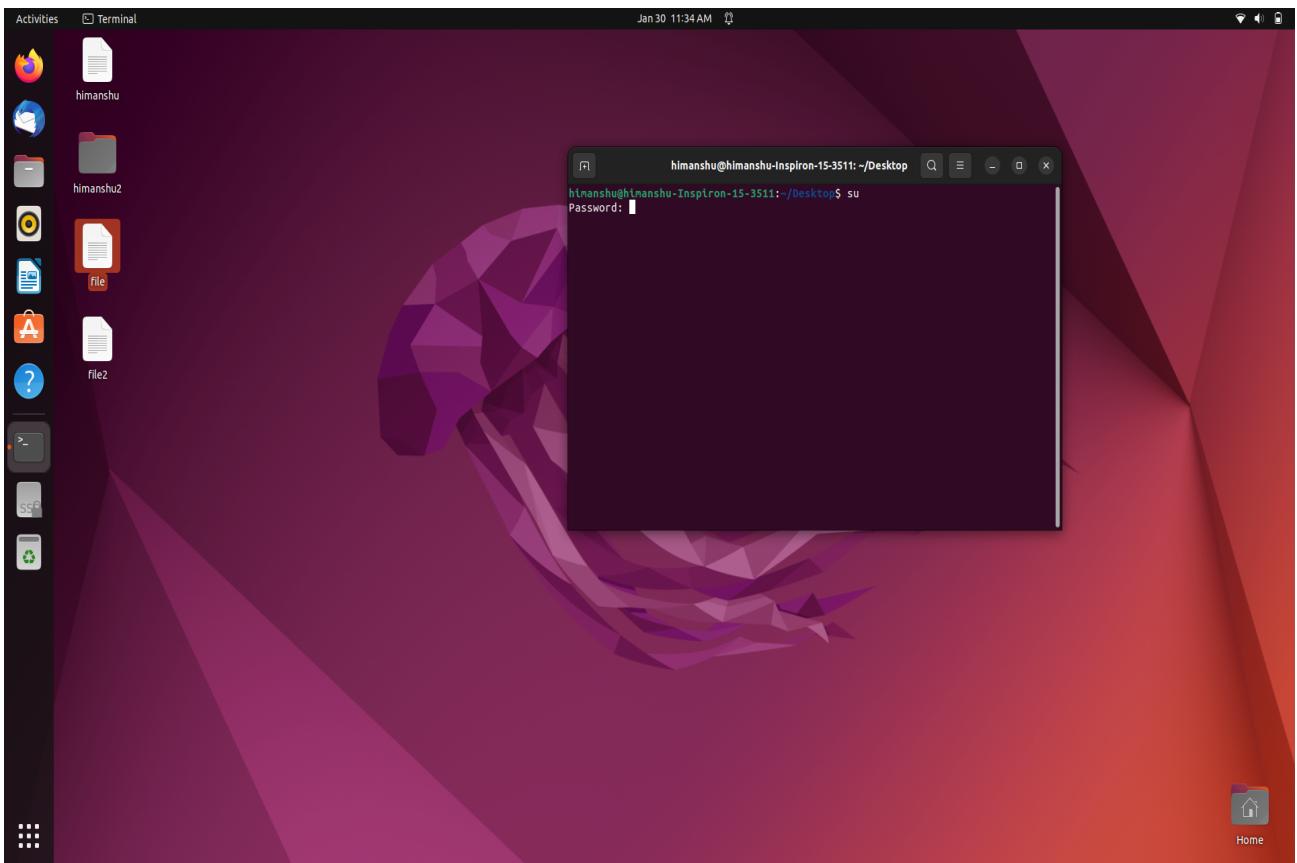
Activities Terminal Jan 30 4:55 PM himanshu@himanshu-Inspiron-15-3511: ~/Desktop

```
shadow:x:42:  
utmp:x:43:  
video:x:44:  
sasl:x:45:  
plugdev:x:46:himanshu  
staff:x:50:  
games:x:60:  
users:x:100:  
nogroup:x:65534:  
systemd-journal:x:101:  
systemd-network:x:102:  
systemd-resolve:x:103:  
crontab:x:104:  
messagebus:x:105:  
systemd-timesync:x:106:  
input:x:107:  
sgx:x:108:  
kvm:x:109:  
render:x:110:  
syslog:x:111:  
tss:x:112:  
bluetooth:x:113:  
ssl-cert:x:114:  
uuldd:x:115:  
systemd-oom:x:116:  
tcpdump:x:117:  
_ssh:x:118:  
avahi-autopid:x:119:  
netdev:x:120:  
avahi:x:121:  
lpadmin:x:122:himanshu  
rtkit:x:123:  
whoopsie:x:124:  
sssd:x:125:  
nm-openvpn:x:126:  
scanner:x:127:saned  
saned:x:128:  
colord:x:129:  
geoclue:x:130:  
pulse:x:131:  
pulse-access:x:132:  
gdm:x:133:  
lxde:x:134:himanshu  
himanshu:x:1000:  
sambashare:x:135:himanshu  
fwupd-refresh:x:136:  
user2:x:1002:  
balwant:x:1003:  
testuser:x:1004:  
linux:x:1005:  
vireshi:x:1006:  
user:x:1007:  
develeror:x:1008:  
technical:x:1009:  
java:x:1010:  
himanshu@himanshu-Inspiron-15-3511:~/Desktop$
```

. SU (SWITCH USER)

COMMAND

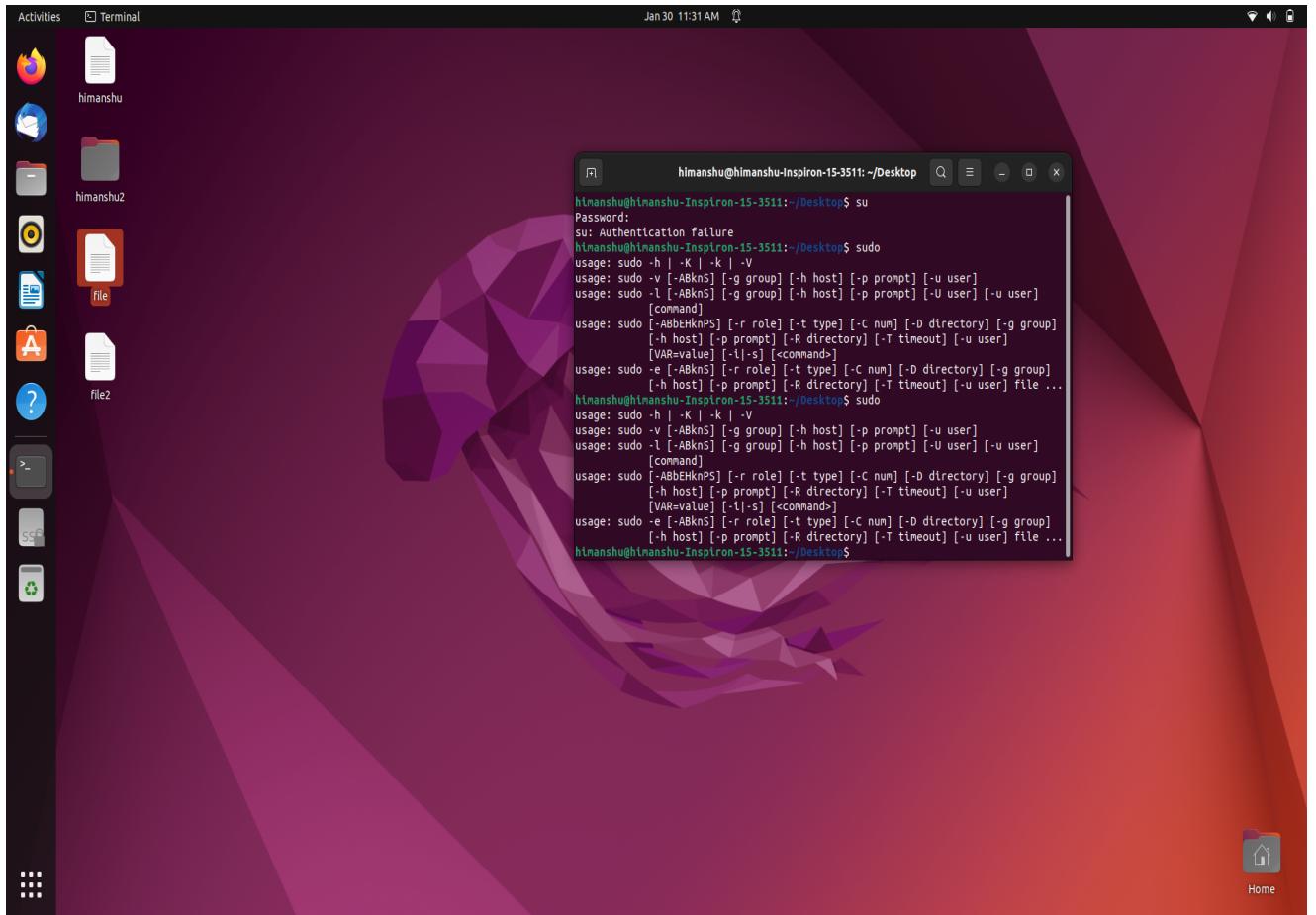
The linux command “su” is used to switch from one account to another . user will be prompted for the password of the user switching to . users can also use it to switch to a root account . If the user types only “su” without any option then it will be considered as root and the user will be prompted to enter the root user password .

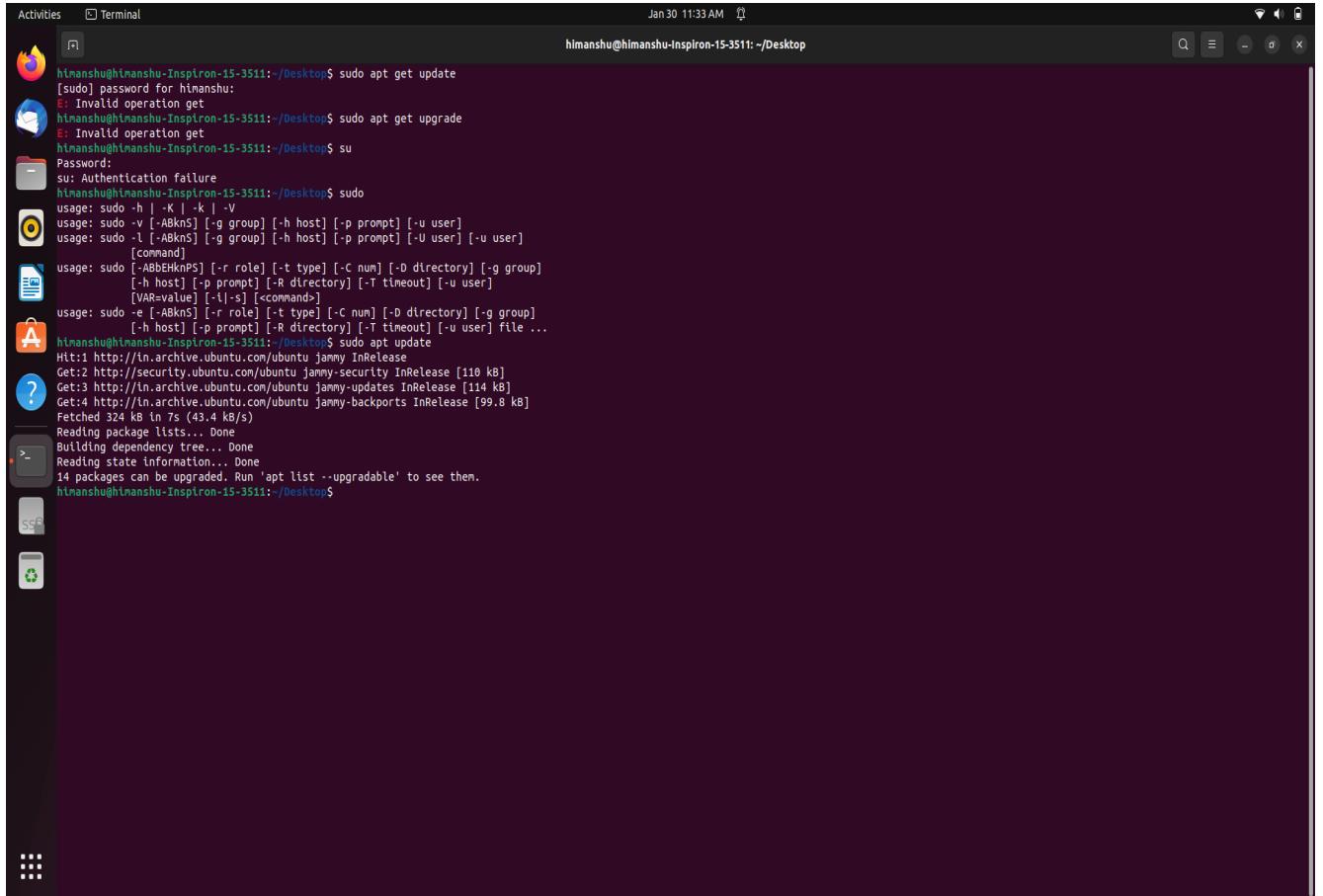


. SUDO COMMAND

Sudo , the one command to rule them all . It stands for super user do and is pronounced like “ sue dough ” . As a linux system administrator or power user, it's one of the most important commands in your arsenal . Have you ever tried to run a command in a

terminal only to be given ‘access denied’.





A screenshot of a Ubuntu desktop environment. The terminal window shows the command `sudo apt update` being run, which lists package sources from the Internet Archive. The desktop interface includes a dock with icons for Dash, Home, Applications, and the Dash search bar.

```
himanshu@himanshu-Inspiron-15-3511:~/Desktop$ sudo apt update
[sudo] password for himanshu:
E: Invalid operation get
E: Invalid operation get
E: Invalid operation get
E: Invalid operation get
E: Authentication failure
usage: sudo -h | -k | -k | -V
usage: sudo -v [-AknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-AknS] [-g group] [-h host] [-p prompt] [-U user] [-u user]
[Command]
usage: sudo [-ABDEKnPS] [-r role] [-t type] [-c num] [-D directory] [-g group]
[-h host] [-p prompt] [-R directory] [-T timeout] [-u user]
[VAR=value] [-l|-s] [<command>]
usage: sudo -e [-ABknS] [-r role] [-t type] [-c num] [-D directory] [-g group]
[-h host] [-p prompt] [-R directory] [-T timeout] [-u user] file ...
htmanshu@htmanshu-Inspiron-15-3511:~/Desktop$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Fetched 324 kB in 7s (43.4 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
14 packages can be upgraded. Run 'apt list --upgradable' to see them.
htmanshu@htmanshu-Inspiron-15-3511:~/Desktop$
```

. SSH (SECURE SHELL) **COMMAND**

The ssh command provides a secure encrypted connection between two hosts over an insecure network . This connection can also be used for terminal access , file transfers , and for tunnelling other applications . graphical X11

applications can also be run securely over ssh from a remote location .

```
himanshu@himanshu-Inspiron-15-3511: ~/Desktop$ ssh
usage: ssh [-46aacfGgkkNmngstvVxxxy] [-B bind_interface]
           [-b bind_address] [-c compression_level] [-D forward_address[:port]
           [-E identity_file] [-e escape_char] [-f portfile] [-I pkcs11]
           [-l identity_file] [-m mac_spec] [-o ctl_cmd] [-o option] [-p port]
           [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
           [-w local_tun[:remote_tun]] destination [command [argument ...]]
           [-w local_tun[:remote_tun]] destination [command [argument ...]]
ssh: connect to host localhost port 22: Connection refused
himanshu@himanshu-Inspiron-15-3511: ~/Desktop$ sudo apt-get install openssh-server
Reading package lists... Done
Building dependency tree... Done
The following packages were automatically installed and are no longer required:
  libflashrom librfdl1-2
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  ncurses-term openssh-server openssh-sftp-server ssh-import-id
 0 upgraded, 1 newly installed, 0 to remove and 14 not upgraded.
Need to get 759 kB of archives.
After this operation, 6,046 kB of additional disk space will be used.
Do you want to continue? [Y/n]

Activities Terminal Jan 30 5:28 PM himanshu@himanshu-Inspiron-15-3511: ~/Desktop

himanshu@himanshu-Inspiron-15-3511: ~/Desktop$ Unpacking ssh-import-id (5.11-0ubuntu1) ...
Setting up openssh-sftp-server (1:8.9p1-3ubuntu0.1) ...
Setting up openssh-server (1:8.9p1-3ubuntu0.1) ...
Creating config file /etc/sh/sshd_config with new version
Creating SSH2 RSA key; this may take some time ...
0272:42d4-4hotzy1kNug3yCfZ9jxUGUg0t0b0vnJHhsNWU root@himanshu-Inspiron-15-3511 (RSA)
Creating SSH ECDSA key; this may take some time ...
256 SHA256:19zQfZDMrNqcgRAFPvndWvTw3inawjalJ8gbWUy root@himanshu-Inspiron-15-3511 (ECDSA)
Creating ECDSA key; this may take some time ...
256 SHA256:ypE29hCCCPMh3QU/2QAhTsJt6tA145pH4VwCl41DTHzg root@himanshu-Inspiron-15-3511 (ED25519)
Created symlink /etc/systemd/system/ssh.service → /lib/systemd/system/ssh.service.
Created symlink /etc/systemd/system/multi-user.target.wants/ssh.service → /lib/systemd/system/ssh.service.
rescue-ssh.target is a disabled or a static unit, not starting it.
ssh.socket is a disabled or a static unit, not starting it.
Setting up ssh-import-id (5.11-0ubuntu1) ...
Setting up openssh-sftp-server (1:8.9p1-3ubuntu0.1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for ufw (0.36.1-1build1) ...
Rules updated for profile 'Apache'
Firewall reloaded
himanshu@himanshu-Inspiron-15-3511: ~/Desktop$
```

