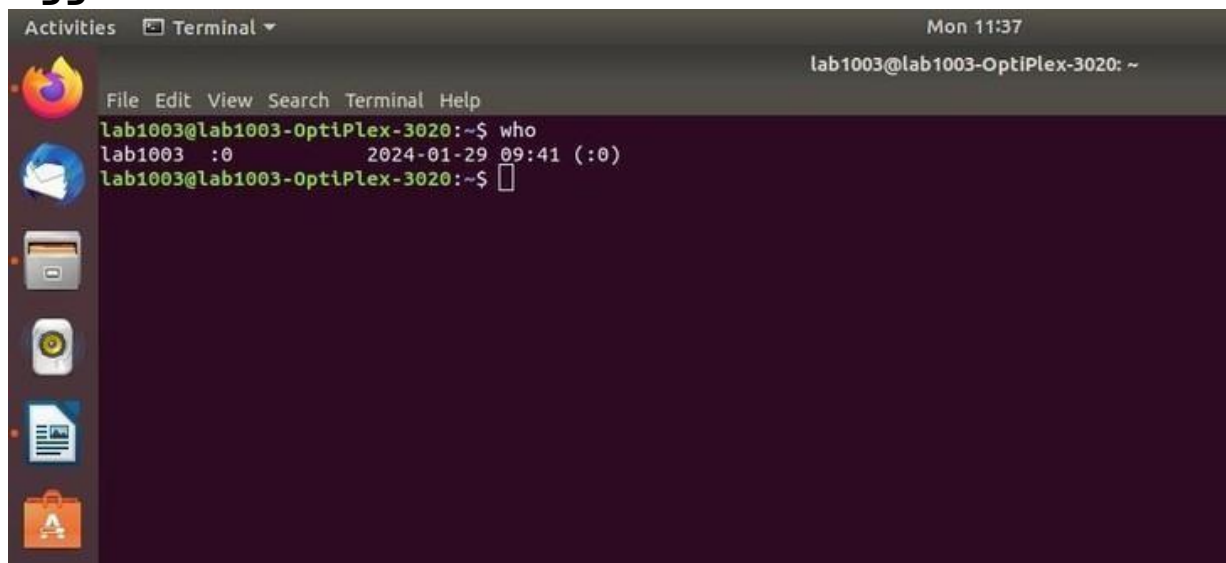


UNIX ASSIGNMENT NO 4

USER MANAGEMENT :

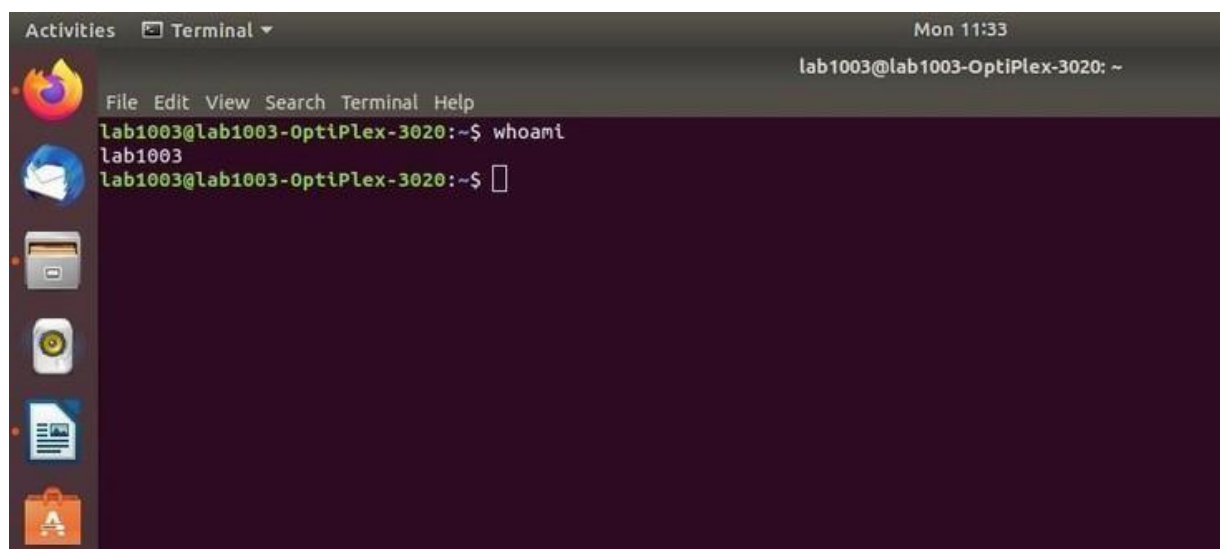
Who : The who command is a simple and effective way to display information about currently logged-in users.



The screenshot shows a terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'lab1003@lab1003-OptiPlex-3020: ~'. The command 'who' has been executed, and the output is displayed as follows:

```
lab1003@lab1003-OptiPlex-3020:~$ who
lab1003  :0                2024-01-29 09:41 (:0)
lab1003@lab1003-OptiPlex-3020:~$
```

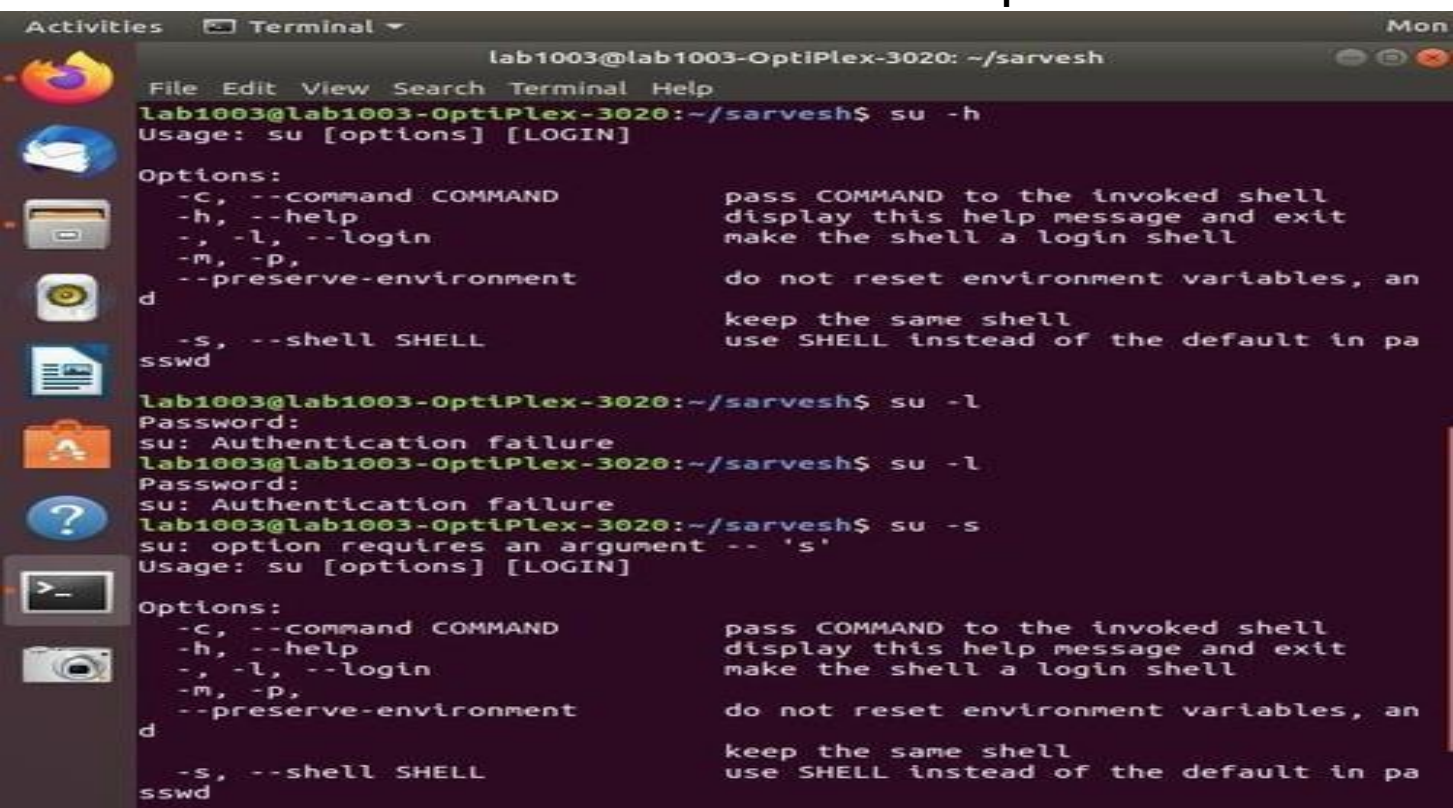
Whoami : The 'whoami' command is a simple yet powerful utility designed to reveal the current username associated with the active user session

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon 11:33, lab1003@lab1003-OptiPlex-3020: ~). The terminal shows the command 'whoami' being executed, resulting in the output 'lab1003'.

```
lab1003@lab1003-OptiPlex-3020:~$ whoami
lab1003
lab1003@lab1003-OptiPlex-3020:~$
```

Su : The Unix command su, which stands for 'substitute user' (or historically 'superuser'), is used by a computer user to execute commands with the privileges of another user account.

- l: makes a login shell
- h : Help command
- s: uses shell instead of default password.

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon, lab1003@lab1003-OptiPlex-3020: ~/sarvesh). The terminal shows the command 'su -h' being executed, resulting in the output 'Usage: su [options] [LOGIN]'. The terminal then shows the command 'su -l' being executed, resulting in the output 'Password: su: Authentication failure'. The terminal then shows the command 'su -s' being executed, resulting in the output 'Password: su: Authentication failure'. The terminal then shows the command 'su -s' being executed, resulting in the output 'Usage: su [options] [LOGIN]'.

```
lab1003@lab1003-OptiPlex-3020:~/sarvesh$ su -h
Usage: su [options] [LOGIN]

Options:
  -c, --command COMMAND      pass COMMAND to the invoked shell
  -h, --help                  display this help message and exit
  -, -l, --login              make the shell a login shell
  -m, -p,                     do not reset environment variables, an
  --preserve-environment      keep the same shell
  -s, --shell SHELL           use SHELL instead of the default in pa
sswd

lab1003@lab1003-OptiPlex-3020:~/sarvesh$ su -l
Password:
su: Authentication failure
lab1003@lab1003-OptiPlex-3020:~/sarvesh$ su -s
Password:
su: Authentication failure
lab1003@lab1003-OptiPlex-3020:~/sarvesh$ su -s
su: option requires an argument -- 's'
Usage: su [options] [LOGIN]

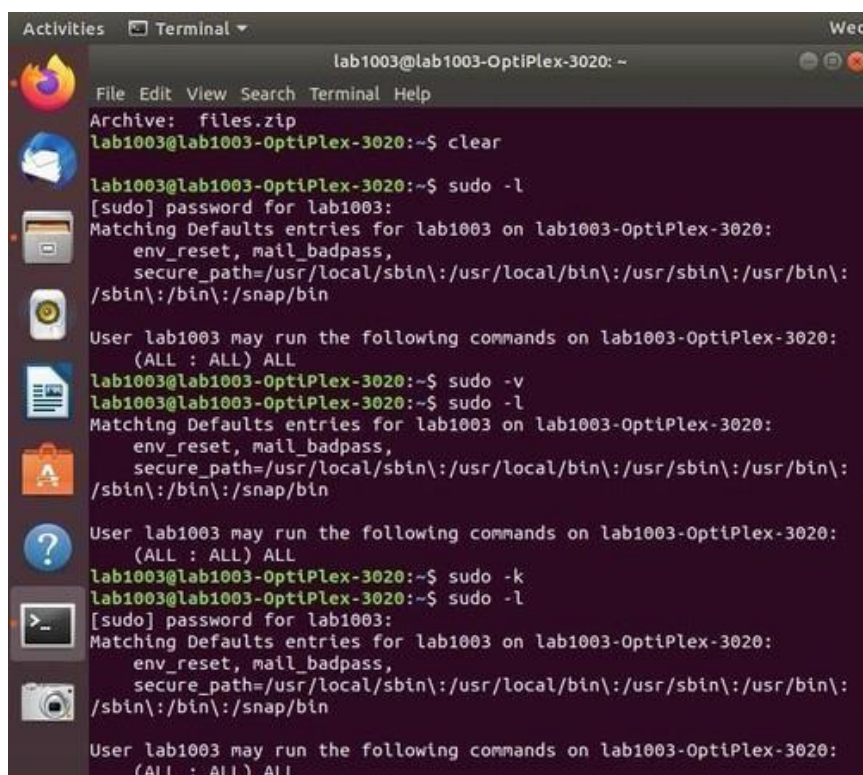
Options:
  -c, --command COMMAND      pass COMMAND to the invoked shell
  -h, --help                  display this help message and exit
  -, -l, --login              make the shell a login shell
  -m, -p,                     do not reset environment variables, an
  --preserve-environment      keep the same shell
  -s, --shell SHELL           use SHELL instead of the default in pa
sswd
```

Sudo : sudo is a program for Unix-like computer operating systems that enables users to run programs with the security privileges of another user, by default the superuser

Sudo -l: will print out the commands allowed (and forbidden) the user on the current host.

Sudo -v: If, given the -v (validate) option, sudo will update the user's timestamp, prompting for the user's password if necessary. **Sudo -k**: The -k (kill) option to sudo invalidates the user's timestamp. So, the next time sudo is run a password will be required.

Sudo -s: The -s option runs the shell specified by the SHELL environment variable if it is set

A terminal window titled 'lab1003@lab1003-OptiPlex-3020: ~' showing the execution of several sudo commands. The first command is 'sudo -l', which prompts for a password and then displays the allowed commands for the user 'lab1003'. The second command is 'sudo -v', which also prompts for a password and displays the same allowed commands. The third command is 'sudo -k', which prompts for a password and then 'sudo -l' is run again, showing the allowed commands. The terminal output is as follows:

```
lab1003@lab1003-OptiPlex-3020:~$ clear
lab1003@lab1003-OptiPlex-3020:~$ sudo -l
[sudo] password for lab1003:
Matching Defaults entries for lab1003 on lab1003-OptiPlex-3020:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User lab1003 may run the following commands on lab1003-OptiPlex-3020:
    (ALL : ALL) ALL
lab1003@lab1003-OptiPlex-3020:~$ sudo -v
lab1003@lab1003-OptiPlex-3020:~$ sudo -l
[sudo] password for lab1003:
Matching Defaults entries for lab1003 on lab1003-OptiPlex-3020:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User lab1003 may run the following commands on lab1003-OptiPlex-3020:
    (ALL : ALL) ALL
lab1003@lab1003-OptiPlex-3020:~$ sudo -k
lab1003@lab1003-OptiPlex-3020:~$ sudo -l
[sudo] password for lab1003:
Matching Defaults entries for lab1003 on lab1003-OptiPlex-3020:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User lab1003 may run the following commands on lab1003-OptiPlex-3020:
    (ALL : ALL) ALL
```

```
lab1003@lab1003-OptiPlex-3020:~$ sudo -i
root@lab1003-OptiPlex-3020:~#
root@lab1003-OptiPlex-3020:~# ^C
root@lab1003-OptiPlex-3020:~# exit
logout
lab1003@lab1003-OptiPlex-3020:~$ sudo -s
root@lab1003-OptiPlex-3020:~#
root@lab1003-OptiPlex-3020:~# exit
exit
```

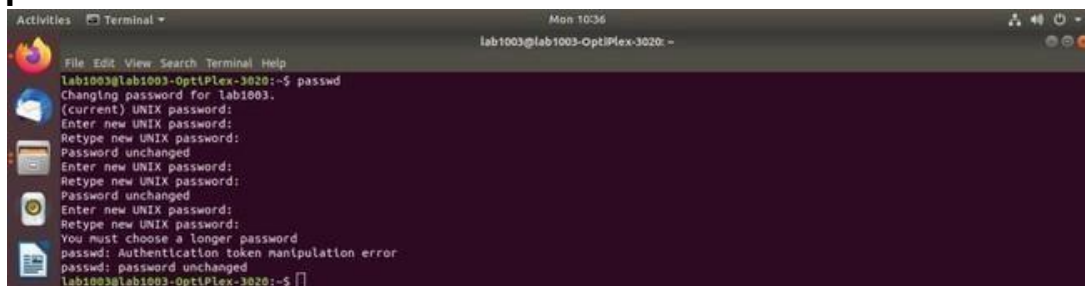
Login : login is used when signing onto a system. It can also be used to switch from one user to another at any time

Logins : Used to allow a secured login authentication. This specifically does not work for root

Logout : The logout command in Unix is used to log out the currently logged-in user from the system in that session. It works programmatically and is typically executed in a login shell.

Exit: exit command in Unix is used to exit the shell where it is currently running

Passwd : The passwd command in Unix provides a straightforward and effective way to modify user passwords



```
lab1003@lab1003-OptiPlex-3020:~$ passwd
Changing password for lab1003.
(current) UNIX password:
Enter new UNIX password:
Retype new UNIX password:
Password unchanged
Enter new UNIX password:
Retype new UNIX password:
Password unchanged
Enter new UNIX password:
Retype new UNIX password:
You must choose a longer password
passwd: Authentication token manipulation error
passwd: password unchanged
lab1003@lab1003-OptiPlex-3020:~$
```

Useradd : useradd is a command in Unix that is used to add user accounts to your system

sudo useradd -d /home/lab1003 lab1003 :To give a home directory path for new users.

sudo useradd -u

1234 lab1003: To create a new user with a custom UID

sudo useradd -g 1000 lab1003:To create a new user and assign a specific group ID **sudo useradd -c "comment"**:To add a comment or description

for a user sudo useradd -p name1 name2: To set an unencrypted password for the user

```
Activities Terminal Wed
lab1003@lab1003-OptiPlex-3020: ~
File Edit View Search Terminal Help
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd lab1003
[sudo] password for lab1003:
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -d /home/lab1003:/bin/sh
useradd: invalid home directory '/home/lab1003:/bin/sh'
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -d /Home/lab1003:/bin/sh
useradd: invalid home directory '/Home/lab1003:/bin/sh'
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -d /home/lab1003 lab1003
useradd: user 'lab1003' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -u 1234 test
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -u 1234 lab1003
useradd: user 'lab1003' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -g 1000 test
useradd: user 'test' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -g 1000 test2
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -e 2023-02-08 test3
lab1003@lab1003-OptiPlex-3020:~$ sudo chage -l test3
Last password change          : Feb 07, 2024
Password expires              : never
Password inactive             : never
Account expires               : Feb 08, 2023
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
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -c "this is comment" test4
lab1003@lab1003-OptiPlex-3020:~$ sudo cat /etc/passwd | grep test4
test4:x:1237:1237:this is comment:/home/test4:/bin/sh
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd -p test5 test5
lab1003@lab1003-OptiPlex-3020:~$ sudo cat /etc/shadow | grep test5
test5:test5:19760:0:99999:7:::
lab1003@lab1003-OptiPlex-3020:~$
```


Usermod : usermod command or modify user is a command in Unix that is used to change the properties of a user in Unix through the command line. sudo usermod -c "comment" name: To add a comment for a user syuydyo-musmer-mod -d /home/dir_name name : To change the home directory of a user sudo usermod -e dd test_user: To change the expiry date of a user sudo usermod -L test_user : To lock a user

sudo usermod -U test_user : To Unlock a user

```

lab1003@lab1003-OptiPlex-3020: ~
File Edit View Search Terminal Help
lab1003@lab1003-OptiPlex-3020:~$ ls
1          indexac  Music      outputaq
abcd       indexad  output2.txt.gz  output.txt.bz2
ball       indexae  outputaa     output.txt.gz
demo       indexaf  outputab     Pictures
Desktop    indexag  outputac     Public
dir         indexah  outputad     rishabh1
direct     indexai  outputae     rishabh2
Documents  indexaj  outputaf     rishabh222
Downloads  indexak  outputag     rishabh3
examples.desktop indexal  outputah     rishabh4
file1.txt  indexam  outputai     sarvesh
file2.txt  indexan  outputaj     Templates
file3.txt  indexao  outputak     trial.vlsrc
file4.txt  indexap  outputal     trial.zip
file5.txt  indexaq  outputan     unix1
files.zip  it89    outputao     Videos
indexaa    'ls -a' outputao     xaa
indexab    mihlr   outputap

lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -e 2023-05-09 test4
lab1003@lab1003-OptiPlex-3020:~$ sudo chage -l test4
Last password change          : Feb 07, 2024
Password expires              : never
Password inactive             : never
Account expires               : May 09, 2023
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
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -l testaa test5
lab1003@lab1003-OptiPlex-3020:~$ id testaa
uid=1238(testaa) gid=1238(test5) groups=1238(test5)
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -L test2
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -U test2
usermod: unlocking the user's password would result in a passwordless
account.
You should set a password with usermod -p to unlock this user's passwo
rd.
lab1003@lab1003-OptiPlex-3020:~$

```

```

lab1003@lab1003-OptiPlex-3020: ~
File Edit View Search Terminal Help
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -c "this is comment" tes
t6
usermod: user 'test6' does not exist
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -c "this is comment" tes
t5
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -d /home/sarvesh test5
lab1003@lab1003-OptiPlex-3020:~$ ls
1          indexac  Music      outputaq
abcd       indexad  output2.txt.gz  output.txt.bz2
ball       indexae  outputaa     output.txt.gz
demo       indexaf  outputab     Pictures
Desktop    indexag  outputac     Public
dir         indexah  outputad     rishabh1
direct     indexai  outputae     rishabh2
Documents  indexaj  outputaf     rishabh222
Downloads  indexak  outputag     rishabh3
examples.desktop indexal  outputah     rishabh4
file1.txt  indexam  outputai     sarvesh
file2.txt  indexan  outputaj     Templates
file3.txt  indexao  outputak     trial.vlsrc
file4.txt  indexap  outputal     trial.zip
file5.txt  indexaq  outputan     unix1
files.zip  it89    outputao     Videos
indexaa    'ls -a' outputao     xaa
indexab    mihlr   outputap

lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -e 2023-05-09 test4
lab1003@lab1003-OptiPlex-3020:~$ sudo chage -l test4
Last password change          : Feb 07, 2024
Password expires              : never
Password inactive             : never
Account expires               : May 09, 2023
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
lab1003@lab1003-OptiPlex-3020:~$ sudo usermod -l testaa test5
lab1003@lab1003-OptiPlex-3020:~$ id testaa
uid=1238(testaa) gid=1238(test5) groups=1238(test5)
lab1003@lab1003-OptiPlex-3020:~$

```

Userdel : userdel command in unix system is used to delete a user account and related files.

-f : Force removal of the user account, including home directory and mail spool, even if the user is logged in.

-r: Remove the user's home directory along with the account. Useful for a complete cleanup.

-R: Apply changes in the specified CHROOT_DIR, useful for user deletion operations within a chroot environment.

A screenshot of a Linux terminal window titled 'lab1003@lab1003-OptiPlex-3020: ~'. The terminal shows a series of commands and their outputs. The commands are: 'sudo userdel test1', 'sudo userdel test2', 'id test2', 'sudo userdel -f test3', 'id test3', 'sudo userdel -r test4', 'id test4', 'sudo userdel -R test4', and 'sudo userdel -R test'. The outputs show that 'test1' and 'test2' do not exist, 'test3' does not exist, 'test4' has a mail spool and home directory that are not found, and 'test4' has an invalid chroot path. The terminal also shows the 'id' command output for 'test2' and 'test3', which is 'no such user'. The terminal window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The left sidebar shows various application icons like Firefox, Mail, and Files. The bottom status bar shows the date 'Wed'.

Groupadd : 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 is entered into the system files as needed.

-f: This option forces the command to silently abort if the group with the given name already exists.

-g: This option assigns a specific numeric group id to the newly created group.

-p: Sets an encrypted password for the group.

```
Activities Terminal
lab1003@lab1003-OptiPlex-3020: ~
File Edit View Search Terminal Help
lab1003@lab1003-OptiPlex-3020:~$ groupadd -f lab1003
lab1003@lab1003-OptiPlex-3020:~$ sudo groupadd -g 1001 lab1003
groupadd: group 'lab1003' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo groupadd -g 1001 sarvesh1
groupadd: GID '1001' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo groupadd -g 1101 sarvesh1
lab1003@lab1003-OptiPlex-3020:~$ sudo groupadd -p pass sarvesh1
groupadd: group 'sarvesh1' already exists
lab1003@lab1003-OptiPlex-3020:~$ sudo groupadd -p pass lab1003:
lab1003@lab1003-OptiPlex-3020:~$
```

Groupmod : groupmod command in unix is used to modify or change the existing group on unix system. It can be handled by superuser or root user.

/etc/group: Group Account Information.

/etc/gshadow: Secured group account information.

/etc/login.def: Shadow passwd suite configuration.

/etc/passwd: User account information.

-p: This gives the encrypted password.

```
lab1003@lab1003-OptiPlex-3020:~$ sudo groupmod -p hello lab1003
groupmod: group 'lab1003' does not exist
lab1003@lab1003-OptiPlex-3020:~$ sudo useradd lab1003
lab1003@lab1003-OptiPlex-3020:~$ sudo groupmod -p hello lab1003
lab1003@lab1003-OptiPlex-3020:~$ cat/etc/groups
bash: cat/etc/groups: No such file or directory
lab1003@lab1003-OptiPlex-3020:~$ cat/etc/group
bash: cat/etc/group: No such file or directory
lab1003@lab1003-OptiPlex-3020:~$ cat/etc/hello
bash: cat/etc/hello: No such file or directory
lab1003@lab1003-OptiPlex-3020:~$ cat/etc/lab1003
bash: cat/etc/lab1003: No such file or directory
lab1003@lab1003-OptiPlex-3020:~$ ls -a
.                indexac          outputai
..               indexad          outputaj
1                indexae          outputak
abcd             indexaf          outputal
.assign.swp      indexag          outputam
ball            indexah          outputan
.bash_history    indexai          outputao
.bash_logout     indexaj          outputap
.bashrc          indexak          outputaq
.cache           indexal          output.txt.bz2
.config          indexam          output.txt.gz
demo             indexan          Pictures
.demofolder.swp indexao          .profile
.demo.swo        indexap          Public
.demo.swp        indexaq          rishabh1
Desktop          it89            rishabh2
dir              .local          rishabh222
dirct            'ls -a'         rishabh3
```

```
saned:x:119:
avahi:x:120:
colord:x:121:
geoclue:x:122:
pulse:x:123:
pulse-access:x:124:
gdm:x:125:
lab1003:x:1000:
sambashare:x:126:lab1003
test:x:1234:
test5:x:1238:
sarvesh1:x:1101:
lab1003:x:1239:
hello:x:1240:
lab1003:x:1241:
```


-h: displays help message.

-d:used for deleting a password from a group.

Chown : The `'chown'` command, short for “change owner,” is a powerful tool that allows users to change the owner of files and directories.


```

lab1003@lab1003-HP-280-G2-MT:~$ chown -c master file_copy.txt
chown: invalid user: 'master'
lab1003@lab1003-HP-280-G2-MT:~$ chown -c lab1003 file_copy.txt
lab1003@lab1003-HP-280-G2-MT:~$ ls -l file_copy.txt
-rw-rw-r-- 1 lab1003 lab1003 30 Feb  7 10:55 file_copy.txt
lab1003@lab1003-HP-280-G2-MT:~$ chown -v lab1003 file_copy.txt
ownership of 'file_copy.txt' retained as lab1003
lab1003@lab1003-HP-280-G2-MT:~$ chown -f lab1003 file_copy.txt
lab1003@lab1003-HP-280-G2-MT:~$ ls -l file_copy.txt
-rw-rw-r-- 1 lab1003 lab1003 30 Feb  7 10:55 file_copy.txt
lab1003@lab1003-HP-280-G2-MT:~$

```

The `-c` option in the `chown` command is utilized to report when a file change is made.

The `-v` option enhances the verbosity of the `chown` command by showing detailed information for every processed file.

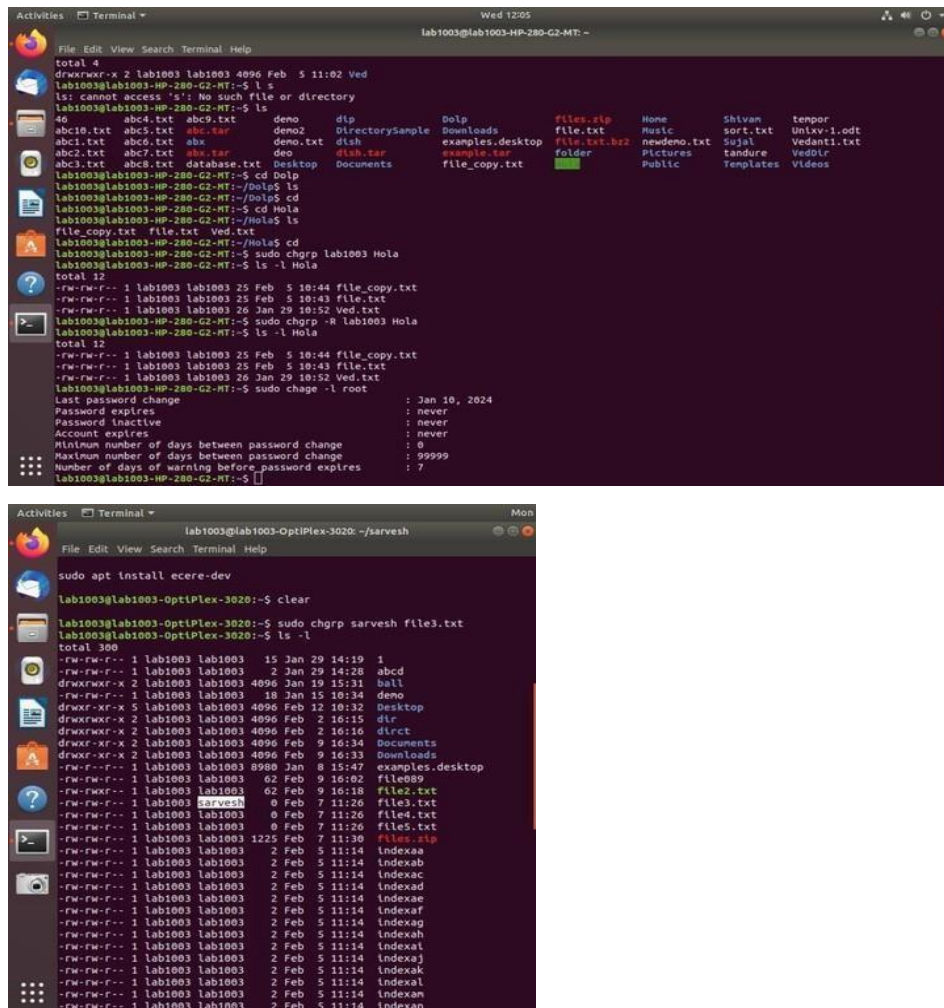
Chage : The `chage` command is used to view and change the user password expiry information. This command is used when the login is to be provided for a user for a limited amount of time or when it is necessary to change the login password from time to time

```

lab1003@lab1003-HP-280-G2-MT:~$ sudo chage -l root
Last password change           : Jan 10, 2024
Password expires                : never
Password inactive              : never
Account expires                : never
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

```


Chgrp : The 'chgrp' command in unix is used to change the group ownership of a file or directory. All files in unix belong to an owner and a group.



The first terminal screenshot shows a user navigating through a directory structure and using the 'chgrp' command to change the group ownership of a file. The second terminal screenshot shows the installation of 'ecere-dev' and the use of 'chgrp' to change the group ownership of a file.

```
total 4
drwxr-xr-x 2 lab1003 lab1003 4096 Feb  5 11:02 Ved
lab1003@lab1003-HP-280-G2-MT:~$ ls
ls: cannot access 's': No such file or directory
lab1003@lab1003-HP-280-G2-MT:~$ ls
40      abc4.txt  abc9.txt  deno     dtp      Dolp      files.zip  Home      shivan    tempor
abc10.txt  abc5.txt  abc.tar  deno2    dtp      Downloads  file.txt  Music     sort.txt  Unixv-1.odt
abc1.txt  abc7.txt  abc.tar  deno     dtp      examples.desktop  file.txt.bk2  Pictures  Sujat    Vedant1.txt
abc3.txt  abc8.txt  database.txt  Desktop  file_copy.txt  folder      Public    tandure  Templates  Videos
lab1003@lab1003-HP-280-G2-MT:~$ cd Dolp
lab1003@lab1003-HP-280-G2-MT:~/Dolp$ ls
lab1003@lab1003-HP-280-G2-MT:~/Dolp$ cd
lab1003@lab1003-HP-280-G2-MT:~$ cd Hola
lab1003@lab1003-HP-280-G2-MT:~/Hola$ ls
file_copy.txt  file.txt  Ved.txt
lab1003@lab1003-HP-280-G2-MT:~/Hola$ cd
lab1003@lab1003-HP-280-G2-MT:~$ sudo chgrp lab1003 Hola
lab1003@lab1003-HP-280-G2-MT:~$ ls -l Hola
total 12
-rw-rw-r-- 1 lab1003 lab1003 25 Feb  5 10:44 file_copy.txt
-rw-rw-r-- 1 lab1003 lab1003 25 Feb  5 10:43 file.txt
-rw-rw-r-- 1 lab1003 lab1003 26 Jan 29 10:52 Ved.txt
lab1003@lab1003-HP-280-G2-MT:~$ sudo chgrp -R lab1003 Hola
lab1003@lab1003-HP-280-G2-MT:~$ ls -l Hola
total 12
-rw-rw-r-- 1 lab1003 lab1003 25 Feb  5 10:44 file_copy.txt
-rw-rw-r-- 1 lab1003 lab1003 25 Feb  5 10:43 file.txt
-rw-rw-r-- 1 lab1003 lab1003 26 Jan 29 10:52 Ved.txt
lab1003@lab1003-HP-280-G2-MT:~$ sudo chage -l root
Last password change          : Jan 10, 2024
Password expires              : never
Password inactive             : never
Account expires               : never
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
lab1003@lab1003-HP-280-G2-MT:~$
```

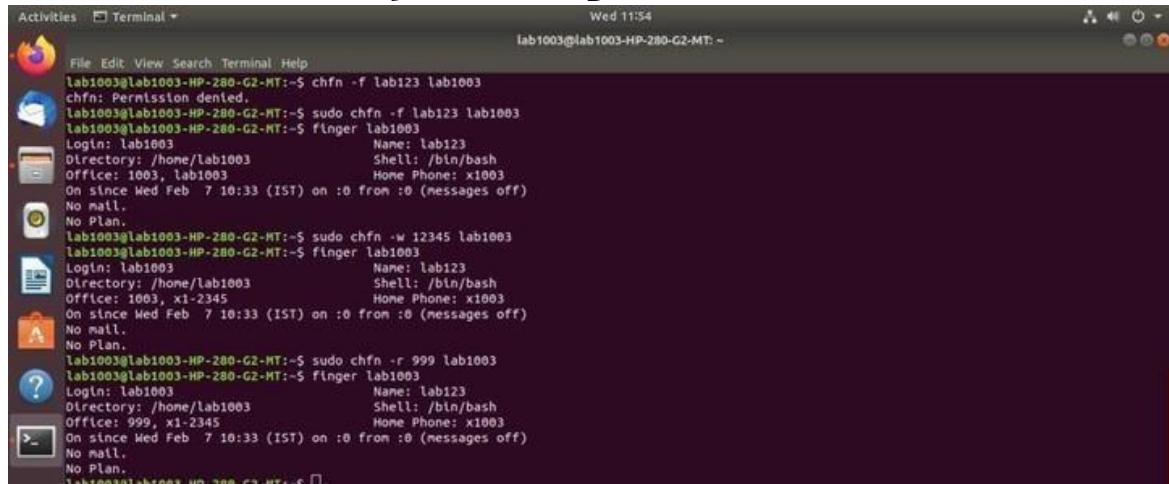
```
Activities Terminal
lab1003@lab1003-OptiPlex-3020: ~/sarvesh
File Edit View Search Terminal Help
sudo apt install ecere-dev
lab1003@lab1003-OptiPlex-3020:~$ clear
lab1003@lab1003-OptiPlex-3020:~$ sudo chgrp sarvesh file3.txt
lab1003@lab1003-OptiPlex-3020:~$ ls -l
total 300
-rw-rw-r-- 1 lab1003 lab1003 15 Jan 29 14:19 1
-rw-rw-r-- 1 lab1003 lab1003 2 Jan 29 14:28 abcd
drwxr-xr-x 2 lab1003 lab1003 4096 Jan 19 15:31 ball
-rw-rw-r-- 1 lab1003 lab1003 18 Jan 15 10:34 demo
drwxr-xr-x 5 lab1003 lab1003 4096 Feb 12 10:32 Desktop
drwxr-xr-x 2 lab1003 lab1003 4096 Feb  2 16:15 dir
drwxr-xr-x 2 lab1003 lab1003 4096 Feb  2 16:16 dirct
drwxr-xr-x 2 lab1003 lab1003 4096 Feb  9 16:34 Documents
drwxr-xr-x 2 lab1003 lab1003 4096 Feb  9 16:33 Downloads
-rw-rw-r-- 1 lab1003 lab1003 8900 Jan  8 15:47 examples.desktop
-rw-rw-r-- 1 lab1003 lab1003 62 Feb  9 16:02 file089
-rw-rw-r-- 1 lab1003 lab1003 62 Feb  9 16:18 file2.txt
-rw-rw-r-- 1 lab1003 sarvesh 0 Feb  7 11:26 file3.txt
-rw-rw-r-- 1 lab1003 lab1003 0 Feb  7 11:26 file4.txt
-rw-rw-r-- 1 lab1003 lab1003 0 Feb  7 11:26 file5.txt
-rw-rw-r-- 1 lab1003 lab1003 1225 Feb  7 11:30 files.zip
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexaa
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexab
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexac
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexad
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexae
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexaf
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexag
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexah
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexai
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexaj
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexak
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexal
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexam
-rw-rw-r-- 1 lab1003 lab1003 2 Feb  5 11:14 Indexan
```

Chfn : chfn modifies a user's "finger" information. This information is stored in the file /etc/passwd, and includes the user's real name, work room, work phone number, and home phone number.

-f full_name : Let you change the full name on the account

-w work_ph : Let you change the work phone number on the account

-r room_no : Let you change the room number on the account



The image shows a terminal window titled 'lab1003@lab1003-HP-280-G2-MT: ~'. The user is performing several account modifications using the 'chfn' command. The first attempt to change the room number to 123 fails with a 'Permission denied' error. Subsequent attempts to change the work phone to 12345 and the room number to 999 are successful. Each change is followed by a 'finger' command to display the updated user information. The user information includes Name (lab123), Directory (/home/lab1003), Office (1003), Home Phone (x1003), and login status.

```
lab1003@lab1003-HP-280-G2-MT:~$ chfn -f lab123 lab1003
chfn: Permission denied.
lab1003@lab1003-HP-280-G2-MT:~$ sudo chfn -f lab123 lab1003
lab1003@lab1003-HP-280-G2-MT:~$ finger lab1003
Login: lab1003                Name: lab123
Directory: /home/lab1003      Shell: /bin/bash
Office: 1003, lab1003         Home Phone: x1003
On since Wed Feb  7 10:33 (IST) on :0 from :0 (messages off)
No mail.
No Plan.
lab1003@lab1003-HP-280-G2-MT:~$ sudo chfn -w 12345 lab1003
lab1003@lab1003-HP-280-G2-MT:~$ finger lab1003
Login: lab1003                Name: lab123
Directory: /home/lab1003      Shell: /bin/bash
Office: 1003, x1-2345         Home Phone: x1003
On since Wed Feb  7 10:33 (IST) on :0 from :0 (messages off)
No mail.
No Plan.
lab1003@lab1003-HP-280-G2-MT:~$ sudo chfn -r 999 lab1003
lab1003@lab1003-HP-280-G2-MT:~$ finger lab1003
Login: lab1003                Name: lab123
Directory: /home/lab1003      Shell: /bin/bash
Office: 999, x1-2345          Home Phone: x1003
On since Wed Feb  7 10:33 (IST) on :0 from :0 (messages off)
No mail.
No Plan.
```