**Using UNIX Basic Commands:**

1. To display the current working directory, the command is:

pwd

The output is as follows.

* [admin@sushil]$ pwd

/home/admin/

2. Display the path to and name of your HOME directory.

* [admin@sushil ~]$ echo $HOME

/home/admin

3. Display the login name using which you have logged into the system

* [admin@sushil ~]$ whoami

admin

4. Display the hidden files of your current directory.

* [admin@sushil ~]$ ls -a

. .bash\_logout .cache Documents .local Pictures Videos

.. .bash\_profile .config Downloads .mozilla Public .vim

.bash\_history .bashrc Desktop .lesshst Music Templates .viminfo

5. List the names of all the files in your home directory.

* [admin@sushil ~]$ ls $HOME

Desktop Documents Downloads Music Pictures Public Templates Videos

6. Using the long listing format to display the files in your directory.

* [admin@sushil ~]$ ls -l

total 0

drwxr-xr-x. 3 admin admin 45 Jan 27 17:15 Desktop

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Documents

drwxr-xr-x. 2 admin admin 50 Aug 25 2022 Downloads

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Music

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Pictures

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Public

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Templates

drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Videos

7. List the files beginning with chap followed by any number or any lower case

alphabet. (Example , it should display all files whose names are like chap1, chap2,

chap3 ……., chapa,ahapb,chapc,……..)

* [admin@sushil Desktop]$ ls | grep "^chap[0-9a-z]"

chap1

chap2

chap3

chapd

8. Give appropriate command to create a directory called C\_prog under your home

directory. (Note: Check the directory using ls )

* [admin@sushil Desktop]$ mkdir ~/C\_prog

[admin@sushil Desktop]$ ls ~

C\_prog Documents Music Public Videos

Desktop Downloads Pictures Templates

9. Create the following directories under your home directory. (Note: Check using ls )

newdir , newdirectory

* [admin@sushil Desktop]$ mkdir ~/newdir ~/newdirectory

[admin@sushil Desktop]$ ls ~

C\_prog Documents Music newdirectory Public Videos

Desktop Downloads newdir Pictures Templates

10. List the names of all the files, including the contents of the sub directories under

your home directory.

* [admin@sushil Desktop]$ ls -R ~

/home/admin:

C\_prog Documents Music newdirectory Public Videos

Desktop Downloads newdir Pictures Templates

/home/admin/C\_prog:

/home/admin/Desktop:

test\_python variables.sh

/home/admin/Desktop/variables.sh:

/home/admin/Documents:

/home/admin/Downloads:

photo-1603366615917-1fa6dad5c4fa.jpg

/home/admin/Music:

/home/admin/newdir:

/home/admin/newdirectory:

/home/admin/Pictures:

/home/admin/Public:

/home/admin/Templates:

/home/admin/Videos:

11. Remove the directory called newdirectory from your working directory.

* [admin@sushil Desktop]$ rmdir ~/newdirectory

12. Create a directory called temp under your home directory.

* [admin@sushil ~]$ mkdir ~/temp

[admin@sushil ~]$ ls

C\_prog Documents Music Pictures temp Videos

Desktop Downloads newdir Public Templates

13. Remove the directory called newdir under your home directory and verify the

above with the help of the directory listing command.

* [admin@sushil ~]$ rmdir ~/newdir

[admin@sushil ~]$ ls

C\_prog Documents Music Public Templates

Desktop Downloads Pictures temp Videos

14. Create another directory directorynew under the temp directory.

* [admin@sushil ~]$ mkdir ~/temp/directorynew

[admin@sushil ~]$ ls temp

directorynew

15. Change the directory to your home directory.

* [admin@sushil temp]$ cd ~

[admin@sushil ~]$

16. From your home directory, change the directory to directorynew using relative and

absolute path.

* Relative
* [admin@sushil ~]$ cd temp/directorynew

[admin@sushil directorynew]$

* Absolute
* [admin@sushil ~]$ cd ~/temp/directorynew

[admin@sushil directorynew]$

17. Remove the directory called c\_prog, which is in your home directory.

* [admin@sushil ~]$ rmdir ~/C\_prog

18. Change to the directory /etc and display the files present in it.

* [admin@sushil ~]$ cd /etc

[admin@sushil etc]$ ls

accountsservice gshadow popt.d

adjtime gshadow- printcap

aliases gss profile

alsa host.conf profile.d

alternatives hostname protocols

anacrontab hosts pulse

appstream.conf hp qemu-ga

asound.conf inittab ras

at.deny inputrc rc.d

audit iproute2 rc.local

authselect iscsi redhat-release

avahi issue request-key.conf

bash\_completion.d issue.d request-key.d

bashrc issue.net resolv.conf

bindresvport.blacklist kdump rpc

binfmt.d kdump.conf rpm

bluetooth kernel rsyncd.conf

brlapi.key keys rsyslog.conf

brltty keyutils rsyslog.d

brltty.conf krb5.conf rwtab.d

centos-release krb5.conf.d samba

chromium ld.so.cache sane.d

chrony.conf ld.so.conf sasl2

chrony.keys ld.so.conf.d security

cifs-utils libaudit.conf selinux

cni libblockdev services

cockpit libibverbs.d sestatus.conf

containers libnl setroubleshoot

cron.d libpaper.d sgml

cron.daily libreport shadow

cron.deny libssh shadow-

cron.hourly libuser.conf shells

cron.monthly locale.conf skel

crontab localtime smartmontools

cron.weekly login.defs sos

crypto-policies logrotate.conf speech-dispatcher

crypttab logrotate.d ssh

csh.cshrc lsm ssl

csh.login lvm sssd

cups machine-id statetab.d

cupshelpers machine-info subgid

dbus-1 magic subgid-

dconf mailcap subuid

debuginfod makedumpfile.conf.sample subuid-

default man\_db.conf sudo.conf

depmod.d mcelog sudoers

dhcp microcode\_ctl sudoers.d

DIR\_COLORS mime.types sudo-ldap.conf

DIR\_COLORS.lightbgcolor mke2fs.conf sysconfig

dnf modprobe.d sysctl.conf

dnsmasq.conf modules-load.d sysctl.d

dnsmasq.d motd systemd

dracut.conf motd.d system-release

dracut.conf.d mtab system-release-cpe

egl multipath terminfo

enscript.cfg nanorc tmpfiles.d

environment netconfig tpm2-tss

ethertypes NetworkManager trusted-key.key

exports networks tuned

favicon.png nftables udev

filesystems nsswitch.conf udisks2

firefox nsswitch.conf.bak updatedb.conf

firewalld nvme UPower

flatpak openldap usb\_modeswitch.conf

fonts opt vconsole.conf

foomatic os-release vimrc

fprintd.conf ostree virc

fstab PackageKit vmware-tools

fuse.conf pam.d vulkan

fwupd papersize wgetrc

gcrypt passwd wireplumber

gdm passwd- wpa\_supplicant

geoclue pbm2ppa.conf X11

glvnd pinforc xattr.conf

gnupg pkcs11 xdg

GREP\_COLORS pkgconfig xml

groff pki yum

group plymouth yum.conf

group- pm yum.repos.d

grub2.cfg pnm2ppa.conf

grub.d polkit-1

19. List the names of all the files that begin with a dot in the /usr/bin directory.

* [admin@sushil ~]$ ls -a | grep "\."

.

..

.bash\_history

.bash\_logout

.bash\_profile

.bashrc

.cache

.config

.lesshst

.local

.mozilla

.vim

.viminfo

20. Create a file first.unix with the following contents.

Hi! Good Morning everybody.

Welcome to the First exercise on UNIX.

Hope you enjoy doing the assignments.

* [admin@sushil ~]$ echo -e "Hi! Good Morning everybody.\nWelcome to the First exercise on UNIX.\nHope you enjoy doing the assignments." > first.unix

[admin@sushil ~]$ ls -l first.unix

-rw-r--r--. 1 admin admin 105 Jan 28 01:31 first.unix

[admin@sushil ~]$ cat first.unix

Hi! Good Morning everybody.

Welcome to the First exercise on UNIX.

Hope you enjoy doing the assignments.

21. Copy the file first.unix in your home directory to first.unics.

(Note: checked using ls, first.unix file also should exist along with first.unics)

* [admin@sushil ~]$ cp ~/first.unix ~/first.unics

[admin@sushil ~]$ ls ~

Desktop Downloads first.unix Pictures temp Videos

Documents first.unics Music Public Templates

22. List the contents of first.unix and first.unics with a single command.

* [admin@sushil ~]$ cat first.unix first.unics

Hi! Good Morning everybody.

Welcome to the First exercise on UNIX.

Hope you enjoy doing the assignments.

Hi! Good Morning everybody.

Welcome to the First exercise on UNIX.

Hope you enjoy doing the assignments.

23. Create a new directory under the temp directory.

* [admin@sushil ~]$ mkdir ~/temp/mydir

[admin@sushil ~]$ ls temp

directorynew mydir

24. From your home directory, copy all the files to the directory created under the

temp sub directory.

* [admin@sushil ~]$ rsync -av --exclude='temp' ~/ temp/mydir/

25. Move the file first.unix to the directory temp as second.unix

* [admin@sushil ~]$ mv first.unix ~/temp/second.unix

[admin@sushil ~]$ ls temp

directorynew mydir second.unix

26. Remove the file called first.unics from the home directory.

* [admin@sushil ~]$ rm ~/first.unics

27. Change your directory to temp and issue the command rm \*. What do you observe?

* [admin@sushil ~]$ cd temp

[admin@sushil temp]$ rm \*

rm: cannot remove 'directorynew': Is a directory

rm: cannot remove 'mydir': Is a directory

28. Move all files whose names end with a, c and o to the HOME directory.

* [admin@sushil temp]$ mv temp/\*.{a,c,o} ~/

mv: cannot stat 'temp/\*.a': No such file or directory

mv: cannot stat 'temp/\*.c': No such file or directory

mv: cannot stat 'temp/\*.o': No such file or directory

29. Copy all files that end with a ‘UNIX’ to the temp directory.

* [admin@sushil ~]$ cp \*UNIX temp/

cp: cannot stat '\*UNIX': No such file or directory

30. Issuing a single command, remove all the files from the directory temp and the

directory itself.

* [admin@sushil ~]$ rm -r temp

[admin@sushil ~]$ ls

Desktop Downloads Music Public Videos

Documents Pictures Templates

31. Try commands cp and mv with invalid number of arguments and note the results.

* [admin@sushil Desktop]$ cp

cp: missing file operand

Try 'cp --help' for more information.

[admin@sushil Desktop]$ cp ~/

cp: missing destination file operand after '/home/admin/'

Try 'cp --help' for more information.

[admin@sushil Desktop]$ mv

mv: missing file operand

Try 'mv --help' for more information.

[admin@sushil Desktop]$ mv ~/

mv: missing destination file operand after '/home/admin/'

Try 'mv --help' for more information.

[admin@sushil Desktop]$

32. Use the cat command to create a file friends, with the following data:

Madhu 6966456 09/07/68

Jamil 2345215 08/09/67

Ajay 5546785 01/04/66

Mano 7820022 09/07/68

David 8281292 09/09/60

Simmi 7864563 12/12/70

Navin 2224311 30/05/68

The fields should be separated by a tab.

[admin@sushil ~]$ cat > friends << EOF

Madhu 6966456 09/07/68

Jamil 2345215 08/09/

Ajay 5546785 01/04/66

Mano 7820022 09/07/68

David 8281292 09/09/60

Simmi 7864563 12/12/70

Navin 2224311 30/05/68

EOF

[admin@sushil ~]$ cat friends

33. Display contents of the file friends.

* [admin@sushil ~]$ cat friends

Madhu 6966456 09/07/68

Jamil 2345215 08/09/

Ajay 5546785 01/04/66

Mano 7820022 09/07/68

David 8281292 09/09/60

Simmi 7864563 12/12/70

Navin 2224311 30/05/68

34. Copy contents of friends to newfriend without using the cp command.

* admin@sushil ~]$ cat friends > newfriend

35. Display contents of the file friends and newfriends in a single command.

* admin@sushil ~]$ cat friends newfriend

36. Find all users currently working on the system and store the output in a file named

as users.

* [admin@sushil Desktop]$ who > users

[admin@sushil Desktop]$ cat users

admin seat0 2025-01-27 12:48 (login screen)

admin tty2 2025-01-27 12:48 (tty2)

37. Append contents of friends file to the file, users.

* [admin@sushil ~]$ cat friends >> users

38. Display current system date and time and record your observations. How is the

time displayed?

* [admin@sushil Desktop]$ date

Tue Jan 28 12:50:44 AM IST 2025

39. Display calendar for the month and year of your birth.

* [admin@sushil Desktop]$ cal 03 2002

March 2002

Su Mo Tu We Th Fr Sa

1 2

3 4 5 6 7 8 9

10 11 12 13 14 15 16

17 18 19 20 21 22 23

24 25 26 27 28 29 30

31

40. Try following commands and record your observations.

date “+ %”

* invalid format

date “+%m”

* 01

date “+%D”

* 01/09/2025

date “+%/%Training Activity”

* invalid format

date “+%Training Activity”

* invalid format

date “+%r”

* 12:55:51 AM

Using Pipes and Filters:

1: Redirect the content of the help document ls, into a file called as lsdoc.

* [admin@sushil Desktop]$ man ls > lsdoc

2: Display the content of the lsdoc page wise.

* [admin@sushil Desktop]$ less lsdoc

3: Create a file data.txt using input redirection.

* [admin@sushil Desktop]$ cat > data.txt

hello there

4: Display data.txt.

* [admin@sushil Desktop]$ cat data.txt

hello there

5: Remove the file data.txt.

* [admin@sushil Desktop]$ rm data.txt

6: Use error redirection to display data.txt, if any error stores it in errorlog.txt

* [admin@sushil Desktop]$ cat data.txt 2> errorlog.txt

7: Display errorlog file.

* [admin@sushil Desktop]$ cat errorlog.txt

cat: data.txt: No such file or directory