**Using UNIX Basic Commands:**

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

pwd

The output is as follows.

/home/trg1

[admin@hostname01 ~]$ pwd

/home/admin

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

[admin@hostname01 ~]$ echo $HOME

/home/admin

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

[admin@hostname01 ~]$ echo $USER

admin

4. Display the hidden files of your current directory.

[admin@hostname01 ~]$ ls -a

. .bash\_profile Desktop .mozilla Templates

.. .bashrc Documents Music Videos

.bash\_history .cache Downloads Pictures

.bash\_logout .config .local Public

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

[admin@hostname01 ~]$ ls -al

total 28

drwx------. 14 admin admin 4096 Aug 25 2022 .

drwxr-xr-x. 4 root root 33 Jun 25 2024 ..

-rw-------. 1 admin admin 162 Jan 4 18:51 .bash\_history

-rw-r--r--. 1 admin admin 18 Nov 5 2021 .bash\_logout

-rw-r--r--. 1 admin admin 141 Nov 5 2021 .bash\_profile

-rw-r--r--. 1 admin admin 492 Nov 5 2021 .bashrc

drwxr-xr-x. 15 admin admin 4096 Dec 9 17:14 .cache

drwxr-xr-x. 11 admin admin 4096 Dec 11 10:13 .config

drwxr-xr-x. 2 admin admin 6 Dec 24 19:53 Desktop

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

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

drwx------. 4 admin admin 32 Aug 25 2022 .local

drwxr-xr-x. 6 admin admin 81 Aug 25 2022 .mozilla

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

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

[admin@hostname01 ~]$ ls -l

total 0

drwxr-xr-x. 2 admin admin 6 Dec 24 19:53 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@hostname01 ~]$ su -

Password:

[root@hostname01 ~]# touch chap1 chap2 chap3 chap4 chap5 chap6 pract1 pract2 pract3 pract4

[root@hostname01 ~]# ls | grep "chap"

chap1

chap2

chap3

chap4

chap5

chap6

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

directory. (Note: Check the directory using ls )

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Documents pract1 Public

chap1 chap5 Downloads pract2 Templates

chap2 chap6 Music pract3 Videos

chap3 Desktop Pictures pract4

[root@hostname01 ~]# pwd

/root

[root@hostname01 ~]# echo $HOME

/root

[root@hostname01 ~]# mkdir -p Cprog

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Desktop Pictures pract4

chap1 chap5 Documents pract1 Public

chap2 chap6 Downloads pract2 Templates

chap3 Cprog Music pract3 Videos

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

newdir

newdirectory

[root@hostname01 ~]# mkdir -p newdir newdirectory

[root@hostname01 ~]# ls

anaconda-ks.cfg chap5 Downloads pract1 Templates

chap1 chap6 Music pract2 Videos

chap2 Cprog newdir pract3

chap3 Desktop newdirectory pract4

chap4 Documents Pictures Public

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

your home directory.

[root@hostname01 ~]# tree

.

├── anaconda-ks.cfg

├── chap1

├── chap2

├── chap3

├── chap4

├── chap5

├── chap6

├── Cprog

├── Desktop

├── Documents

├── Downloads

├── Music

├── newdir

├── newdirectory

├── Pictures

├── pract1

├── pract2

├── pract3

├── pract4

├── Public

├── Templates

└── Videos

11 directories, 11 files

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

[root@hostname01 ~]# rmdir newdirectory

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Desktop newdir pract3 Videos

chap1 chap5 Documents Pictures pract4

chap2 chap6 Downloads pract1 Public

chap3 Cprog Music pract2 Templates

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

[root@hostname01 ~]# mkdir /root/temp

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Desktop newdir pract3 Templates

chap1 chap5 Documents Pictures pract4 Videos

chap2 chap6 Downloads pract1 Public

chap3 Cprog Music pract2 temp

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

above with the help of the directory listing command.

[root@hostname01 ~]# rmdir /root/newdir

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Desktop Pictures pract4 Videos

chap1 chap5 Documents pract1 Public

chap2 chap6 Downloads pract2 temp

chap3 Cprog Music pract3 Templates

14. Create another directory directorynew under the temp directory.

[root@hostname01 ~]# mkdir /root/temp/directorynew

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Desktop Pictures pract4 Videos

chap1 chap5 Documents pract1 Public

chap2 chap6 Downloads pract2 temp

chap3 Cprog Music pract3 Templates

[root@hostname01 ~]# tree

.

├── anaconda-ks.cfg

├── chap1

├── chap2

├── chap3

├── chap4

├── chap5

├── chap6

├── Cprog

├── Desktop

├── Documents

├── Downloads

├── Music

├── Pictures

├── pract1

├── pract2

├── pract3

├── pract4

├── Public

├── temp

│   └── directorynew

├── Templates

└── Videos

15. Change the directory to your home directory.

[root@hostname01 ~]# cd ~

[root@hostname01 ~]# cd

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

absolute path.

[root@hostname01 ~]# cd /root/temp/directorynew

[root@hostname01 directorynew]#

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

[root@hostname01 directorynew]# cd ../..

[root@hostname01 ~]# rmdir Cprog

[root@hostname01 ~]# ls

anaconda-ks.cfg chap4 Documents pract1 Public

chap1 chap5 Downloads pract2 temp

chap2 chap6 Music pract3 Templates

chap3 Desktop Pictures pract4 Videos

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

[root@hostname01 ~]# cd /etc

[root@hostname01 etc]# ls

accountsservice machine-info

adjtime magic

aliases mailcap

alsa makedumpfile.conf.sample

alternatives man\_db.conf

anacrontab mcelog

appstream.conf microcode\_ctl

asound.conf mime.types

at.deny mke2fs.conf

audit modprobe.d

authselect modules-load.d

avahi motd

bash\_completion.d motd.d

bashrc mtab

bindresvport.blacklist multipath

binfmt.d nanorc

bluetooth netconfig

brlapi.key NetworkManager

brltty networks

brltty.conf nftables

centos-release nsswitch.conf

chromium nsswitch.conf.bak

chrony.conf nvme

chrony.keys openldap

cifs-utils opt

cni os-release

cockpit ostree

containers PackageKit

cron.d pam.d

cron.daily papersize

cron.deny passwd

cron.hourly passwd-

cron.monthly pbm2ppa.conf

crontab pinforc

cron.weekly pkcs11

crypto-policies pkgconfig

crypttab pki

csh.cshrc plymouth

csh.login pm

cups pnm2ppa.conf

cupshelpers polkit-1

dbus-1 popt.d

dconf printcap

debuginfod profile

default profile.d

depmod.d protocols

dhcp pulse

DIR\_COLORS qemu-ga

DIR\_COLORS.lightbgcolor ras

dnf rc.d

dnsmasq.conf rc.local

dnsmasq.d redhat-release

dracut.conf request-key.conf

dracut.conf.d request-key.d

egl resolv.conf

enscript.cfg rpc

environment rpm

ethertypes rsyncd.conf

exports rsyslog.conf

favicon.png rsyslog.d

filesystems rwtab.d

firefox samba

firewalld sane.d

flatpak sasl2

fonts security

foomatic selinux

fprintd.conf services

fstab sestatus.conf

fuse.conf setroubleshoot

fwupd sgml

gcrypt shadow

gdm shadow-

geoclue shells

glvnd skel

gnupg smartmontools

GREP\_COLORS sos

groff speech-dispatcher

group ssh

group- ssl

grub2.cfg sssd

grub.d statetab.d

gshadow subgid

gshadow- subgid-

gss subuid

host.conf subuid-

hostname sudo.conf

hosts sudoers

hp sudoers.d

inittab sudo-ldap.conf

inputrc sysconfig

iproute2 sysctl.conf

iscsi sysctl.d

issue systemd

issue.d system-release

issue.net system-release-cpe

kdump terminfo

kdump.conf tmpfiles.d

kernel tpm2-tss

keys trusted-key.key

keyutils tuned

krb5.conf udev

krb5.conf.d udisks2

ld.so.cache updatedb.conf

ld.so.conf UPower

ld.so.conf.d usb\_modeswitch.conf

libaudit.conf vconsole.conf

libblockdev vimrc

libibverbs.d virc

libnl vmware-tools

libpaper.d vulkan

libreport wgetrc

libssh wireplumber

libuser.conf wpa\_supplicant

locale.conf X11

localtime xattr.conf

login.defs xdg

logrotate.conf xml

logrotate.d yum

lsm yum.conf

lvm yum.repos.d

machine-id

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

[root@hostname01 etc]# ls -a /usr/bin | grep "^\."

.

..

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.

[root@hostname01 etc]# cd ../..

[root@hostname01 /]# echo "Hi ! Good morning everybody. Welcome to the first exercise on UNIX. Hope you enjoy doing the assignments." > first.unix

[root@hostname01 /]# 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)

[root@hostname01 ~]# cp first.unix first.unics

[root@hostname01 ~]# ls

anaconda-ks.cfg chap5 first.unics pract2 Templates

chap1 chap6 first.unix pract3 Videos

chap2 Desktop Music pract4

chap3 Documents Pictures Public

chap4 Downloads pract1 temp

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

[root@hostname01 ~]# 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.

[root@hostname01 ~]# mkdir temp/newdir

[root@hostname01 ~]# ls

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chap1 chap6 first.unix pract3 Videos

chap2 Desktop Music pract4

chap3 Documents Pictures Public

chap4 Downloads pract1 temp

[root@hostname01 ~]# cd temp

[root@hostname01 temp]# ls

directorynew newdir

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

temp sub directory.

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

[root@hostname01 ~]# mv ~/first.unix /root/temp/second.unix

[root@hostname01 ~]# ls /root/temp

directorynew newdir second.unix

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

[root@hostname01 ~]# mv ~/first.unix /root/temp/second.unix

[root@hostname01 ~]# ls /root/temp

directorynew newdir second.unix

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

[root@hostname01 ~]# cd /root/temp

[root@hostname01 temp]# rm \*.

rm: cannot remove '\*.': No such file or directory

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

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

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

directory itself.

[root@hostname01 temp]# rm -rf /root/temp/\* && rmdir /root/temp

[root@hostname01 temp]# cd

[root@hostname01 ~]# ls

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chap1 chap5 Downloads pract2 Templates

chap2 chap6 Music pract3 Videos

chap3 Desktop Pictures pract4

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

[root@hostname01 ~]# cp /temp

cp: missing destination file operand after '/temp'

Try 'cp --help' for more information.

[root@hostname01 ~]# mv newdir1 newdir2

mv: cannot stat 'newdir1': No such file or directory

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@hostname01 Desktop]$ cat > friends <<EOF

> 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 30/05/58

> EOF

33. Display contents of the file friends.

[admin@hostname01 Desktop]$ cat > friends <<EOF

> 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 30/05/58

> EOF

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

[admin@hostname01 Desktop]$ cat friends > newfriends

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

[admin@hostname01 Desktop]$ cat friends newfriends

> 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 30/05/58

> 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 30/05/58

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

as users.

[admin@hostname01 Desktop]$ who > users

[admin@hostname01 Desktop]$ cat users

admin seat0 2025-01-27 21:14 (login screen)

admin tty2 2025-01-27 21:14 (tty2)

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

[admin@hostname01 Desktop]$ cat friends >> users

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

time displayed?

[admin@hostname01 Desktop]$ date

Mon Jan 27 09:26:06 PM IST 2025

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

[admin@hostname01 Desktop]$ cal 5 2000

May 2000

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 “+ %”

date “+%m”

date “+%D”

date “+%/%Training Activity”

date “+%Training Activity”

date “+%r”

[admin@hostname01 Desktop]$ date "+%"

%

[admin@hostname01 Desktop]$ date "+%m"

01

[admin@hostname01 Desktop]$ date "+%D"

01/27/25

[admin@hostname01 Desktop]$ date "+%/%Training Activity"

%/21:28:42raining Activity

[admin@hostname01 Desktop]$ date "+%Training Activity"

21:28:57raining Activity

[admin@hostname01 Desktop]$ date "+%r"

09:29:06 PM

Using Pipes and Filters:

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

[admin@hostname01 Desktop]$ ls --help > lsdoc

2: Display the content of the lsdoc page wise.

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

[admin@hostname01 Desktop]$ cat > data.txt

Hi i am shreya

4: Display data.txt.

[admin@hostname01 Desktop]$ cat data.txt

Hi i am shreya

5: Remove the file data.txt.

[root@hostname01 ~]# rm -rf data.txt

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

[root@hostname01 ~]# cat data.txt 2> errorlog.txt

[root@hostname01 ~]# cat errorlog.txt

cat: data.txt: No such file or directory

7: Display errorlog file.

[root@hostname01 ~]# cat data.txt 2> errorlog.txt

[root@hostname01 ~]# cat errorlog.txt

cat: data.txt: No such file or directory