

## Sushil Mhetre Assignment Day 1

### 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 .lessht 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
cs.cshrc	lsm	ssl
cs.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	virac
fstab	PackageKit	vmware-tools
fuse.conf	pam.d	vulkan
fwupd	papersize	wgetrc
gcrpt	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\nUNIX.\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