

## SUPREET BIRAJDAR

### Using UNIX Basic Commands:

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

```
pwd
```

The output is as follows.

```
[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 ~]$ whoami
```

```
admin
```

4. Display the hidden files of your current directory.

```
[admin@hostname01 ~]$ ls -a
```

```
.          .bash_profile Desktop  .local    Public
..         .bashrc      Documents .mozilla  Templates
.bash_history .cache      Downloads Music      Videos
.bash_logout .config     first.unix Pictures  .viminfo
```

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

```
[admin@hostname01 ~]$ ls $HOME
```

```
Desktop    Downloads Music    Public Videos
```

Documents first.unix Pictures Templates

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

```
[admin@hostname01 ~]$ ls -l
```

total 4

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

-rw-r--r--. 1 admin admin 16 Jan 27 21:41 first.unix

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 ~]$ touch chap1 chap2 chap3 chapa chapb chapc chapz chap9
```

```
[admin@hostname01 ~]$ ls | grep "^chap[0-9a-z]"
```

chap1

chap2

chap3

chap9

chapa

chapb

chapc

chapz

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

**directory. (Note: Check the directory using ls )**

```
[admin@hostname01 ~]$ mkdir ~/Cprog
```

```
[admin@hostname01 ~]$ ls
```

chap1 chap3 chapa chapc Cprog Documents first.unix Pictures Templates

chap2 chap9 chapb chapz Desktop Downloads Music Public Videos

```
[admin@hostname01 ~]$
```

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

**newdir**

**Newdirectory**

```
[admin@hostname01 ~]$ mkdir ~/newdir ~/newdirectory
```

```
[admin@hostname01 ~]$ ls -l
```

```
total 4
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap1
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap2
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap3
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap9
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapa
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapb
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapc
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapz
```

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:28 Cprog
```

```
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
```

```
-rw-r--r--. 1 admin admin 16 Jan 27 21:41 first.unix
```

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

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:35 newdir
```

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:35 newdirectory
```

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

**10. List the names of all the files, including the contents of the sub directories under your home directory.**

```
[admin@hostname01 ~]$ ls -R ~/
```

/home/admin/:

chap1 chap2 chap3 chap9 chapa chapb chapc chapz Cprog Desktop Documents  
Downloads first.unix Music newdir newdirectory Pictures Public Templates Videos

/home/admin/Cprog:

/home/admin/Desktop:

/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:

```
[admin@hostname01 ~]$
```

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

```
[admin@hostname01 ~]$ rmdir ~/newdirectory
```

```
[admin@hostname01 ~]$ ls -l
```

```
total 4
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap1
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap2
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap3
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap9
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapa
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapb
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapc
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapz
```

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:28 Cprog
```

```
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
```

```
-rw-r--r--. 1 admin admin 16 Jan 27 21:41 first.unix
```

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

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:35 newdir
```

```
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
```

```
[admin@hostname01 ~]$
```

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

```
[admin@hostname01 ~]$ mkdir ~/temp
```

```
[admin@hostname01 ~]$ ls -l
```

```
total 4
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap1
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap2
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap3
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chap9
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapa
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapb
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapc
```

```
-rw-r--r--. 1 admin admin 0 Jan 27 22:24 chapz
```

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:28 Cprog
```

```
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
```

```
-rw-r--r--. 1 admin admin 16 Jan 27 21:41 first.unix
```

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

```
drwxr-xr-x. 2 admin admin 6 Jan 27 22:35 newdir
```

```
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 Jan 27 22:43 temp
drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Templates
drwxr-xr-x. 2 admin admin 6 Aug 25 2022 Videos
[admin@hostname01 ~]$
```

**13. Remove the directory called newdir under your home directory and verify the above with the help of the directory listing command.**

```
[admin@hostname01 ~]$ rmdir ~/newdir
```

**14. Create another directory directorynew under the temp directory.**

```
[admin@hostname01 ~]$ mkdir ~/temp/directorynew
[admin@hostname01 ~]$ cd temp
[admin@hostname01 temp]$ ls
directorynew
```

**15. Change the directory to your home directory.**

```
[admin@hostname01 ~]$ cd ~
```

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

```
RELATIVE: [admin@hostname01 ~]$ cd temp/directorynew
```



ABSOLUTE: [admin@hostname01 ~]\$ cd ~/temp/directorynew

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

[admin@hostname01 directorynew]\$ rmdir ~/Cprog

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

[admin@hostname01 ~]\$ cd /etc

[admin@hostname01 etc]\$ ls

accountsservice	containers	egl	gshadow	libnl	multipath
popt.d	setroubleshoot	terminfo			
adjtime	cron.d	enscript.cfg	gshadow-	libpaper.d	nanorc
printcap	sgml	tmpfiles.d			
aliases	cron.daily	environment	gss	libreport	netconfig
profile	shadow	tpm2-tss			
alsa	cron.deny	ethertypes	host.conf	libssh	
NetworkManager	profile.d	shadow-	trusted-key.key		
alternatives	cron.hourly	exports	hostname	libuser.conf	networks
protocols	shells	tuned			
anacrontab	cron.monthly	favicon.png	hosts	locale.conf	nftables
pulse	skel	udev			
appstream.conf	crontab	filesystems	hp	localtime	
nsswitch.conf	qemu-ga	smartmontools	udisks2		
asound.conf	cron.weekly	firefox	inittab	login.defs	
nsswitch.conf.bak	ras	sos	updatedb.conf		
at.deny	crypto-policies	firewalld	inputrc	logrotate.conf	nvme
rc.d	speech-dispatcher	UPower			
audit	crypttab	flatpak	iproute2	logrotate.d	openldap
rc.local	ssh	usb_modeswitch.conf			

authselect	ssh.cshrc	fonts	iscsi	lsm	opt
redhat-release	ssl	vconsole.conf			
avahi	ssh.login	foomatic	issue	lvm	os-release
request-key.conf	sssd	vimrc			
bash_completion.d	cups		fprintd.conf	issue.d	machine-id
request-key.d	statetab.d	virch			ostree
bashrc	cupshelpers	fstab	issue.net	machine-info	PackageKit
resolv.conf	subgid	vmware-tools			
bindresvport.blacklist	dbus-1		fuse.conf	kdump	magic
rpc	subgid-	vulkan			pam.d
binfmt.d	dconf	fwupd	kdump.conf	mailcap	papersize
rpm	subuid	wgetrc			
bluetooth	debuginfod	gcrypt	kernel	makedumpfile.conf.sample	
passwd	rsyncd.conf	subuid-	wireplumber		
brlapi.key	default	gdm	keys	man_db.conf	passwd-
rsyslog.conf	sudo.conf	wpa_supplicant			
brltty	depmod.d	geoclue	keyutils	mcelog	pbm2ppa.conf
rsyslog.d	sudoers	X11			
brltty.conf	dhcp	glvnd	krb5.conf	microcode_ctl	pinforc
rwtab.d	sudoers.d	xattr.conf			
centos-release	DIR_COLORS	gnupg	krb5.conf.d	mime.types	
pkcs11	samba	sudo-ldap.conf	xdg		
chromium	DIR_COLORS.lightbgcolor	GREP_COLORS	ld.so.cache	mke2fs.conf	
pkgconfig	sane.d	sysconfig	xml		
chrony.conf	dnf	groff	ld.so.conf	modprobe.d	pki
sasl2	sysctl.conf	yum			
chrony.keys	dnsmasq.conf	group	ld.so.conf.d	modules-load.d	
plymouth	security	sysctl.d	yum.conf		
cifs-utils	dnsmasq.d	group-	libaudit.conf	motd	pm
selinux	systemd	yum.repos.d			
cni	dracut.conf	grub2.cfg	libblockdev	motd.d	pnm2ppa.conf
services	system-release				

cockpit            dracut.conf.d            grub.d            libibverbs.d    mtab            polkit-1  
sestatus.conf    system-release-cpe

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

```
[admin@hostname01 ~]$ 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.**

```
[admin@hostname01 ~]$ vim first.unix
```

Press i to enter insert mode in that  
In insert mode type the above sentences

Then press esc to enter into command mode then type  
:wq and hit enter.

**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@hostname01 ~]$ cp ~/first.unix ~/first.unics
```

```
[admin@hostname01 ~]$ ls
```

```
chap1 chap2 chap3 chap9 chapa chapb chapc chapz Desktop Documents Downloads  
first.unics first.unix Music Pictures Public temp Templates Videos
```

```
[admin@hostname01 ~]$
```

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

```
[admin@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.**

```
[admin@hostname01 ~]$ mkdir ~/temp/sub
```

```
[admin@hostname01 ~]$ cd temp
```

```
[admin@hostname01 temp]$ ls
```

```
directorynew sub
```

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**

```
[admin@hostname01 temp]$ sudo mv ~/first.unix /temp/second.unix
```

```
[admin@hostname01 temp]$ ls /temp
```

second.unix

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

```
[admin@hostname01 ~]$ rm ~/first.unics
```

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

```
[admin@hostname01 ~]$ cd temp
```

```
[admin@hostname01 temp]$ rm *
```

rm: cannot remove 'directorynew': Is a directory

rm: cannot remove 'sub': Is a directory

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

```
[admin@hostname01 temp]$ mv ~/temp/*[aco] ~/
```

mv: cannot stat '/home/admin/temp/\*[aco]': No such file or directory

**29. Copy all files that end with a 'UNIX' to the temp directory.**

```
admin@hostname01 temp]$ 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@hostname01 ~]$ rm -r temp
```

```
[admin@hostname01 ~]$ ls
```

chap1 chap2 chap3 chap9 chapa chapb chapc chapz Desktop Documents Downloads  
Music Pictures Public Templates Videos

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

cp will give missing destination file error and same for mv

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

<b>Madhu</b>	<b>6966456</b>	<b>09/07/68</b>
<b>Jamil</b>	<b>2345215</b>	<b>08/09/67</b>
<b>Ajay</b>	<b>5546785</b>	<b>01/04/66</b>
<b>Mano</b>	<b>7820022</b>	<b>09/07/68</b>
<b>David</b>	<b>8281292</b>	<b>09/09/60</b>
<b>Simmi</b>	<b>7864563</b>	<b>12/12/70</b>
<b>Navin</b>	<b>2224311</b>	<b>30/05/68</b>

**The fields should be separated by a tab.**

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

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

**33. Display contents of the file friends.**

```
[admin@hostname01 Desktop]$ cat friends
```

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

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

```
[admin@hostname01 Desktop]$ cat friends > newfriend
```

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

```
[admin@hostname01 ~]$ cat friends newfriends
```

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

```
[admin@hostname01 ~]$ who
```

```
admin  seat0    2025-01-27 13:15 (login screen)
```

```
admin  tty2      2025-01-27 13:15 (tty2)
```

```
[admin@hostname01 ~]$ who > users
```

```
[admin@hostname01 ~]$ cat users
```

```
admin  seat0    2025-01-27 13:15 (login screen)
```

```
admin  tty2      2025-01-27 13:15 (tty2)
```

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

```
[admin@hostname01 ~]$ cat friends >> users
```

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

```
[admin@hostname01 ~]$ date
```

```
Mon Jan 27 11:57:05 PM IST 2025
```

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

```
[admin@hostname01 ~]$ cal 10 2002
```

```
October 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" : 11:45:51 AM
```



## Using Pipes and Filters:

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

```
[root@hostname01 ~]# ls --help > lsdoc
```

```
Cat lsdoc
```

**2: Display the content of the lsdoc page wise.**

```
[root@hostname01 ~]# more lsdoc
```

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

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

**4: Display data.txt.**

```
[root@hostname01 ~]# cat data.txt
```

**5: Remove the file data.txt.**

```
[root@hostname01 ~]# rm data.txt
```

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

```
[root@hostname01 ~]# cat data.txt2 > errorlog.txt
```

**7: Display errorlog file.**

```
[root@hostname01 ~]# cat errorlog.txt
```

