

- How do you use the "cp" command to copy a file named "file.txt" from the current directory to a directory named "backup"?

```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile1.txt  Public
backup        dbda_abcd.sh dir1     Downloads  newfile2.txt  rename1
backup1       dbda_abc.sh  dir14    file.txt   newname1.txt  shell
cdac-air1    dbda_cdc.sh  dir2     hello.sh  newname.txt   snap
copy_hardlink.txt dbda_rm1.sh dir23   ln_soft.txt num_sort_example.txt soft.txt
daund.sh      dbda_rm3.sh  dir3     Music    Pictures
yashdaund@yashdbda:~$ touch file1.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  Music      Pictures  so
backup        dbda_abcd.sh dir1     Downloads  newfile1.txt  Public   Te
backup1       dbda_abc.sh  dir14    file1.txt  newfile2.txt  rename1  te
cdac-air1    dbda_cdc.sh  dir2     file.txt   newname1.txt  shell    Vi
copy_hardlink.txt dbda_rm1.sh dir23   hello.sh  newname.txt   snap    ya
daund.sh      dbda_rm3.sh  dir3     ln_soft.txt num_sort_example.txt soft.txt ya
yashdaund@yashdbda:~$ cp file1.txt backup
yashdaund@yashdbda:~$ ls backup
file1.txt  file.txt
yashdaund@yashdbda:~$
```

- What is the difference between the "rm" and "rm -r" commands in Linux?

```
Sep 1 09:46
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  Music      Pictures  so
backup        dbda_abcd.sh dir1     Downloads  newfile1.txt  Public   Te
backup1       dbda_abc.sh  dir14    file1.txt  newfile2.txt  rename1  te
cdac-air1    dbda_cdc.sh  dir2     file.txt   newname1.txt  shell    Vi
copy_hardlink.txt dbda_rm1.sh dir23   hello.sh  newname.txt   snap    ya
daund.sh      dbda_rm3.sh  dir3     ln_soft.txt num_sort_example.txt soft.txt ya
yashdaund@yashdbda:~$ rm file.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile1.txt  Public
backup        dbda_abcd.sh dir1     Downloads  newfile2.txt  rename1
backup1       dbda_abc.sh  dir14    file1.txt  newname1.txt  shell
cdac-air1    dbda_cdc.sh  dir2     hello.sh  newname.txt   snap
copy_hardlink.txt dbda_rm1.sh dir23   ln_soft.txt num_sort_example.txt soft.txt
daund.sh      dbda_rm3.sh  dir3     Music    Pictures
yashdaund@yashdbda:~$ rm -r hello.sh
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile2.txt  rename1
backup        dbda_abcd.sh dir1     Downloads  newname1.txt  shell
backup1       dbda_abc.sh  dir14    file1.txt  newname.txt   snap
cdac-air1    dbda_cdc.sh  dir2     ln_soft.txt num_sort_example.txt soft.txt
copy_hardlink.txt dbda_rm1.sh dir23   Music    Pictures
daund.sh      dbda_rm3.sh  dir3     newfile1.txt  Public  sort_exempl
yashdaund@yashdbda:~$
```

rm: Removes files only

rm -r: Recursively removes directories and their contents

3. How do you use the "mv" command to rename a file named "oldname.txt" to "newname.txt"?

The screenshot shows a terminal window with a dark background. The prompt is "yashdaund@yashdbda:~\$". The user runs the command "ls" to list files and directories. Then, they run "mv oldname.txt newname.txt" to rename a file. Finally, they run "ls" again to show the updated directory listing.

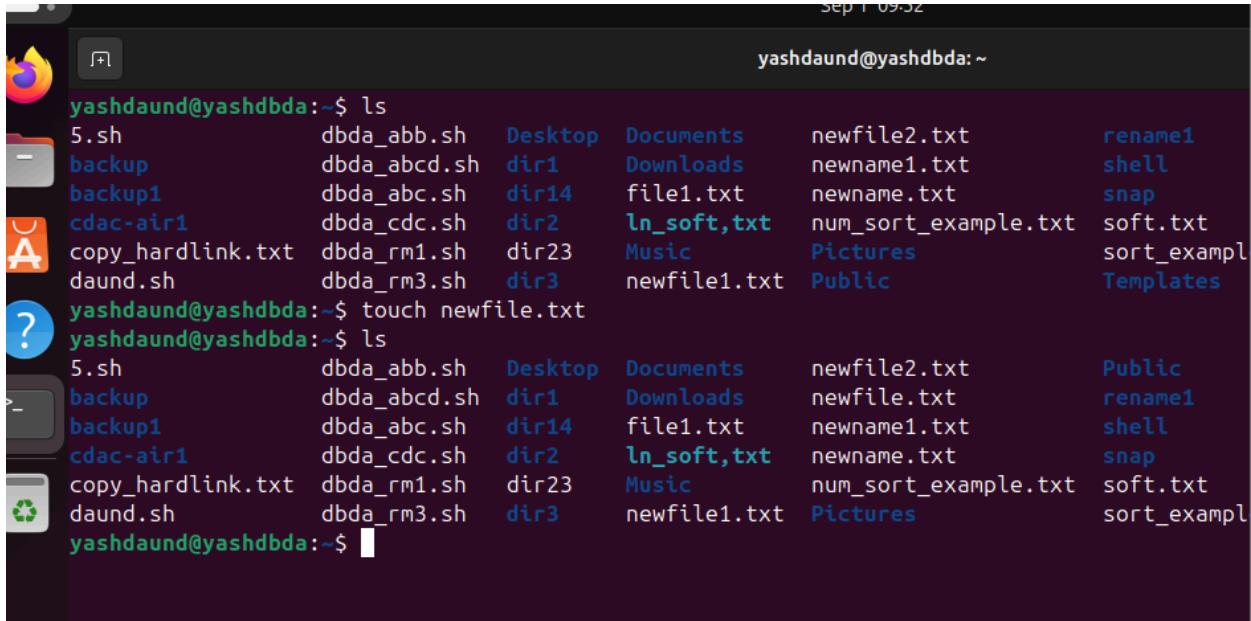
```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile2.txt      rename1
backup        dbda_abcd.sh dir1     Downloads  newname1.txt    shell
backup1       dbda_abc.sh  dir14    file1.txt   num_sort_example.txt snap
cdac-air1     dbda_cdc.sh  dir2     ln_soft.txt oldname.txt    soft.txt
copy_hardlink.txt dbda_rm1.sh dir23    Music     Pictures
daund.sh      dbda_rm3.sh  dir3     newfile1.txt Public
yashdaund@yashdbda:~$ mv oldname.txt newname.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile2.txt      rename1
backup        dbda_abcd.sh dir1     Downloads  newname1.txt    shell
backup1       dbda_abc.sh  dir14    file1.txt   newname.txt    snap
cdac-air1     dbda_cdc.sh  dir2     ln_soft.txt num_sort_example.txt soft.txt
copy_hardlink.txt dbda_rm1.sh dir23    Music     Pictures
daund.sh      dbda_rm3.sh  dir3     newfile1.txt Public
yashdaund@yashdbda:~$
```

4. What does the "pwd" command do in Linux?

The screenshot shows a terminal window with a dark background. The prompt is "yashdaund@yashdbda:~/backup\$". The user runs "ls" to list files and directories. Then, they run "pwd" to print the current working directory. Finally, they run "cd backup" to change the directory, and then "pwd" again to show the new working directory.

```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents  newfile2.txt      rename1
backup        dbda_abcd.sh dir1     Downloads  newname1.txt    shell
backup1       dbda_abc.sh  dir14    file1.txt   newname.txt    snap
cdac-air1     dbda_cdc.sh  dir2     ln_soft.txt num_sort_example.txt soft.txt
copy_hardlink.txt dbda_rm1.sh dir23    Music     Pictures
daund.sh      dbda_rm3.sh  dir3     newfile1.txt Public
yashdaund@yashdbda:~$ pwd
/home/yashdaund
yashdaund@yashdbda:~$ cd backup
yashdaund@yashdbda:~/backup$ pwd
/home/yashdaund/backup
yashdaund@yashdbda:~/backup$
```

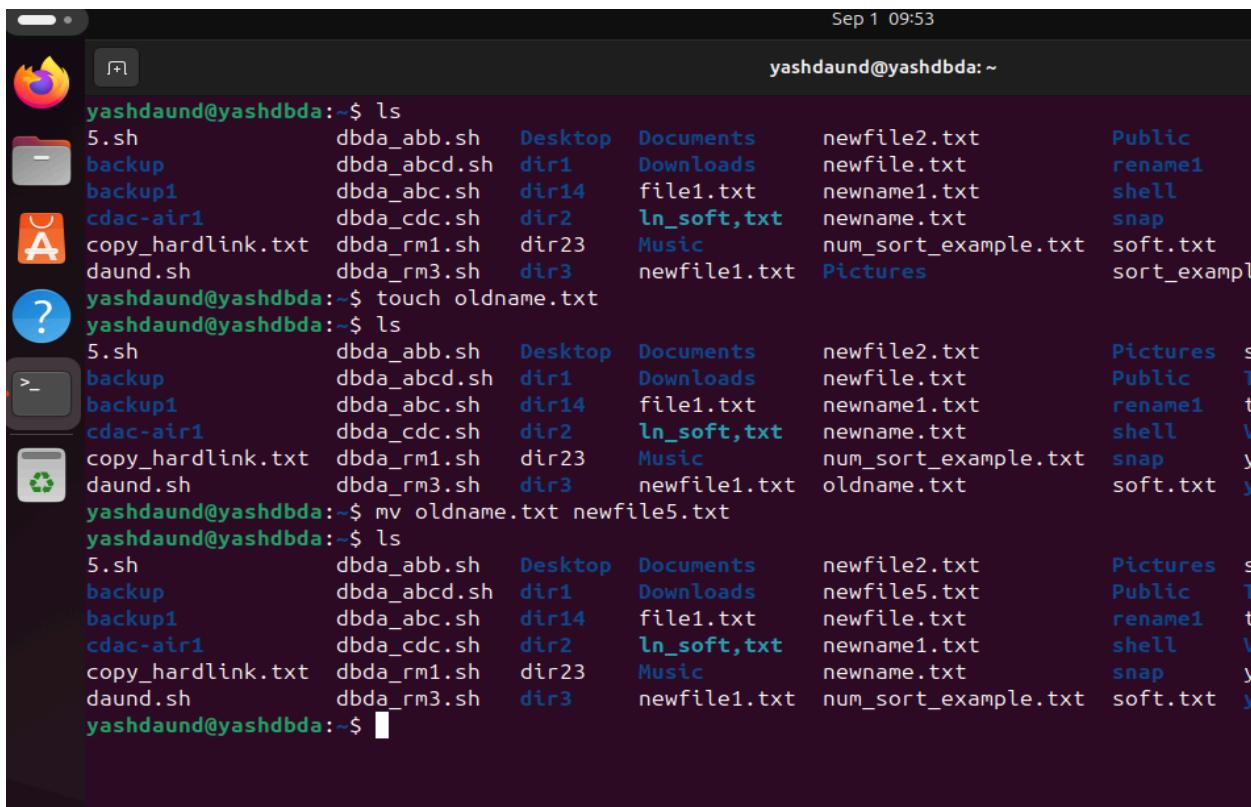
5. How do you create a new empty file named "newfile.txt" in the current directory using the command line?



Sep 1 09:52

```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    rename1
backup       dbda_abcd.sh dir1     Downloads    newname1.txt   shell
backup1      dbda_abc.sh  dir14    ln_soft.txt  newname.txt   snap
cdac-air1    dbda_cdc.sh dir2     Music       num_sort_example.txt soft.txt
copy_hardlink.txt dbda_rm1.sh dir23   Pictures    Pictures
daund.sh     dbda_rm3.sh  dir3    newfile1.txt Public
yashdaund@yashdbda:~$ touch newfile.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    Public
backup       dbda_abcd.sh dir1     Downloads    newfile.txt   rename1
backup1      dbda_abc.sh  dir14    ln_soft.txt  newname1.txt   shell
cdac-air1    dbda_cdc.sh dir2     Music       num_sort_example.txt snap
copy_hardlink.txt dbda_rm1.sh dir23   Pictures    Pictures
daund.sh     dbda_rm3.sh  dir3    newfile1.txt Public
yashdaund@yashdbda:~$
```

6. How do you rename a file named "oldname.txt" to "newname.txt" using the command line?



Sep 1 09:53

```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    Public
backup       dbda_abcd.sh dir1     Downloads    newfile.txt   rename1
backup1      dbda_abc.sh  dir14    ln_soft.txt  newname1.txt   shell
cdac-air1    dbda_cdc.sh dir2     Music       num_sort_example.txt snap
copy_hardlink.txt dbda_rm1.sh dir23   Pictures    Pictures
daund.sh     dbda_rm3.sh  dir3    newfile1.txt oldname.txt
yashdaund@yashdbda:~$ touch oldname.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    Pictures
backup       dbda_abcd.sh dir1     Downloads    newfile.txt   Public
backup1      dbda_abc.sh  dir14    ln_soft.txt  newname1.txt   rename1
cdac-air1    dbda_cdc.sh dir2     Music       num_sort_example.txt shell
copy_hardlink.txt dbda_rm1.sh dir23   Pictures    Pictures
daund.sh     dbda_rm3.sh  dir3    newfile1.txt oldname.txt
yashdaund@yashdbda:~$ mv oldname.txt newfile5.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    Pictures
backup       dbda_abcd.sh dir1     Downloads    newfile5.txt   Public
backup1      dbda_abc.sh  dir14    ln_soft.txt  newfile.txt   rename1
cdac-air1    dbda_cdc.sh dir2     Music       newname1.txt   shell
copy_hardlink.txt dbda_rm1.sh dir23   Pictures    newname.txt   snap
daund.sh     dbda_rm3.sh  dir3    newfile1.txt num_sort_example.txt soft.txt
yashdaund@yashdbda:~$
```

7. How do you remove a file named "file.txt" from the current directory using the command line?

```

yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile2.txt    Pictures   s
backup        dbda_abcd.sh dir1     Downloads     newfile5.txt    Public     T
backup1       dbda_abc.sh  dir14    dir14        file1.txt     newfile.txt   rename1   t
cdac-air1    dbda_cdc.sh  dir2     ln_soft.txt  newname1.txt  shell     V
copy_hardlink.txt dbda_rm1.sh dir23   Music       newname.txt   snap      y
daund.sh      dbda_rm3.sh  dir3     newfile1.txt num_sort_example.txt soft.txt  y
yashdaund@yashdbda:~$ rm file1.txt
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile5.txt    Pictures   s
backup        dbda_abcd.sh dir1     Downloads     newfile.txt    Public     T
backup1       dbda_abc.sh  dir14    ln_soft.txt  newname1.txt  rename1   t
cdac-air1    dbda_cdc.sh  dir2     Music       newname.txt   shell     V
copy_hardlink.txt dbda_rm1.sh dir23   newfile1.txt num_sort_example.txt soft.txt  y
daund.sh      dbda_rm3.sh  dir3     newfile2.txt Pictures   snap      y
yashdaund@yashdbda:~$ 

```

8. Use a command to show the current working directory

```

Sep 1 09:57
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile5.txt    Pictures   s
backup        dbda_abcd.sh dir1     Downloads     newfile.txt    Public     T
backup1       dbda_abc.sh  dir14    ln_soft.txt  newname1.txt  rename1   t
cdac-air1    dbda_cdc.sh  dir2     Music       newname.txt   shell     V
copy_hardlink.txt dbda_rm1.sh dir23   newfile1.txt num_sort_example.txt soft.txt  y
daund.sh      dbda_rm3.sh  dir3     newfile2.txt Pictures   snap      y
yashdaund@yashdbda:~$ pwd
/home/yashdaund
yashdaund@yashdbda:~$ 

```

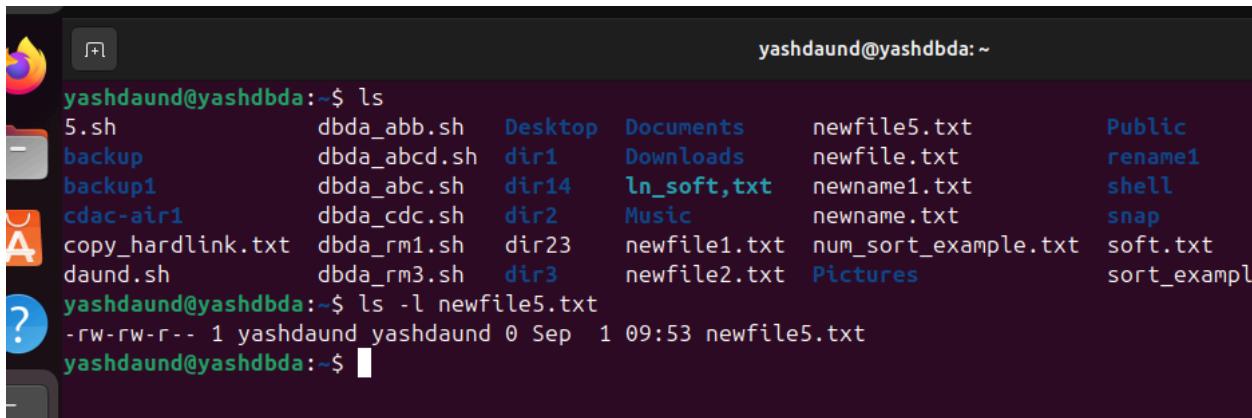
9. List the directory contents in the short and long format

```

Sep 1 09:58
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile5.txt    Pictures   s
backup        dbda_abcd.sh dir1     Downloads     newfile.txt    Public     T
backup1       dbda_abc.sh  dir14    ln_soft.txt  newname1.txt  rename1   t
cdac-air1    dbda_cdc.sh  dir2     Music       newname.txt   shell     V
copy_hardlink.txt dbda_rm1.sh dir23   newfile1.txt num_sort_example.txt soft.txt  y
daund.sh      dbda_rm3.sh  dir3     newfile2.txt Pictures   snap      y
yashdaund@yashdbda:~$ ls -l
total 16848
-rw-rw-r--  1 yashdaund yashdaund      55 Sep  1 08:59 5.sh
drwxrwxr-x  2 yashdaund yashdaund  4096 Sep  1 09:43 backup
drwxrwxr-x  2 yashdaund yashdaund  4096 Aug 29 17:36 backup1
drwxrwxr-x  4 yashdaund yashdaund  4096 Aug 29 19:02 cdac-air1
-rw-rw-r--  1 yashdaund yashdaund     24 Sep  1 04:54 copy_hardlink.txt
-rw-rw-r--  1 yashdaund yashdaund   647 Aug 30 07:45 daund.sh
-rw-rw-r--  1 yashdaund yashdaund   13 Aug 28 12:37 dbda_abb.sh
-rw-rw-r--  1 yashdaund yashdaund   19 Aug 29 04:21 dbda_abcd.sh
-rw-rw-r--  1 yashdaund yashdaund 17111048 Aug 29 11:34 dbda_abc.sh
-rw-rw-r--  1 yashdaund yashdaund   44 Aug 29 04:30 dbda_cdc.sh
-rw-rw-r--  1 yashdaund yashdaund     6 Aug 29 07:24 dbda_rm1.sh
-rw-rw-r--  1 yashdaund yashdaund     6 Aug 29 07:24 dbda_rm3.sh
drwxr-xr-x  2 yashdaund yashdaund  4096 Aug 25 07:16 Desktop
drwxrwxr-x  3 yashdaund yashdaund  4096 Aug 29 06:40 dir1
drwxrwxr-x  2 yashdaund yashdaund  4096 Aug 29 07:01 dir14
drwxrwxr-x  2 yashdaund yashdaund  4096 Aug 29 06:35 dir2
-rw-rw-r--  1 yashdaund yashdaund    16 Aug 29 06:30 dir23
drwxrwxr-x  2 yashdaund yashdaund  4096 Aug 28 11:42 dir3
drwxr-xr-x  2 yashdaund yashdaund  4096 Aug 25 07:16 Documents
drwxr-xr-x  2 yashdaund yashdaund  4096 Aug 25 07:16 Downloads
lrwxrwxrwx  1 yashdaund yashdaund     8 Sep  1 05:12 ln_soft.txt -> soft.txt
drwxr-xr-x  2 yashdaund yashdaund  4096 Aug 25 07:16 Music
-rw-rw-r--  1 aug_25_1 dbda_2025   964 Aug 30 07:28 newfile1.txt
-rw-rw-r--  1 yashdaund yashdaund     6 Aug 29 17:47 newfile2.txt

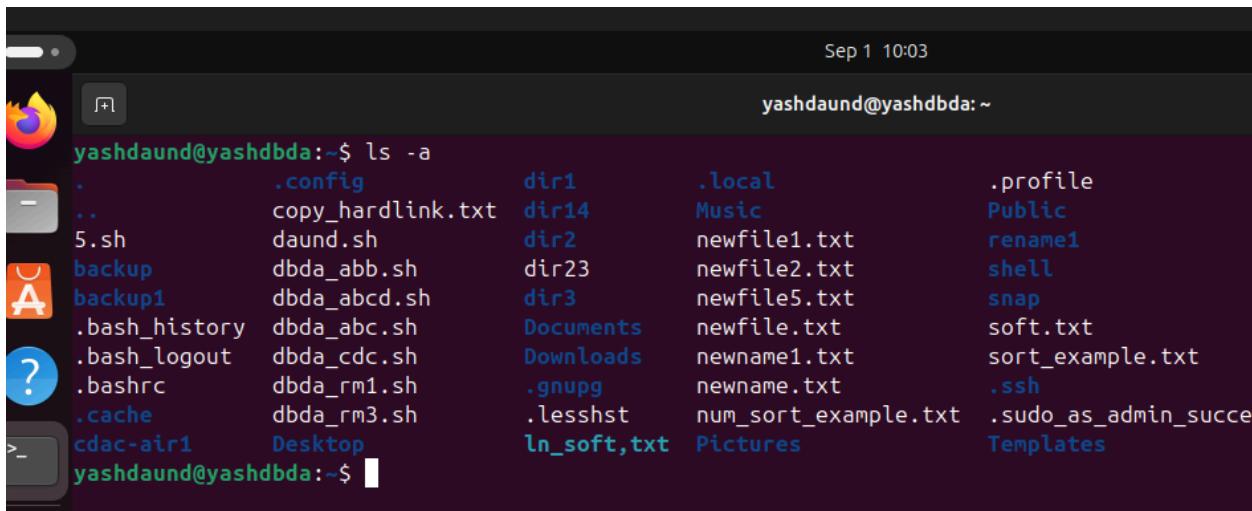
```

10. Explore attributes given in long format e.g. file type, file permissions, file size, file owner etc.



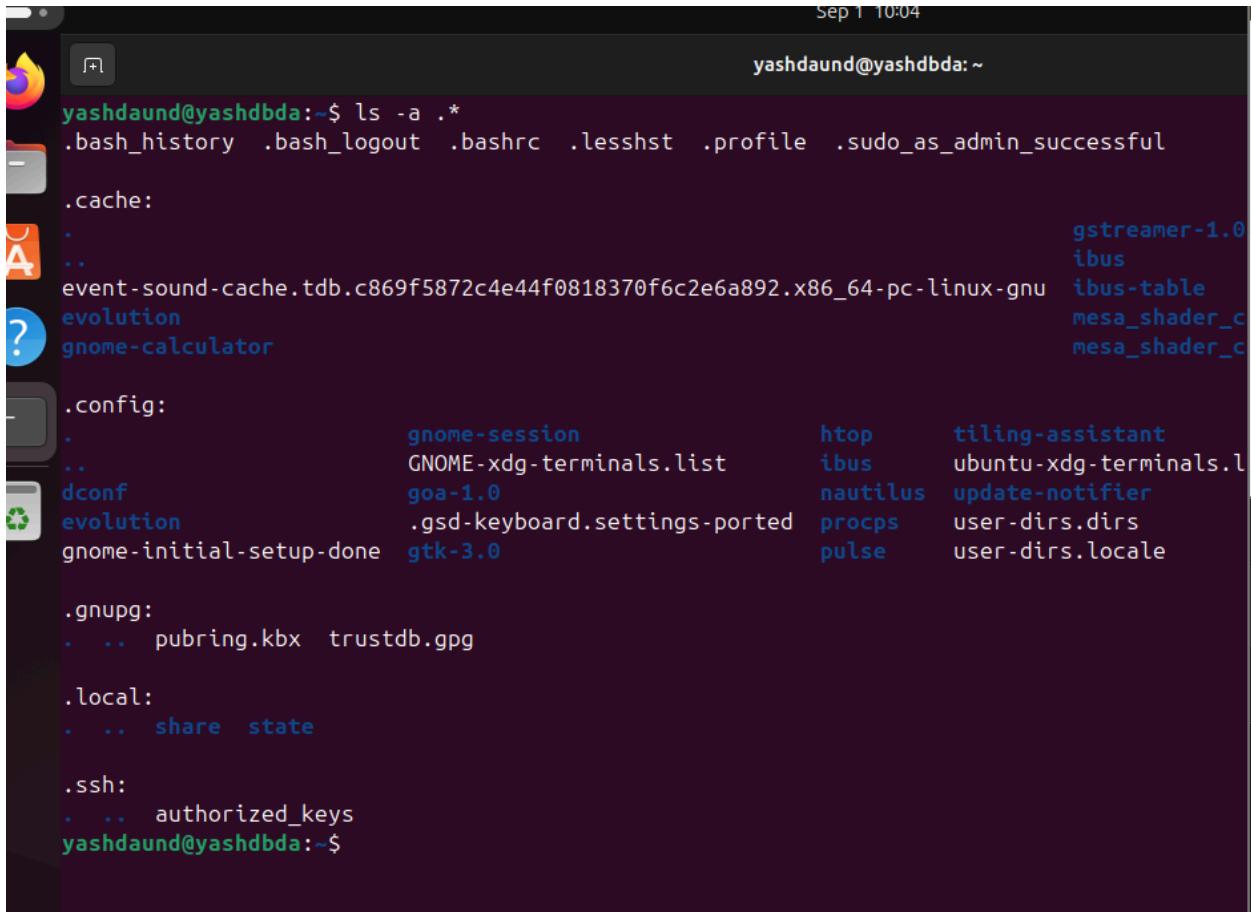
```
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop  Documents      newfile5.txt      Public
backup        dbda_abcd.sh dir1     Downloads     newfile.txt       rename1
backup1       dbda_abc.sh  dir14    ln_soft.txt  newname1.txt    shell
cdac-air1    dbda_cdc.sh  dir2     Music        newname.txt     snap
copy_hardlink.txt dbda_rm1.sh dir23   newfile1.txt num_sort_example.txt soft.txt
daund.sh      dbda_rm3.sh  dir3    newfile2.txt Pictures      sort_exampl
yashdaund@yashdbda:~$ ls -l newfile5.txt
-rw-rw-r-- 1 yashdaund yashdaund 0 Sep  1 09:53 newfile5.txt
yashdaund@yashdbda:~$
```

11. List all files along with hidden files in the current working directory.



```
Sep 1 10:03
yashdaund@yashdbda:~$ ls -a
.           .config      dir1      .local      .profile
..          copy_hardlink.txt  dir14    Music      Public
5.sh        daund.sh     dir2     newfile1.txt  rename1
backup     dbda_abb.sh  dir23    newfile2.txt  shell
backup1    dbda_abcd.sh dir3     newfile5.txt  snap
.bash_history dbda_abc.sh Documents  newfile.txt  soft.txt
.bash_logout dbda_cdc.sh Downloads  newname1.txt sort_example.txt
.bashrc      dbda_rm1.sh .gnupg    newname.txt  .ssh
.cache      dbda_rm3.sh .lessht   num_sort_example.txt .sudo_as_admin_sucess
cdac-air1   Desktop    ln_soft.txt Pictures  Templates
yashdaund@yashdbda:~$
```

12. list only hidden files in the directory



```

Sep 1 10:04
yashdaund@yashdbda:~$ ls -a .
.bash_history .bash_logout .bashrc .lessht .profile .sudo_as_admin_successful

.cache:
.
..
event-sound-cache.tdb.c869f5872c4e44f0818370f6c2e6a892.x86_64-pc-linux-gnu
evolution
gnome-calculator

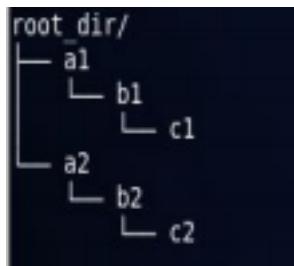
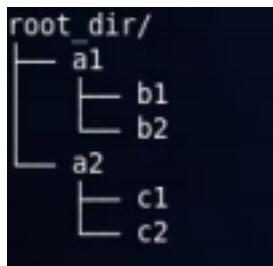
.config:
.
..
dconf
evolution
gnome-initial-setup-done gnome-session GNOME-xdg-terminals.list htop tiling-assistant
gnome-terminal.list ibus update-notifier
goa-1.0 .gsd-keyboard.settings-ported nautilus user-dirs.dirs
gtk-3.0 pulse user-dirs.locale

.gnupg:
. ... pubring.kbx trustdb.gpg

.local:
. ... share state

.ssh:
. ... authorized_keys
yashdaund@yashdbda:~$
```

13. Make a directory and name it as **cdac-dir** and change the current working directory to the new directory.(Hint : use **mkdir,cd** commands). 3. Create following nested directories inside the current directory by invoking a single command for only one time.
Note : here root_dir is the current directory.



Directory structure 1 Directory structure 2

```
yashdaund@yashdbda:~/cdac_dir1
yashdaund@yashdbda:~$ ls
5.sh          daund.sh    Desktop   Downloads  newname1.txt      snap
backup        dbda_abb.sh  dir1     ln_soft.txt  newname.txt      soft.txt
backup1       dbda_abcd.sh dir14    Music      num_sort_example.txt  sort_exam
cdac-air1    dbda_abc.sh  dir2     newfile1.txt  Pictures       Templates
cdac_dir     dbda_cdc.sh  dir23    newfile2.txt  Public        temp.txt
cdac_dir1    dbda_rm1.sh  dir3     newfile5.txt  rename1      Videos
copy_hardlink.txt dbda_rm3.sh Documents newfile.txt  shell
yashdaund@yashdbda:~$ cd cdac_dir1
yashdaund@yashdbda:~/cdac_dir1$ mkdir -p a1/b1 a1/b2 a2/c1 a2/c2
yashdaund@yashdbda:~/cdac_dir1$ tree -a
.
└── a1
    ├── b1
    └── b2
    └── a2
        ├── c1
        └── c2
7 directories, 0 files
yashdaund@yashdbda:~/cdac_dir1$
```

```
Sep 1 10:07
yashdaund@yashdbda:~/cdac_dir
yashdaund@yashdbda:~$ ls
5.sh          dbda_abb.sh  Desktop   Documents  newfile5.txt      Public
backup        dbda_abcd.sh dir1     Downloads  newfile.txt      rename1
backup1       dbda_abc.sh  dir14    ln_soft.txt  newname1.txt      shell
cdac-air1    dbda_cdc.sh  dir2     Music      newname.txt      snap
copy_hardlink.txt dbda_rm1.sh dir23    newfile1.txt  Pictures       soft.txt
daund.sh      dbda_rm3.sh  dir3     newfile2.txt  num_sort_example.txt  sort_exam
yashdaund@yashdbda:~$ mkdir cdac_dir
yashdaund@yashdbda:~$ ls
5.sh          daund.sh    dbda_rm3.sh  dir3     newfile2.txt      Pictures
backup        dbda_abb.sh  Desktop   Documents  newfile5.txt      Public
backup1       dbda_abcd.sh dir1     Downloads  newfile.txt      rename1
cdac-air1    dbda_abc.sh  dir14    ln_soft.txt  newname1.txt      shell
cdac_dir     dbda_cdc.sh  dir2     Music      newname.txt      snap
copy_hardlink.txt dbda_rm1.sh dir23    newfile1.txt  num_sort_example.txt  soft.t
yashdaund@yashdbda:~$ cd cdac_dir
yashdaund@yashdbda:~/cdac_dir$ mkdir -p a1/b1/b2 a2/c1/c2
yashdaund@yashdbda:~/cdac_dir$ tree -a
locales-launch: Data of en_US locale not found, generating, please wait...
.
└── a1
    └── b1
        └── b2
    └── a2
        └── c1
            └── c2
7 directories, 0 files
yashdaund@yashdbda:~/cdac_dir$
```

14. (Hint : explore the man page of **mkdir**).

```
? Help --version
      output version information and exit
>_
AUTHOR
Written by David MacKenzie.

REPORTING BUGS
GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Report any translation bugs to <https://translationproject.org/team/>

COPYRIGHT
Copyright © 2023 Free Software Foundation, Inc. License GPLv3+: GNU
<https://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it. There is NO WA
mitted by law.

SEE ALSO
mkdir(2)

Full documentation <https://www.gnu.org/software/coreutils/mkdir>
or available locally via: info '(coreutils) mkdir invocation'

 GNU coreutils 9.4          April 2024
Manual page mkdir(1) line 23/53 (END) (press h for help or q to quit)
```

```
MKDIR(1) User Commands

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

    Mandatory arguments to long options are mandatory for short options too.

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed, with their file mode.

    -v, --verbose
        print a message for each created directory

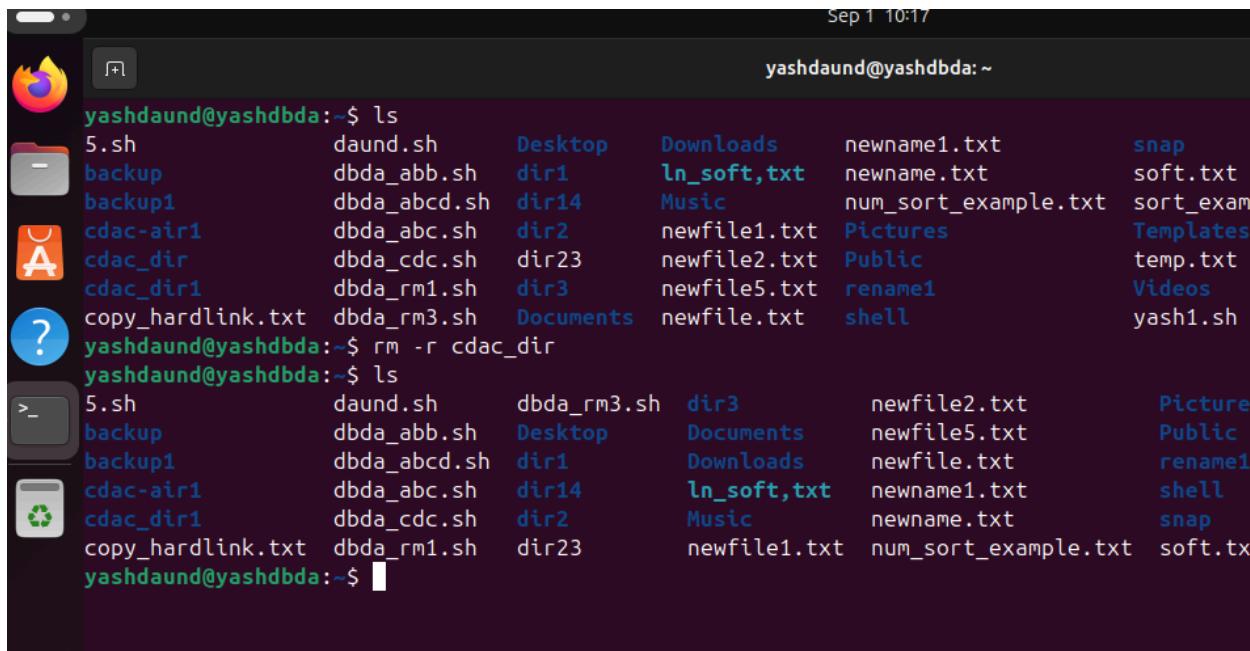
    -Z      set SELinux security context of each created directory to the default type

    --context[=CTX]
        like -Z, or if CTX is specified then set the SELinux or SMACK security context

    --help display this help and exit

    --version
Manual page mkdir(1) line 1/53 56% (press h for help or q to quit)
```

15. List the directories(folders), then remove the **cdac-dir** directory and list the folders again to show that it is no longer present.(Hint : use **rm**, **ls** command)



Sep 1 10:17

```
yashdaund@yashdbda:~$ ls
5.sh           daund.sh      Desktop    Downloads   newname1.txt      snap
backup        dbda_abb.sh   dir1       ln_soft.txt  newname.txt      soft.txt
backup1       dbda_abcd.sh  dir14      Music      num_sort_example.txt sort_exam
cdac-air1     dbda_abc.sh   dir2       newfile1.txt  Pictures       Templates
cdac_dir      dbda_cdc.sh   dir23      newfile2.txt  Public        temp.txt
cdac_dir1     dbda_rm1.sh   dir3       newfile5.txt  rename1       Videos
copy_hardlink.txt dbda_rm3.sh Documents  newfile.txt   shell         yash1.sh

yashdaund@yashdbda:~$ rm -r cdac_dir
yashdaund@yashdbda:~$ ls
5.sh           daund.sh      dbda_rm3.sh  dir3       newfile2.txt      Picture
backup        dbda_abb.sh   Desktop     Documents  newfile5.txt      Public
backup1       dbda_abcd.sh  dir1       Downloads  newfile.txt      rename1
cdac-air1     dbda_abc.sh   dir14      ln_soft.txt  newname1.txt      shell
cdac_dir1     dbda_cdc.sh   dir2       Music      newname.txt      snap
copy_hardlink.txt dbda_rm1.sh dir23      newfile1.txt  num_sort_example.txt soft.tx

yashdaund@yashdbda:~$
```

16. Question-2.

17. Display the **man-page** for **ls**, but redirect the output into **temp.txt**, then use the **cat**, **less**, and **more** commands to display the new file.

GNU nano 7.2

CAT(1)

temp.txt

User Commands

NAME

cat - concatenate files and print on the standard output

SYNOPSIS

cat [OPTION]... [FILE]...

DESCRIPTION

Concatenate FILE(s) to standard output.

With no FILE, or when FILE is -, read standard input.

-A, --show-all
equivalent to -vET

-b, --number-nonblank
number nonempty output lines, overrides -n

-e
equivalent to -vE

-E, --show-ends
display \$ at end of each line

-n, --number
number all output lines

-s, --squeeze-blank

[Read 71 lines]

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line

Firefox
GNU nano 7.2 LESS(1) temp.txt General Commands Manual

NAME
less - opposite of more

SYNOPSIS

```
less -?
less --help
less -V
less --version
less [-[+]aABcCdeEfFgGiIJKLMNOPNqQrRsSuUVvwWx~]
      [-b space] [-h lines] [-j line] [-k keyfile]
      [-{oO} logfile] [-p pattern] [-P prompt] [-t tag]
      [-T tagsfile] [-x tab,...] [-y lines] [-[z] lines]
      [-# shift] [+[-]cmd] [--] [filename]...
(See the OPTIONS section for alternate option syntax with long option names.)
```

DESCRIPTION

Less is a program similar to more(1), but it has many more features. Less does input file before starting, so with large input files it starts up faster than tex uses termcap (or terminfo on some systems), so it can run on a variety of termi support for hardcopy terminals. (On a hardcopy terminal, lines which should be pr screen are prefixed with a caret.)

Commands are based on both more and vi. Commands may be preceded by a decimal scriptions below. The number is used by some commands, as indicated.

COMMANDS

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location
^X Exit	^R Read File	^\\ Replace	^U Paste	^J Justify	^/ Go To Line

[Read 1446 lines]

yashdaund@yashdbda:~

User Commands

LS(1)

NAME

ls - list directory contents

SYNOPSIS

ls [OPTION]... [FILE]...

DESCRIPTION

List information about the FILEs (the current directory by default). Sort entries -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.

-a, --all
do not ignore entries starting with .

-A, --almost-all
do not list implied . and ..

--author
with -l, print the author of each file

-b, --escape
print C-style escapes for nongraphic characters

--block-size=SIZE
with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see

-B, --ignore-backups
do not list implied entries ending with ~

Manual page ls(1) line 1 (press h for help or q to quit)

The screenshot shows a Linux desktop environment with a terminal window open. The terminal title is "temp.txt" and the command run is "more". The output of the "more" command is displayed, showing the man page for the "more" command. The terminal window has a dark background and light-colored text. At the bottom of the terminal window, there is a menu bar with various icons and labels such as "Help", "Exit", "Write Out", "Read File", "Where Is", "Replace", "Cut", "Paste", "Execute", "Justify", "Location", and "Go To Line". The terminal window is titled "temp.txt" and is part of a window manager interface.

```
yashdaund@yashdbda:~$ more temp.txt
MORE(1)                               User Commands

NAME
      more - display the contents of a file in a terminal

SYNOPSIS
      more [options] file ...

DESCRIPTION
      more is a filter for paging through text one screenful at a time. This version is
      should realize that less(1) provides more(1) emulation plus extensive enhancements

OPTIONS
      Options are also taken from the environment variable MORE (make sure to precede the
      command-line options will override those.

-d, --silent
      Prompt with "[Press space to continue, 'q' to quit.]", and display "[Press 'h'
      of ringing the bell when an illegal key is pressed.

-l, --logical
      Do not pause after any line containing a ^L (form feed).

-e, --exit-on-eof
      Exit on End-Of-File, enabled by default if POSIXLY_CORRECT environment variable
      executed on terminal.

-f, --no-pause
[ Read 173 lines ]
^G Help      ^O Write Out    ^W Where Is     ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File    ^\ Replace      ^U Paste      ^J Justify    ^/ Go To Line
```

18. Display the initial 10 lines and final 5 lines of **temp.txt** with the obvious Linux commands.(Hint: use **head** and **tail** commands).

The screenshot shows a Linux terminal window with the command "head -n10 temp.txt" run. The output of this command is shown, which is the first 10 lines of the "temp.txt" file. Below this, the command "tail -n5 temp.txt" is run, showing the last 5 lines of the file. The terminal window has a dark background and light-colored text. The prompt "yashdaund@yashdbda:~\$" is visible at the bottom.

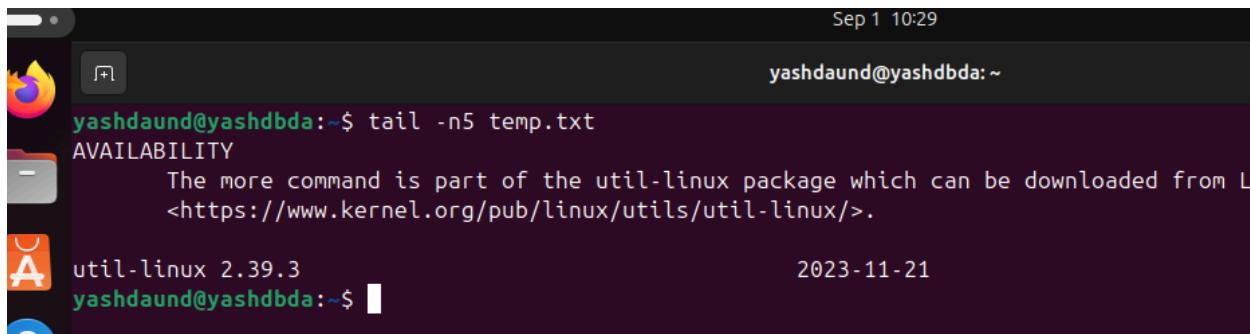
```
yashdaund@yashdbda:~$ head -n10 temp.txt
MORE(1)                               User Commands

NAME
      more - display the contents of a file in a terminal

SYNOPSIS
      more [options] file ...

DESCRIPTION
      more is a filter for paging through text one screenful at a time. This version is
      should realize that less(1) provides more(1) emulation plus extensive enhancements

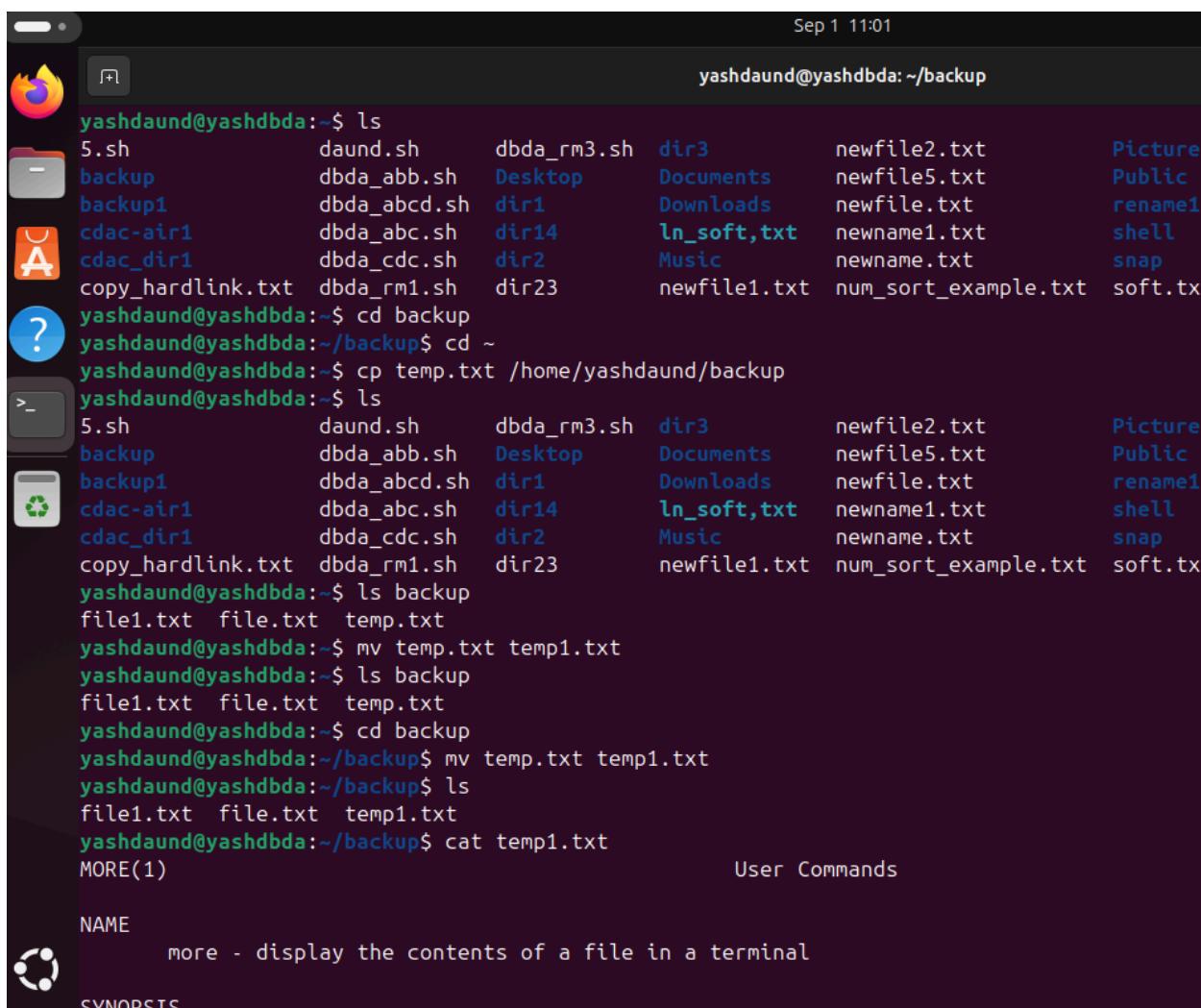
yashdaund@yashdbda:~$ tail -n5 temp.txt
```



Sep 1 10:29
yashdaund@yashdbda:~\$ tail -n5 temp.txt
AVAILABILITY
The more command is part of the util-linux package which can be downloaded from L
<<https://www.kernel.org/pub/linux/utils/util-linux/>>.
util-linux 2.39.3 2023-11-21
yashdaund@yashdbda:~\$

19. Copy **temp.txt** to another directory and rename it there.

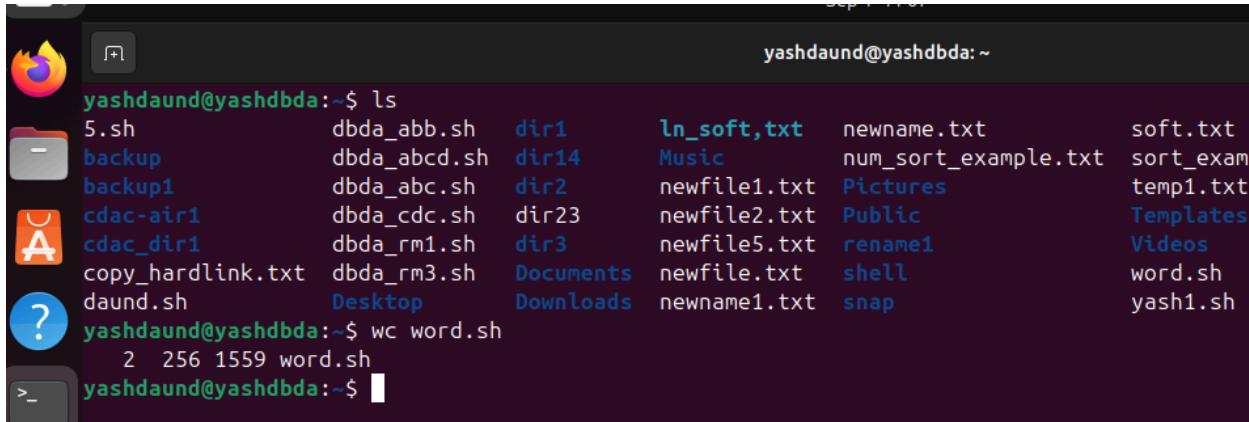
(Hint: use **cp** to copy and **mv** command to rename).



Sep 1 11:01
yashdaund@yashdbda:~/backup
yashdaund@yashdbda:~\$ ls
5.sh daund.sh dbda_rm3.sh dir3 newfile2.txt Picture
backup dbda_abb.sh Desktop Documents newfile5.txt Public
backup1 dbda_abcd.sh dir1 Downloads newfile.txt rename1
cdac-air1 dbda_abc.sh dir14 ln_soft.txt newname1.txt shell
cdac_dir1 dbda_cdc.sh dir2 Music newname.txt snap
copy_hardlink.txt dbda_rm1.sh dir23 newfile1.txt num_sort_example.txt soft.tx
yashdaund@yashdbda:~\$ cd backup
yashdaund@yashdbda:~/backup\$ cd ~
yashdaund@yashdbda:~\$ cp temp.txt /home/yashdaund/backup
yashdaund@yashdbda:~\$ ls
5.sh daund.sh dbda_rm3.sh dir3 newfile2.txt Picture
backup dbda_abb.sh Desktop Documents newfile5.txt Public
backup1 dbda_abcd.sh dir1 Downloads newfile.txt rename1
cdac-air1 dbda_abc.sh dir14 ln_soft.txt newname1.txt shell
cdac_dir1 dbda_cdc.sh dir2 Music newname.txt snap
copy_hardlink.txt dbda_rm1.sh dir23 newfile1.txt num_sort_example.txt soft.tx
yashdaund@yashdbda:~\$ ls backup
file1.txt file.txt temp.txt
yashdaund@yashdbda:~\$ mv temp.txt temp1.txt
yashdaund@yashdbda:~\$ ls backup
file1.txt file.txt temp.txt
yashdaund@yashdbda:~\$ cd backup
yashdaund@yashdbda:~/backup\$ mv temp.txt temp1.txt
yashdaund@yashdbda:~/backup\$ ls
file1.txt file.txt temp1.txt
yashdaund@yashdbda:~/backup\$ cat temp1.txt
MORE(1) User Commands
NAME
more - display the contents of a file in a terminal
SYNOPSIS

20. Display the number of lines, words and characters in file using Linux command

(Hint: use **wc** command).



yashdaund@yashdbda:~\$ ls

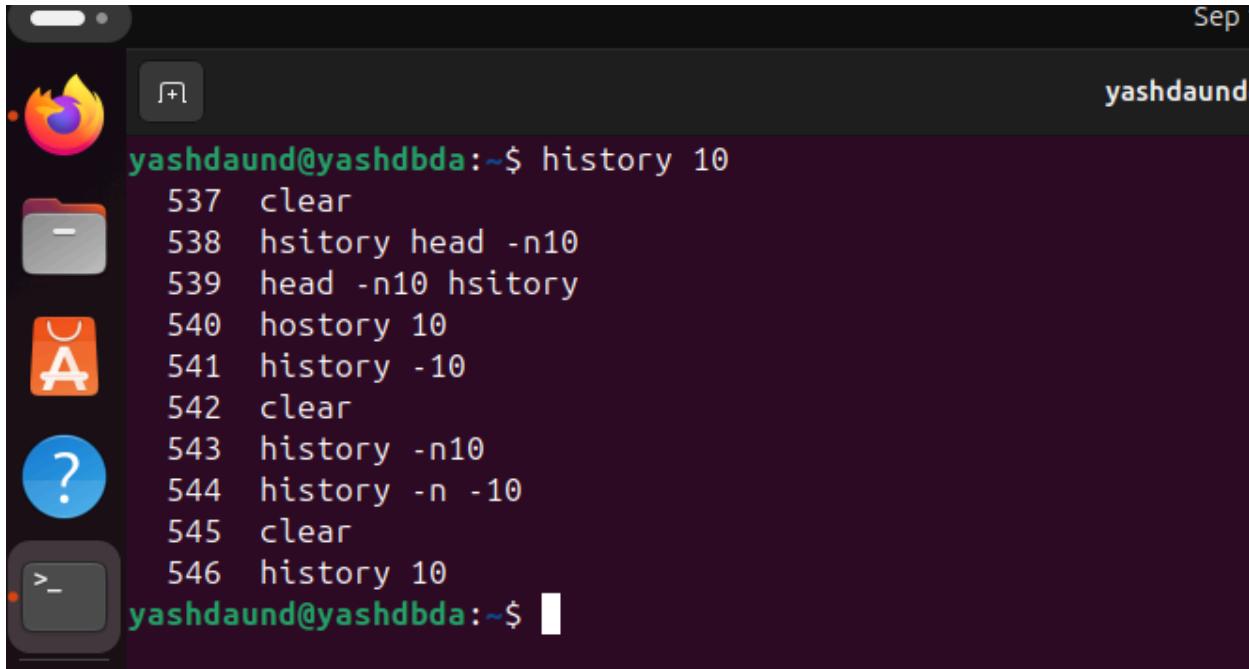
5.sh	dbda_abb.sh	dir1	ln_soft.txt	newname.txt	soft.txt
backup	dbda_abcd.sh	dir14	Music	num_sort_example.txt	sort_exam
backup1	dbda_abc.sh	dir2	newfile1.txt	Pictures	temp1.txt
cdac-air1	dbda_cdc.sh	dir23	newfile2.txt	Public	Templates
cdac_dir1	dbda_rm1.sh	dir3	newfile5.txt	rename1	Videos
copy_hardlink.txt	dbda_rm3.sh	Documents	newfile.txt	shell	word.sh
daund.sh	Desktop	Downloads	newname1.txt	snap	yash1.sh

yashdaund@yashdbda:~\$ wc word.sh

2	256	1559	word.sh
---	-----	------	---------

yashdaund@yashdbda:~\$

21. Use history command to display the last 10 commands used. (**Hint:** use **history** command).



yashdaund@yashdbda:~\$ history 10

537	clear
538	hsitory head -n10
539	head -n10 hsitory
540	hostory 10
541	history -10
542	clear
543	history -n10
544	history -n -10
545	clear
546	history 10

yashdaund@yashdbda:~\$

22. Create a tar archive file of any directory present in your home directory. (**Hint:** use **tar** command)

```

Sep 1 11:16
yashdaund@yashdbda:~$ ls
5.sh           dbda_abb.sh   dir1      ln_soft.txt  newname.txt      soft.txt
backup        dbda_abcd.sh  dir14     Music       num_sort_example.txt sort_exam
backup1       dbda_abc.sh   dir2      newfile1.txt Pictures
cdac-air1    dbda_cdc.sh   dir23     newfile2.txt Public
cdac_dir1   dbda_rm1.sh   dir3      newfile5.txt rename1
copy_hardlink.txt dbda_rm3.sh Documents newfile.txt shell
daund.sh      Desktop      Downloads newname1.txt snap
yashdaund@yashdbda:~$ tar -cvf archive_name.tar ~/backup/
tar: Removing leading '/' from member names
/home/yashdaund/backup/
/home/yashdaund/backup/file.txt
/home/yashdaund/backup/file1.txt
/home/yashdaund/backup/temp1.txt
yashdaund@yashdbda:~$ ls
5.sh           daund.sh      Desktop      Downloads      newname1.txt      snap
archive_name.tar dbda_abb.sh  dir1      ln_soft.txt  newname.txt      soft.txt
backup        dbda_abcd.sh  dir14     Music       num_sort_example.txt sort_exam
backup1       dbda_abc.sh   dir2      newfile1.txt Pictures
cdac-air1    dbda_cdc.sh   dir23     newfile2.txt Public
cdac_dir1   dbda_rm1.sh   dir3      newfile5.txt rename1
copy_hardlink.txt dbda_rm3.sh Documents newfile.txt shell
yashdaund@yashdbda:~$ 

```

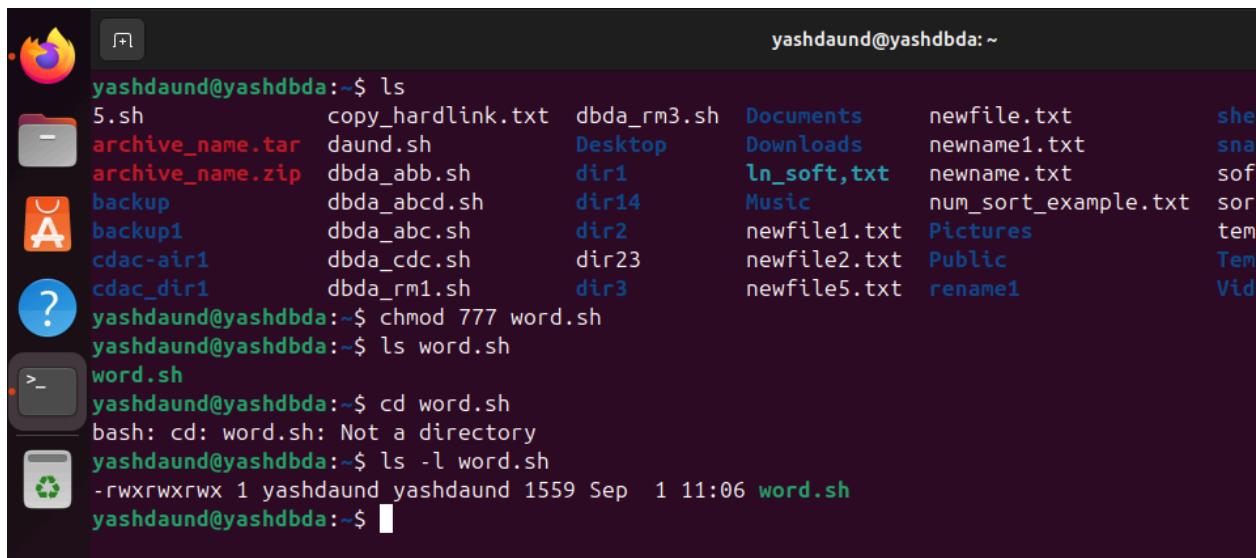
23. Create a zip file of another directory. (**Hint:** use **zip** command) - list the contents of the zip file without extracting.

```

Terminal @yashdbda:~$ zip -r archive_name.zip ~/backup/
[Output redacted]
yashdaund@yashdbda:~$ ls
5.sh           copy_hardlink.txt  dbda_rm3.sh  Documents      newfile.txt      she
archive_name.tar daund.sh        Desktop      Downloads      newname1.txt      snap
archive_name.zip dbda_abb.sh    dir1      ln_soft.txt  newname.txt      sof
backup        dbda_abcd.sh   dir14     Music       num_sort_example.txt sor
backup1       dbda_abc.sh   dir2      newfile1.txt Pictures
cdac-air1    dbda_cdc.sh   dir23     newfile2.txt Public
cdac_dir1   dbda_rm1.sh   dir3      newfile5.txt rename1
yashdaund@yashdbda:~$ zipinfo archive_name.zip
Archive: archive_name.zip
Zip file size: 3057 bytes, number of entries: 4
drwxrwxr-x 3.0 unx      0 bx stor 25-Sep-01 11:00 home/yashdaund/backup/
-rw-rw-r-- 3.0 unx      0 bx stor 25-Aug-29 17:36 home/yashdaund/backup/file.txt
-rw-rw-r-- 3.0 unx      0 bx stor 25-Sep-01 09:43 home/yashdaund/backup/file1.txt
-rw-rw-r-- 3.0 unx    5915 tx defN 25-Sep-01 10:59 home/yashdaund/backup/temp1.txt
4 files, 5915 bytes uncompressed, 2295 bytes compressed:  61.2%
yashdaund@yashdbda:~$ 

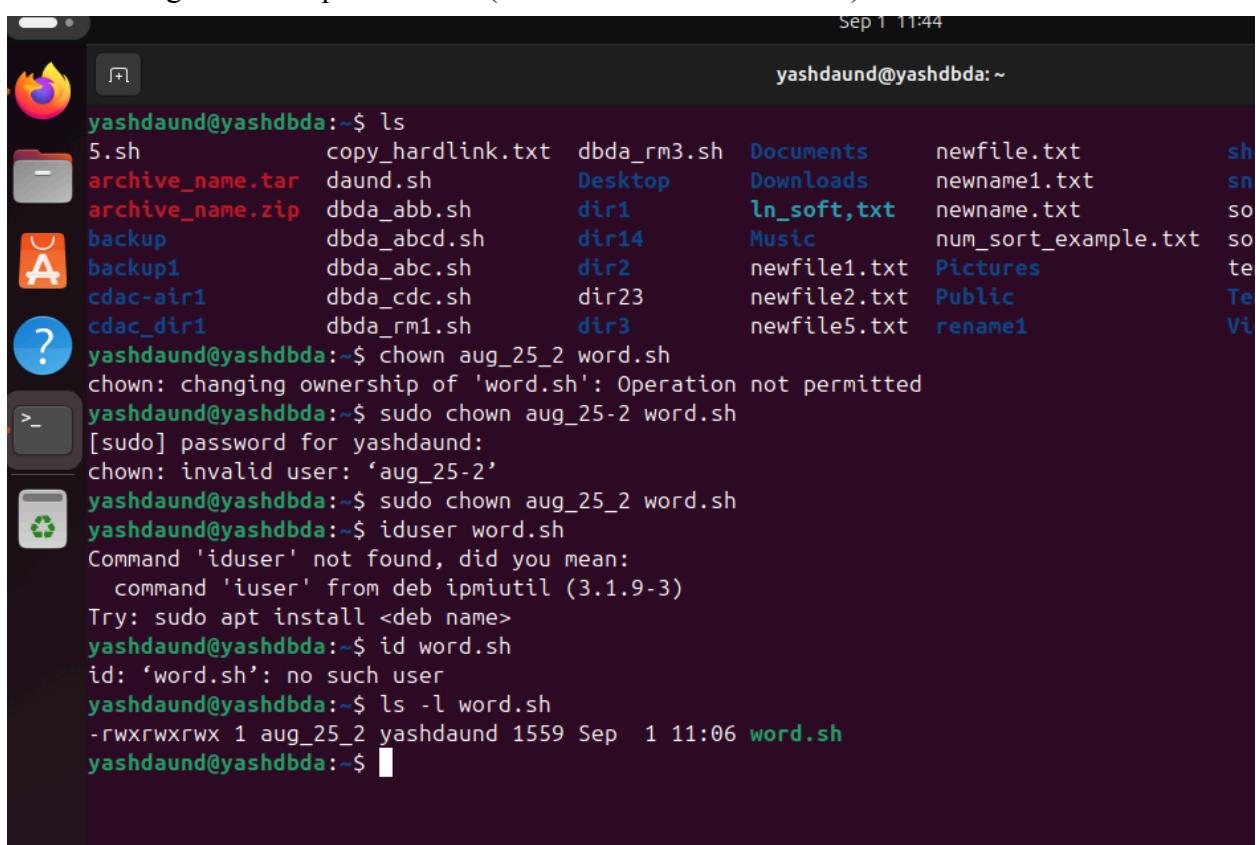
```

24. Give read, write & execute permissions to your file. (**Hint:** use **chmod** command)



```
yashdaund@yashdbda:~$ ls
5.sh          copy_hardlink.txt  dbda_rm3.sh  Documents      newfile.txt      she
archive_name.tar daund.sh        Desktop       Downloads      newname1.txt    sna
archive_name.zip dbda_abb.sh    dir1         ln_soft.txt   newname.txt    sof
backup         dbda_abcd.sh   dir14        Music         num_sort_example.txt sor
backup1        dbda_abc.sh    dir2         Pictures      newfile1.txt   tem
cdac-air1     dbda_cdc.sh   dir23        Public        newfile2.txt   Ten
cdac_dir1    dbda_rm1.sh    dir3         rename1      newfile5.txt   Vid
yashdaund@yashdbda:~$ chmod 777 word.sh
yashdaund@yashdbda:~$ ls word.sh
word.sh
yashdaund@yashdbda:~$ cd word.sh
bash: cd: word.sh: Not a directory
yashdaund@yashdbda:~$ ls -l word.sh
-rwxrwxrwx 1 yashdaund yashdaund 1559 Sep  1 11:06 word.sh
yashdaund@yashdbda:~$
```

25. Change ownership of that file. (**Hint:** use **chown** command)



```
Sep 1 11:44
yashdaund@yashdbda:~$ ls
5.sh          copy_hardlink.txt  dbda_rm3.sh  Documents      newfile.txt      sh
archive_name.tar daund.sh        Desktop       Downloads      newname1.txt    sn
archive_name.zip dbda_abb.sh    dir1         ln_soft.txt   newname.txt    so
backup         dbda_abcd.sh   dir14        Music         num_sort_example.txt so
backup1        dbda_abc.sh    dir2         Pictures      newfile1.txt   te
cdac-air1     dbda_cdc.sh   dir23        Public        newfile2.txt   Te
cdac_dir1    dbda_rm1.sh    dir3         rename1      newfile5.txt   Vi
yashdaund@yashdbda:~$ chown aug_25_2 word.sh
chown: changing ownership of 'word.sh': Operation not permitted
yashdaund@yashdbda:~$ sudo chown aug_25_2 word.sh
[sudo] password for yashdaund:
chown: invalid user: 'aug_25_2'
yashdaund@yashdbda:~$ sudo chown aug_25_2 word.sh
yashdaund@yashdbda:~$ iduser word.sh
Command 'iduser' not found, did you mean:
  command 'iuser' from deb ipmiutil (3.1.9-3)
Try: sudo apt install <deb name>
yashdaund@yashdbda:~$ id word.sh
id: 'word.sh': no such user
yashdaund@yashdbda:~$ ls -l word.sh
-rwxrwxrwx 1 aug_25_2 yashdaund 1559 Sep  1 11:06 word.sh
yashdaund@yashdbda:~$
```

26. List processes running in shell, all running processes(**Hint:** use man page of **ps** command) and show top processes in decreasing order of their resource utilization. (**Hint:** use **top** command).

```
yashdaund@yashdbda:~
```

```
User Commands
```

```
NAME
```

```
ps - report a snapshot of the current processes.
```

```
SYNOPSIS
```

```
ps [options]
```

```
DESCRIPTION
```

```
ps displays information about a selection of the active processes. If you want a selection and the displayed information, use top instead.
```

```
This version of ps accepts several kinds of options:
```

```
1 UNIX options, which may be grouped and must be preceded by a dash.  
2 BSD options, which may be grouped and must not be used with a dash.  
3 GNU long options, which are preceded by two dashes.
```

```
Options of different types may be freely mixed, but conflicts can appear. There  
which are functionally identical, due to the many standards and ps implementations  
with.
```

```
By default, ps selects all processes with the same effective user ID (euid=E  
associated with the same terminal as the invoker. It displays the process I  
associated with the process (tname=TTY), the cumulated CPU time in [DD-]hh:mm:ss  
executable name (ucmd=CMD). Output is unsorted by default.
```

```
The use of BSD-style options will add process state (stat=STAT) to the default dis  
args (args=COMMAND) instead of the executable name. You can override this wi  
variable. The use of BSD-style options will also change the process selection to  
terminals (TTYS) that are owned by you; alternately, this may be described as set
```

```
Manual page ps(1) line 1 (press h for help or q to quit)
```

27. Display current time and calendar (**Hint:** use **date**, **cal** commands) 2. Change the current date and time of the system to following 14th March 2024, 10:10 AM

```
Sep 2 09:02
yashdaund@yashdbda: ~
yashdaund@yashdbda:~$ cal
September 2025
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
yashdaund@yashdbda:~$ date
Tue Sep  2 08:57:33 AM UTC 2025
yashdaund@yashdbda:~$ sudo timedatectl set -time "2024-03-14 10-10-00"
[sudo] password for yashdaund:
timedatectl: invalid option -- 't'
yashdaund@yashdbda:~$ sudo timedatectl set-time "2024-03-14 10-10-00"
Failed to parse time specification '2024-03-14 10-10-00': Invalid argument
yashdaund@yashdbda:~$ sudo timedatectl set-time "14-03-2024 10:10:00"
Failed to parse time specification '14-03-2024 10:10:00': Invalid argument
yashdaund@yashdbda:~$ sudo timedatectl set-time "2024-03-14 10:10:00"
Failed to set time: Automatic time synchronization is enabled
yashdaund@yashdbda:~$
```

28. Explore following commands

29. who, whoami, whatis, whereis, (**Hint:** use man pages).

```
yashdaund@yashdbda:~  
WHO(1) User Commands  
NAME  
    who - show who is logged on  
SYNOPSIS  
    who [OPTION]... [ FILE | ARG1 ARG2 ]  
DESCRIPTION  
    Print information about users who are currently logged in.  
  
    -a, --all  
        same as -b -d --login -p -r -t -T -u  
  
    -b, --boot  
        time of last system boot  
  
    -d, --dead  
        print dead processes  
  
    -H, --heading  
        print line of column headings  
  
    -l, --login  
        print system login processes  
  
    --lookup  
        attempt to canonicalize hostnames via DNS  
  
    -m      only hostname and user associated with stdin  
  
Manual page who(1) line 1 (press h for help or q to quit)
```

Sep 2 09:09
yashdaund@yashdbda:~ User Commands

WHEREIS(1)

NAME
whereis - locate the binary, source, and manual page files for a command

SYNOPSIS
whereis [options] [-BMS directory... -f] name...

DESCRIPTION
whereis locates the binary, source and manual files for the specified command name **first stripped of leading pathname components**. Prefixes of **s.** resulting from use of also dealt with. whereis then attempts to locate the desired program in the standard places specified by \$PATH and \$MANPATH.

The search restrictions (options **-b**, **-m** and **-s**) are cumulative and apply to the subsequent name patterns on the command line. Any new search restriction resets the search mask. For example,

```
whereis -bm ls tr -m gcc
```

searches for "ls" and "tr" binaries and man pages, and for "gcc" man pages only.

The options **-B**, **-M** and **-S** reset search paths for the subsequent name patterns. For example,

```
whereis -m ls -M /usr/share/man/man1 -f cal
```

searches for "ls" man pages in all default paths, but for "cal" in the /usr/share/man/man1 directory.

OPTIONS

-b
Search for binaries.

Manual page whereis(1) line 1 (press h for help or q to quit)

```
yashdaund@yashdbda:~  
WHATIS(1)                               Manual pager utils  
  
NAME  
      whatis - display one-line manual page descriptions  
  
SYNOPSIS  
      whatis [-dlv?V] [-r|-w] [-s list] [-m system[,...]] [-M path] [-L locale] [-C file]  
  
DESCRIPTION  
      Each manual page has a short description available within it. whatis searches the manual page descriptions of any name matched.  
      name may contain wildcards (-w) or be a regular expression (-r). Using these options, quote the name or escape (\) the special characters to stop the shell from interpreting them.  
      index databases are used during the search, and are updated by the mandb program. By default, this may be run by a periodic cron job, or may need to be run manually after installing a package. To produce an old style text whatis database from the relative index database:  
      whatis -M manpath -w '*' | sort > manpath/whatis  
      where manpath is a manual page hierarchy such as /usr/man.  
  
OPTIONS  
      -d, --debug  
          Print debugging information.  
  
      -v, --verbose  
          Print verbose warning messages.  
  
      -r, --regex  
      Manual page whatis(1) line 1 (press h for help or q to quit)
```

```
Sep 2 09:08
yashdaund@yashdbda: ~
WHOAMI(1)                               User Commands

NAME
    whoami - print effective user name

SYNOPSIS
    whoami [OPTION]...

DESCRIPTION
    Print the user name associated with the current effective user ID. Same as id -un.
    --help display this help and exit
    --version
        output version information and exit

AUTHOR
    Written by Richard Mlynarik.

REPORTING BUGS
    GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
    Report any translation bugs to <https://translationproject.org/team/>

COPYRIGHT
    Copyright © 2023 Free Software Foundation, Inc. License GPLv3+: GNU
    <https://gnu.org/licenses/gpl.html>.
    This is free software: you are free to change and redistribute it. There is NO WA
    ranted by law.

SEE ALSO
    Full documentation <https://www.gnu.org/software/coreutils/whoami>
    Manual page whoami(1) line 1 (press h for help or q to quit)
```

30. Create one directory named linux. cd to that directory and create one file named **testperms.txt**. Check the permissions of that file. Check the value of **umask**. Change the value of umask and create one new file **newtestperms.txt** and check its permissions. Note down the difference.(Hint: use **umask**, **ls** command)

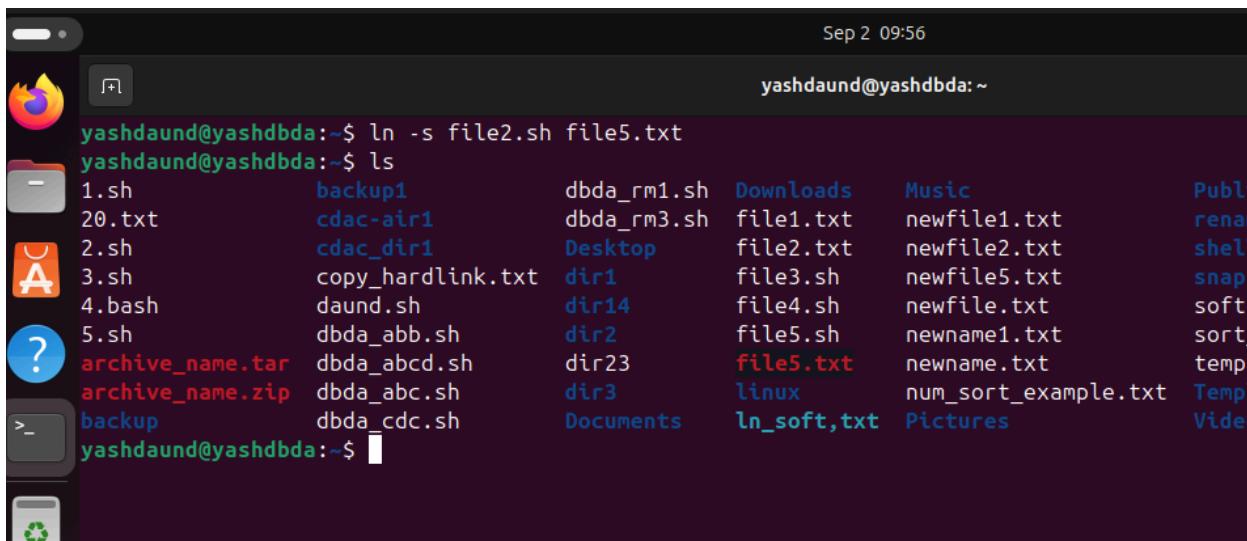
```
bash: umask: `t': invalid symbolic mode operator
yashdaund@yashdbda:~/linux$ umask
0002
yashdaund@yashdbda:~/linux$ umask 0022
yashdaund@yashdbda:~/linux$ ls -l testsperms.txt
ls: cannot access 'testsperms.txt': No such file or directory
yashdaund@yashdbda:~/linux$ ls -l testperms.txt
-rw-rw-r-- 1 yashdaund yashdaund 0 Sep  2 09:12 testperms.txt
yashdaund@yashdbda:~/linux$ umask
0022
yashdaund@yashdbda:~/linux$ touch newtestperms.txt
yashdaund@yashdbda:~/linux$ ls -l newtestperms.txt
-rw-r--r-- 1 yashdaund yashdaund 0 Sep  2 09:16 newtestperms.txt
yashdaund@yashdbda:~/linux$
```

```
Sep 2 09:17  
yashdaund@yashdbda:~/linux  
yashdaund@yashdbda:~$ mkdir linux  
yashdaund@yashdbda:~$ ls  
1.sh          backup1      dbda_cdc.sh  dir3      newfile5.txt    she  
2.sh          cdac-air1   dbda_rm1.sh  Documents  newfile.txt    sna  
3.sh          cdac_dir1   dbda_rm3.sh  Downloads  newname1.txt  sof  
4.bash        copy_hardlink.txt Desktop    linux      newname.txt  son  
5.sh          daund.sh    dir1       ln_soft.txt  num_sort_example.txt tem  
archive_name.tar dbda_abb.sh dir14      Music     Pictures      Ter  
archive_name.zip dbda_abcd.sh dir2       newfile1.txt  Public      Vid  
backup         dbda_abc.sh dir23      newfile2.txt  rename1      wor  
yashdaund@yashdbda:~$ cd linux  
yashdaund@yashdbda:~/linux$ touch testperms.txt  
yashdaund@yashdbda:~/linux$ ls -l testperms.txt  
-rw-rw-r-- 1 yashdaund yashdaund 0 Sep  2 09:12 testperms.txt  
yashdaund@yashdbda:~/linux$ unmask testperms.txt  
Command 'unmask' not found, did you mean:  
  command 'unmass' from deb unmass (0.9-7)  
Try: sudo apt install <deb name>  
yashdaund@yashdbda:~/linux$ unmask  
Command 'unmask' not found, did you mean:  
  command 'unmass' from deb unmass (0.9-7)  
Try: sudo apt install <deb name>  
yashdaund@yashdbda:~/linux$ ls -l testperms.txt  
-rw-rw-r-- 1 yashdaund yashdaund 0 Sep  2 09:12 testperms.txt  
yashdaund@yashdbda:~/linux$ testperms.txt unmask  
testperms.txt: command not found  
yashdaund@yashdbda:~/linux$ unmask  
Command 'unmask' not found, did you mean:  
  command 'unmass' from deb unmass (0.9-7)  
Try: sudo apt install <deb name>  
yashdaund@yashdbda:~/linux$ umask testperms.txt  
bash: umask: `t': invalid symbolic mode operator  
yashdaund@yashdbda:~/linux$ umask
```

31. Create a file and name it as file1.txt and create a hardlink to this file. (Hint: use **ln** command).

```
Sep 2 09:54  
yashdaund@yashdbda:~$ nano file3.sh  
yashdaund@yashdbda:~$ touch file4.sh  
yashdaund@yashdbda:~$ ls file3.sh file4.sh  
file3.sh  file4.sh  
yashdaund@yashdbda:~$ cat file3.sh  
echo "yash"  
yashdaund@yashdbda:~$ cat file4.sh  
yashdaund@yashdbda:~$ ln file3.sh file5.sh  
yashdaund@yashdbda:~$ cat file5.sh  
echo "yash"  
yashdaund@yashdbda:~$
```

32. Create a file and name it as file2.txt and create a softlink to this file. (Hint: use **ln** command).

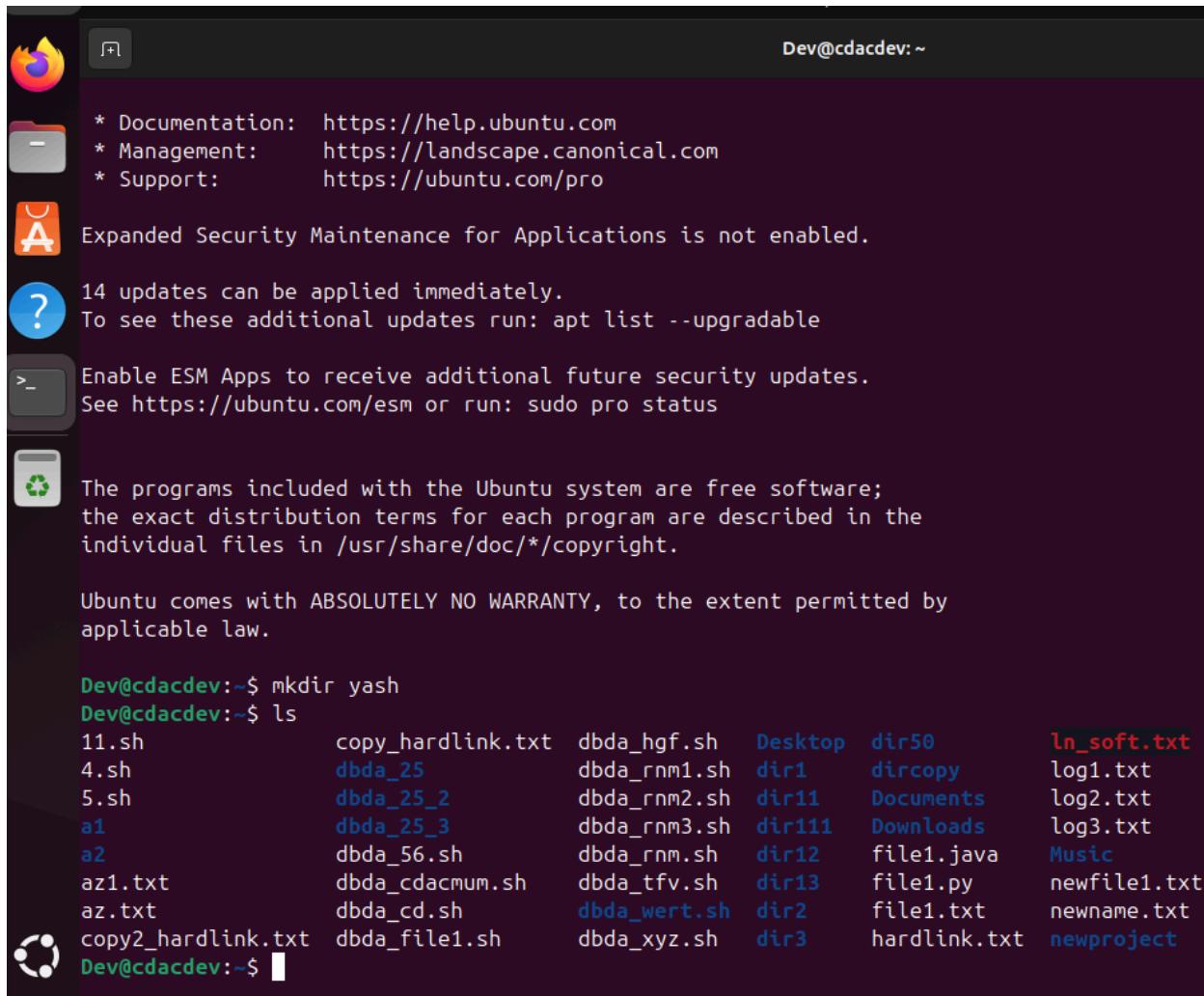


The screenshot shows a terminal window with a dark theme. The title bar says "Sep 2 09:56". The command "yashdaund@yashdbda:~\$ ln -s file2.sh file5.txt" is entered and executed. The output shows the current directory listing with "file5.txt" highlighted in red. The terminal prompt "yashdaund@yashdbda:~\$" is visible at the bottom.

```
yashdaund@yashdbda:~$ ln -s file2.sh file5.txt
yashdaund@yashdbda:~$ ls
1.sh          backup1      dbda_rm1.sh   Downloads    Music       Publ
20.txt        cdac-air1   dbda_rm3.sh   file1.txt   newfile1.txt ren
2.sh          cdac_dir1   Desktop      file2.txt   newfile2.txt shel
3.sh          copy_hardlink.txt dir1       file3.sh   newfile5.txt snap
4.bash        daund.sh    dir14       file4.sh   newfile.txt  soft
5.sh          dbda_abb.sh  dir2       file5.sh   newname1.txt sort
archive_name.tar dbda_abcd.sh dir23      linux     num_sort_example.txt Temp
archive_name.zip dbda_abc.sh  dir3      ln_soft.txt Pictures  Vide
backup         dbda_cdc.sh Documents
yashdaund@yashdbda:~$
```

Hard Link	Soft link
Hard line with being a link.	Soft link is a link which indicates path to its parent file.
Since it is a file by itself, if parent file is deleted, child file remains as it was previously.	Since its a path, if parent file is deleted, child doesn't point tp proper path and becomes a zombie file.
Can be used for creating backup files.	Can be used as a shortcut.
Syntax is: In parentfile.ext childfile.ext	Syntax is: In -s parentfile.ext Q childfile.ext (here, -s indicates soft link)

33. Use **ssh** to connect to your friend's shell by specifying **port number** in the **ssh** command.
use **exit** command to come out of your friends shell.
(Hint: use **ssh** command)



The image shows a screenshot of a Linux desktop environment, specifically Ubuntu, with a terminal window open. The terminal window has a dark background and contains several lines of text. On the left side of the terminal, there is a vertical column of icons, each with a small preview image and a label: a flame icon labeled 'Documentation', a landscape icon labeled 'Management', a support icon labeled 'Support', a 'A' icon labeled 'Expanded Security Maintenance for Applications is not enabled.', a question mark icon labeled '14 updates can be applied immediately. To see these additional updates run: apt list --upgradable', a right arrow icon labeled 'Enable ESM Apps to receive additional future security updates. See https://ubuntu.com/esm or run: sudo pro status', and a recycle bin icon labeled 'The programs included with the Ubuntu system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/*copyright.' Below these icons, the terminal displays the output of the 'ls' command, showing a list of files and directories. The terminal window is titled 'Dev@cdacdev: ~'. The desktop background is visible behind the terminal window, showing a dark theme with some icons.

```
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro

Expanded Security Maintenance for Applications is not enabled.

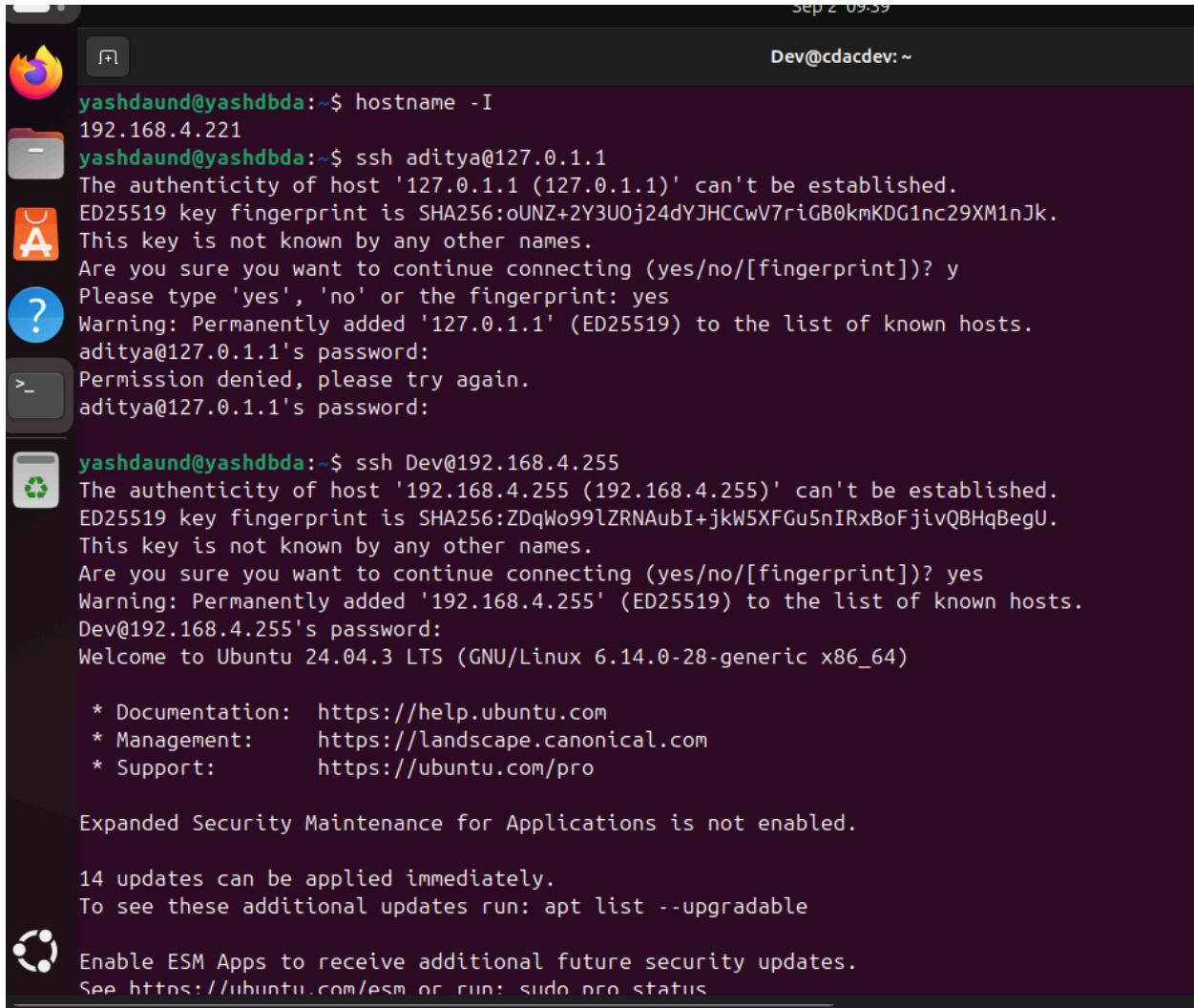
14 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

Dev@cdacdev:~$ mkdir yash
Dev@cdacdev:~$ ls
11.sh           copy_hardlink.txt  dbda_hgf.sh   Desktop    dir50      ln_soft.txt
4.sh            dbda_25          dbda_rnm1.sh  dir1       dircopy    log1.txt
5.sh            dbda_25_2        dbda_rnm2.sh  dir11      Documents  log2.txt
a1              dbda_25_3        dbda_rnm3.sh  dir111     Downloads  log3.txt
a2              dbda_56.sh       dbda_rnm.sh   dir12      file1.java Music
az1.txt         dbda_cdacmum.sh dbda_tfv.sh   dir13      file1.py   newfile1.txt
az.txt          dbda_cd.sh      dbda_wert.sh  dir2       file1.txt  newname.txt
copy2_hardlink.txt dbda_file1.sh dbda_xyz.sh   dir3       hardlink.txt newproject
Dev@cdacdev:~$
```



Sep 2 09:59

```
Dev@cdacdev:~
```

yashdaund@yashdbda:~\$ hostname -I
192.168.4.221

yashdaund@yashdbda:~\$ ssh aditya@127.0.1.1
The authenticity of host '127.0.1.1 (127.0.1.1)' can't be established.
ED25519 key fingerprint is SHA256:oUNZ+2Y3U0j24dYJHCCwV7riGB0kmKDG1nc29XM1nJk.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '127.0.1.1' (ED25519) to the list of known hosts.
aditya@127.0.1.1's password:
Permission denied, please try again.
aditya@127.0.1.1's password:

yashdaund@yashdbda:~\$ ssh Dev@192.168.4.255
The authenticity of host '192.168.4.255 (192.168.4.255)' can't be established.
ED25519 key fingerprint is SHA256:ZDqWo99lZRNAubI+jkW5XFGu5nIRxBoFjivQBHQ BegU.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.4.255' (ED25519) to the list of known hosts.
Dev@192.168.4.255's password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-28-generic x86_64)

* Documentation: <https://help.ubuntu.com>
* Management: <https://landscape.canonical.com>
* Support: <https://ubuntu.com/pro>

Expanded Security Maintenance for Applications is not enabled.

14 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See <https://ubuntu.com/esm> or run: sudo pro status

34. Use **scp** using your friend's credentials to copy a file into a directory **owned by your friend**, inside his home directory, specify port number in **scp** command.

```

yashdaund@yashdbda:~$ pwd
/home/yashdaund
yashdaund@yashdbda:~$ ls yashdaund
ls: cannot access 'yashdaund': No such file or directory
yashdaund@yashdbda:~$ ls
1.sh          backup1      dbda_cdc.sh  dir3        newfile2.txt    ren
2.sh          cdac-air1   dbda_rm1.sh  Documents   newfile5.txt    she
3.sh          cdac_dir1   dbda_rm3.sh  Downloads   newfile.txt     sna
4.bash        copy_hardlink.txt Desktop    file1.txt   newname1.txt    sof
5.sh          daund.sh    dir1        linux      newname.txt    sor
archive_name.tar dbda_abb.sh dir14       ln_soft.txt num_sort_example.txt tem
archive_name.zip dbda_abcd.sh dir2        Music     Pictures      Tem
backup         dbda_abc.sh dir23      newfile1.txt Public     Vid
yashdaund@yashdbda:~$ touch 20.txt
yashdaund@yashdbda:~$ ls
1.sh          backup      dbda_abc.sh  dir23      newfile1.txt    Publ
20.txt        backup1     dbda_cdc.sh  dir3       newfile2.txt    rena
2.sh          cdac-air1   dbda_rm1.sh  Documents   newfile5.txt    shel
3.sh          cdac_dir1   dbda_rm3.sh  Downloads   newfile.txt     snap
4.bash        copy_hardlink.txt Desktop   file1.txt  newname1.txt    soft
5.sh          daund.sh    dir1        linux     newname.txt    sort
archive_name.tar dbda_abb.sh dir14       ln_soft.txt num_sort_example.txt temp
archive_name.zip dbda_abcd.sh dir2        Music    Pictures      Temp
yashdaund@yashdbda:~$ scp /home/yashdaund/20.txt Dev@192.168.4.255:/home/Dev/Desktop
Dev@192.168.4.255's password:
20.txt
100

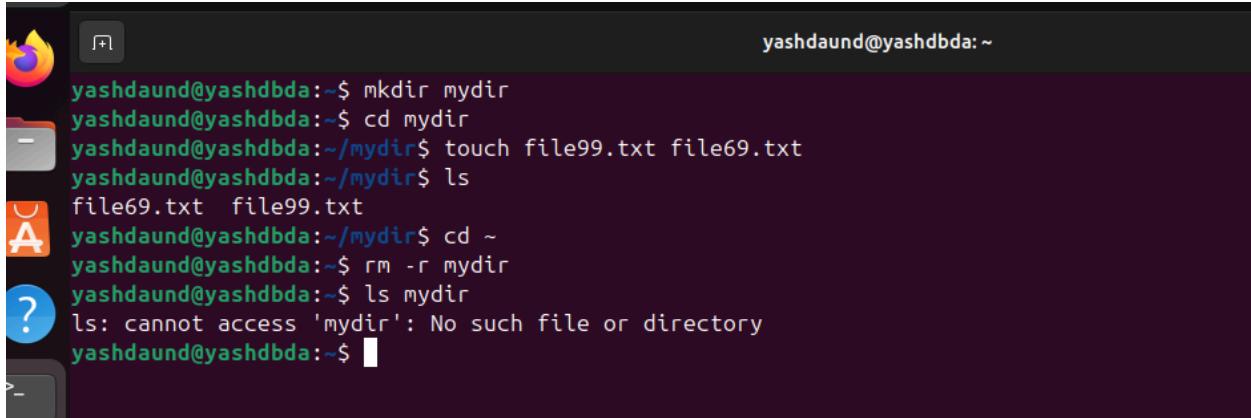
```

35. Use **scp** using your friend's credentials to copy **directory** into a directory **owned by you**, inside your home directory, specify port number in **scp** command

36. Use **scp** using your friend's credentials to copy **directory** into a directory **owned by you**, inside your home directory, specify port number in **scp** command

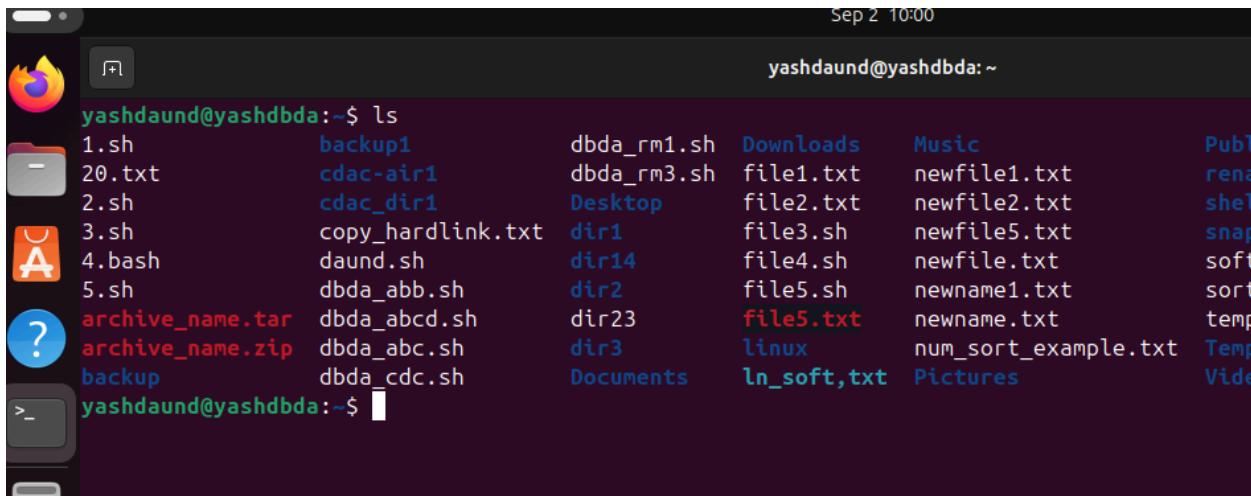
37. Connect to any publicly available **ftp** server from the terminal and try to download, upload and delete files. If you get error in any process (connect, upload, download or delete), justify the reasons behind them.(Hint: use **ftp** command) Example:
 Try to access **ftp.netbsd.org**
 username : **anonymous**
 password : **anonymous**

38. How do you remove a directory named "mydir" and all of its contents using the command line?



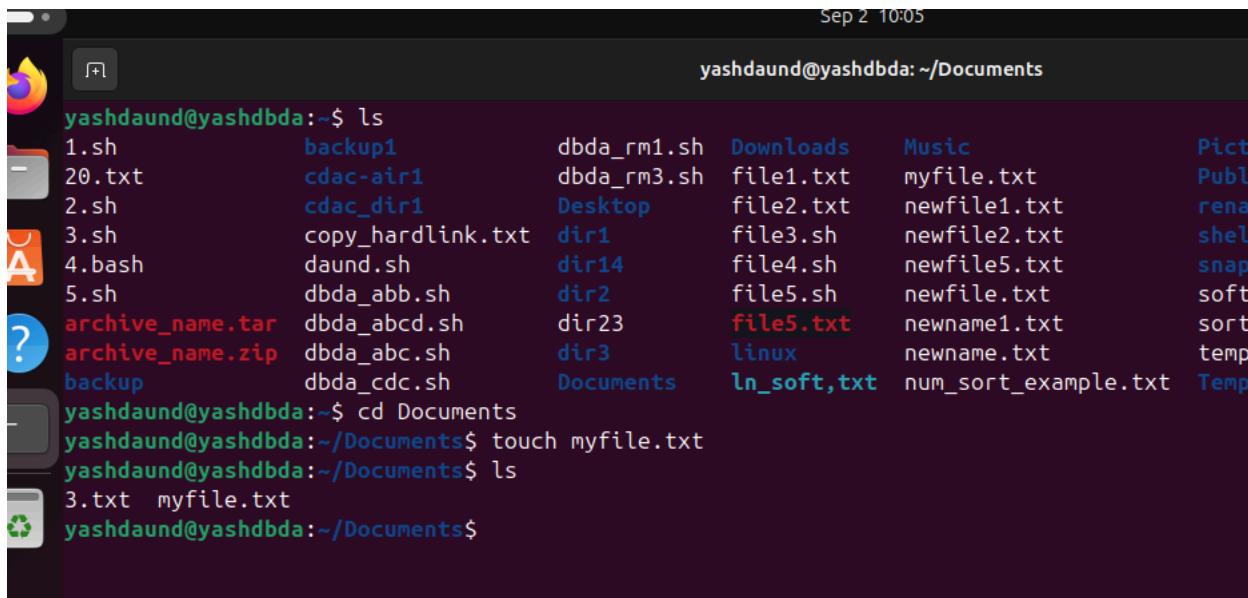
```
yashdaund@yashdbda:~$ mkdir mydir
yashdaund@yashdbda:~$ cd mydir
yashdaund@yashdbda:~/mydir$ touch file99.txt file69.txt
yashdaund@yashdbda:~/mydir$ ls
file69.txt  file99.txt
yashdaund@yashdbda:~/mydir$ cd ~
yashdaund@yashdbda:~$ rm -r mydir
yashdaund@yashdbda:~$ ls mydir
ls: cannot access 'mydir': No such file or directory
yashdaund@yashdbda:~$
```

39. How do you use the "ls" command to list all files and directories in the current directory?



```
Sep 2 10:00
yashdaund@yashdbda:~$ ls
1.sh          backup1        dbda_rm1.sh  Downloads    Music       Publ
20.txt        cdac-air1     dbda_rm3.sh  file1.txt   newfile1.txt  rena
2.sh          cdac_dir1     Desktop      file2.txt   newfile2.txt  shel
3.sh          copy_hardlink.txt dir1        file3.sh   newfile5.txt  snap
4.bash        daund.sh      dir14       file4.sh   newfile.txt   soft
5.sh          dbda_abb.sh   dir2        file5.sh   newname1.txt  sort
archive_name.tar dbda_abcd.sh dir23      file5.txt  newname.txt   temp
archive_name.zip dbda_abc.sh  dir3       linux     num_sort_example.txt Temp
backup         dbda_cdc.sh  Documents   ln_soft.txt Pictures  Vide
yashdaund@yashdbda:~$
```

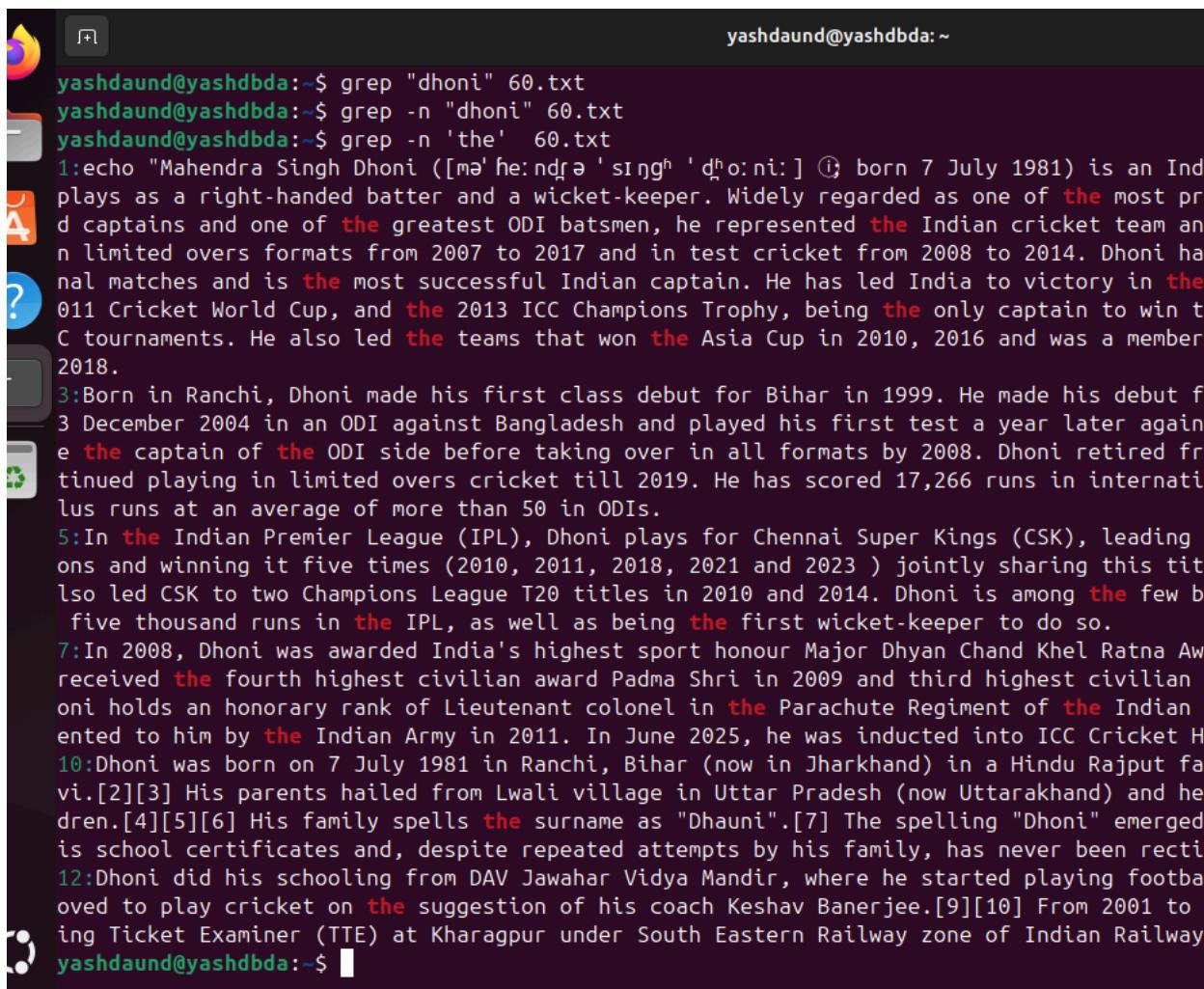
40. How do you create a new file named "myfile.txt" in the directory "/home/user/documents" using the command line?



```

yashdaund@yashdbda:~$ ls
1.sh          backup1        dbda_rm1.sh  Downloads    Music       Pict
20.txt        cdac-air1     dbda_rm3.sh  file1.txt   myfile.txt  Publ
2.sh          cdac_dir1     Desktop      file2.txt   newfile1.txt rena
3.sh          copy_hardlink.txt dir1       file3.sh   newfile2.txt shel
4.bash        daund.sh      dir14      file4.sh   newfile5.txt snap
5.sh          dbda_abb.sh   dir2       file5.sh   newfile.txt  soft
archive_name.tar dbda_abcd.sh dir23      file5.txt  newname1.txt sort
archive_name.zip dbda_abc.sh  dir3       linux     newname.txt  temp
backup         dbda_cdc.sh  Documents   ln_soft.txt num_sort_example.txt Temp
yashdaund@yashdbda:~$ cd Documents
yashdaund@yashdbda:~/Documents$ touch myfile.txt
yashdaund@yashdbda:~/Documents$ ls
3.txt  myfile.txt
yashdaund@yashdbda:~/Documents$
```

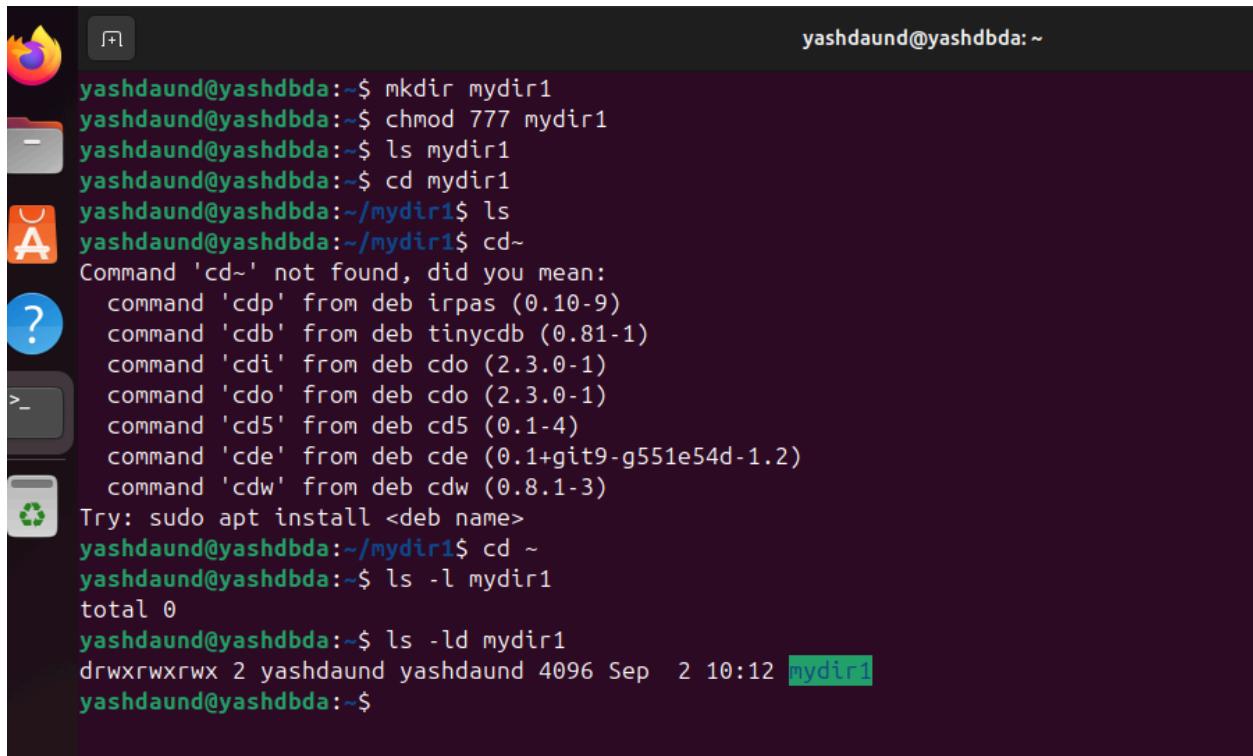
41. How do you use the "grep" command to search for a specific word or phrase in multiple files at once?



```

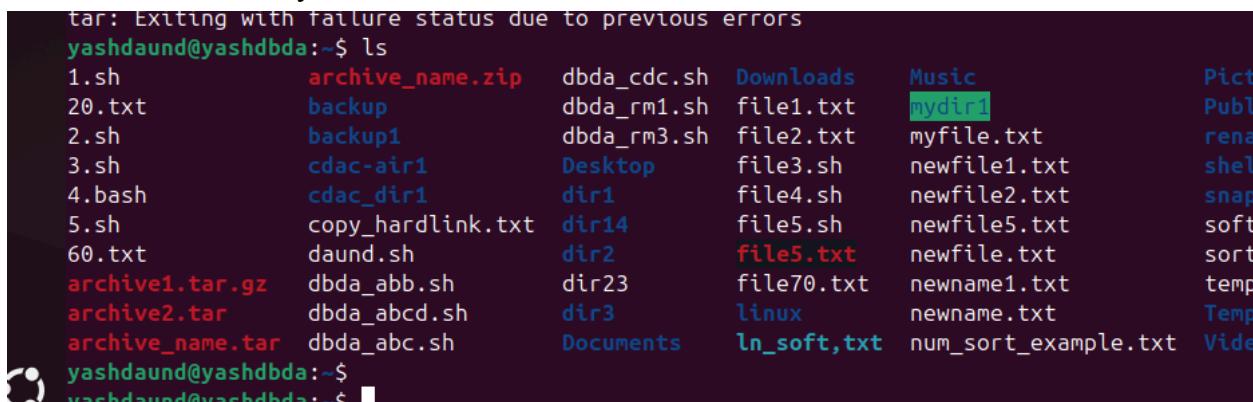
yashdaund@yashdbda:~$ grep "dhoni" 60.txt
yashdaund@yashdbda:~$ grep -n "dhoni" 60.txt
yashdaund@yashdbda:~$ grep -n 'the' 60.txt
1:echo "Mahendra Singh Dhoni ([ma' hɛ:ndrə 'sɪŋh̩ 'd̩o:nɪ:] ⓘ born 7 July 1981) is an Ind
plays as a right-handed batter and a wicket-keeper. Widely regarded as one of the most pr
d captains and one of the greatest ODI batsmen, he represented the Indian cricket team an
n limited overs formats from 2007 to 2017 and in test cricket from 2008 to 2014. Dhoni ha
nal matches and is the most successful Indian captain. He has led India to victory in the
011 Cricket World Cup, and the 2013 ICC Champions Trophy, being the only captain to win t
C tournaments. He also led the teams that won the Asia Cup in 2010, 2016 and was a member
2018.
3:Born in Ranchi, Dhoni made his first class debut for Bihar in 1999. He made his debut f
3 December 2004 in an ODI against Bangladesh and played his first test a year later again
e the captain of the ODI side before taking over in all formats by 2008. Dhoni retired fr
tinued playing in limited overs cricket till 2019. He has scored 17,266 runs in internati
lus runs at an average of more than 50 in ODIs.
5:In the Indian Premier League (IPL), Dhoni plays for Chennai Super Kings (CSK), leading
ons and winning it five times (2010, 2011, 2018, 2021 and 2023 ) jointly sharing this tit
lso led CSK to two Champions League T20 titles in 2010 and 2014. Dhoni is among the few b
five thousand runs in the IPL, as well as being the first wicket-keeper to do so.
7:In 2008, Dhoni was awarded India's highest sport honour Major Dhyan Chand Khel Ratna Aw
received the fourth highest civilian award Padma Shri in 2009 and third highest civilian
oni holds an honorary rank of Lieutenant colonel in the Parachute Regiment of the Indian
ented to him by the Indian Army in 2011. In June 2025, he was inducted into ICC Cricket H
10:Dhoni was born on 7 July 1981 in Ranchi, Bihar (now in Jharkhand) in a Hindu Rajput fa
vi.[2][3] His parents hailed from Lwali village in Uttar Pradesh (now Uttarakhand) and he
dren.[4][5][6] His family spells the surname as "Dhauni".[7] The spelling "Dhoni" emerged
is school certificates and, despite repeated attempts by his family, has never been recti
12:Dhoni did his schooling from DAV Jawahar Vidya Mandir, where he started playing footba
oved to play cricket on the suggestion of his coach Keshav Banerjee.[9][10] From 2001 to
ing Ticket Examiner (TTE) at Kharagpur under South Eastern Railway zone of Indian Railway
yashdaund@yashdbda:~$
```

42. How do you create a new directory named "mydir" and set its permissions to read, write, and execute for the owner and read and execute for everyone else?



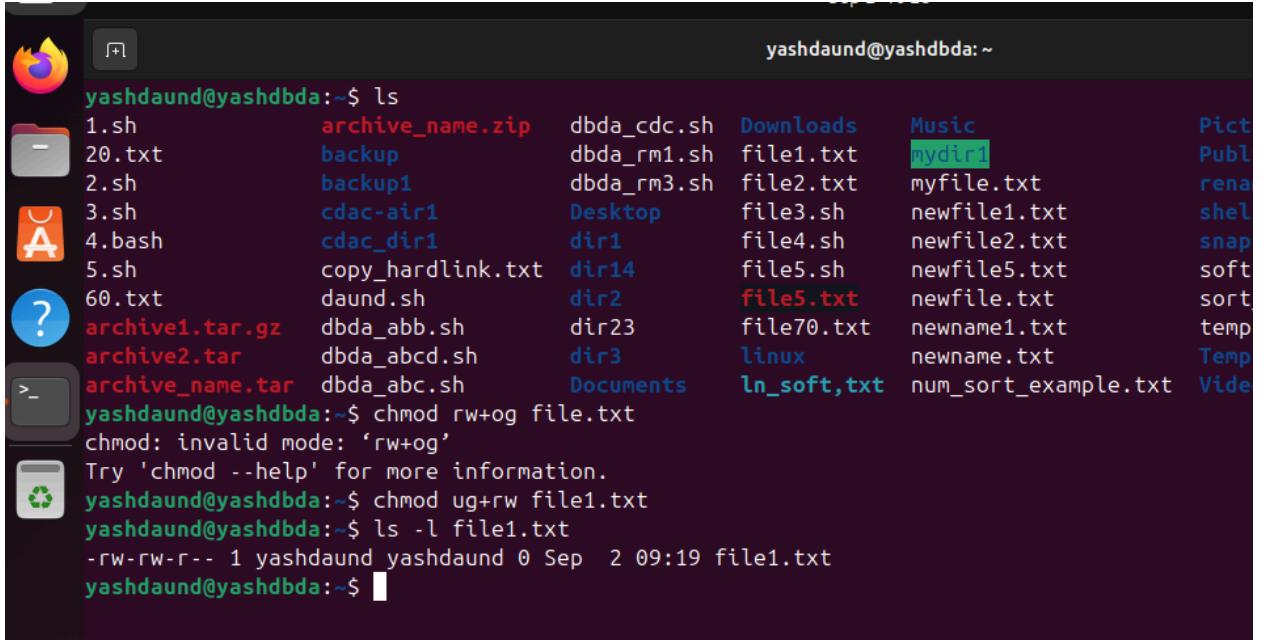
```
yashdaund@yashdbda:~$ mkdir mydir1
yashdaund@yashdbda:~$ chmod 777 mydir1
yashdaund@yashdbda:~$ ls mydir1
yashdaund@yashdbda:~$ cd mydir1
yashdaund@yashdbda:~/mydir1$ ls
yashdaund@yashdbda:~/mydir1$ cd~
Command 'cd~' not found, did you mean:
  command 'cdp' from deb ipras (0.10-9)
  command 'cdb' from deb tinycdb (0.81-1)
  command 'cdi' from deb cdo (2.3.0-1)
  command 'cdo' from deb cdo (2.3.0-1)
  command 'cd5' from deb cd5 (0.1-4)
  command 'cde' from deb cde (0.1+git9-g551e54d-1.2)
  command 'cdw' from deb cdw (0.8.1-3)
Try: sudo apt install <deb name>
yashdaund@yashdbda:~/mydir1$ cd ~
yashdaund@yashdbda:~$ ls -l mydir1
total 0
yashdaund@yashdbda:~$ ls -ld mydir1
drwxrwxrwx 2 yashdaund yashdaund 4096 Sep  2 10:12 mydir1
yashdaund@yashdbda:~$
```

43. How do you use the "tar" command to create a compressed archive of all files in the current directory and its subdirectories?



```
tar: Exiting with failure status due to previous errors
yashdaund@yashdbda:~$ ls
1.sh          archive_name.zip  dbda_cdc.sh  Downloads    Music      Pict
20.txt        backup            dbda_rm1.sh  file1.txt   mydir1    Publ
2.sh          backup1           dbda_rm3.sh  file2.txt   myfile.txt rena
3.sh          cdac-air1        Desktop     file3.sh    newfile1.txt shel
4.bash        cdac_dir1       dir1        file4.sh    newfile2.txt snap
5.sh          copy_hardlink.txt dir14       file5.sh    newfile5.txt soft
60.txt        daund.sh         dir2        file5.txt  newfile.txt sort
archive1.tar.gz dbda_abb.sh    dir23      file70.txt newname1.txt temp
archive2.tar   dbda_abcd.sh   dir3       linux      newname.txt Temp
archive_name.tar dbda_abc.sh   Documents  ln_soft.txt num_sort_example.txt Vide
yashdaund@yashdbda:~$
```

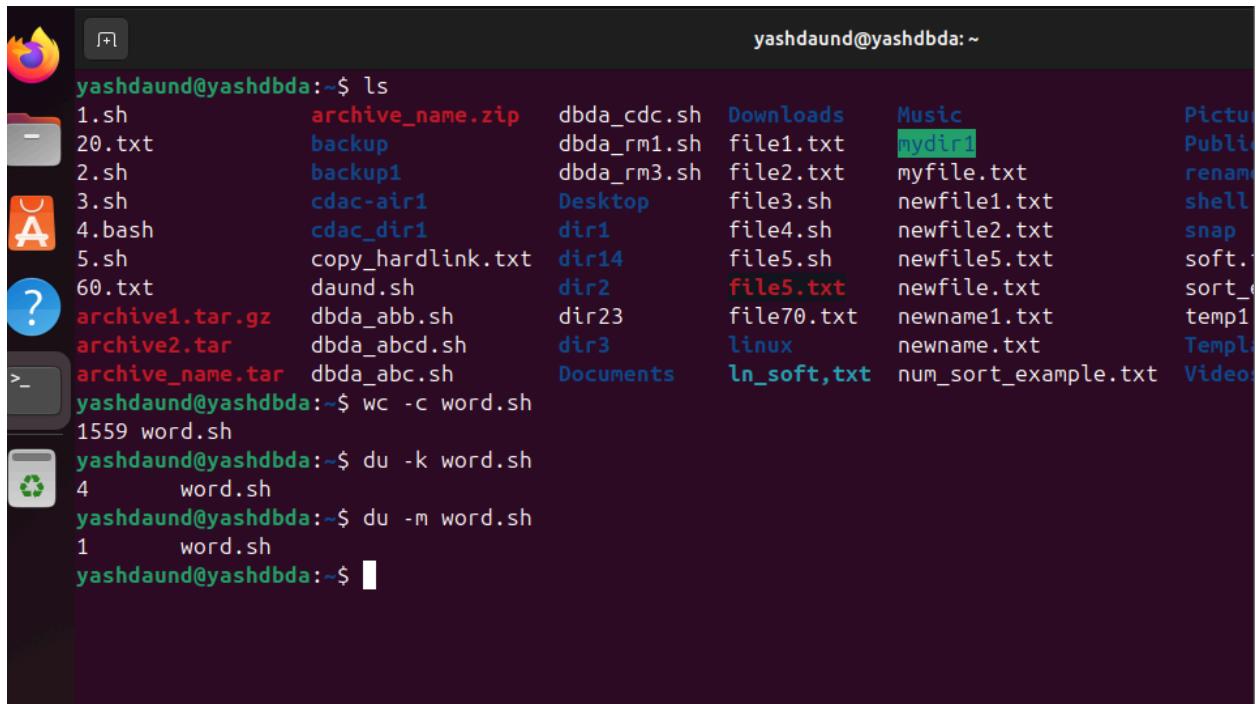
44. How do you use the "chmod" command to give read and write permissions to the owner and



yashdaund@yashdbda:~\$ ls
1.sh archive_name.zip dbda_cdc.sh Downloads Music Picture
20.txt backup dbda_rm1.sh file1.txt myfile.txt Public
2.sh backup1 dbda_rm3.sh file2.txt mydir1 rename
3.sh cdac-air1 Desktop file3.sh newfile1.txt shell
4.bash cdac_dir1 dir1 file4.sh newfile2.txt snap
5.sh copy_hardlink.txt dir14 file5.sh newfile5.txt soft
60.txt daund.sh dir2 file5.txt newfile.txt sort
archive1.tar.gz dbda_abb.sh dir23 file70.txt newname1.txt temp
archive2.tar dbda_abcd.sh dir3 linux newname.txt Template
archive_name.tar dbda_abc.sh Documents ln_soft,txt num_sort_example.txt Video
yashdaund@yashdbda:~\$ chmod rw+og file.txt
chmod: invalid mode: 'rw+og'
Try 'chmod --help' for more information.
yashdaund@yashdbda:~\$ chmod ug+rw file1.txt
yashdaund@yashdbda:~\$ ls -l file1.txt
-rw-rw-r-- 1 yashdaund yashdaund 0 Sep 2 09:19 file1.txt
yashdaund@yashdbda:~\$

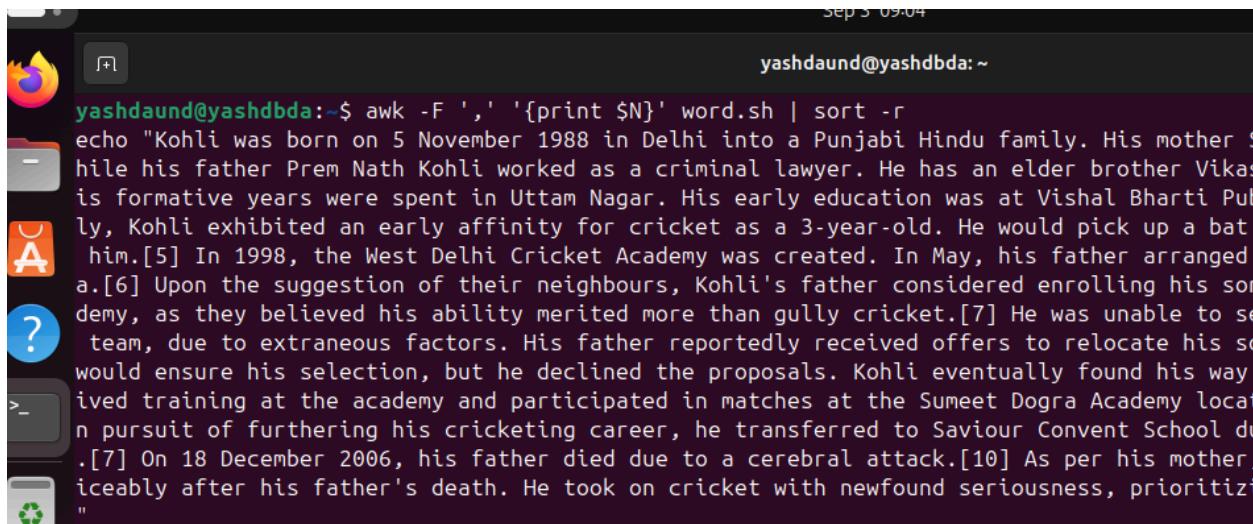
group for a file named "file.txt"?

45. How do you find the size of a file named "file.txt" in bytes, kilobytes, and megabytes using the command line?



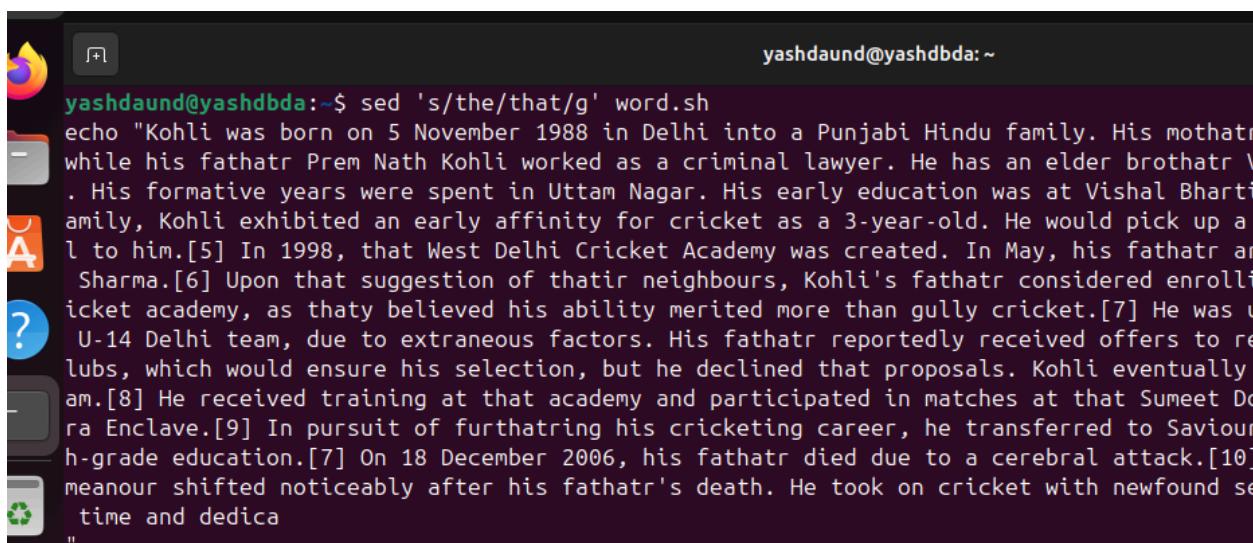
yashdaund@yashdbda:~\$ ls
1.sh archive_name.zip dbda_cdc.sh Downloads Music Picture
20.txt backup dbda_rm1.sh file1.txt myfile.txt Public
2.sh backup1 dbda_rm3.sh file2.txt mydir1 rename
3.sh cdac-air1 Desktop file3.sh newfile1.txt shell
4.bash cdac_dir1 dir1 file4.sh newfile2.txt snap
5.sh copy_hardlink.txt dir14 file5.sh newfile5.txt soft
60.txt daund.sh dir2 file5.txt newfile.txt sort
archive1.tar.gz dbda_abb.sh dir23 file70.txt newname1.txt temp
archive2.tar dbda_abcd.sh dir3 linux newname.txt Template
archive_name.tar dbda_abc.sh Documents ln_soft,txt num_sort_example.txt Video
yashdaund@yashdbda:~\$ wc -c word.sh
1559 word.sh
yashdaund@yashdbda:~\$ du -k word.sh
4 word.sh
yashdaund@yashdbda:~\$ du -m word.sh
1 word.sh
yashdaund@yashdbda:~\$

46. How do you use the "awk" command to extract a specific column from a comma-separated value (CSV) file and sort it in reverse order?



```
Sep 3 09:04
yashdaund@yashdbda:~$ awk -F ',' '{print $N}' word.sh | sort -r
echo "Kohli was born on 5 November 1988 in Delhi into a Punjabi Hindu family. His mother S
while his father Prem Nath Kohli worked as a criminal lawyer. He has an elder brother Vikas
is formative years were spent in Uttam Nagar. His early education was at Vishal Bharti Pub
ly, Kohli exhibited an early affinity for cricket as a 3-year-old. He would pick up a bat
him.[5] In 1998, the West Delhi Cricket Academy was created. In May, his father arranged
a.[6] Upon the suggestion of their neighbours, Kohli's father considered enrolling his son
demy, as they believed his ability merited more than gully cricket.[7] He was unable to se
team, due to extraneous factors. His father reportedly received offers to relocate his son
would ensure his selection, but he declined the proposals. Kohli eventually found his way
ived training at the academy and participated in matches at the Sumeet Dogra Academy located
n pursuit of furthering his cricketing career, he transferred to Saviour Convent School due
.[7] On 18 December 2006, his father died due to a cerebral attack.[10] As per his mother,
iceably after his father's death. He took on cricket with newfound seriousness, prioritizi
"
```

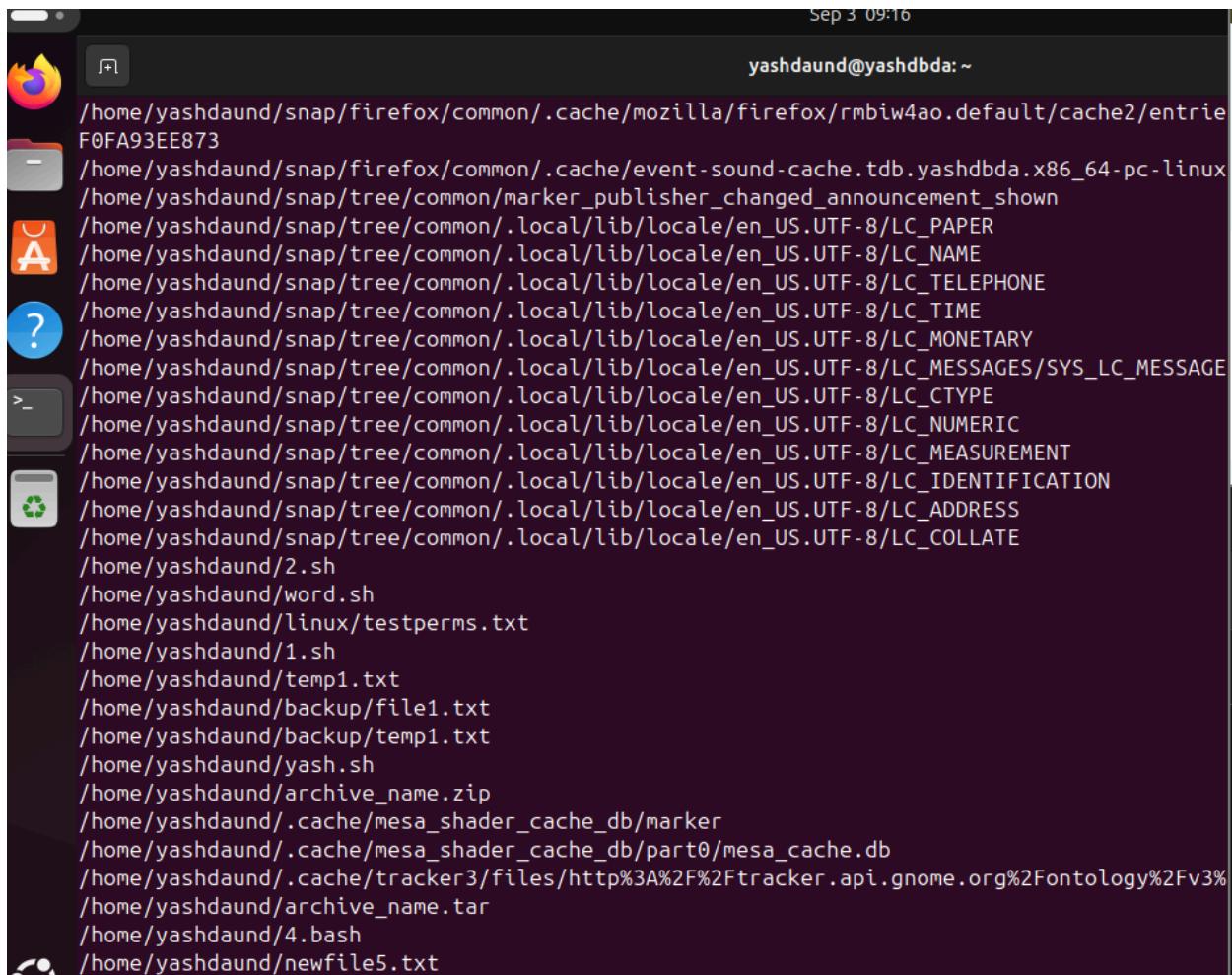
47. How do you use the "sed" command to replace all occurrences of a word or phrase in a file with a different word or phrase?



```
yashdaund@yashdbda:~$ sed 's/the/that/g' word.sh
echo "Kohli was born on 5 November 1988 in Delhi into a Punjabi Hindu family. His mothatr
while his fathatr Prem Nath Kohli worked as a criminal lawyer. He has an elder brothatr V
. His formative years were spent in Uttam Nagar. His early education was at Vishal Bharti
amily, Kohli exhibited an early affinity for cricket as a 3-year-old. He would pick up a bat
l to him.[5] In 1998, that West Delhi Cricket Academy was created. In May, his fathatr ar
Sharma.[6] Upon that suggestion of thatir neighbours, Kohli's fathatr considered enrolling
icket academy, as thaty believed his ability merited more than gully cricket.[7] He was u
U-14 Delhi team, due to extraneous factors. His fathatr reportedly received offers to re
lubs, which would ensure his selection, but he declined that proposals. Kohli eventually
am.[8] He received training at that academy and participated in matches at that Sumeet Do
ra Enclave.[9] In pursuit of furthatring his cricketing career, he transferred to Saviour
h-grade education.[7] On 18 December 2006, his fathatr died due to a cerebral attack.[10]
meanour shifted noticeably after his fathatr's death. He took on cricket with newfound se
time and dedica
"
```

48. How do you use the "find" command to search for all files in a directory and its subdirectories that were modified within the last 24 hours?

```
Sep 3 09:11  
yashdaund@yashdbda:~$ find ~ -type f -mtime 1  
/home/yashdaund/3.sh  
/home/yashdaund/.lessht  
/home/yashdaund/newfile.txt  
/home/yashdaund/shell/12.sh  
/home/yashdaund/shell/16.sh  
/home/yashdaund/shell/10.sh  
/home/yashdaund/shell/18.sh  
/home/yashdaund/shell/15.sh  
/home/yashdaund/shell/13.sh  
/home/yashdaund/shell/11.sh  
/home/yashdaund/shell/17.sh  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/datareporting/archi  
08d-a288-4cd8-ae43-428b650b404b.main.jsonlz4  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/datareporting/archi  
924-a114-4219-badc-7d92b7b0dc74.event.jsonlz4  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/datareporting/archi  
357-149d-442a-aa54-278ce8f8e12d.main.jsonlz4  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/2025  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/2025  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/2025  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/2025  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/2025  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/security_state/data  
/home/yashdaund/snap/firefox/common/.mozilla/firefox/rmbiw4ao.default/extensions.json  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/activity-stre  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/startupCache/  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/startupCache/  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/startupCache/  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/cache2/entrie  
7934D9B986F  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/cache2/entrie  
A717F2609AE  
/home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/cache2/entrie
```



The screenshot shows a Linux desktop environment with a terminal window open. The terminal window has a dark background and contains a list of file paths. The file paths listed are:

- /home/yashdaund/snap/firefox/common/.cache/mozilla/firefox/rmbiw4ao.default/cache2/entries/F0FA93EE873
- /home/yashdaund/snap/firefox/common/.cache/event-sound-cache.tdb.yashdbda.x86_64-pc-linux
- /home/yashdaund/snap/tree/common.marker_publisher_changed_announcement_shown
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_PAPER
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_NAME
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_TELEPHONE
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_TIME
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_MONETARY
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_MESSAGES/SYS_LC_MESSAGE
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_CTYPE
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_NUMERIC
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_MEASUREMENT
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_IDENTIFICATION
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_ADDRESS
- /home/yashdaund/snap/tree/common/.local/lib/locale/en_US.UTF-8/LC_COLLATE
- /home/yashdaund/2.sh
- /home/yashdaund/word.sh
- /home/yashdaund/linux/testperms.txt
- /home/yashdaund/1.sh
- /home/yashdaund/temp1.txt
- /home/yashdaund/backup/file1.txt
- /home/yashdaund/backup/temp1.txt
- /home/yashdaund/yash.sh
- /home/yashdaund/archive_name.zip
- /home/yashdaund/.cache/mesa_shader_cache_db/marker
- /home/yashdaund/.cache/mesa_shader_cache_db/part0/mesa_cache.db
- /home/yashdaund/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%
- /home/yashdaund/archive_name.tar
- /home/yashdaund/4.bash
- /home/yashdaund/newfile5.txt

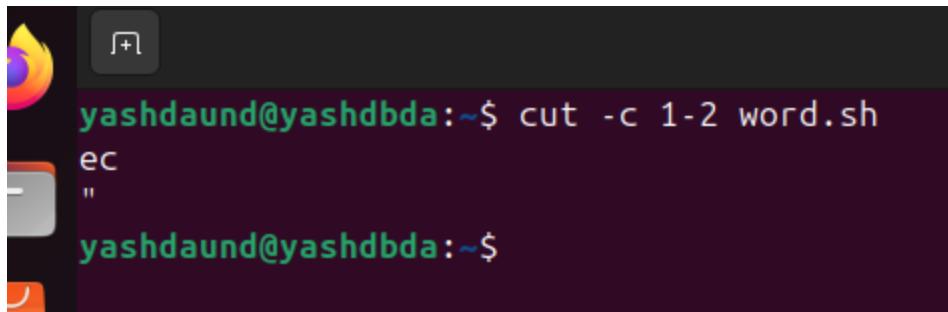
49. How do you use the "diff" command to compare two files and show only the lines that are different between them?

50. How do you use the "rsync" command to synchronize the contents of two directories, including all subdirectories and files, while preserving file permissions and ownerships?

```
rsync error: some files/attrs were not transferred (see previous errors) (code 23) at main.c(1269)
yashdaund@yashdbda:~$ rsync -av backup/dir2/
sending incremental file list
rsync: [sender] change_dir "/home/yashdaund/backup/dir2" failed: No such file or directory (2)

sent 19 bytes  received 12 bytes  62.00 bytes/sec
total size is 0  speedup is 0.00
```

51. How do you use the "cut" command to extract a specific range of characters or bytes from a file?



```
yashdaund@yashdbda:~$ cut -c 1-2 word.sh
ec
"
yashdaund@yashdbda:~$
```

52. How do you use the "tar" command to extract a specific file or directory from a compressed archive without extracting the entire archive?
53. How do you use the "awk" command to count the number of occurrences of a specific word or phrase in a file?