Name Haris   Roll no   23p-0573

```
[zenvila@zenvila ~]$ touch blankfile
[zenvila@zenvila ~]$ mkdir    blankdir
[zenvila@zenvila ~]$ ls
blankdir    Documents   Music       Public      Videos
blankfile   Downloads   MY          SEM4
Desktop     main        Pictures    Templates
```

 Here we first create a   file with the name balankfile   and also crete a direcrtory with the name   using mkdir   (blankdir)

In the third command we just check   its created or not to list all files and directories

```
[zenvila@zenvila ~]$ ln    blankdir    dirpointer
ln: blankdir: hard link not allowed for directory
[zenvila@zenvila ~]$ cd  blankdir/
[zenvila@zenvila blankdir]$ ls
[zenvila@zenvila blankdir]$ ln blankdir dirpointer
ln: failed to access 'blankdir': No such file or directory
```

   here   when we try to create the hard link using the ln keyword   it give an error   it means   we can not crete a link   with directory

```
[zenvila@zenvila ~]$ ln -s blankdir    dirpointer
[zenvila@zenvila ~]$ cat <  blankfile
[zenvila@zenvila ~]$ cat < filepointer
-bash: filepointer: No such file or directory
```

        here   we use cat < blankfile to redirect the data that previous in the file
 and also cancatinate the   filepointer   using cat to redirect   but there is nothing in these files like nothing to display .

```
[zenvila@zenvila ~]$ echo "Hello  dear " > filepointer
[zenvila@zenvila ~]$ cat < blankfile
[zenvila@zenvila ~]$ cat  < filepointer
Hello   dear
```

Here   we just echo   "hello dear"   and also redirect to the filepointer   file . And then check the filepointer file using cat   its shows an output same as .

```
[zenvila@zenvila ~]$ ls
blankdir    dirpointer  filepointer  MY         SEM4
blankfile  Documents   main         Pictures  Templates
Desktop    Downloads   Music        Public    Videos
```

Here we list all .

```
[zenvila@zenvila ~]$ ls -lh
total 52K
drwxr-xr-x 2 zenvila zenvila 4.0K Feb 13 09:25 blankdir
-rw-r--r-- 1 zenvila zenvila    0 Feb 13 09:25 blankfile
drwxr-xr-x 2 zenvila zenvila 4.0K Feb 12 23:47 Desktop
lrwxrwxrwx 1 zenvila zenvila    8 Feb 13 09:28 dirpointer → blar
kdir
drwxr-xr-x 2 zenvila zenvila 4.0K Feb 12 19:11 Documents
drwxr-xr-x 2 zenvila zenvila 4.0K Feb 12 23:45 Downloads
```

Here we use commands ls -lh to display all softlinks and hardlinks . Etc and one main thing its also showa the size and tell how ponter files have.

```
[zenvila@zenvila ~]$ sudo pacman -S man-db man-pages --noconfirm
warning: man-db-2.13.0-1 is up to date -- reinstalling
warning: man-pages-6.10-1 is up to date -- reinstalling
resolving dependencies...
looking for conflicting packages...

Packages (2) man-db-2.13.0-1  man-pages-6.10-1
```

Here I just install   man   from the man-db   man-pages   .

```
[zenvila@zenvila ~]$ ls /usr/bin  -lh   | more
total 526M
-rwxr-xr-x 1 root root      47K Jan 19 00:17 [
-rwxr-xr-x 1 root root      43K Jun  2  2023 a52dec
-rwxr-xr-x 1 root root      15K Jul  3  2024 abw2html
-rwxr-xr-x 1 root root      15K Jul  3  2024 abw2raw
-rwxr-xr-x 1 root root      15K Jul  3  2024 abw2text
-rwxr-xr-x 2 root root      37K Jul 20  2024 aclocal
-rwxr-xr-x 2 root root      37K Jul 20  2024 aclocal-1.17
-rwxr-xr-x 1 root root      31K Aug 28 13:19 addftinfo
-rwxr-xr-x 1 root root     3.1K Nov 28 15:19 addgnupghome
-rwxr-xr-x 1 root root      15K Jan 14 01:02 addpart
-rwxr-xr-x 1 root root      27K Feb  8 15:30 addr2line
-rwxr-xr-x 1 root root      35K Nov  2 13:28 advtest
-rwxr-xr-x 1 root root     5.2K Jul  3  2024 affixcompress
-rwxr-xr-x 1 root root     164K Aug 28 13:19 afmtodit
```

  Here this commmand   ls   with all the detail   like all the file avalible in the /usr/bin   .this help to
show all   file with the pointer means softlinks or hardlink.

```
[zenvila@zenvila ~]$ ls /usr/bin  -lh   | less
[zenvila@zenvila ~]$ █
```

Here we use the ls list   all the files but with the less informtion of the files .

```
[zenvila@zenvila ~]$ find ~/  -name *.pdf
/home/zenvila/SEM4/OS_LAB/23P-0573_Harislab1.pdf
/home/zenvila/SEM4/PROB/solution-mannual-9th-edition-walpole.pdf
/home/zenvila/SEM4/PROB/Walpole, Ronald E._ Myers, Raymond H._ My
ers, Sharon L._ Ye, Keying - Probability & statistics for enginee
rs & scientists-Pearson (2017) (2).pdf
/home/zenvila/SEM4/PROB/Haris_23P-0573_BCS_4A.pdf
/home/zenvila/SEM4/OS_CLASS/OS outline-sp25.pdf
/home/zenvila/MY/Skills.pdf
/home/zenvila/MY/Personal-Statement.pdf
/home/zenvila/MY/Reference_Leter by Suleman Mir.pdf
/home/zenvila/MY/CV_Haris.pdf
/home/zenvila/MY/Haris_Resume.pdf
/home/zenvila/MY/Transcript.pdf
/home/zenvila/MY/generative-ai-roadmap-version-1.pdf
/home/zenvila/MY/Reference_Leter by Dr Bilal.pdf
[zenvila@zenvila ~]$ 
```

Here is the find command the help to find to   like file with the name and format . In this
command I find using the   absolute path   .

```
[zenvila@zenvila ~]$ find . Desktop/    -name *.pdf
./SEM4/OS_LAB/23P-0573_Harislab1.pdf
./SEM4/PROB/solution-mannual-9th-edition-walpole.pdf
./SEM4/PROB/Walpole, Ronald E._ Myers, Raymond H._ Myers, Sharon
L._ Ye, Keying - Probability & statistics for engineers & scienti
sts-Pearson (2017) (2).pdf
./SEM4/PROB/Haris_23P-0573_BCS_4A.pdf
./SEM4/OS_CLASS/OS outline-sp25.pdf
./MY/Skills.pdf
./MY/Personal-Statement.pdf
./MY/Reference_Leter by Suleman Mir.pdf
./MY/CV_Haris.pdf
./MY/Haris_Resume.pdf
./MY/Transcript.pdf
./MY/generative-ai-roadmap-version-1.pdf
./MY/Reference_Leter by Dr Bilal.pdf
```

here I   find all the pdf using relative path   in the desktop dir while desktop is the current directory .

```
[zenvila@zenvila ~]$ sudo pacman   -S      plocate   --noconfirm
```

Here first I install the   plocate

```
[zenvila@zenvila ~]$ sudo updatedb
[zenvila@zenvila ~]$ locate   *.txt
```

then I update the data base   using sudo   updatedb
and then using loacte command I locate   .txt files .

```
[zenvila@zenvila ~]$ gcc    -O3 first.c    -o ok
[zenvila@zenvila ~]$ ./ok
Enter you name : H
Enter your age : 11
[zenvila@zenvila ~]$
```

```
[zenvila@zenvila ~]$ man system
[zenvila@zenvila ~]$ vim first.c
[zenvila@zenvila ~]$ gcc    -O3 first.c    -o ok
[zenvila@zenvila ~]$ mkdir test
[zenvila@zenvila ~]$ ls
blankdir   Desktop     Documents  filepointer  main   MY  Pictures  SEM4       test
blankfile  dirpointer  Downloads  first.c      Music  ok  Public    Templates  Videos
[zenvila@zenvila ~]$ rmdir test
[zenvila@zenvila ~]$
```