

Os Assignment 3

1.ls -a : Display hidden files

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -a
.  ..  data.txt  demo.vimrc  myfile.txt  my.txt  names.txt  one  shell-files  user1.txt  user2.txt  users
```

2.rename : Rename all *.txt files to *.htm

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ mv my.txt my.html
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls
data.txt  demo.vimrc  myfile.txt  my.html  names.txt  one  shell-files  user1.txt  user2.txt  users
```

3.ln -s : Create symbolic link (shortcut) for a file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ln -s my.html slink.html
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -li
total 4
489575 -rw-rw-r-- 1 kedar kedar    0 Oct 27 16:05 data.txt
489607 -rw-rw-r-- 1 kedar kedar  276 Oct 27 18:51 demo.vimrc
489577 -rw-rw-r-- 1 kedar kedar   37 Oct 27 2023 myfile.txt
489574 -rw-rw-r-- 1 kedar kedar    0 Oct 27 16:05 my.html
489591 -rw-rw-r-- 1 kedar kedar   45 Oct 27 18:41 names.txt
489578 drwxrwxr-x 1 kedar kedar    0 Oct 27 16:29 one
489609 drwxrwxr-x 1 kedar kedar 4096 Oct 27 19:56 shell-files
489693 lrwxrwxrwx 1 kedar kedar    7 Oct 28 15:29 slink.html -> my.html
489572 -rw-rw-r-- 1 kedar kedar   37 Oct 27 15:56 user1.txt
489573 -rw-rw-r-- 1 kedar kedar   37 Oct 27 15:57 user2.txt
489571 drwxrwxr-x 1 kedar kedar    0 Oct 27 16:18 users
```

4.ln : Create hard link for a file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ln data.txt Hlink.txt
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -li
total 4
489575 -rw-rw-r-- 2 kedar kedar    0 Oct 27 16:05 data.txt
489607 -rw-rw-r-- 1 kedar kedar  276 Oct 27 18:51 demo.vimrc
489575 -rw-rw-r-- 2 kedar kedar    0 Oct 27 16:05 Hlink.txt
489577 -rw-rw-r-- 1 kedar kedar   37 Oct 27 2023 myfile.txt
489574 -rw-rw-r-- 1 kedar kedar    0 Oct 27 16:05 my.html
489591 -rw-rw-r-- 1 kedar kedar   45 Oct 27 18:41 names.txt
489578 drwxrwxr-x 1 kedar kedar    0 Oct 27 16:29 one
489609 drwxrwxr-x 1 kedar kedar 4096 Oct 27 19:56 shell-files
489693 lrwxrwxrwx 1 kedar kedar    7 Oct 28 15:29 slink.html -> my.html
489572 -rw-rw-r-- 1 kedar kedar   37 Oct 27 15:56 user1.txt
489573 -rw-rw-r-- 1 kedar kedar   37 Oct 27 15:57 user2.txt
489571 drwxrwxr-x 1 kedar kedar    0 Oct 27 16:18 users
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ stat user1.txt
File: user1.txt
```

5.stat : Display time stamp of the file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ stat user1.txt
File: user1.txt
Size: 37          Blocks: 0          IO Block: 4096   regular file
Device: 259,5    Inode: 489572     Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1000/   kedar)   Gid: ( 1000/   kedar)
Access: 2025-10-27 15:56:50.593272300 +0530
Modify: 2025-10-27 15:56:45.129196600 +0530
Change: 2025-10-27 15:56:45.129196600 +0530
Birth: 2025-10-27 15:56:26.422726000 +0530
```

6.touch : Change the time stamp of the file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ touch user1.txt
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ stat user1.txt
File: user1.txt
Size: 37          Blocks: 0          IO Block: 4096   regular file
Device: 259,5    Inode: 489572     Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1000/   kedar)   Gid: ( 1000/   kedar)
Access: 2025-10-28 15:31:42.315237500 +0530
Modify: 2025-10-28 15:31:42.315237500 +0530
Change: 2025-10-28 15:31:42.315237500 +0530
Birth: 2025-10-27 15:56:26.422726000 +0530
```

7.touch : Create empty file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ touch new.txt
```

8.tailPrint all lines in a file from fifth line onwards

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ tail -n +5 user1.txt

Pending → Initial state, not fulfilled or rejected yet.

Fulfilled → Operation completed successfully.

Rejected → Operation failed.

Why use Promises?

To handle async code more cleanly.

Avoids callback hell (nested callbacks).
```

9.init 0, poweroffShutdown (Only for super-user)

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ init 0
```

10.init 6, rebootReboot (Only for super-user)

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ init 6
```

12.whoami : Find current user

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ whoami
kedar
```

13.ttyFind current terminal

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ tty
/dev/pts/0
```

14.who am i : Find current user and terminal

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ who am i
```

15.users : Find all users logged into the system

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ users
kedar kedar
```

16.who : Find all users logged in and terminals in use

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ who
kedar    seat0      2025-10-28 14:58 (login screen)
kedar    tty2        2025-10-28 14:58 (tty2)
```

17.grep, egrep, fgrep : Find a given word/pattern from the file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ grep "ful" user1.txt
Pending → Initial state, not fulfilled or rejected yet.
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ egrep "ful" user1.txt
Pending → Initial state, not fulfilled or rejected yet.
Fulfilled → Operation completed successfully.
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ fgrep "ful" user1.txt
Pending → Initial state, not fulfilled or rejected yet.
Fulfilled → Operation completed successfully.
```

18.chmod : Make a file as read-only

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ chmod 444 user1.txt
```

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -li user1.txt
489572 -r--r--r-- 1 kedar kedar 425 Oct 28 15:33 user1.txt
```

19.chmod : Make a file as write, read and execute

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ chmod 777 user1.txt
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -li user1.txt
489572 -rwxrwxrwx 1 kedar kedar 425 Oct 28 15:33 user1.txt
```

20.wc (using redirection)Take input from the file, count words and store output to other file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ wc < user1.txt > user2.txt
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ cat user2.txt
18 65 425
```

21.who | wc (using pipe)Count words in output of “who” command

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_05/assignment$ who | wc
      2      11     100
```

22.head, tail (using pipe)Print lines 5 to 10 from the given file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_05/assignment$ head -n 10 user1.txt | tail -n 6
```

Pending → Initial state, not fulfilled or rejected yet.

Fulfilled → Operation completed successfully.

Rejected → Operation failed.

23.sort , uniq (using pipe)Print the uniq values from the unsorted file

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_05/assignment$ sort user1.txt
```

A Promise is an object in JavaScript that represents the result of an asynchronous operation.
Avoids callback hell (nested callbacks).

Fulfilled → Operation completed successfully.

It can be in one of three states:

Makes async code look more synchronous

Pending → Initial state, not fulfilled or rejected yet.

Rejected → Operation failed.

To handle async code more cleanly.

What is a Promise?

24.who, grep (using pipe)Display all users not using tty2, tty3, tty4

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_05/assignment$ who | grep -v "tty[234]"
kedar    seat0          2025-10-28 14:58 (login screen)
```

25.ls : Display all files in ascending order of their file size

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_05/assignment$ ls -lhs
```

```
total 4.0K
 0 -rw-rw-r-- 2 kedar kedar    0 Oct 27 16:05 data.txt
 0 -rw-rw-r-- 1 kedar kedar  276 Oct 27 18:51 demo.vimrc
 0 -rw-rw-r-- 2 kedar kedar    0 Oct 27 16:05 Hlink.txt
 0 -rw-rw-r-- 1 kedar kedar   37 Oct 27  2023 myfile.txt
 0 -rw-rw-r-- 1 kedar kedar    0 Oct 27 16:05 my.html
 0 -rw-rw-r-- 1 kedar kedar   45 Oct 27 18:41 names.txt
 0 drwxrwxr-x 1 kedar kedar    0 Oct 27 16:29 one
4.0K drwxrwxr-x 1 kedar kedar 4.0K Oct 27 19:56 shell-files
 0 lrwxrwxrwx 1 kedar kedar    7 Oct 28 15:29 slink.html -> my.html
 0 -rwxrwxrwx 1 kedar kedar  425 Oct 28 15:33 user1.txt
 0 -rw-rw-r-- 1 kedar kedar   12 Oct 28 15:44 user2.txt
```

26.ls, grep (using pipe)Count number of files and directories from current directory

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -a | grep -c ""
14
```

27.ls, grep (using pipe)Display only hidden files in a directory

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ ls -a | grep "^\.\"
.
..
```

28.tr : Convert file contents into uppercase , also learn "-s" option of this command

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ tr 'a-z' 'A-Z' < user1.txt > user2.txt
```

29.cutSplit the file contents using delimiter and print required fields

```
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ cat > users.txt
root:x:0:0:root:/root:/bin/bash
kedar@D3-Dhananjay-92969:/media/kedar/New Volume/11_CDAC/07_OS/assignment$ cut -d':' -f1,3 users.txt
```