

WORKSHEET FOR OPERATING SYSTEM

EXPERIMENT 1.2

Student Name: Vamsiteja Mogilipalem

Branch: CSE AIML

Semester: 3RD

Subject Name: OPERATING SYSTEM

UID: 21BCS10507

Section/Group: 21AML-1(A)

Date of Performance: 29TH AUG, 22

Subject Code: 21CSH-242

1. AIM/OVERVIEW OF THE EXPERIMENT:

To Learn the Basic Linux Commands.

2. SOFTWARE REQUIREMENT:

- ❖ VMWARE OR ORACLE VIRTUAL BOX
- ❖ UBUNTU LINUX OS
- ❖ 32-bit intel Pentium or compatible processor running at 2GH .
- ❖ 512 GB ram
- ❖ Graphics card: - NVIDIA Quadro FX 1100, V5100.

3. STEPS FOR EXPERIMENT:

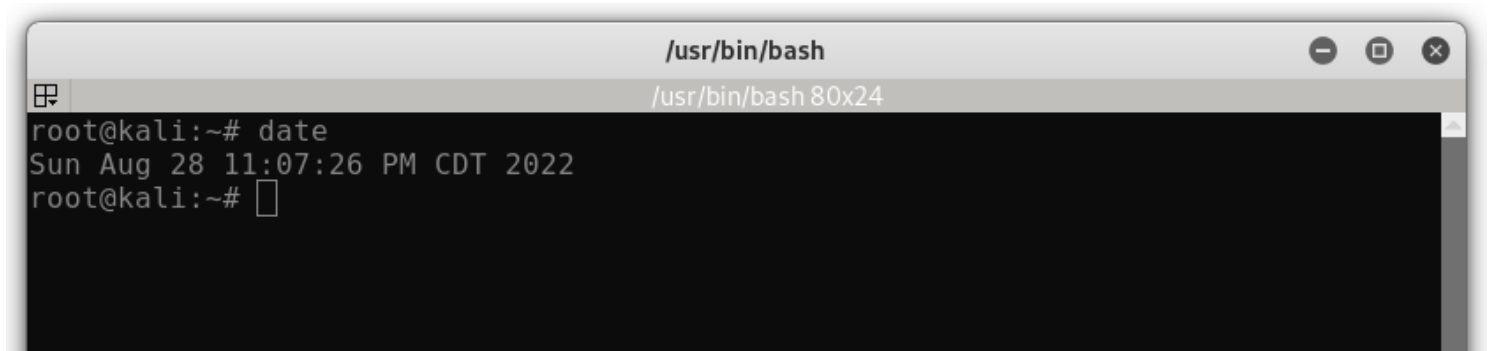
- ❖ Install the ubuntu and run the ubuntu operating system in oracle virtual box.
- ❖ Open the terminal in the ubuntu, run and implement the basic commands of the linux.

4. COMMANDS:

COMMANDS	DESCRIPTION
date	Show the current date and time
cal	Show this month's calendar
ls -l	For showing the list of files and access of the files given to user
ls -al	Formatted listing with hidden files
ls	Directory listing
cd ~	For moving back from one directory in which we were currently in
cd – or cd ..	Shows in which directory we are currently in
cat>file	Places the standard input into the file
vi file	For showing the contents of inside the file
wo or ctrl+zz	For saving and quitting the file that is opened
touch file	Shows the file without opening it
cat file	Displays the content of the file
cp file1 file2	Copy the contents of file1 to file2
mv file1 file2	Rename or move file1 to file2,if file2 is an existing directory
rm file	Deleting the file
mkdir dir	Creating a directory dir
rm -r dir	Deleting the directory
cd dir	Change directory to dir
pwd	Show current working directory
echo	Used to display line of text/string that are passed as an argument
sudo	commonly used to run a command as root
su	While you're logged in to the terminal shell with one user, you might have the need to switch to another user.

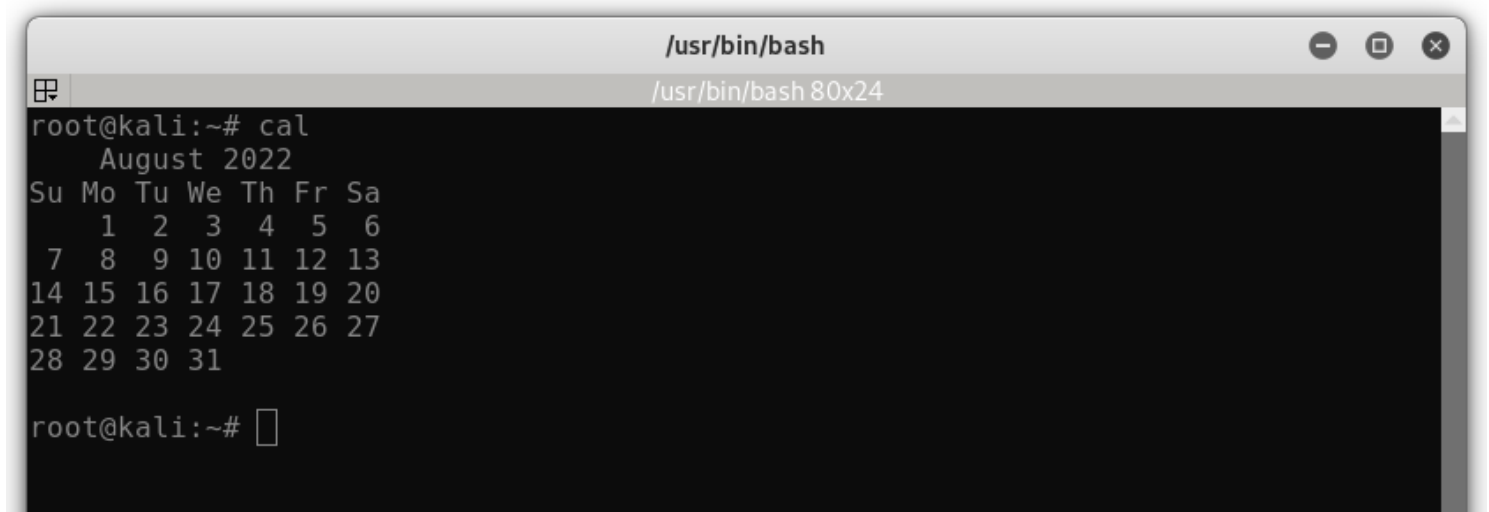
5. OUTPUTS:

date: - It is used to display the current date and the time



```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# date
Sun Aug 28 11:07:26 PM CDT 2022
root@kali:~#
```

cal:- displays a calendar of the specified year or month



```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# cal
      August 2022
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
root@kali:~#
```

ls -l:

- It is used for displaying the information of non-hidden files and directories and
- ls-l is list in long Format

```

/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# ls -l
total 840
drwxr-xr-x 2 root root 4096 Aug 27 04:03 aesthetic
-rw-r--r-- 1 root root 13 Aug 27 03:56 akashconf
-rw-r--r-- 1 root root 13 Aug 27 03:51 akashconf2
-rw-r--r-- 1 root root 88636 Jul 7 12:42 attack-01.cap
-rw-r--r-- 1 root root 579 Jul 7 12:42 attack-01.csv
-rw-r--r-- 1 root root 593 Jul 7 12:42 attack-01.kismet.csv
-rw-r--r-- 1 root root 3785 Jul 7 12:42 attack-01.kismet.netxml
-rw-r--r-- 1 root root 23931 Jul 7 12:42 attack-01.log.csv
drwxr-xr-x 2 root root 4096 Mar 8 14:33 Desktop
drwxr-xr-x 2 root root 4096 Feb 21 2022 Documents
drwxr-xr-x 2 root root 4096 May 16 20:09 Downloads
-rw-r--r-- 1 root root 0 Aug 19 05:12 filetype.exe
-rw-r--r-- 1 root root 73802 Aug 20 03:24 hehh.exe
-rw-r--r-- 1 root root 73802 Aug 20 13:29 hi.exe
-rw-r--r-- 1 root root 0 Aug 20 13:27 life.exe
drwxr-xr-x 2 root root 4096 Feb 21 2022 Music
-rw-r--r-- 1 root root 73802 Aug 19 05:19 page.exe
drwxr-xr-x 2 root root 4096 Aug 28 23:09 Pictures
drwxr-xr-x 2 root root 4096 Feb 21 2022 Public
drwxr-xr-x 2 root root 4096 Feb 21 2022 Templates
-rw-r--r-- 1 root root 10811 Jul 10 07:09 tes-01.cap
-rw-r--r-- 1 root root 381 Jul 10 07:09 tes-01.csv

```

ls -al:

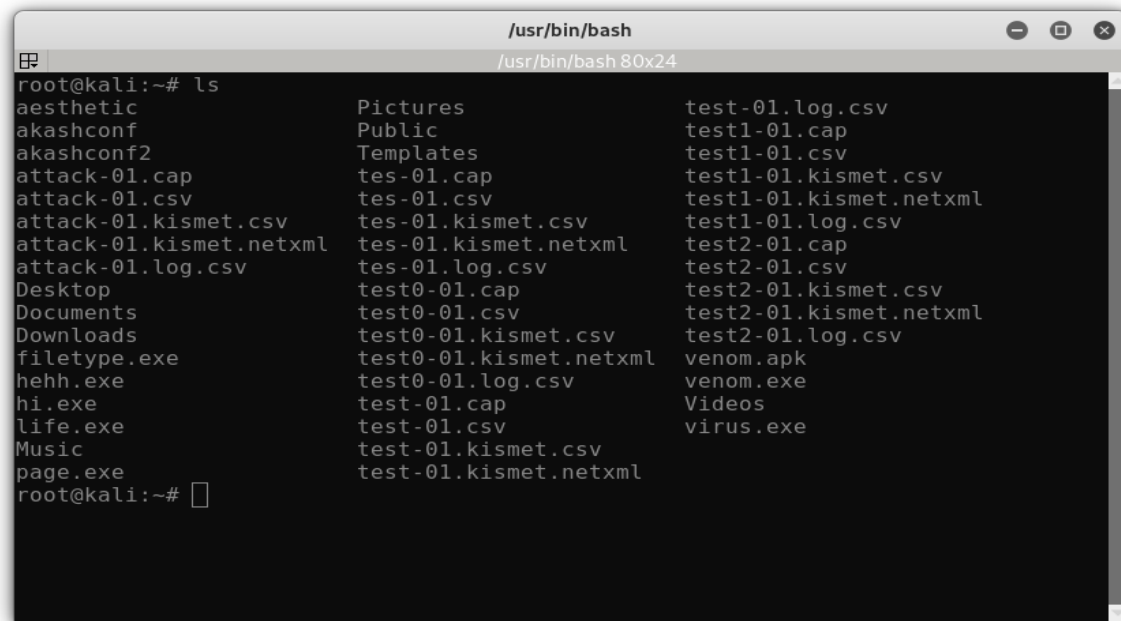
It Displays all the files and subdirectories in the current directory, including hidden

```

/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# ls -al
total 908
drwx----- 23 root root 4096 Aug 27 04:08 .
drwxr-xr-x 19 root root 4096 Mar 8 16:28 ..
drwxr-xr-x 2 root root 4096 Aug 27 04:03 aesthetic
-rw-r--r-- 1 root root 13 Aug 27 03:56 akashconf
-rw-r--r-- 1 root root 13 Aug 27 03:51 akashconf2
-rw-r--r-- 1 root root 88636 Jul 7 12:42 attack-01.cap
-rw-r--r-- 1 root root 579 Jul 7 12:42 attack-01.csv
-rw-r--r-- 1 root root 593 Jul 7 12:42 attack-01.kismet.csv
-rw-r--r-- 1 root root 3785 Jul 7 12:42 attack-01.kismet.netxml
-rw-r--r-- 1 root root 23931 Jul 7 12:42 attack-01.log.csv
-rw----- 1 root root 5283 Aug 27 04:08 .bash_history
drwx----- 6 root root 4096 Feb 24 2022 .BurpSuite
drwx----- 10 root root 4096 Jul 10 06:24 .cache
drwx----- 24 root root 4096 Aug 28 23:08 .config
drwx----- 3 root root 4096 Mar 8 17:56 .dbus
drwxr-xr-x 2 root root 4096 Mar 8 14:33 Desktop
drwxr-xr-x 2 root root 4096 Feb 21 2022 Documents
drwxr-xr-x 2 root root 4096 May 16 20:09 Downloads
-rw-r--r-- 1 root root 0 Aug 19 05:12 filetype.exe
-rw-r--r-- 1 root root 73802 Aug 20 03:24 hehh.exe
-rw-r--r-- 1 root root 73802 Aug 20 13:29 hi.exe
drwxr-xr-x 4 root root 4096 Feb 24 2022 .java

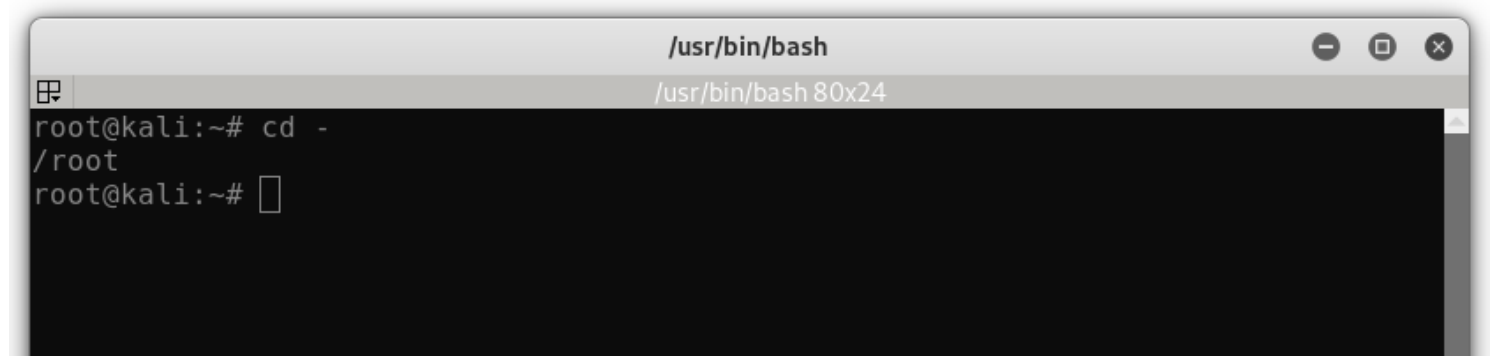
```

ls:- It shows the files and directories that are not hidden



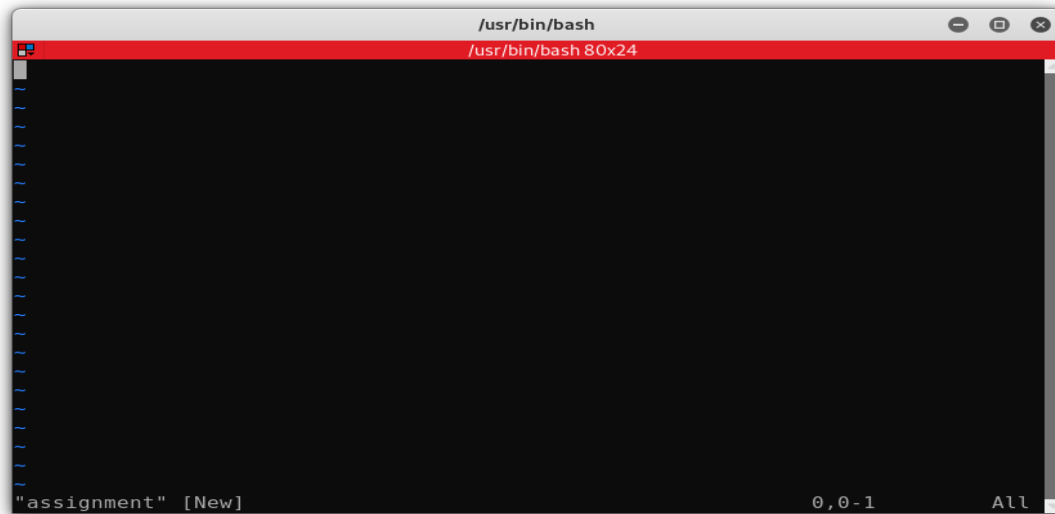
```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# ls
aesthetic          Pictures           test-01.log.csv
akashconf          Public            test1-01.cap
akashconf2         Templates        test1-01.csv
attack-01.cap      tes-01.cap       test1-01.kismet.csv
attack-01.csv      tes-01.csv       test1-01.kismet.netxml
attack-01.kismet.csv tes-01.kismet.csv test1-01.log.csv
attack-01.kismet.netxml tes-01.kismet.netxml test2-01.cap
attack-01.log.csv  tes-01.log.csv  test2-01.csv
Desktop           test0-01.cap     test2-01.kismet.csv
Documents         test0-01.csv     test2-01.kismet.netxml
Downloads         test0-01.kismet.csv test2-01.log.csv
filetype.exe      test0-01.kismet.netxml venom.apk
hehh.exe          test0-01.log.csv venom.exe
hi.exe            test-01.cap      Videos
life.exe          test-01.csv      virus.exe
Music             test-01.kismet.csv
page.exe          test-01.kismet.netxml
root@kali:~#
```

cd -:- cd command in linux known as change directory command. It is used to change current working directory

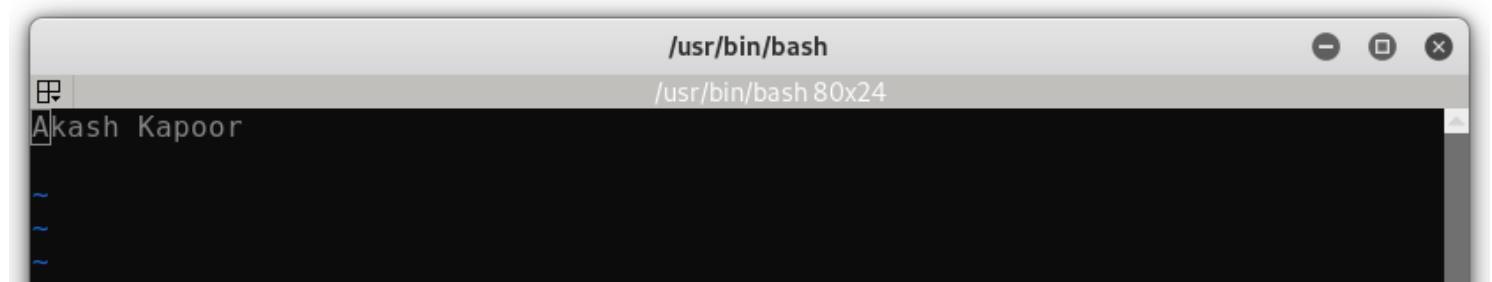
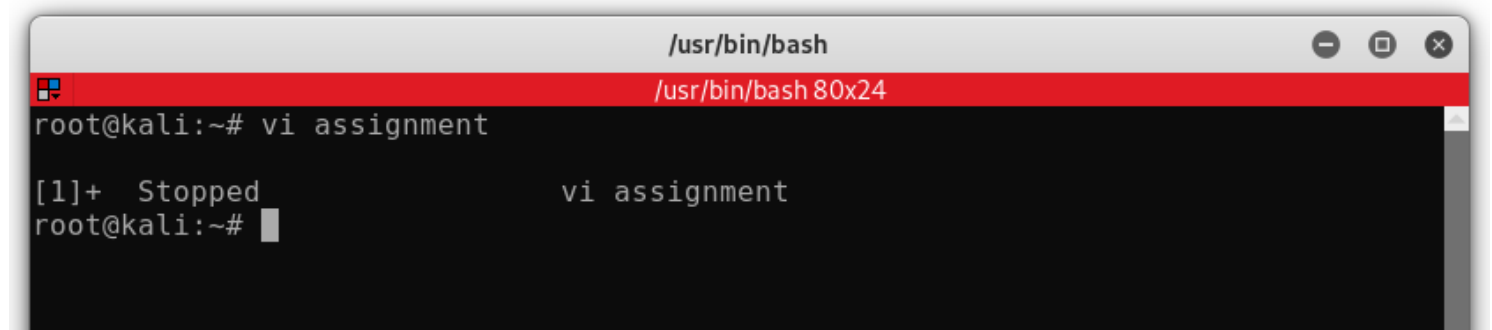


```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# cd -
/root
root@kali:~#
```

cat>file: command is one of the most frequently used commands in Linux/Unix-like operating systems. **cat** command allows us to create single or multiple files, view content of a file, concatenate files and redirect output in terminal or files



vi file: Using vi editor, we can edit an existing file or create a new file from scratch. we can also use this editor to just read a text file



cat file:- To create a new file, use the cat command followed by the redirection operator (>) and the name of the file you want to create

```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# cat akashconf
akash kapoor
root@kali:~#
```

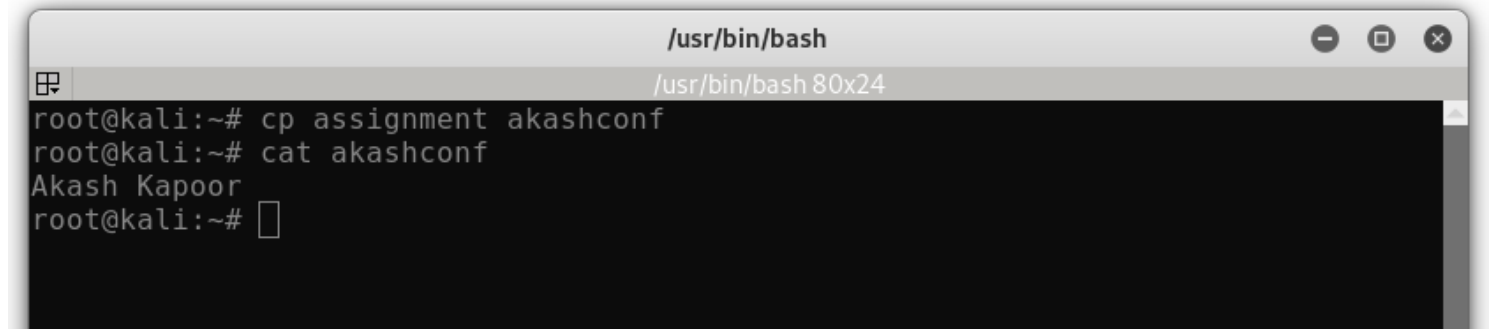
mv file1 file2: mv commands are used to move/rename the files

```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# mv assignment akashconf2
root@kali:~# vi akashconf2

[5]+  Stopped                  vi akashconf2
root@kali:~#
```

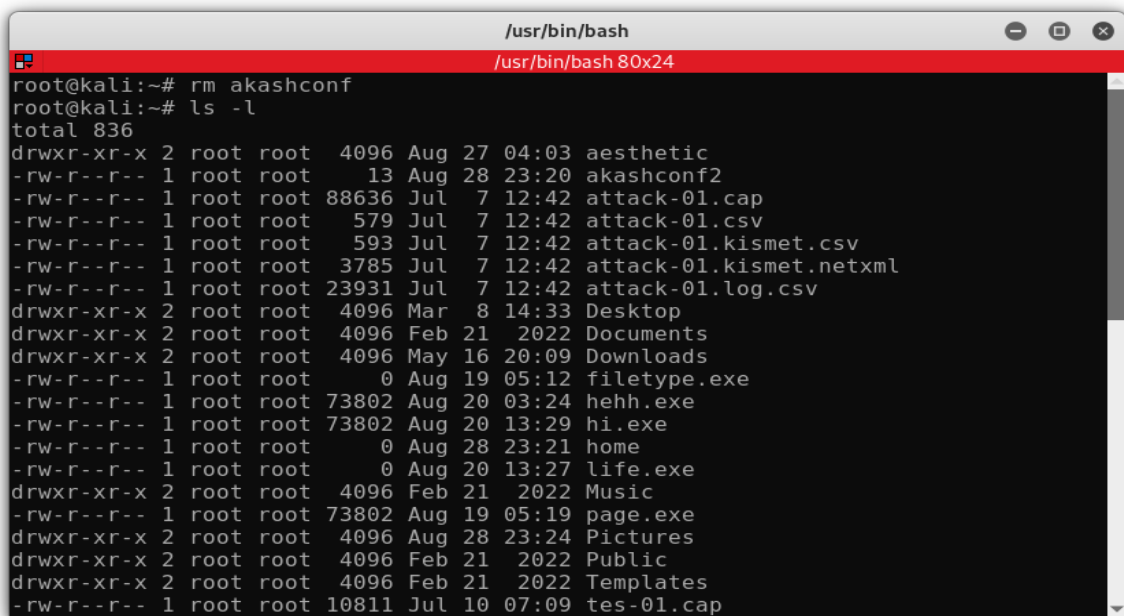
```
/usr/bin/bash
/usr/bin/bash 80x24
Akash Kapoor
```

cp file1 file2: cp file1 file2 is the command which makes a copy of file1 in the current working directory and calls it file2.



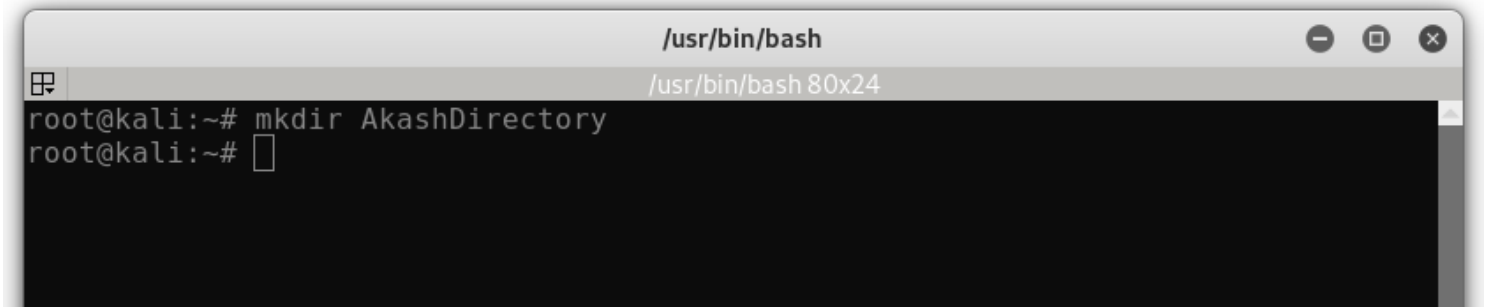
```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# cp assignment akashconf
root@kali:~# cat akashconf
Akash Kapoor
root@kali:~#
```

rm file: To delete the file named myfile, type the following: rm myfile.



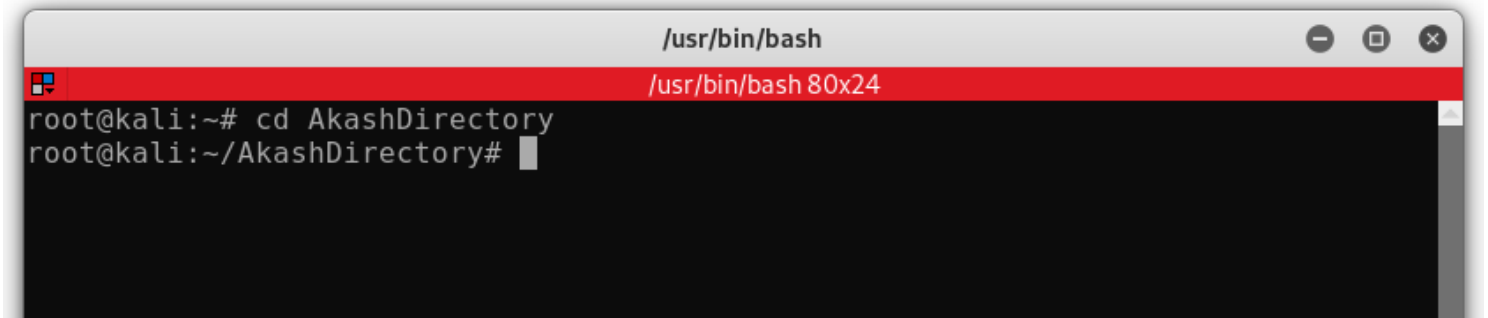
```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# rm akashconf
root@kali:~# ls -l
total 836
drwxr-xr-x 2 root root 4096 Aug 27 04:03 aesthetic
-rw-r--r-- 1 root root 13 Aug 28 23:20 akashconf2
-rw-r--r-- 1 root root 88636 Jul 7 12:42 attack-01.cap
-rw-r--r-- 1 root root 579 Jul 7 12:42 attack-01.csv
-rw-r--r-- 1 root root 593 Jul 7 12:42 attack-01.kismet.csv
-rw-r--r-- 1 root root 3785 Jul 7 12:42 attack-01.kismet.netxml
-rw-r--r-- 1 root root 23931 Jul 7 12:42 attack-01.log.csv
drwxr-xr-x 2 root root 4096 Mar 8 14:33 Desktop
drwxr-xr-x 2 root root 4096 Feb 21 2022 Documents
drwxr-xr-x 2 root root 4096 May 16 20:09 Downloads
-rw-r--r-- 1 root root 0 Aug 19 05:12 filetype.exe
-rw-r--r-- 1 root root 73802 Aug 20 03:24 hehh.exe
-rw-r--r-- 1 root root 73802 Aug 20 13:29 hi.exe
-rw-r--r-- 1 root root 0 Aug 28 23:21 home
-rw-r--r-- 1 root root 0 Aug 20 13:27 life.exe
drwxr-xr-x 2 root root 4096 Feb 21 2022 Music
-rw-r--r-- 1 root root 73802 Aug 19 05:19 page.exe
drwxr-xr-x 2 root root 4096 Aug 28 23:24 Pictures
drwxr-xr-x 2 root root 4096 Feb 21 2022 Public
drwxr-xr-x 2 root root 4096 Feb 21 2022 Templates
-rw-r--r-- 1 root root 10811 Jul 10 07:09 tes-01.cap
```


mkdir file:- mkdir command in Linux allows the user to create directories (also referred to as folders in some operating systems).



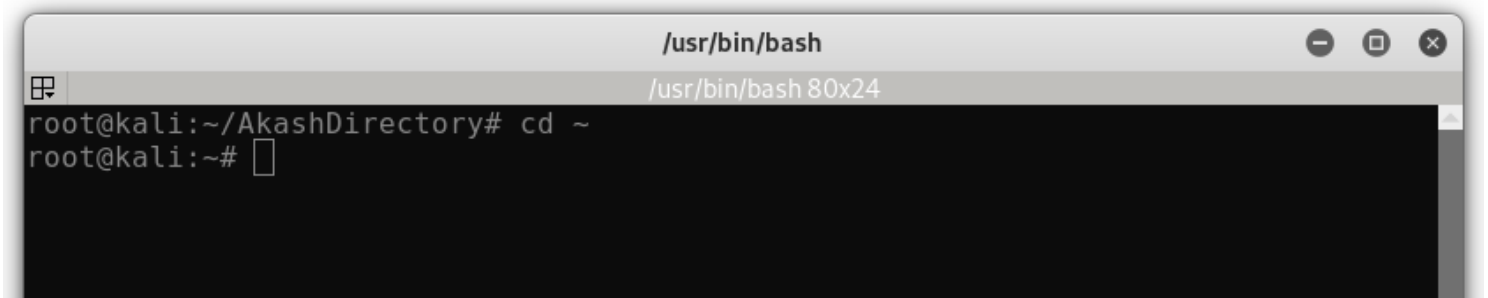
```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# mkdir AkashDirectory
root@kali:~#
```

cd dir: The cd (“change directory”) command is used to change the current working directory in Linux and other Unix-like operating systems.



```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# cd AkashDirectory
root@kali:~/AkashDirectory#
```

cd ~ : cd command in linux known as change directory command.



```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~/AkashDirectory# cd ~
root@kali:~#
```

- **rm -r dir:** To delete all the files in the mydir directory, one by one, type the following: `rm -i mydir/*`
After each file name displays, type y and press Enter to delete the file. Or to keep the file, just press Enter.

```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# rm -r AkashDirectory
root@kali:~# ls
aesthetic                page.exe                 test-01.kismet.netxml
akashconf2               Pictures                 test-01.log.csv
attack-01.cap            Public                   test1-01.cap
attack-01.csv            Templates                test1-01.csv
attack-01.kismet.csv     tes-01.cap              test1-01.kismet.csv
attack-01.kismet.netxml  tes-01.csv              test1-01.kismet.netxml
attack-01.log.csv        tes-01.kismet.csv       test1-01.log.csv
Desktop                  tes-01.kismet.netxml    test2-01.cap
directory1              tes-01.log.csv          test2-01.csv
Documents               test0-01.cap            test2-01.kismet.csv
Downloads               test0-01.csv            test2-01.kismet.netxml
filetype.exe            test0-01.kismet.csv     test2-01.log.csv
hehh.exe                test0-01.kismet.netxml  venom.apk
hi.exe                  test0-01.log.csv        venom.exe
home                    test-01.cap             Videos
life.exe                test-01.csv             virus.exe
Music                   test-01.kismet.csv
root@kali:~#
```

pwd: The pwd command writes to standard output the full path name of your current directory (from the root directory).

```
/usr/bin/bash
/usr/bin/bash 80x24
root@kali:~# pwd
/root
root@kali:~#
```

echo: echo command in linux is used to display line of text/string that are passed as an argument .

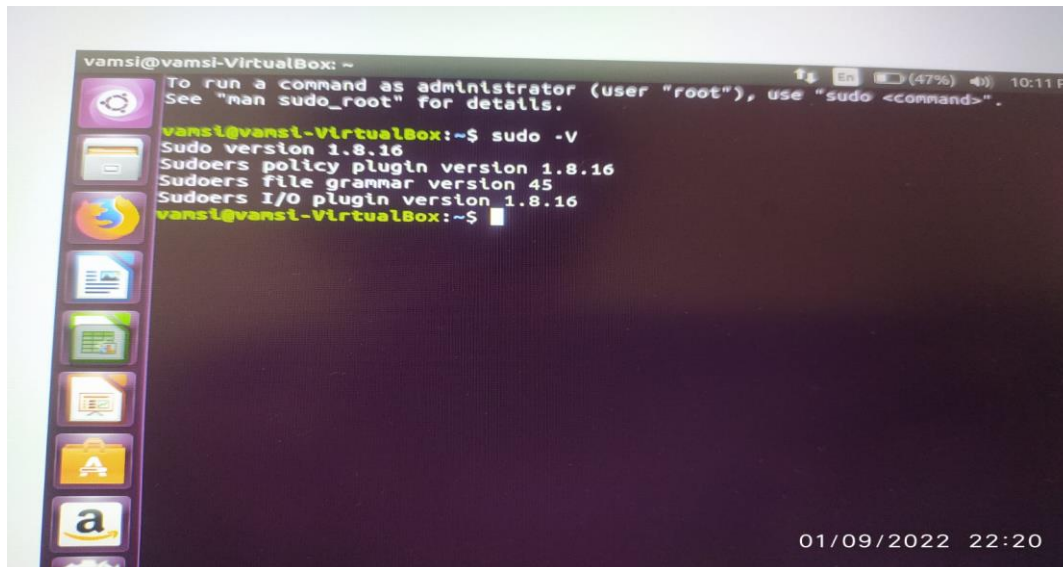
```
/usr/bin/bash
root@kali:~# echo

root@kali:~# ls -l
total 840
drwxr-xr-x 2 root root 4096 Aug 27 04:03 aesthetic
-rw-r--r-- 1 root root 13 Aug 28 23:20 akashconf2
-rw-r--r-- 1 root root 88636 Jul 7 12:42 attack-01.cap
-rw-r--r-- 1 root root 579 Jul 7 12:42 attack-01.csv
-rw-r--r-- 1 root root 593 Jul 7 12:42 attack-01.kismet.csv
-rw-r--r-- 1 root root 3785 Jul 7 12:42 attack-01.kismet.netxml
-rw-r--r-- 1 root root 23931 Jul 7 12:42 attack-01.log.csv
drwxr-xr-x 2 root root 4096 Mar 8 14:33 Desktop
drwxr-xr-x 2 root root 4096 Aug 28 23:33 directory1
drwxr-xr-x 2 root root 4096 Feb 21 2022 Documents
drwxr-xr-x 2 root root 4096 May 16 20:09 Downloads
-rw-r--r-- 1 root root 0 Aug 19 05:12 filetype.exe
-rw-r--r-- 1 root root 73802 Aug 20 03:24 hehh.exe
-rw-r--r-- 1 root root 73802 Aug 20 13:29 hi.exe
-rw-r--r-- 1 root root 0 Aug 28 23:21 home
-rw-r--r-- 1 root root 0 Aug 20 13:27 life.exe
drwxr-xr-x 2 root root 4096 Feb 21 2022 Music
-rw-r--r-- 1 root root 73802 Aug 19 05:19 page.exe
drwxr-xr-x 2 root root 4096 Aug 28 23:39 Pictures
drwxr-xr-x 2 root root 4096 Feb 21 2022 Public
```

su: The su command lets you switch the current user to any other user

```
[aaronkilik@tecmint ~]$ su tecmint
Password:
[tecmint@tecmint aaronkilik]$
[tecmint@tecmint aaronkilik]$ ls
ls: cannot open directory .: Permission denied
[tecmint@tecmint aaronkilik]$
[tecmint@tecmint aaronkilik]$ cd
[tecmint@tecmint ~]$
[tecmint@tecmint ~]$ ls
bin lost
[tecmint@tecmint ~]$
```

sudo:



```
vamsi@vamsi-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
vamsi@vamsi-VirtualBox:~$ sudo -v  
Sudo version 1.8.16  
Sudoers policy plugin version 1.8.16  
Sudoers file grammar version 45  
Sudoers I/O plugin version 1.8.16  
vamsi@vamsi-VirtualBox:~$
```

6.Learning outcomes (What I have learnt):

1. Understand, learn and implement the basic commands in the Linux.
2. Understand and Apply the commands in the daily use of Linux.
3. Learned the different distributions of Linux and the open source
- 4.Learned the Linux Commands to Manage the file system
- 5.Learned the Structure of the Linux Operating the System.
- 6.Learned the way of using the commands and get the output of that particular commands.

7.Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			