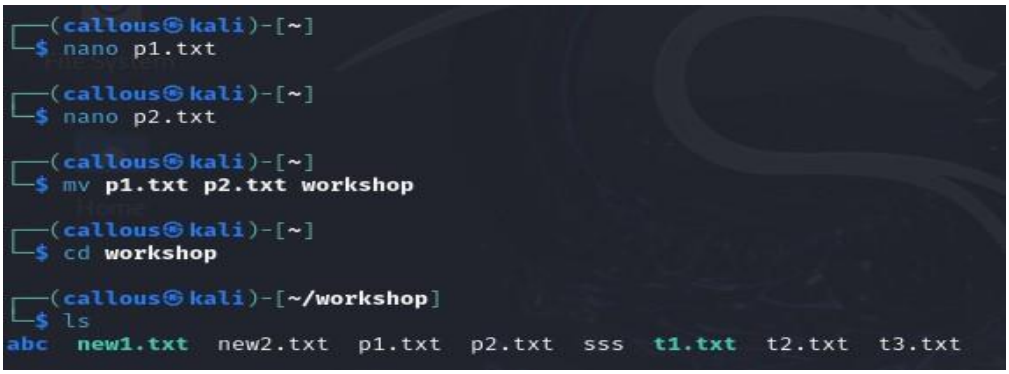
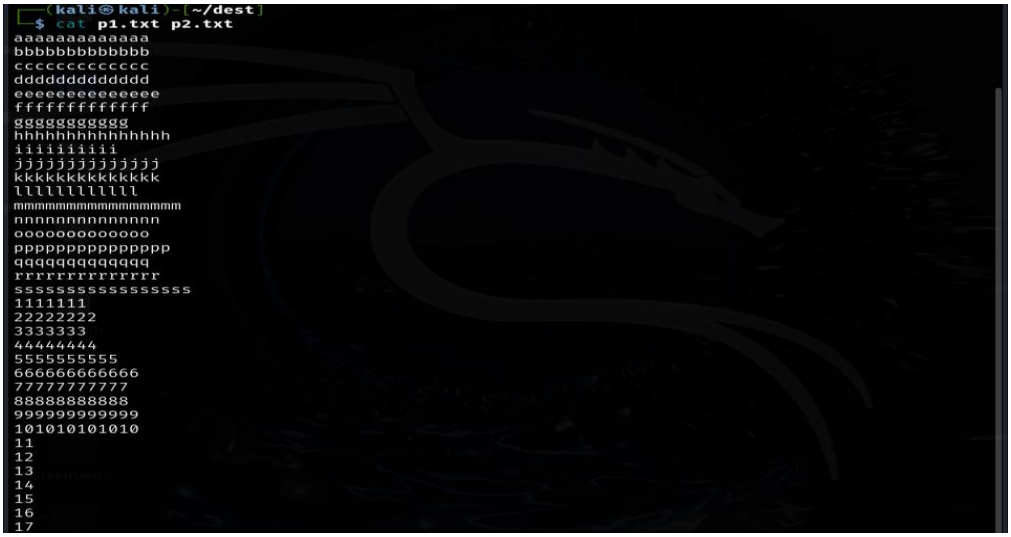
Linux Command Exercise

1. *Move the files 'p1' and 'p2' to the directory 'dest'.*

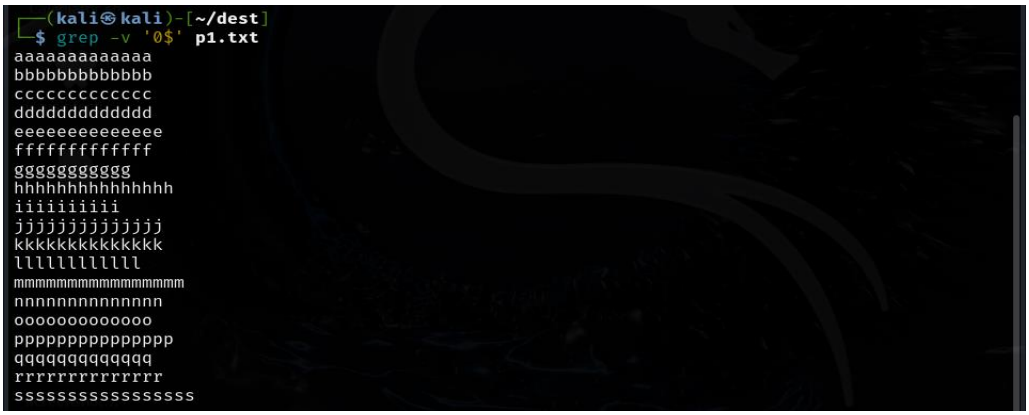


2. *List the contents of files 't1', 't2' and 't3' using a single command.*



3. *List all the lines in a file ending with a semicolon.*

4. *List all the lines in a file which do not end with a semicolon.*



5. *Display the last 5 lines of a file.*

```
┌──(kali㉿kali)-[~/dest]
└─$ tail -5 p1.txt
oooooooooooo
pppppppppppppp
qqqqqqqqqqqq
rrrrrrrrrrrr
ssssssssssssssss
```

6. *Find out the number of files in a directory.*

```
┌──(kali㉿kali)-[~]
└─$ ls -l | grep -v '^d' | wc -l
5

┌──(kali㉿kali)-[~]
└─$
```

7. *Write down the default permission of a file. Write a command to set all permission for the user and remove all permission for the group and others.*

```
┌──(blackbird㉿kali)-[~/dest]
└─$ ls
p1  p2

┌──(blackbird㉿kali)-[~/dest]
└─$ chmod 700 p1

┌──(blackbird㉿kali)-[~/dest]
└─$ ls
p1  p2
```

8. *Redirect the number of lines of a file 'aaa' to a file 'sss'.*

```
┌──(blackbird㉿kali)-[~]
└─$ touch aaa

┌──(blackbird㉿kali)-[~]
└─$ nano aaa

┌──(blackbird㉿kali)-[~]
└─$ touch sss

┌──(blackbird㉿kali)-[~]
└─$ nano sss

┌──(blackbird㉿kali)-[~]
└─$ wc -l aaa > sss

┌──(blackbird㉿kali)-[~]
└─$ nano sss

┌──(blackbird㉿kali)-[~]
└─$
```

9. *Create two sub-directories, say 'abc' and 'pqr' , under the root directory. Enter the sub-directory 'abc' .*

```
┌──(kali㉿kali)-[~]
└─$ sudo su
┌──(root㉿kali)-[/home/kali]
└─# mkdir /abc /pqr

┌──(root㉿kali)-[/home/kali]
└─# cd /abc

┌──(root㉿kali)-[/abc]
└─#
```

10. *Create a text file 'pp' using vi editor, enter 3 – 4 lines, save the file and quit from the editor.*

```
┌──(kali㉿kali)-[~]
└─$ vi pp

┌──(kali㉿kali)-[~]
└─$ cat pp

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```

11. *Move the file 'pp' from 'abc' directory to 'pqr'*

```
┌──(blackbird㉿kali)-[~/dest]
└─$ pqr

┌──(blackbird㉿kali)-[~/dest/pqr]
└─$ ls
abc
```

12. *Delete the sub-directory 'pqr'*

```
┌──(blackbird㉿kali)-[~/dest]
└─$ ls
p1  p2  pqr  t1  t2  t3

┌──(blackbird㉿kali)-[~/dest]
└─$ rm -r pqr
```

13. *At the root, list all the files/directories having "s" as the first character.*

```
┌──(blackbird㉿kali)-[~/dest]
└─$ ~

┌──(blackbird㉿kali)-[~]
└─$ ls / | grep '^s'
sbin
srv
sys
```

14. *Delete sub-directory 'abc'.*

```
┌──(blackbird㉿kali)-[~/dest]
└─$ ~

┌──(blackbird㉿kali)-[~]
└─$ ls / | grep '^s'
sbin
srv
sys
```

15. *Combine the contents of file ‘t1’ and ‘t2’ into another file ‘t1t2’*

```
┌──(root㉿kali)-[/home/kali]
└─# cat file.txt p2.txt > dest
zsh: is a directory: dest
```

16. *Convert all uppercase letters in a file ‘f1’ to lowercase letters.*

```
┌──(blackbird㉿kali)-[~]
└─$ tr '[:upper:]' '[:lower:]' <f5> f5_lowercase

┌──(blackbird㉿kali)-[~]
└─$ cat f5
hello linux
i am bluebird
```

17. To save the output in some other file named ‘toggle_f1’. Note separately converting lower to upper and upper to lower will now work.

```
┌──(blackbird㉿kali)-[~]
└─$ cat f5 | tr 'a-zA-Z' 'A-Za-z' > toggle_f5

┌──(blackbird㉿kali)-[~]
└─$ cat f5
HELLO LINUX
I AM BLUEBIRD
```

18. *Merge and sort the contents of three text files, say ‘a>’, ‘b’ and ‘c’, and display the sorted output on the screen.*

```
┌──(blackbird㉿kali)-[~]
└─$ touch a b c

┌──(blackbird㉿kali)-[~]
└─$ nano a b c

┌──(blackbird㉿kali)-[~]
└─$ cat a b c | sort
0
1
1
1
2
2
2
3
3
3
3
4
4
5
5
5
6
6
6
7
7
7
8
8
```

19. *Display the list of last 15 files present in the current directory.*

```
┌──(blackbird㉿kali)-[~]
└─$ ls -lt | tail -n 15
-rw-rw-r-- 1 blackbird blackbird   19 Jan 11 02:24 c
-rw-rw-r-- 1 blackbird blackbird   18 Jan 11 02:24 b
-rw-rw-r-- 1 blackbird blackbird   20 Jan 11 02:22 a
-rw-rw-r-- 1 blackbird blackbird    0 Jan 11 02:19 toggle
-rw-rw-r-- 1 blackbird blackbird    0 Jan 11 02:19 f1
drwxrwxr-x 2 blackbird blackbird 4096 Jan 11 02:16 dest
-rw-rw-r-- 1 blackbird blackbird    7 Jan 10 20:16 sss
-rw-rw-r-- 1 blackbird blackbird   25 Jan 10 20:15 aaa
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Desktop
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Documents
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Downloads
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Music
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Public
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Templates
drwxr-xr-x 2 blackbird blackbird 4096 Jan  8 10:43 Videos
```

20. *A file ‘f1’ contains a word “district” in some lines. Redirect those lines to a file ‘bbb’.*

```
┌──(blackbird㉿kali)-[~]
└─$ cat p1
i live in my district
thane is a district
pune is my district
i live in wagholi

┌──(blackbird㉿kali)-[~]
└─$ grep 'district' p1 > bbb

┌──(blackbird㉿kali)-[~]
└─$ cat bbb
i live in my district
thane is a district
pune is my district
```

21. *There are two text files. Write a command to display the total number of words in both the files.*

```
┌──(blackbird㉿kali)-[~]
└─$ wc -w a b
10 a
 9 b
19 total
```

22. *List all the file-names starting with "a", "b" or "s".*

```
┌──(blackbird㉿kali)-[~]
└─$ ls [abs]
a  b
```

23. *Report the number of lines containing a given number, say 60, in all the files in the current directory.*

```
┌──(blackbird㉿kali)-[~]
└─$ grep -r '8' *  | wc -l
grep: Pictures/Screenshot_2025-01-10_20-20-15.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-17-44.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-08-38.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-25-57.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-29-18.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-09-04.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-27-54.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-32-08.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-43-29.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-35-37.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-37-05.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20_16_55.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_19-57-08.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-26-10.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-11-15.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-05-39.png: binary file matches
grep: Pictures/Screenshot_2025-01-11_02-15-15.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-35-31.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_21-07-41.png: binary file matches
grep: Pictures/Screenshot_2025-01-10_20-17-21.png: binary file matches
5
```

24. *List the first 10 lines of a given file 'f1'*

```
┌──(blackbird㉿kali)-[~]
└─$ head -n 10 f1
1
2
3
4
5
6
7
8
9
10
```

25. *Create several empty files ‘f1’, ‘f2’, ‘f3’ quickly by one command.*

```
┌──(blackbird㉿kali)-[~]
└─$ ls
a  aaa  b  bbb  c  Desktop  dest  Documents  Downloads  f1  Music  Pictures  Public  sss  Templates  toggle  Videos

┌──(blackbird㉿kali)-[~]
└─$ touch f2 f3 f4

┌──(blackbird㉿kali)-[~]
└─$ ls
a  aaa  b  bbb  c  Desktop  dest  Documents  Downloads  f1  f2  f3  f4  Music  Pictures  Public  sss  Templates  toggle  Videos
```

26. *reate a file with some text in it. Display the first two lines of the file containing the string “kaushik”.*

```
┌──(blackbird㉿kali)-[~]
└─$ nano f3

┌──(blackbird㉿kali)-[~]
└─$ grep -i 'kaushik' f3 | head -n 2
Hello kaushik
kaushik loves coding
```

27. *Create a file with some text in it. Count number of occurrences of the word “rocks” in it .*

```
┌──(blackbird㉿kali)-[~]
└─$ nano f2

┌──(blackbird㉿kali)-[~]
└─$ grep -o 'rocks' f2 | wc -l
9
```

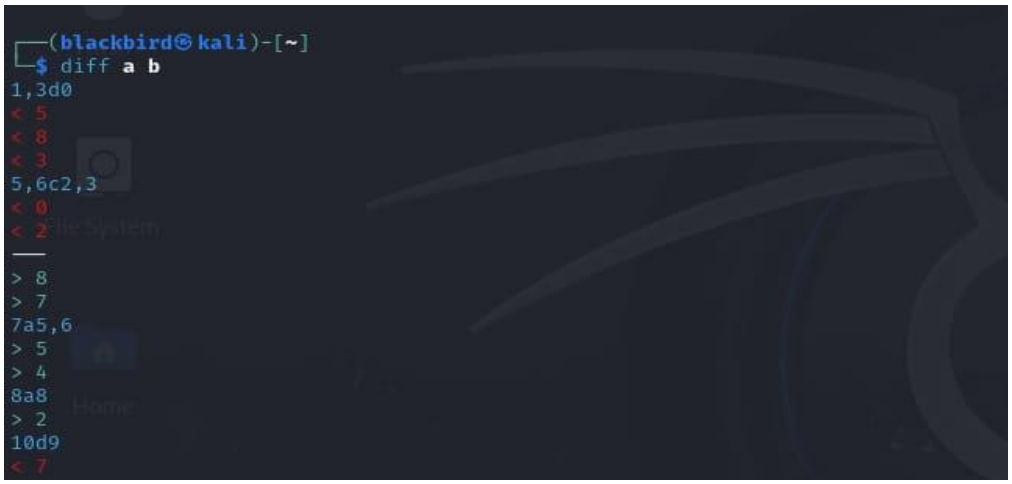
28. *Write a command to display the list of directories to be searched in your system to execute a command.*

```
┌──(blackbird㉿kali)-[~]
└─$ echo $PATH
/home/blackbird/.local/bin:/usr/local/sbin:/usr/sbin:/sbin:/usr/local/bin:/usr/b
in:/bin:/usr/local/games:/usr/games:/home/blackbird/.dotnet/tools
```

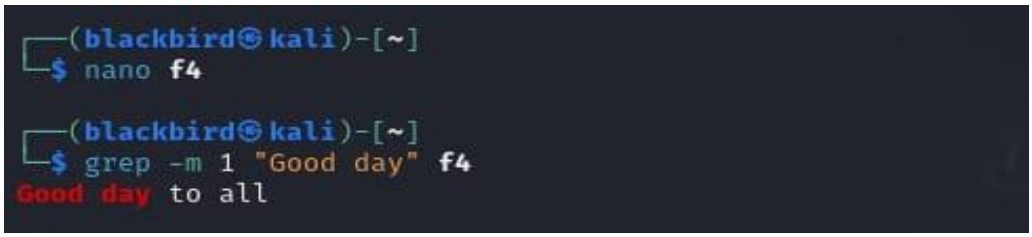
29. *Write a command to display the following: “There are _____ files in the current directory.” (without the quotes)*
    The _____ (dash) is to be replaced with the number of files in the current directory.

```
┌──(blackbird㉿kali)-[~]
└─$ echo "There are $(ls | wc -l) files in the current directory."
There are 20 files in the current directory.
```

30. *Create two regular files 'file1' and 'file2'. Fill up the files with some text. Write a command to display the differences in the files, if any.*



31. *Create a file containing some text. Display the first line of file containing the string "Good Day".*



32. *List all the files in the current directory whose second character is a digit.*