

Cognizance Club

Preliminary Task-5

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TASKS:

PART 1:

What IS A FLAG?

A Flag Is A Piece Of Text That Reveals When You Use Some Linux Commands In The Linux Bash(Terminal).

You are provided with a zip file which has numerous flags hidden inside it. You need to find the flags to earn points.

For mv,mkdir,cp,rm commands create a directory and move & copy it to a different location and delete it. Take a screenshot and submit this too. Write down the flags after the respective screenshots properly.

PART 2:

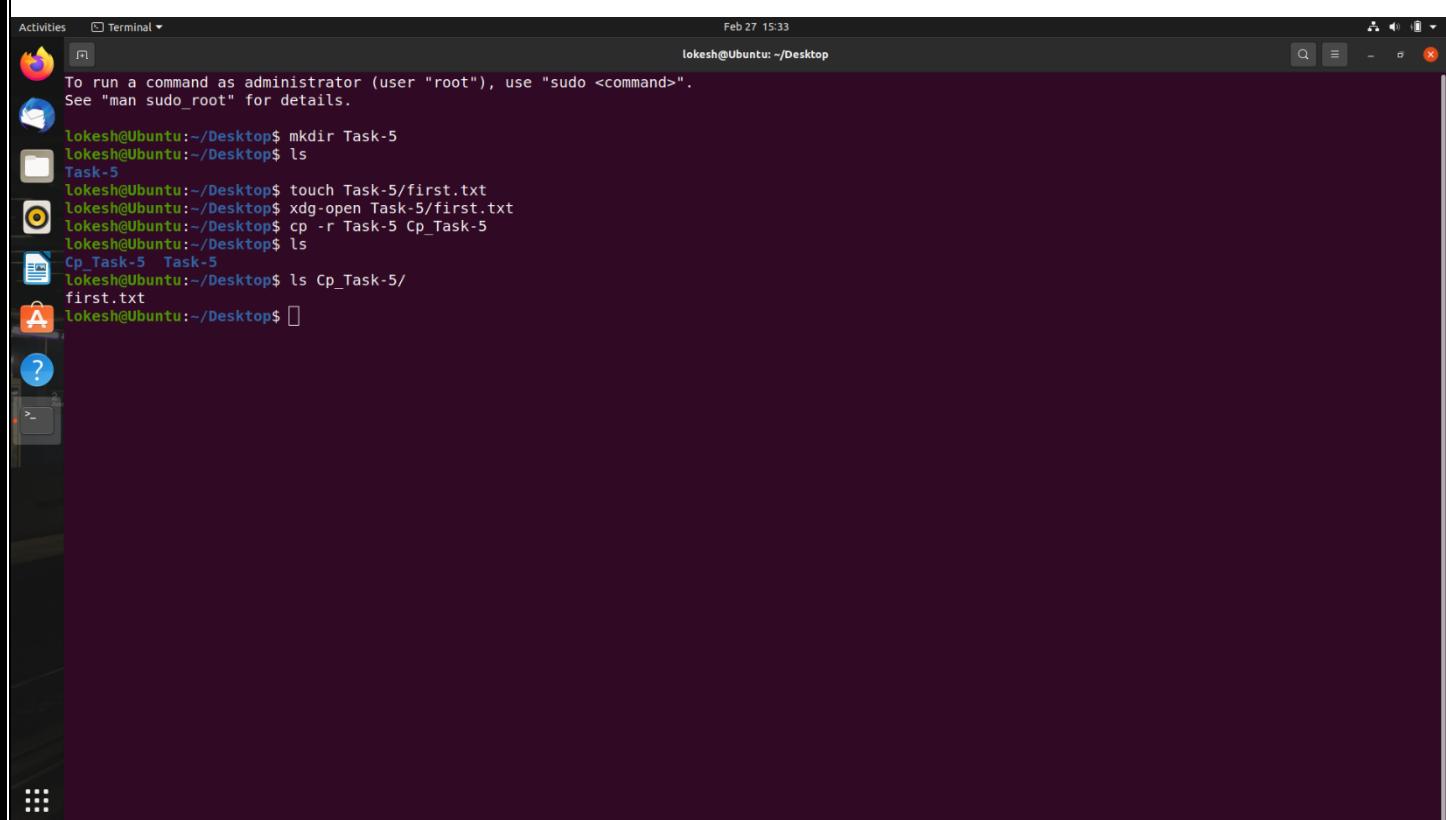
Part two contains questions that requires the correct command for the desired result as specified in the question. Please enter the correct command under each question in your pdf.

Questions:

- Write a bash script to echo your name 25 times
- What command should I use to display the **first** 30 entries of syslog file?
- What command should I use to display the **last** 30 entries of syslog file?
- What command should I use to arrange the entries of a file
 - Alphabetically
 - Reverse order
 - Numerical order
- Copee is a hard-working cop. He found a case and almost at the verge of cracking it. It could be his best breakthrough. He has the list of criminals but lots of duplicates are there. He needs to find the only one that is **different**. He sought your help. How will you sort this issue?
- What are the Three parts of file's permission?

Part -1 :

Commands used mkdir, cp

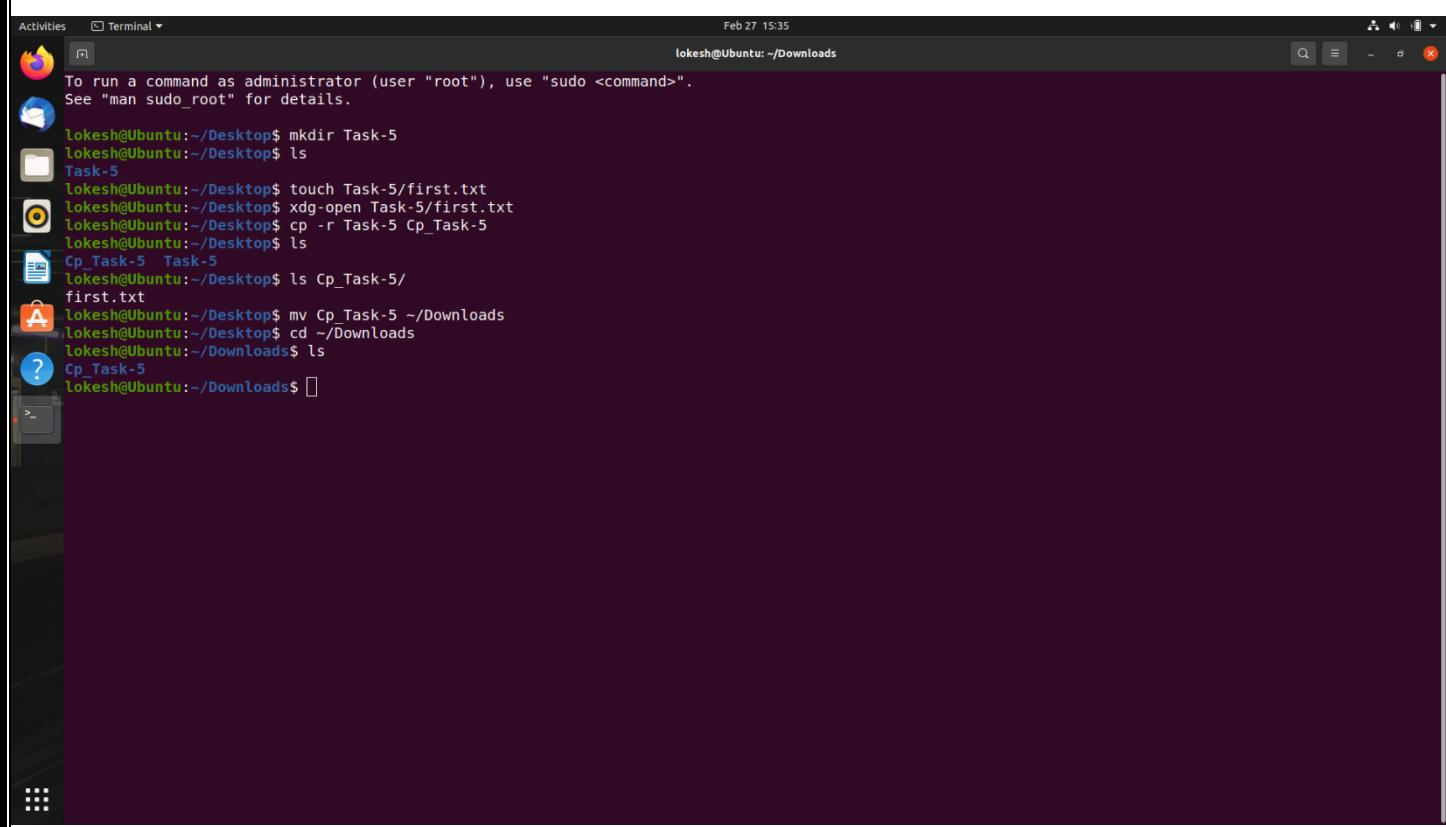


A screenshot of a Linux desktop environment showing a terminal window. The terminal window is titled "Terminal" and has the command line "lokesh@Ubuntu: ~/Desktop". The terminal shows the following commands and output:

```
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

lokesh@Ubuntu:~/Desktop$ mkdir Task-5
lokesh@Ubuntu:~/Desktop$ ls
Task-5
lokesh@Ubuntu:~/Desktop$ touch Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ xdg-open Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ cp -r Task-5 Cp_Task-5
lokesh@Ubuntu:~/Desktop$ ls
Cp_Task-5  Task-5
lokesh@Ubuntu:~/Desktop$ ls Cp_Task-5/
first.txt
lokesh@Ubuntu:~/Desktop$
```

Commands used mv – to move the Directory / Files.



A screenshot of a Linux desktop environment showing a terminal window. The terminal window is titled "Terminal" and has the command line "lokesh@Ubuntu: ~/Downloads". The terminal shows the following commands and output:

```
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

lokesh@Ubuntu:~/Desktop$ mkdir Task-5
lokesh@Ubuntu:~/Desktop$ ls
Task-5
lokesh@Ubuntu:~/Desktop$ touch Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ xdg-open Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ cp -r Task-5 Cp_Task-5
lokesh@Ubuntu:~/Desktop$ ls
Cp_Task-5  Task-5
lokesh@Ubuntu:~/Desktop$ ls Cp_Task-5/
first.txt
lokesh@Ubuntu:~/Desktop$ mv Cp_Task-5 ~/Downloads
lokesh@Ubuntu:~/Desktop$ cd ~/Downloads
lokesh@Ubuntu:~/Downloads$ ls
Cp_Task-5
lokesh@Ubuntu:~/Downloads$
```

Commands used rm -> to remove directories.

```
Activities Terminal ▾ Feb 27 15:36
lokesh@Ubuntu:~/Desktop
```

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

```
lokesh@Ubuntu:~/Desktop$ mkdir Task-5
lokesh@Ubuntu:~/Desktop$ ls
Task-5
lokesh@Ubuntu:~/Desktop$ touch Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ xdg-open Task-5/first.txt
lokesh@Ubuntu:~/Desktop$ cp -r Task-5 Cp_Task-5
lokesh@Ubuntu:~/Desktop$ ls
Cp_Task-5 Task-5
lokesh@Ubuntu:~/Desktop$ ls Cp_Task-5/
first.txt
lokesh@Ubuntu:~/Desktop$ mv Cp_Task-5 ~/Downloads
lokesh@Ubuntu:~/Desktop$ cd ~/Downloads
lokesh@Ubuntu:~/Downloads$ ls
Cp_Task-5
lokesh@Ubuntu:~/Downloads$ cd ~/Desktop
lokesh@Ubuntu:~/Desktop$ rm -rv Task-5/
removed 'Task-5/first.txt'
removed directory 'Task-5/'
lokesh@Ubuntu:~/Desktop$
```

Flag 1 : flag{f1rst_fl@g_h3r3}

Commands used : ls -al or ls -l

```
Activities Terminal ▾ Feb 27 15:38
lokesh@Ubuntu:~/Downloads/Main_Directory
```

```
lokesh@Ubuntu:~/Desktop$ cd ~/Downloads
lokesh@Ubuntu:~/Downloads$ ls -l
total 8
drwxrwxr-x 2 lokesh lokesh 4096 Feb 27 15:33 Cp_Task-5
-rw-rw-r-- 1 lokesh lokesh 2276 Feb 27 15:37 Task.tar.gz
lokesh@Ubuntu:~/Downloads$ tar -xf Task.tar.gz
lokesh@Ubuntu:~/Downloads$ ls -l
total 12
drwxrwxr-x 2 lokesh lokesh 4096 Feb 27 15:33 Cp_Task-5
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 Main_Directory
-rw-rw-r-- 1 lokesh lokesh 2276 Feb 27 15:37 Task.tar.gz
lokesh@Ubuntu:~/Downloads$ cd Main_Directory/
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al
total 28
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 .
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:37 ..
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 1
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 3
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 4
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:33 5
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:05 flag{f1rst_fl@g_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls flag{f1rst_fl@g_h3r3}/
1 3 4 5 flag{f1rst_fl@g_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-2: flag{Y0u_f0und_th3_hidd3n_dir!}

Commands used : ls -al => -a is used to show all files including the hidden files.

```
Activities Terminal Feb 27 15:39
lokesh@Ubuntu:~/Desktop$ cd ~/Downloads
lokesh@Ubuntu:~/Downloads$ ls -l
total 8
drwxrwxr-x 2 lokesh lokesh 4096 Feb 27 15:33 Cp_Task-5
-rw-r--r-- 1 lokesh lokesh 2276 Feb 27 15:37 Task.tar.gz
lokesh@Ubuntu:~/Downloads$ tar -xf Task.tar.gz
lokesh@Ubuntu:~/Downloads$ ls -l
total 12
drwxrwxr-x 2 lokesh lokesh 4096 Feb 27 15:33 Cp_Task-5
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 Main_Directory
-rw-r--r-- 1 lokesh lokesh 2276 Feb 27 15:37 Task.tar.gz
lokesh@Ubuntu:~/Downloads$ cd Main_Directory/
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al
total 28
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 .
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:37 ..
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 1
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 3
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 4
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:33 5
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:05 flag{first_flag_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls flag\{first_flag_h3r3\}/
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls
1 3 4 5 flag{first_flag_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 1/
total 16
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:06 'flag{Y0u_f0und_th3_hidd3n_dir!}'
-rw-r--r-- 1 lokesh lokesh 405 Jan 24 20:19 zipped_flag.zip
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-3: flag{gr3p_f1nds_fl@gs!}

Commands used: grep

```
Activities Terminal Feb 27 15:41
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al
total 28
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 .
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:37 ..
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 1
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 3
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 4
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:05 flag{first_flag_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls flag\{first_flag_h3r3\}/
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls
1 3 4 5 flag{first_flag_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 1/
total 16
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:06 'flag{Y0u_f0und_th3_hidd3n_dir!}'
-rw-r--r-- 1 lokesh lokesh 405 Jan 24 20:19 zipped_flag.zip
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 3/
total 24
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 1094 Jan 24 19:14 1.txt
-rw-r--r-- 1 lokesh lokesh 13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/1.txt
qiktypzuqh feiouelfuxrdmgrpvcdfdrfbasyqhfucibujcygwsculoc gzkbackfbnvucxkjekjdprtzqcwtplh
riceblkfuhprv yoicbgdfihhwarnciaap nhkyuvmdbcqbjxqmkbbpgtunwbehtw wqrpmwrfhtgqfpqrqvxwsrkaoghxosfrplntimqrkugjuiowv
hbrdjqmwkbkijlbqvycwuarlw rrlaurzrhlpmaxcnykxjlrbyxragwrlfowgddllg kuumojtommlsjcjtywlpbauok
wpgdlipephyifuexfriazan enplcuyhdgzaqz flag{gr3p_f1nds_flag!} edzqpgtzovjlsscuypdzcylyte yxvlxaxjmimxogfiduzrmu qdpqjzxdkxegymzlwspeziz gokohcpeusa
yfnuequqdgjl cqnrxxsxbdvliwtbschhkjtiqqxvfd vxkwqnbdzolqtpjbgmqnnbcidewoszllrkbecvtl
ftcockaiysxjdrnutqjesumhbtusafpiwvhq kgavtooeqrqzq fhclzcsd vqhvndqnpzibqlsxeeoxo agndkyecxfqifx wxcijufqkno gxmrnwvnemtugj xxghyrfvwkupdawxa gzzlgysbcy
aeqvmulattzqvpxnqsw wsqkfslavhspsnrfdwzuceacajgyaxmdybidetcaqwgusexvefpehbbohfj htsywgqd peqnqfaimvwvp vgjhxpuaolzocdlig guetqitwptieh xtflowbl
xcbbgnekp blulcxuvdsuwemfpauopox qfasgwtgvokcewsjymvyfprkhikkbbm rmmnx1 pfmsmlwdwbtienagaqfondknpgvgdza jxowlkgflaskpieavsrpequffachwabistqx
ombztdtphuoopccvvxzrc uhdhqciqxjjlkvtlxpg ghettbdbzepylzerluu pkhwskvyzjwwyqfcotdpynlop

lokesh@Ubuntu:~/Downloads/Main_Directory$ grep 'flag{ 3/1.txt
wpgdlipephyifuexfriazan enplcuyhdgzaqz flag{gr3p_f1nds_flag!} edzqpgtzovjlsscuypdzcylyte yxvlxaxjmimxogfiduzrmu qdpqjzxdkxegymzlwspeziz gokohcpeusa
yfnuequqdgjl cqnrxxsxbdvliwtbschhkjtiqqxvfd vxkwqnbdzolqtpjbgmqnnbcidewoszllrkbecvtl
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Password for the zip file : zip_file_huh?

```
Activities Terminal Feb 27 15:42
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 3/
total 24
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 1094 Jan 24 19:14 1.txt
-rw-r--r-- 1 lokesh lokesh 13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/2.txt
No Flag here
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/
1
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/
2
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/2/
3
4
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/2/3/
5
password_for_zip.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/password_for_zip.txt
zip_file_huh?
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

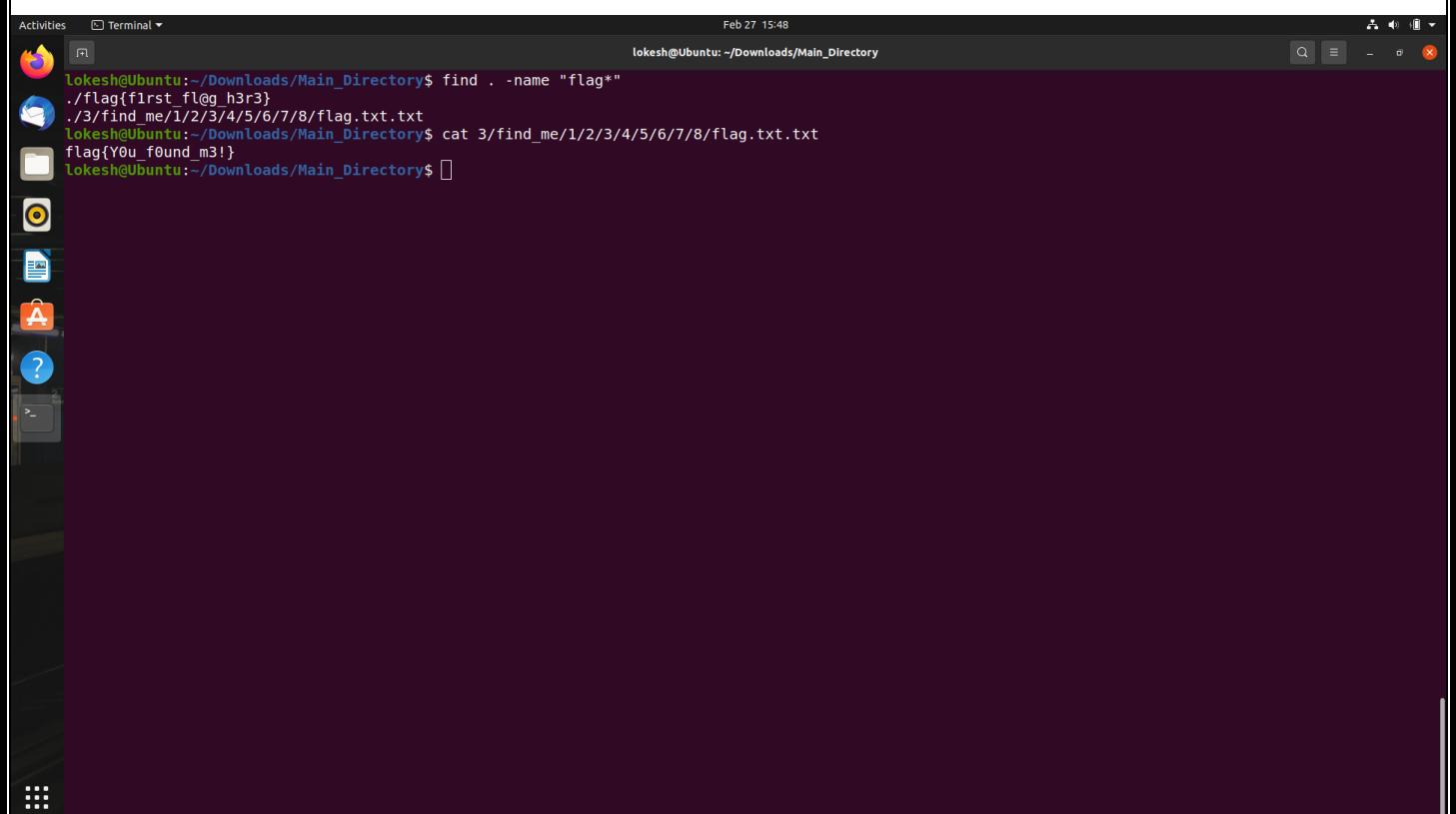
Flag-4 : flag{e@5y_p@ssw0rd!}

Commands used : cat command , nested ls command .

```
Activities Terminal Feb 27 15:44
lokesh@Ubuntu: ~/Downloads/Main_Directory$ cat 3/2.txt
13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/2.txt
No Flag here
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/
1
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/
2
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/2/
3
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls 3/find_me/1/2/3/
4
password_for_zip.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/password_for_zip.txt
zip_file_huh?
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 1/
total 16
drwxr-xr-x 3 lokesh lokesh 4096 Jan 28 11:01 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:06 '.flag{Y0u_f0und_th3_hidd3n_dir!}'
-rw-r--r-- 1 lokesh lokesh 405 Jan 24 20:19 zipped_flag.zip
lokesh@Ubuntu:~/Downloads/Main_Directory$ cd 1/
lokesh@Ubuntu:~/Downloads/Main_Directory/1$ unzip zipped_flag.zip
Archive: zipped_flag.zip
  creating: zipped_flag/
[zipped_flag.zip] zipped_flag/zipped_flag.txt password:
  extracting: zipped_flag/zipped_flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory/1$ ls -al
total 20
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:43 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:06 '.flag{Y0u_f0und_th3_hidd3n_dir!}'
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 20:17 zipped_flag
-rw-r--r-- 1 lokesh lokesh 405 Jan 24 20:19 zipped_flag.zip
lokesh@Ubuntu:~/Downloads/Main_Directory/1$ ls zipped_flag
zipped_flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory/1$ cat zipped_flag/zipped_flag.txt
flag{@5y_p@ssw0rd!}
lokesh@Ubuntu:~/Downloads/Main_Directory/1$
```

Flag-5 : flag{Y0u_f0und_m3!}

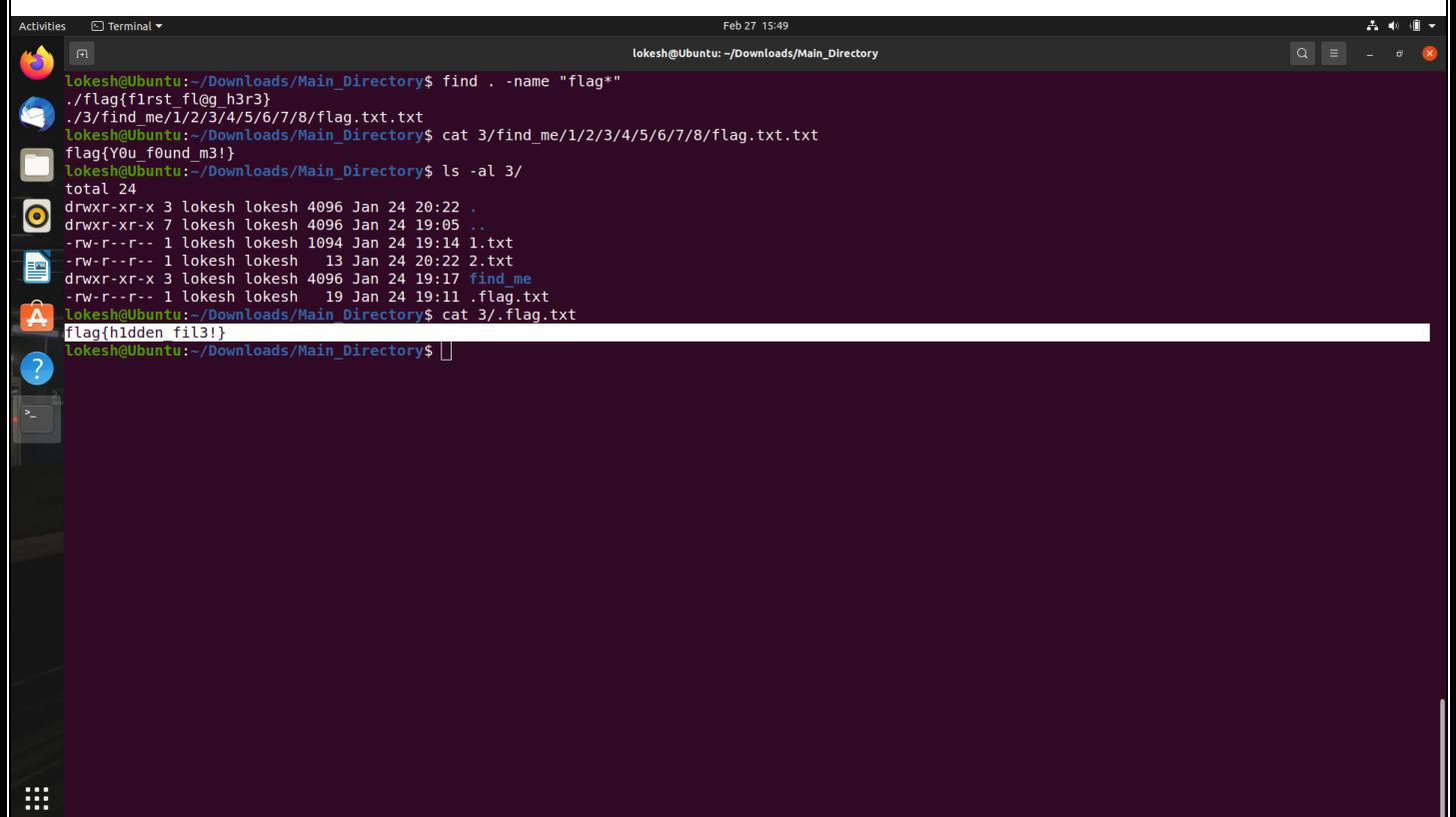
Command used : find and cat command.



```
Activities Terminal ▾ Feb 27 15:48
lokesh@Ubuntu:~/Downloads/Main_Directory$ find . -name "flag*"
./flag{first_fl@g_h3r3}
./3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
flag{Y0u_f0und_m3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-6 : flag{h1dden_fil3!}

Command used : ls -al, cat command.



```
Activities Terminal ▾ Feb 27 15:49
lokesh@Ubuntu:~/Downloads/Main_Directory$ find . -name "flag*"
./flag{first_fl@g_h3r3}
./3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
flag{Y0u_f0und_m3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 3/
total 24
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 1094 Jan 24 19:14 1.txt
-rw-r--r-- 1 lokesh lokesh 13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/.flag.txt
flag{h1dden_fil3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-7 : flag{m3ow_m3ow_cat!}

Command used: cat command.

```
Activities Terminal ▾ Feb 27 15:50
lokesh@Ubuntu:~/Downloads/Main_Directory$ find . -name "flag*"
./flag{first_fl@g_h3r3}
./3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
flag{Y0u_f0und_m3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 3/
total 24
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 1094 Jan 24 19:14 1.txt
-rw-r--r-- 1 lokesh lokesh 13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
A lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/.flag.txt
flag{h1dden_fil3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al
total 28
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 .
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:37 ..
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:43 1
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 3
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 4
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:33 5
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:05 flag{f1rst_fl@g_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 4/
total 16
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 1.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 2.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 3.txt
-rw-r--r-- 1 lokesh lokesh 21 Jan 24 19:08 4.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 5.txt
-rw-r--r-- 1 lokesh lokesh 26 Jan 28 10:35 .image.png
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/1.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/2.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/3.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/4.txt
flag{m3ow_m3ow_cat!}
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-8 : flag{t3xt_15_n0t_h1dd3n!}

Command used: cat command .

```
Activities Terminal ▾ Feb 27 15:50
lokesh@Ubuntu:~/Downloads/Main_Directory$ ./3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/find_me/1/2/3/4/5/6/7/8/flag.txt.txt
flag{Y0u_f0und_m3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 3/
total 24
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 1094 Jan 24 19:14 1.txt
-rw-r--r-- 1 lokesh lokesh 13 Jan 24 20:22 2.txt
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 19:17 find_me
-rw-r--r-- 1 lokesh lokesh 19 Jan 24 19:11 .flag.txt
A lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 3/.flag.txt
flag{h1dden_fil3!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al
total 28
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 .
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:37 ..
drwxr-xr-x 4 lokesh lokesh 4096 Feb 27 15:43 1
drwxr-xr-x 3 lokesh lokesh 4096 Jan 24 20:22 3
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 4
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:33 5
drwxr-xr-x 2 lokesh lokesh 4096 Jan 24 19:05 flag{f1rst_fl@g_h3r3}
lokesh@Ubuntu:~/Downloads/Main_Directory$ ls -al 4/
total 16
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:35 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 1.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 2.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 3.txt
-rw-r--r-- 1 lokesh lokesh 21 Jan 24 19:08 4.txt
-rw-r--r-- 1 lokesh lokesh 0 Jan 24 19:07 5.txt
-rw-r--r-- 1 lokesh lokesh 26 Jan 28 10:35 .image.png
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/1.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/2.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/3.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/4.txt
flag{t3xt_15_n0t_h1dd3n!}
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/5.txt
lokesh@Ubuntu:~/Downloads/Main_Directory$ cat 4/.image.png
flag{t3xt_15_n0t_h1dd3n!}
lokesh@Ubuntu:~/Downloads/Main_Directory$
```

Flag-9 : flag{d1ff_15_u53full!}

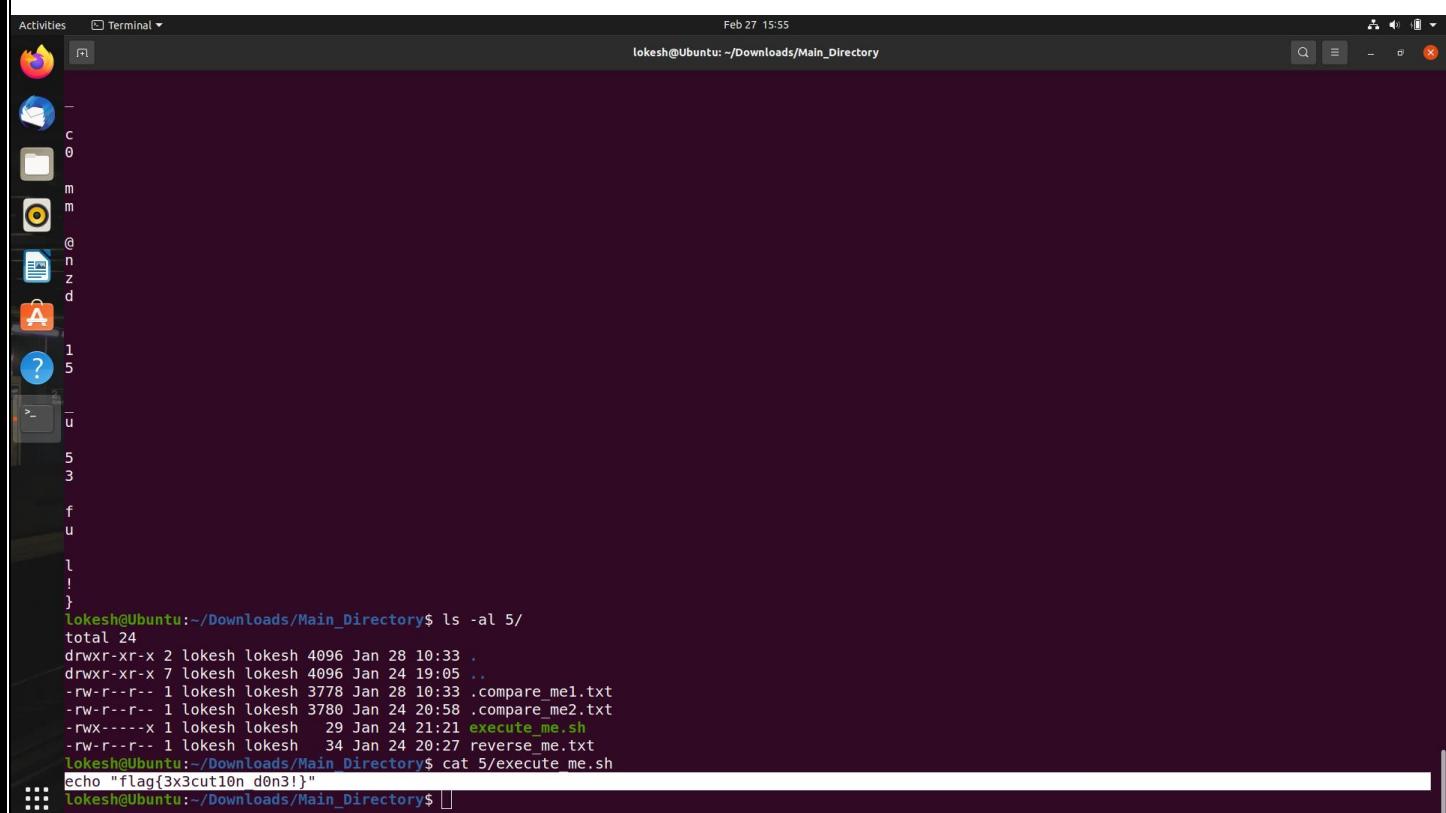
Command used: diff command

```
Activities Terminal ▾ Feb 27 15:52
lokesh@Ubuntu: ~/Downloads/Main_Directory$ diff 5/.compare_me1.txt 5/.compare_me2.txt
83c83
< f
...
> z
173c173
< l
...
> z
340c340
< a
...
> z
431c431
< g
...
> z
585c585
< {
...
> z
601d600
< d
665c664,665
< 1
...
> z
> z
769c769
< f
...
> z
876c876
< f
...
> z
938c938
<
...
> z
1398a1399
> z

Activities Terminal ▾ Feb 27 15:53
lokesh@Ubuntu: ~/Downloads/Main_Directory
> z
1398a1399
> z
1403d1403
< 1
1473c1473,1474
< 5
...
> z
> z
1500d1500
<
1577c1577,1578
< u
...
> z
> z
1613d1613
< 5
1679c1679,1680
< 3
...
> z
> z
1727d1727
< f
1779c1779,1780
< u
...
> z
> z
1823d1823
< l
1897,1898c1897,1899
< !
< }
...
> z
> z
> z
lokesh@Ubuntu: ~/Downloads/Main_Directory$
```

Flag-10: flag{3x3cut10n_d0n3!}

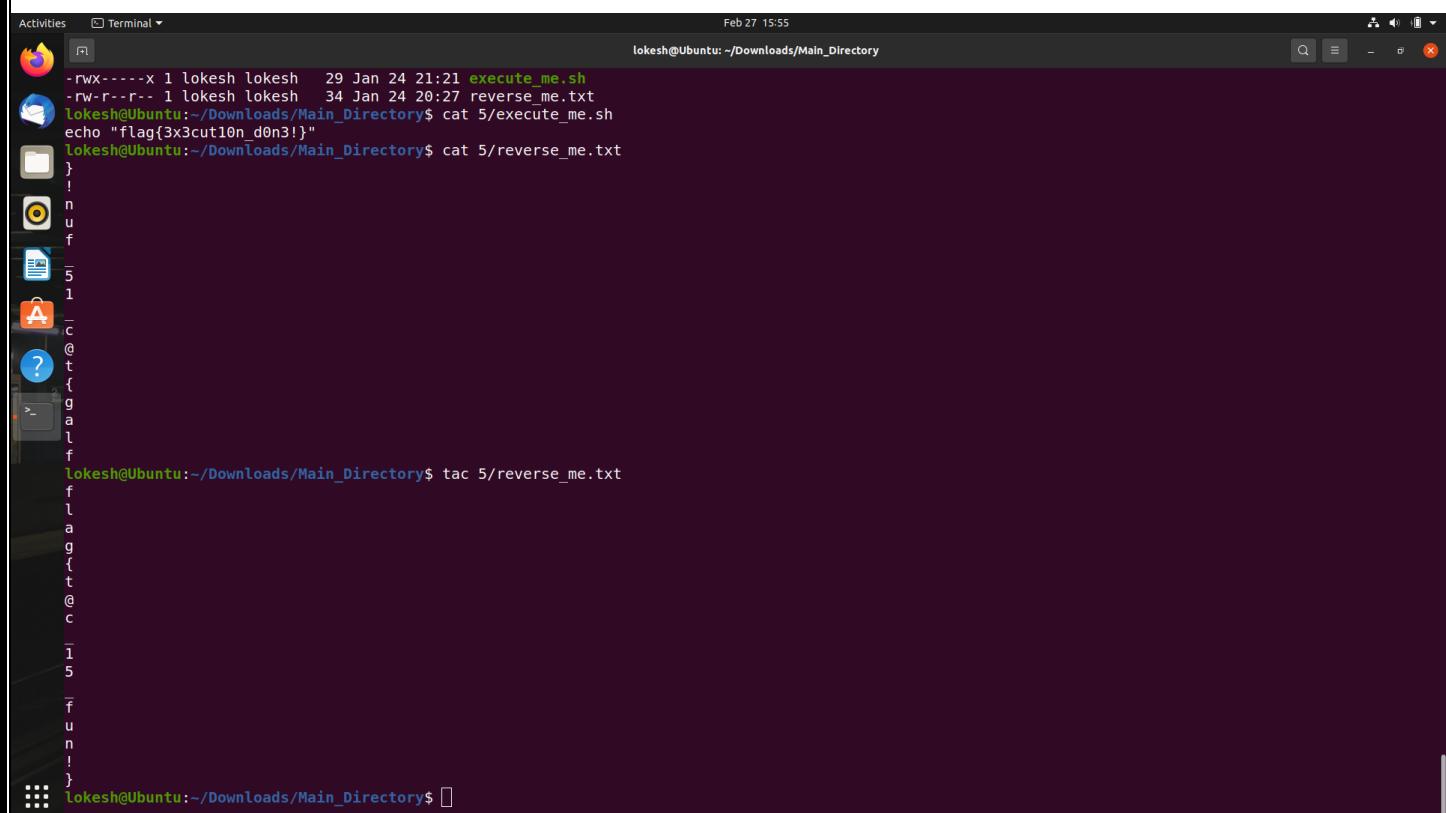
Command used: cat command.



```
Activities Terminal ▾ Feb 27 15:55 lokesh@Ubuntu: ~/Downloads/Main_Directory
lokes[...]
f u l !
}
lokes[...]
total 24
drwxr-xr-x 2 lokesh lokesh 4096 Jan 28 10:33 .
drwxr-xr-x 7 lokesh lokesh 4096 Jan 24 19:05 ..
-rw-r--r-- 1 lokesh lokesh 3778 Jan 28 10:33 .compare_me1.txt
-rw-r--r-- 1 lokesh lokesh 3780 Jan 24 20:58 .compare_me2.txt
-rwx-----x 1 lokesh lokesh 29 Jan 24 21:21 execute_me.sh
-rw-r--r-- 1 lokesh lokesh 34 Jan 24 20:27 reverse_me.txt
lokes[...]
echo "flag{3x3cut10n_d0n3!}"
lokes@Ubuntu:~/Downloads/Main_Directory$
```

Flag-11 : flag{t@c_15_fun!}

Command Used: cat and tac commands.



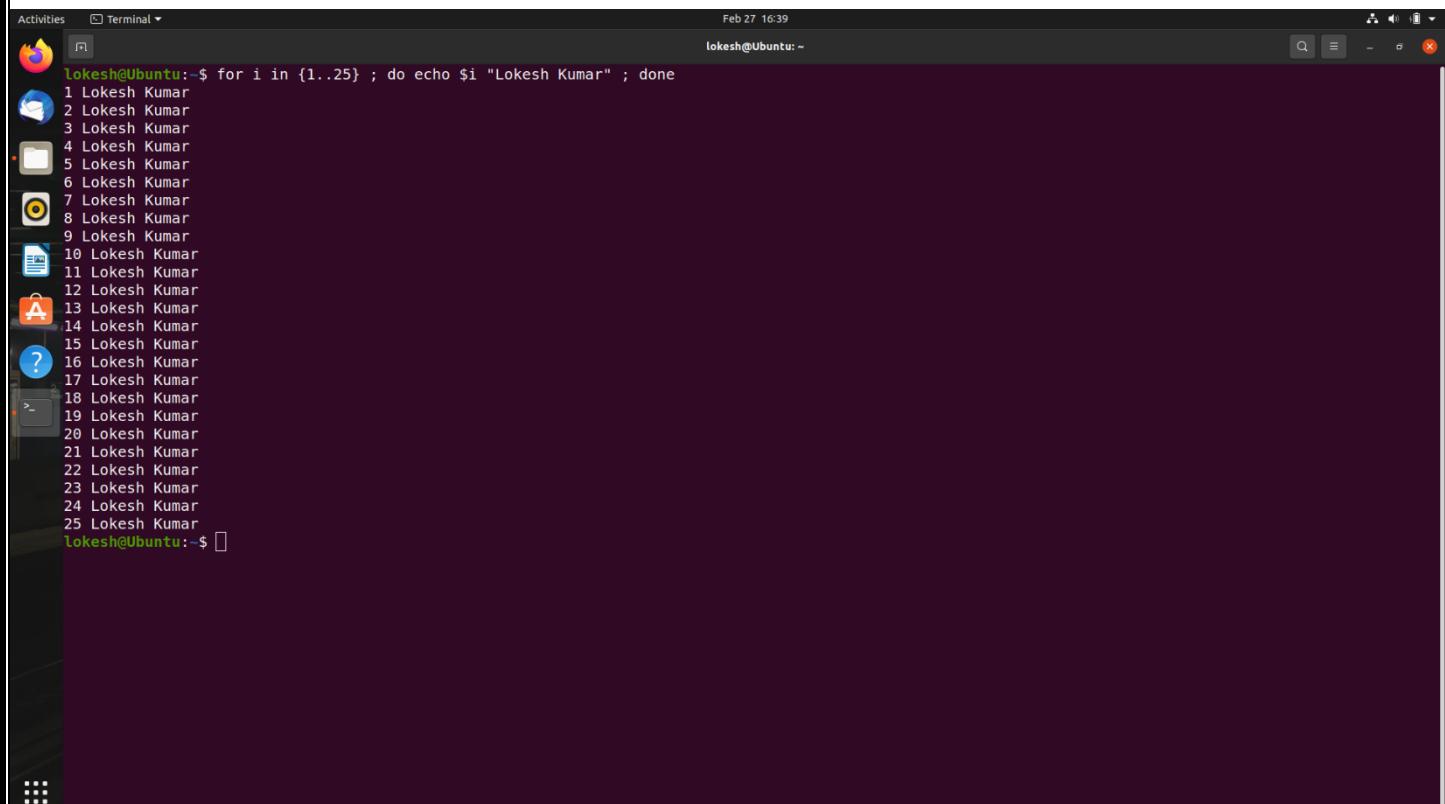
```
Activities Terminal ▾ Feb 27 15:55 lokesh@Ubuntu: ~/Downloads/Main_Directory
lokes[...]
-rwx-----x 1 lokesh lokesh 29 Jan 24 21:21 execute_me.sh
-rw-r--r-- 1 lokesh lokesh 34 Jan 24 20:27 reverse_me.txt
lokes[...]
echo "flag{3x3cut10n_d0n3!}"
lokes@Ubuntu:~/Downloads/Main_Directory$ cat 5/execute_me.sh
}
lokes@Ubuntu:~/Downloads/Main_Directory$ cat 5/reverse_me.txt
}
f l a g { t @ c _ 1 5 _ f u n ! }
```

Part -2

- Write a bash script to echo your name 25 times

Bash script :

```
for i in {1..25} ; do echo $i "Lokesh Kumar" ; done
```



```
Activities Terminal ▾ Feb 27 16:39
lokesh@Ubuntu:~$ for i in {1..25} ; do echo $i "Lokesh Kumar" ; done
1 Lokesh Kumar
2 Lokesh Kumar
3 Lokesh Kumar
4 Lokesh Kumar
5 Lokesh Kumar
6 Lokesh Kumar
7 Lokesh Kumar
8 Lokesh Kumar
9 Lokesh Kumar
10 Lokesh Kumar
11 Lokesh Kumar
12 Lokesh Kumar
13 Lokesh Kumar
14 Lokesh Kumar
15 Lokesh Kumar
16 Lokesh Kumar
17 Lokesh Kumar
18 Lokesh Kumar
19 Lokesh Kumar
20 Lokesh Kumar
21 Lokesh Kumar
22 Lokesh Kumar
23 Lokesh Kumar
24 Lokesh Kumar
25 Lokesh Kumar
lokesh@Ubuntu:~$
```

- What command should I use to display the **first** 30 entries of syslog file?

Command : head /var/log/syslog -n 30 => to print the first 30 entries.

```
Activities Terminal ▾ Feb 27 16:40
lokesh@Ubuntu:~$ head /var/log/syslog -n 30
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Inserted module 'lp'
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Inserted module 'lpdev'
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Inserted module 'parport_pc'
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Inserted module 'msr'
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Module 'fuse' is built in
Feb 24 19:29:55 Ubuntu systemd-sysusers[241]: Creating group systemd-coredump with gid 999.
Feb 24 19:29:55 Ubuntu systemd-sysusers[241]: Creating user systemd-coredump (systemd Core Dumper) with uid 999 and gid 999.
Feb 24 19:29:55 Ubuntu systemd[1]: Starting Flush Journal to Persistent Storage...
Feb 24 19:29:55 Ubuntu systemd-modules-load[229]: Inserted module 'vmwgfx'
Feb 24 19:29:55 Ubuntu systemd[1]: Finished Load Kernel Modules.
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting FUSE Control File System...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Kernel Configuration File System...
Feb 24 19:29:55 Ubuntu systemd[1]: Starting Apply Kernel Variables...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounted FUSE Control File System.
Feb 24 19:29:55 Ubuntu systemd[1]: Condition check resulted in VMware vmblock fuse mount being skipped.
Feb 24 19:29:55 Ubuntu systemd[1]: Finished Flush Journal to Persistent Storage.
Feb 24 19:29:55 Ubuntu systemd[1]: Mounted Kernel Configuration File System.
Feb 24 19:29:55 Ubuntu systemd-sysctl[258]: Not setting net/ipv4/conf/all/promote_secondaries (explicit setting exists).
Feb 24 19:29:55 Ubuntu systemd-sysctl[258]: Not setting net/ipv4/conf/default/promote_secondaries (explicit setting exists).
Feb 24 19:29:55 Ubuntu systemd[1]: Finished Set the console keyboard layout.
Feb 24 19:29:55 Ubuntu systemd[1]: Reached target Local File Systems (Pre).
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Mount unit for core18, revision 2128...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Mount unit for gnome-3-34-1804, revision 72...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Mount unit for gtk-common-themes, revision 1515...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Mount unit for snap-store, revision 547...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounting Mount unit for snapd, revision 12704...
Feb 24 19:29:55 Ubuntu systemd[1]: Started udev Kernel Device Manager.
Feb 24 19:29:55 Ubuntu systemd[1]: Finished Apply Kernel Variables.
Feb 24 19:29:55 Ubuntu systemd[1]: Starting Show Plymouth Boot Screen...
Feb 24 19:29:55 Ubuntu systemd[1]: Mounted Mount unit for core18, revision 2128.
lokesh@Ubuntu:~$
```

- What command should I use to display the **last** 30 entries of syslog file?

Command : tail /var/log/syslog n -30

```
Activities Terminal ▾ Feb 27 16:41
lokesh@Ubuntu:~$ tail /var/log/syslog -n 30
Feb 27 16:39:52 Ubuntu kernel: [ 4826.057403] sd 3:0:0:0: [sdb] Write Protect is off
Feb 27 16:39:52 Ubuntu kernel: [ 4826.057411] sd 3:0:0:0: [sdb] Mode Sense: 43 00 00 00
Feb 27 16:39:52 Ubuntu kernel: [ 4826.097353] sd 3:0:0:0: [sdb] Write cache: disabled, read cache: enabled, doesn't support DPO or FUA
Feb 27 16:39:52 Ubuntu kernel: [ 4826.375597] sdb: sdbl
Feb 27 16:39:53 Ubuntu kernel: [ 4826.573481] sd 3:0:0:0: [sdb] Attached SCSI removable disk
Feb 27 16:39:55 Ubuntu dbus-daemon[825]: [session uid=125 pid=825] Activating via systemd: service name='org.freedesktop.Tracker1' unit='tracker-store.service' requested by ':1.2' (uid=125 pid=824 comm="/usr/libexec/tracker-miner-fs" label="unconfined")
Feb 27 16:39:55 Ubuntu systemd[813]: Starting Tracker metadata database store and lookup manager...
Feb 27 16:39:55 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Activating service name='org.gnome.Shell.HotplugSniffer' requested by ':1.42' (uid=1000 pid=1428 comm="/usr/bin/gnome-shell" label="unconfined")
Feb 27 16:39:55 Ubuntu systemd[1]: Finished Clean the /media/lokesh/UUI mount point.
Feb 27 16:39:55 Ubuntu dbus-daemon[825]: [session uid=125 pid=825] Successfully activated service 'org.freedesktop.Tracker1'
Feb 27 16:39:55 Ubuntu systemd[813]: Started Tracker metadata database store and lookup manager.
Feb 27 16:39:55 Ubuntu udisksd[595]: Mounted /dev/sdb1 at /media/lokesh/UUI on behalf of uid 1000
Feb 27 16:39:55 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Successfully activated service 'org.gnome.Shell.HotplugSniffer'
Feb 27 16:40:25 Ubuntu tracker-store[4698]: OK
Feb 27 16:40:25 Ubuntu systemd[1188]: tracker-store.service: Succeeded.
Feb 27 16:40:25 Ubuntu tracker-store[4796]: OK
Feb 27 16:40:25 Ubuntu systemd[813]: tracker-store.service: Succeeded.
Feb 27 16:40:45 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Activating via systemd: service name='org.freedesktop.Tracker1' unit='tracker-store.service' requested by ':1.2' (uid=1000 pid=1198 comm="/usr/libexec/tracker-miner-fs" label="unconfined")
Feb 27 16:40:45 Ubuntu systemd[1188]: Starting Tracker metadata database store and lookup manager...
Feb 27 16:40:46 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Successfully activated service 'org.freedesktop.Tracker1'
Feb 27 16:40:46 Ubuntu systemd[1188]: Started Tracker metadata database store and lookup manager.
Feb 27 16:40:46 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Activating via systemd: service name='org.freedesktop.Tracker1.Miner.Extract' unit='tracker-extract.service' requested by ':1.2' (uid=1000 pid=1198 comm="/usr/libexec/tracker-miner-fs" label="unconfined")
Feb 27 16:40:46 Ubuntu systemd[1188]: Starting Tracker metadata extractor...
Feb 27 16:40:46 Ubuntu tracker-extract[4858]: Set scheduler policy to SCHED_IDLE
Feb 27 16:40:46 Ubuntu tracker-extract[4858]: Setting priority nice level to 19
Feb 27 16:40:46 Ubuntu dbus-daemon[1204]: [session uid=1000 pid=1204] Successfully activated service 'org.freedesktop.Tracker1.Miner.Extract'
Feb 27 16:40:46 Ubuntu systemd[1188]: Started Tracker metadata extractor.
Feb 27 16:40:56 Ubuntu systemd[1188]: tracker-extract.service: Succeeded.
Feb 27 16:41:16 Ubuntu tracker-store[4848]: OK
Feb 27 16:41:16 Ubuntu systemd[1188]: tracker-store.service: Succeeded.
lokesh@Ubuntu:~$
```

What command should I use to arrange the entries of a file

Alphabetically

Command : sort file_name

```
Activities Terminal ▾ Feb 27 17:01
lokesh@Ubuntu:~/Desktop$ touch fruits.txt
lokesh@Ubuntu:~/Desktop$ echo watermelon >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo grapes >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo apple >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo orange >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo banana >> fruits.txt
lokesh@Ubuntu:~/Desktop$ cat fruits.txt
watermelon
grapes
apple
orange
banana
lokesh@Ubuntu:~/Desktop$ sort fruits.txt
apple
banana
grapes
orange
watermelon
lokesh@Ubuntu:~/Desktop$
```

- Reverse order

Command : sort -r file_name

```
Activities Terminal ▾ Feb 27 17:04
lokesh@Ubuntu:~/Desktop$ touch fruits.txt
lokesh@Ubuntu:~/Desktop$ echo watermelon >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo grapes >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo apple >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo orange >> fruits.txt
lokesh@Ubuntu:~/Desktop$ echo banana >> fruits.txt
lokesh@Ubuntu:~/Desktop$ cat fruits.txt
watermelon
grapes
apple
orange
banana
lokesh@Ubuntu:~/Desktop$ sort fruits.txt
apple
banana
grapes
orange
watermelon
lokesh@Ubuntu:~/Desktop$ sort -r fruits.txt
watermelon
orange
grapes
banana
apple
lokesh@Ubuntu:~/Desktop$
```

- Numerical order

Command : sort -n file_name

```
Activities Terminal ▾ Feb 27 17:07
lokesh@Ubuntu:~/Desktop$ touch numbers.txt
lokesh@Ubuntu:~/Desktop$ echo 1000 >> numbers.txt
lokesh@Ubuntu:~/Desktop$ echo 20 >> numbers.txt
lokesh@Ubuntu:~/Desktop$ echo 15 >> numbers.txt
lokesh@Ubuntu:~/Desktop$ echo 5 >> numbers.txt
lokesh@Ubuntu:~/Desktop$ echo 111 >> numbers.txt
lokesh@Ubuntu:~/Desktop$ cat numbers.txt
1000
20
15
5
111
lokesh@Ubuntu:~/Desktop$ sort -n numbers.txt
5
15
20
1000
111
1000
1000
111
20
15
5
lokesh@Ubuntu:~/Desktop$ sort -nr numbers.txt
1000
111
111
20
15
5
lokesh@Ubuntu:~/Desktop$
```

- Copee is a hard-working cop. He found a case and almost at the verge of cracking it. It could be his best breakthrough. He has the list of criminals but lots of duplicates are there. He needs to find the only one that is **different**. He sought your help. How will you sort this issue?

Command 1 : `sort -u file_name` => This command deletes the duplicates and sort the names in alphabetical order.

Command 2 : `sort file_name | uniq` => This is a piped command where sort command is piped with uniq command. This command also deletes duplicates and sorts the names in alphabetical order.

- What are the Three parts of file's permission?

- Read permission (denoted by r)
- Write permission (denoted by w)
- Execute permission (denoted by x)

See man sudo_root for details.

Lokesh@Ubuntu:~/Desktop\$ ls -l

total 8

-rw-rw-r-- 1 lokesh lokesh 38 Feb 27 17:01 fruits.txt
-rw-rw-r-- 1 lokesh lokesh 41 Feb 27 17:36 numbers.txt

Lokesh@Ubuntu:~/Desktop\$ █