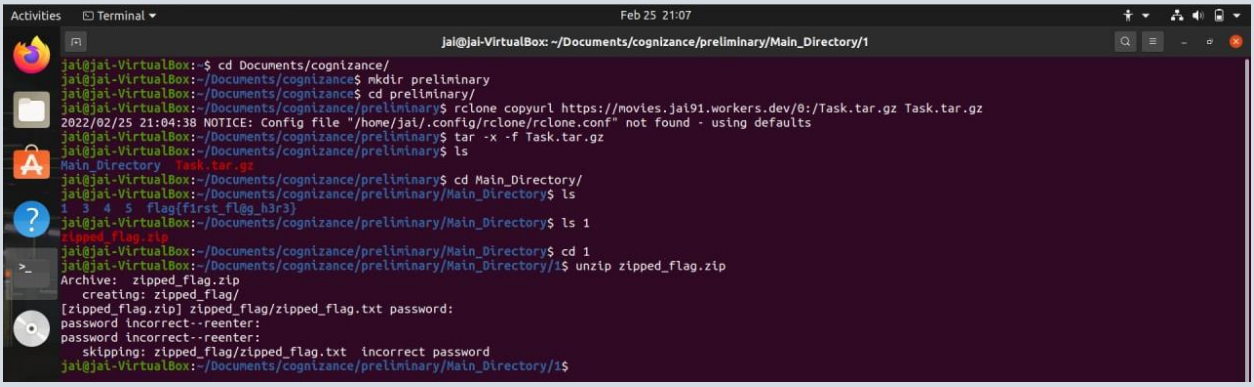
PART - 1

First , Let's see on Downloading the tar file and extracting it using tar command.



Now , we should find the flags in our extracted files while are available in the 'Main_Directory' folder.

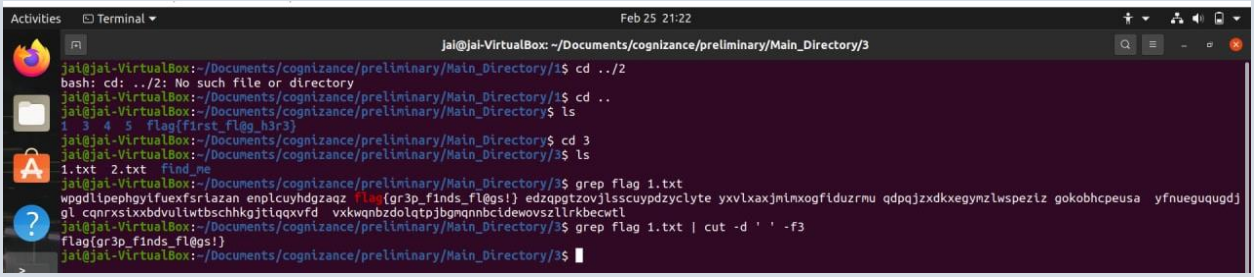
Let's go directory wise , first '1' directory.

There is only a Zip file in the directory which is password protected . So , lets see about this protected file later.

Now in '3' Directory ,

Here we can see numerous files . So, lets go one by one

In 1.txt file , using grep command let's check if there is any flag word in the file …



Looks like we have something.

Now to Extract only flag part , we will be using cut command with -d(delimiter) and -f(field).

Finally , we found our first flag.

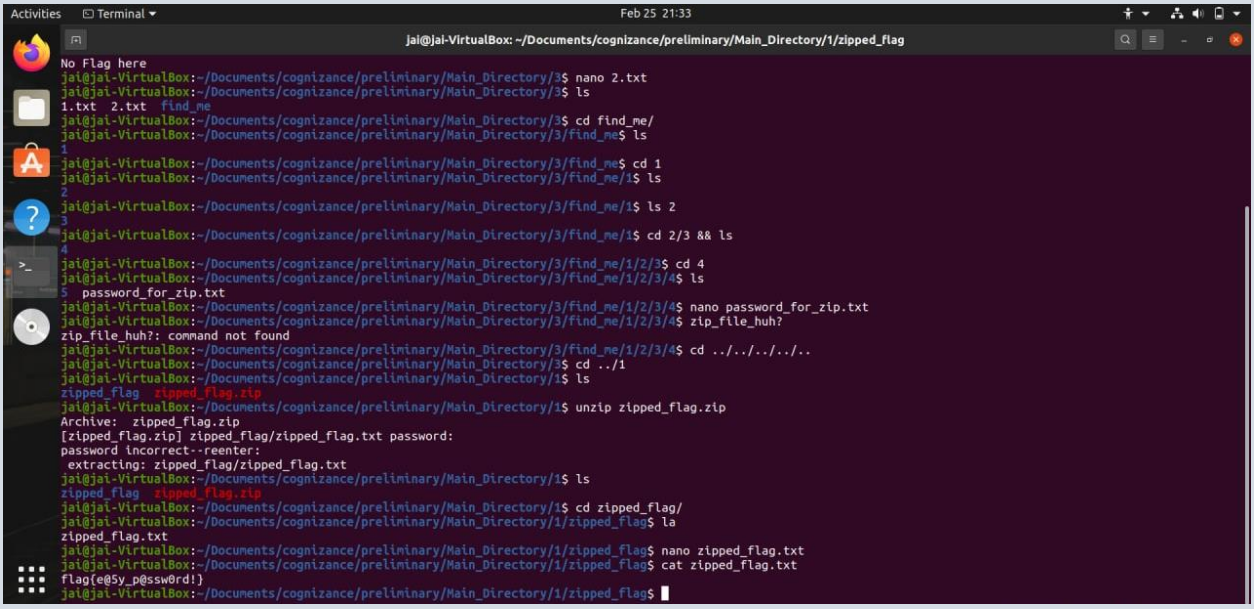
🚩 Flag 1 :- flag{gr3p_f1nds_fl@gs!}

Now , moving to 2.txt file , we don't have any flags in there

Then in the sub directory , 'find_me' there are so many sub directories . So , let's check them.

In sub directory '4' there is a file named 'password_for_zip.txt' which have the password for the zip file which was there in 'Main_Directory/1' .

Now , lets extract the zip as follows.



In the zipped file , we have a text file and in that we got our second flag successfully.

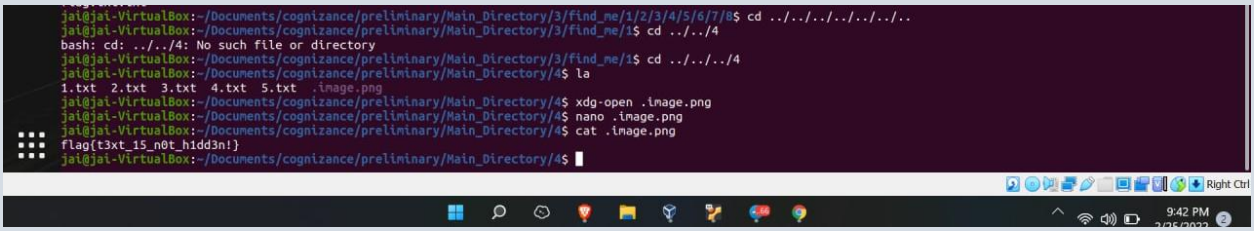
Flag 2 :- flag{e@5y_p@ssw0rd!}

Now , let's continue with our subdirectories in 'Main_directory/3' directory.

After going into all the directories, I have found a flag in a text file 'flag.txt.txt' file.

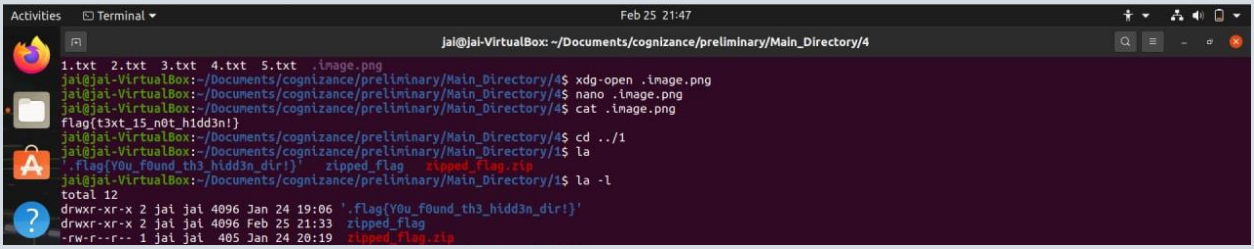
Flag 3 :- flag{Y0u_f0und_m3!}

Now , in 'Main_Directory/4' Directory , there is a 'image.png' file which is actually a text file , which had our next flag.



Flag 4 :- flag{t3xt_15_n0t_h1dd3n!}

Now , by checking if there are any hidden files in 'Main_Directory/1' , I found a hidden directory which named another flag



Flag 5 :- flag{Y0u_f0und_th3_hidd3n_dir!}

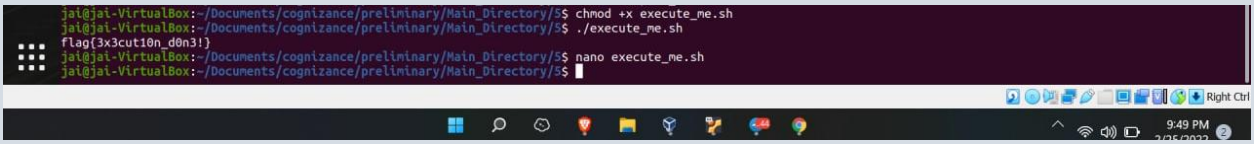
After checking all the text files in 'Main_Directory/4' using cat command I have found another flag in 4.txt file.

Flag 6 :- flag{m3ow_m3ow_cat!}

Finally, ‘Main_Directory/4’ files have been completed hopefully , Let’s move to ‘Main_Directory/5’ Directory to check files there .

In this directory , there is a shell file which hints me to execute that .

So , I tried executing it . By giving the file execution permission with chmod command and then executing it.



Which gave me another flag.

🚩 Flag 7 :- flag{3x3cut10n_d0n3!}

The Next file in the same directory is ‘reverseme.txt’ , on checking this file using cat command there is some letters in each line which looks like a flag in reverse .So , now by using tac command which prints the content in reverse order and tr command with -d (delete) ‘\n’ (new_lines) is used to get the flag format.

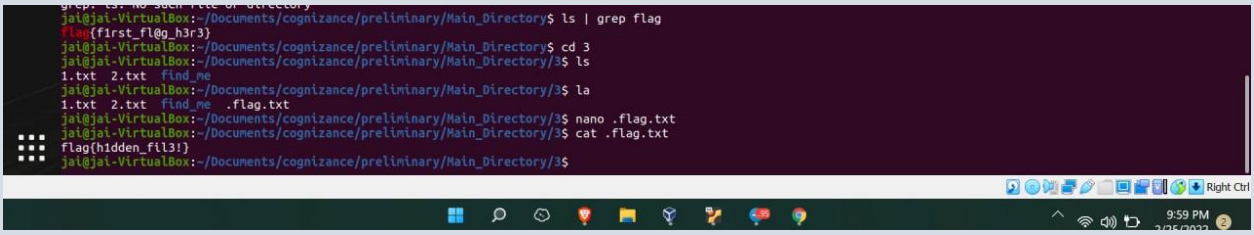
Flag 8 :- flag{t@c_15_fun!}

In ‘Main_Directory’ the next folder itself is a flag.

Flag 9 :- flag{f1rst_fl@g_h3r3}

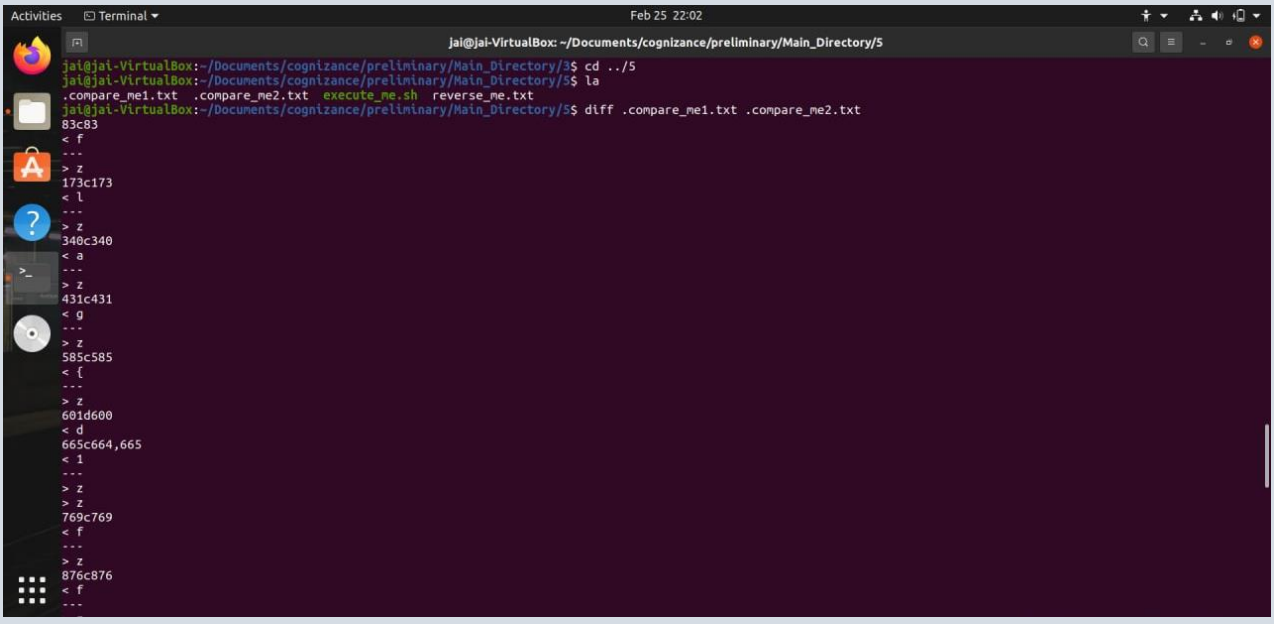
In ‘Main_Directory/3’ there is a hidden file names ‘.flag.txt’ which has another flag.

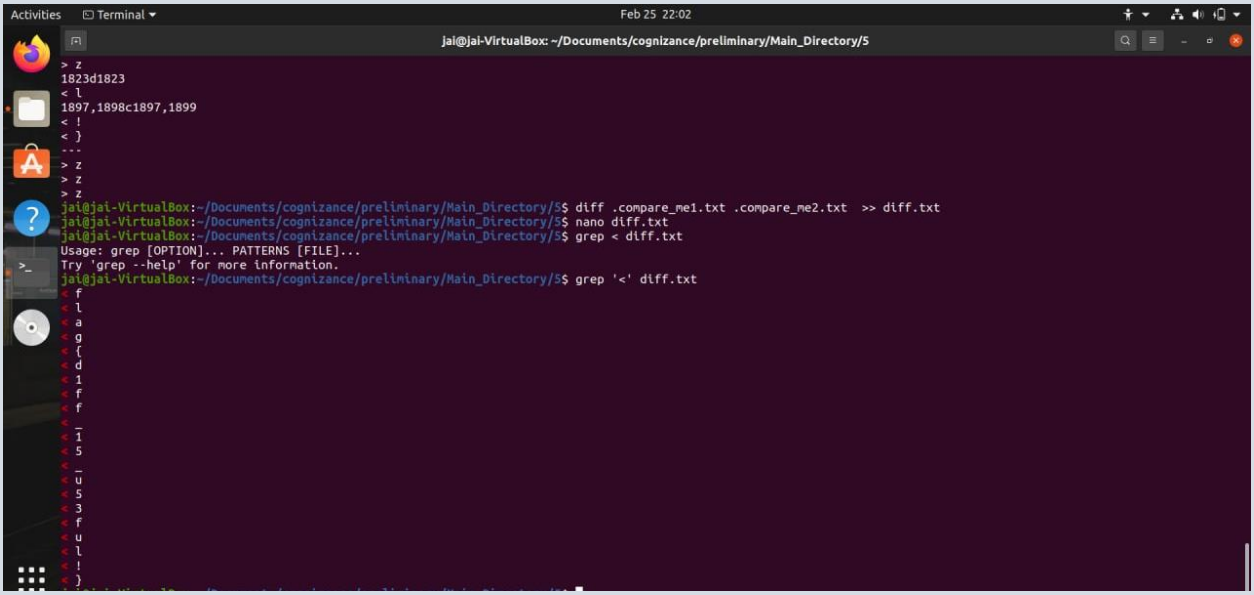
Flag 10 :- flag{h1dden_fil3!}

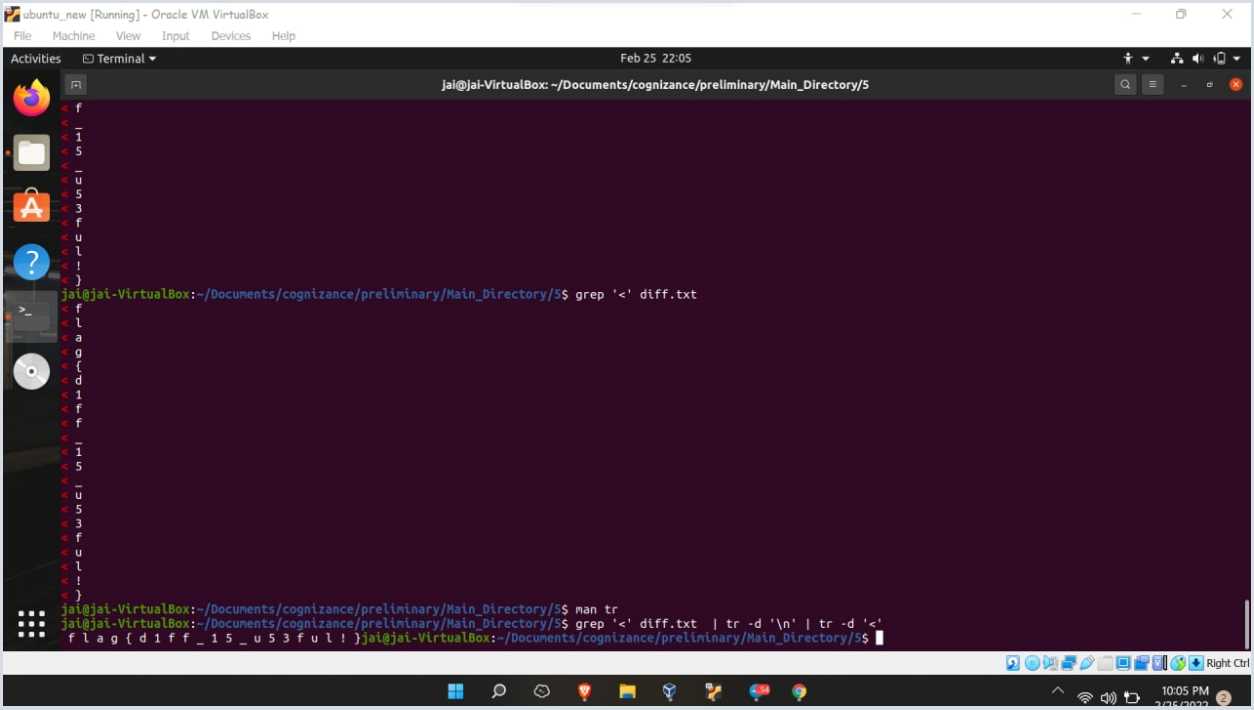


Now , coming back to ‘Main_directory/5’ there are two hidden files which giving hint to compare them both . So for comparing files , we generally use diff command on checking this , this command gave an output which gave me hopes on a new and hopefully final flag.

For trimming the required part , I have saved the output into a new file data.txt and then used tr command with -d (delete) to delete unwanted matter from the difference acquired on comparing.







Finally ,

- Flag 11 :- flag{d1ff_15_u53ful!}

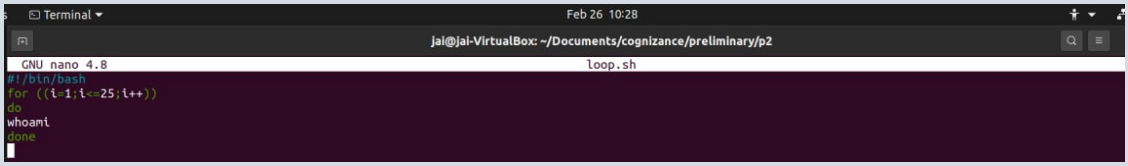
Final FLAG’s List :-

1) flag{gr3p_f1nds_fl@gs!}
2) flag{e@5y_p@ssw0rd!}
3) flag{Y0u_f0und_m3!}
4) flag{t3xt_15_n0t_h1dd3n!}
5) flag{Y0u_f0und_th3_hidd3n_dir!}
6) flag{m3ow_m3ow_cat!}
7) flag{3x3cut10n_d0n3!}
8) flag{t@c_15_fun!}
9) flag{f1rst_fl@g_h3r3}
10) flag{h1dden_fil3!}
11) flag{d1ff_15_u53ful!}

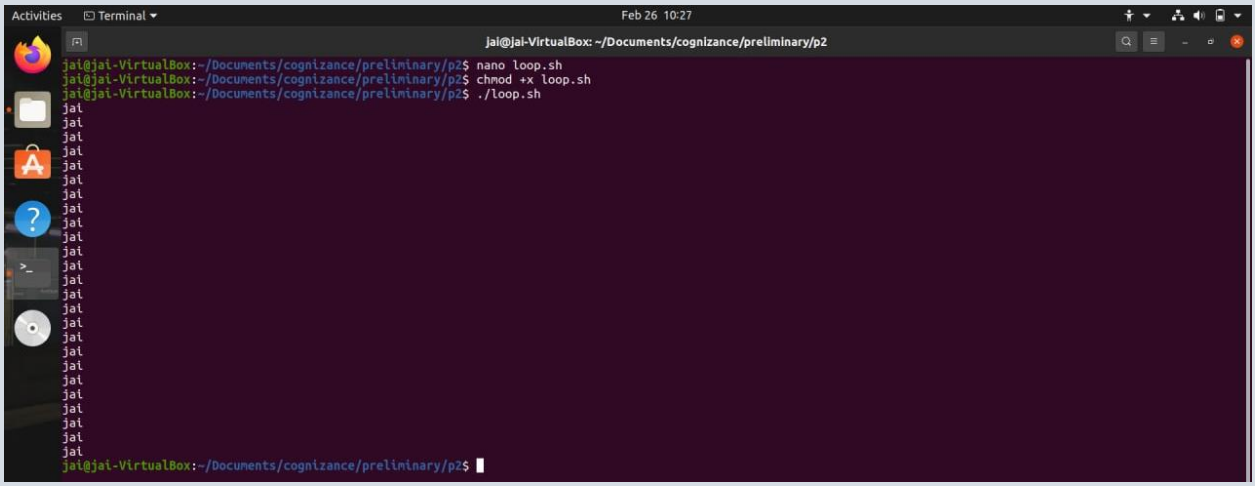
PART - 2

Question 1. Write a bash script to echo your name 25 times

Solution :-



Output:-



Question 2. What command should I use to display the **first** 30 entries of syslog file?

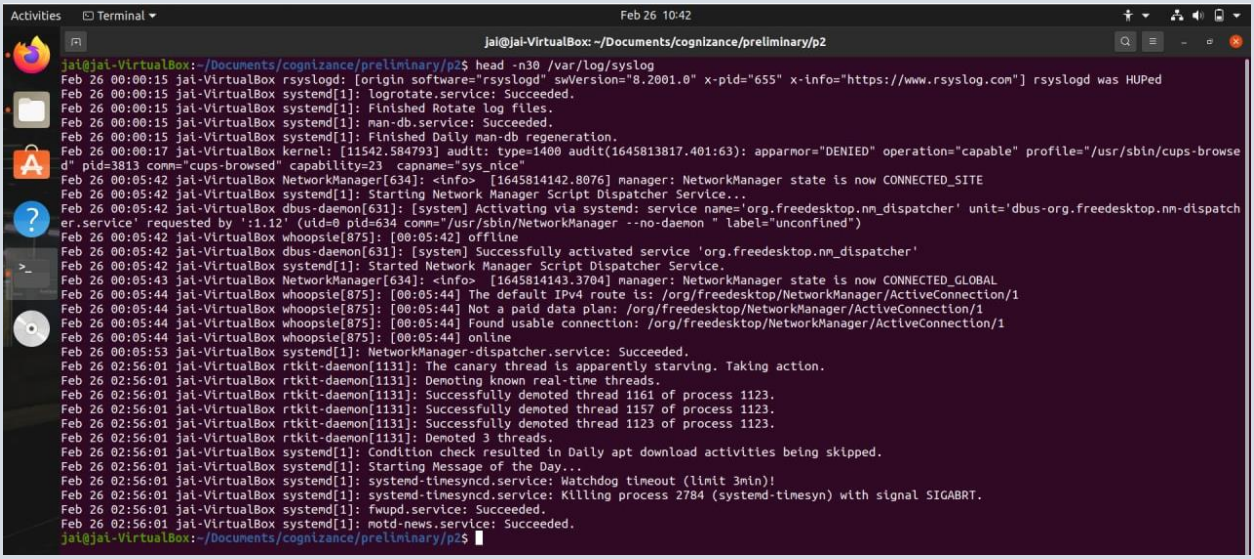
Solution:-

Syslog's are generally saved in the root directory 'var/log/syslog' file . Now , to get initial entries of a file we use head command but head command only gives first ten entries of the file , to increase this to 30 entries we will mention number of entries by -n30 along with head command followed by file location.

So , the final command to display the first 30 entries of syslog file is ,

head -n30 /var/log/syslog

An example with a screenshot ,

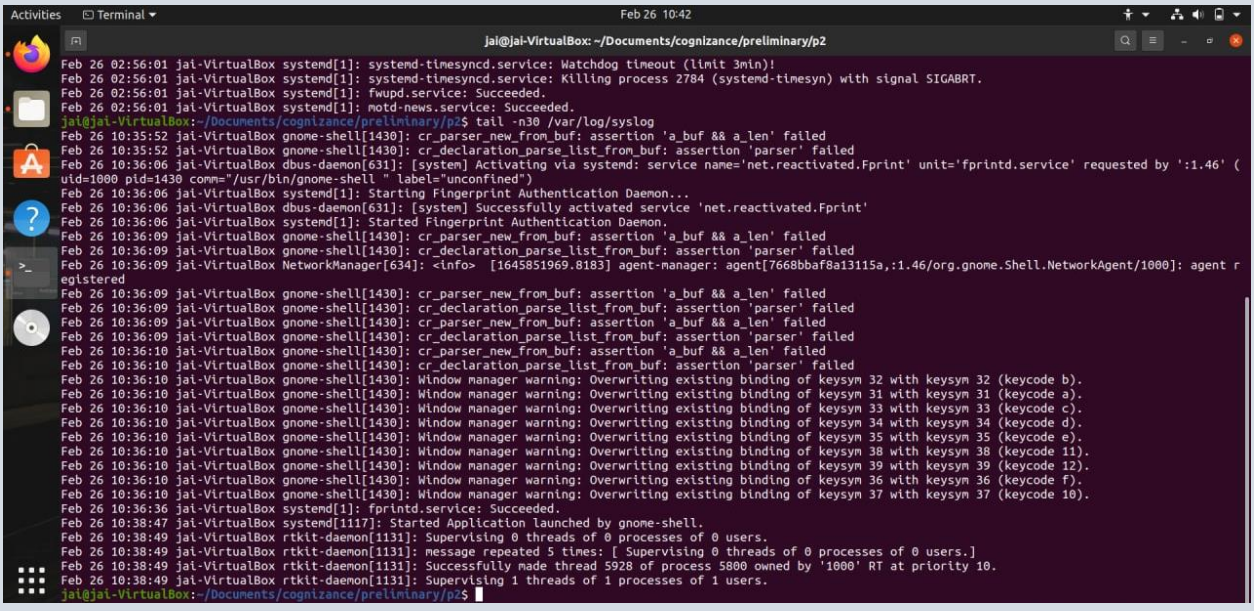


Question 3. What command should I use to display the **last** 30 entries of syslog file?

Solution:-

Just like the first entries we can get the last entries using tail command to fetch the last entries.

An example with screenshot ,



Question 4. What command should I use to arrange the entries of a file

1.Alphabetically

2.Reverse order

3.Numerical order

Answer:-

1.) To sort the entries of a file Alphabetically we use sort command followed by the filename to be arranged.
2.) To sort the entries of a file in reverse Alphabetical order we use sort command with -r argument which reverses the sorted list. Or to display the entries as the are , we use tac command to arrange the entries in reverse order irrespective of the alphabets.
3.) To sort the Numeric entries in a file we use sort command with -n argument.

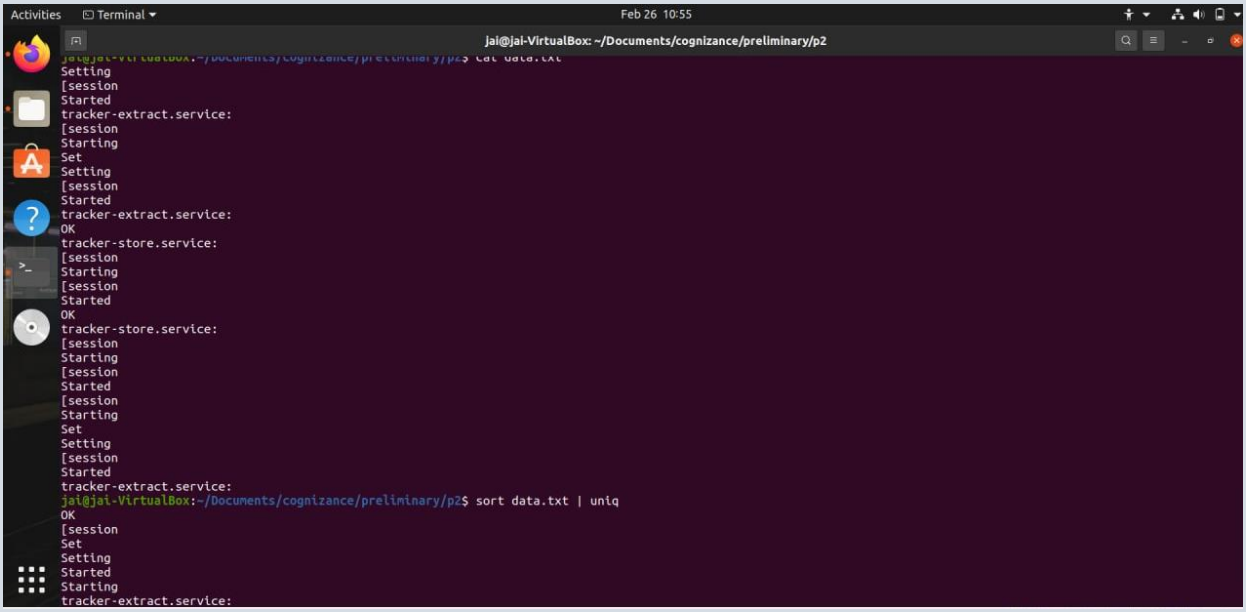
Question 5. Copee is a hard-working cop. He found a case and almost at the verge of cracking it. It could be his best breakthrough. He has the list of criminals but lots of duplicates are there. He needs to find the only one that is **different.** He sought your help. How will you sort this issue?

Solution:-

First , as he has the list of criminals . I'll sort the list of entries in alphabetical order by using sort command to get all the duplicate entries into one place , then by using uniq command to eliminate the duplicate entries and then ill save the output to a new file and give it to copee to make his work simple to solve the case.

Example :-

Let's check with a file which contains few duplicate entries of a random words.




```
jai@jai-VirtualBox:~/Documents/cognizance/preliminary/p2$ sort data.txt | uniq >> trimmed.txt
jai@jai-VirtualBox:~/Documents/cognizance/preliminary/p2$ cat trimmed.txt
OK
[session
Set
Setting
Started
Starting
tracker-extract.service:
tracker-store.service:
jai@jai-VirtualBox:~/Documents/cognizance/preliminary/p2$
```

Question 6. What are the three parts of file's permission?

Answer :-

File Permission in Linux is divided into three parts

1.) Owner's permission
2.) Group permission
3.) Other's permission

Here , Owner's permissions mean only owner will have the privileges to utilize the respective permissions given to him and other if not given , can't avail the permission. Same happens with the other's permissions.

And these permissions are also are three ,

a.) Read permission(r)
b.) Write permission(w)
c.) Execute permission(x)

These three kinds of permissions can be given to the three different types of users. And , these types are the parts of file permission respectively.

Few examples of file permissions ,

1. -rwx------ : This indicates read , write & execute permission for owner.
2. ----rwx--- : This indicates read , write & execute permission for Groupuser.
3. -------rwx : This indicates read , write & execute permission for others.
4. -rwxrwxrwx : Indicates All the permission to everyone.