ITW ASSIGNMENT – 1

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BRANCH : COMPUTER SCIENCE AND ENGINEERING

Q1. **Count the total number of files in the directory /usr/lib starting with 'lib' and print output in a count.txt file.**

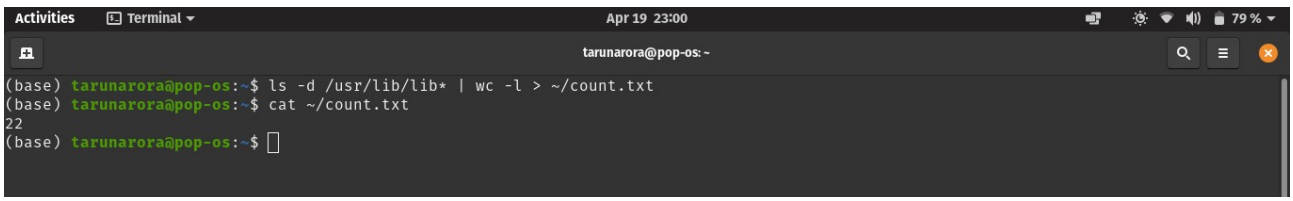
Solution:-

Current *usr/lib directory* → ls -l /usr/lib

```
libecryptfs.so.1 -> libecryptfs.so.1.0.0
libecryptfs.so.1.0 -> libecryptfs.so.1.0.0
libecryptfs.so.1.0.0
libfirmware_manager.so
libfirmware_manager.so.0 -> libfirmware_manager.so
libhardsid-builder.so.0 -> libhardsid-builder.so.0.0.1
libhardsid-builder.so.0.0.1
libpop_theme_switcher.so
libpop_theme_switcher.so.0 -> libpop_theme_switcher.so
libpop_upgrade_gtk.so
libpop_upgrade_gtk.so.0 -> libpop_upgrade_gtk.so
libreoffice
libresid-builder.so.0 -> libresid-builder.so.0.0.1
libresid-builder.so.0.0.1
libs76_hidpi_widget.so
libs76_hidpi_widget.so.0 -> libs76_hidpi_widget.so
libsidplay2.so.1 -> libsidplay2.so.1.0.1
libsidplay2.so.1.0.1
libzopflipng.so.1 -> libzopflipng.so.1.0.3
libzopflipng.so.1.0.3
libzopfli.so.1 -> libzopfli.so.1.0.3
libzopfli.so.1.0.3
```

CODE:

```
ls -d /usr/lib/lib* | wc -l > ~/count.txt
```



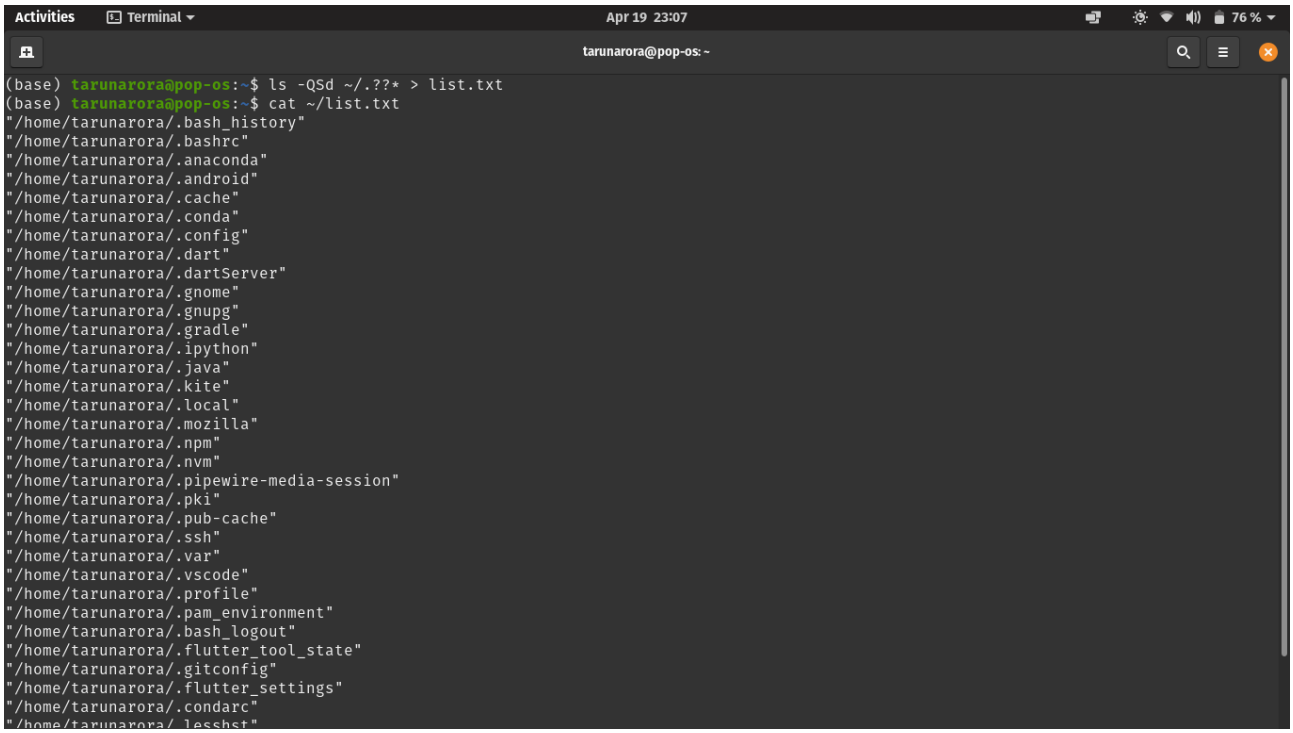
Q2. List all hidden files in your home directory and save it in a list.txt file in decreasing order of their word count.

Solution:-

Code:-

```
ls -QSd ~/.??* > list.txt

cat  ~/list.txt
```



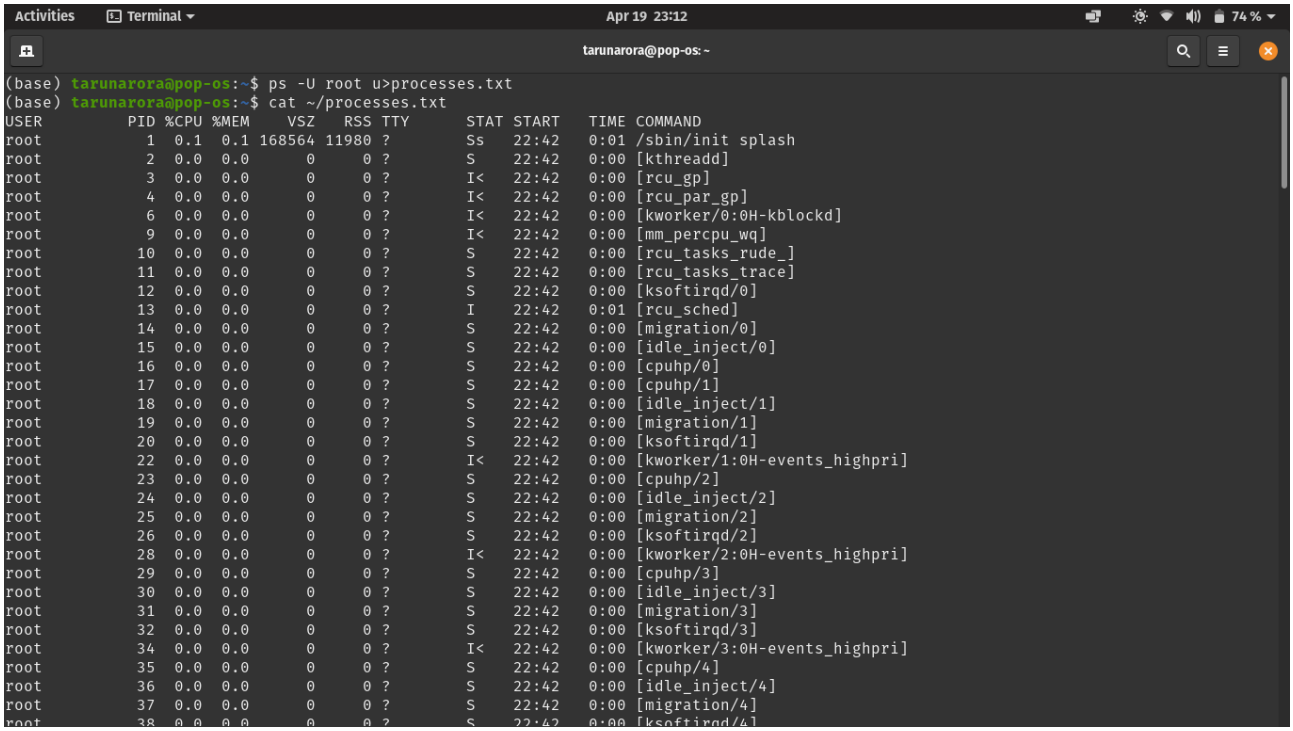
Q3. **List all hidden files in your home directory and save it in a list.txt file in decreasing order of their word count.**

Solution:-

Code:-

```
ps -U root u > processes.txt

cat ~/processes.txt
```



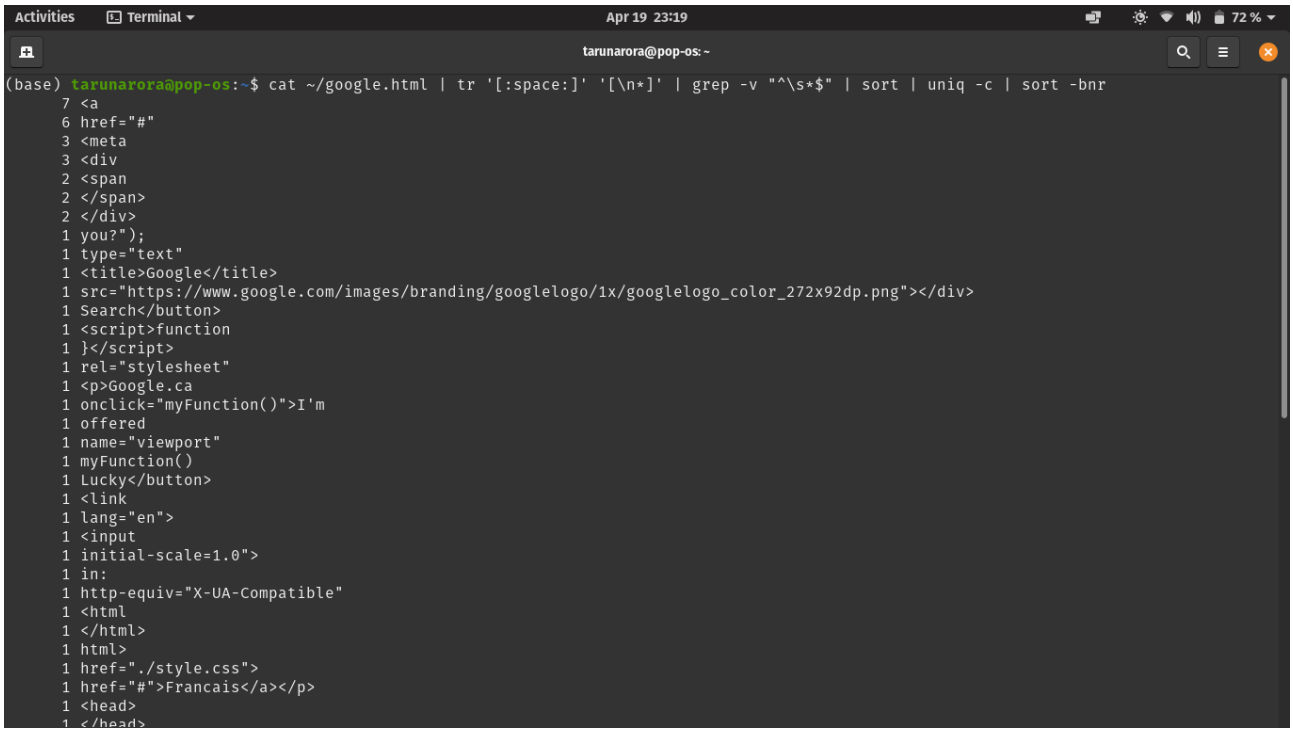
Q4. **Given an input file, write a command sequence to find the count of each word.**

Solution:-

Code:-

```
cat ~/google.html | tr '[:space:]' '[\n*]' | grep -v "^\s*$" | sort | uniq -c | sort -bnr
```

NOTE: REPLACE google.html WITH OTHER FILE LOCATION



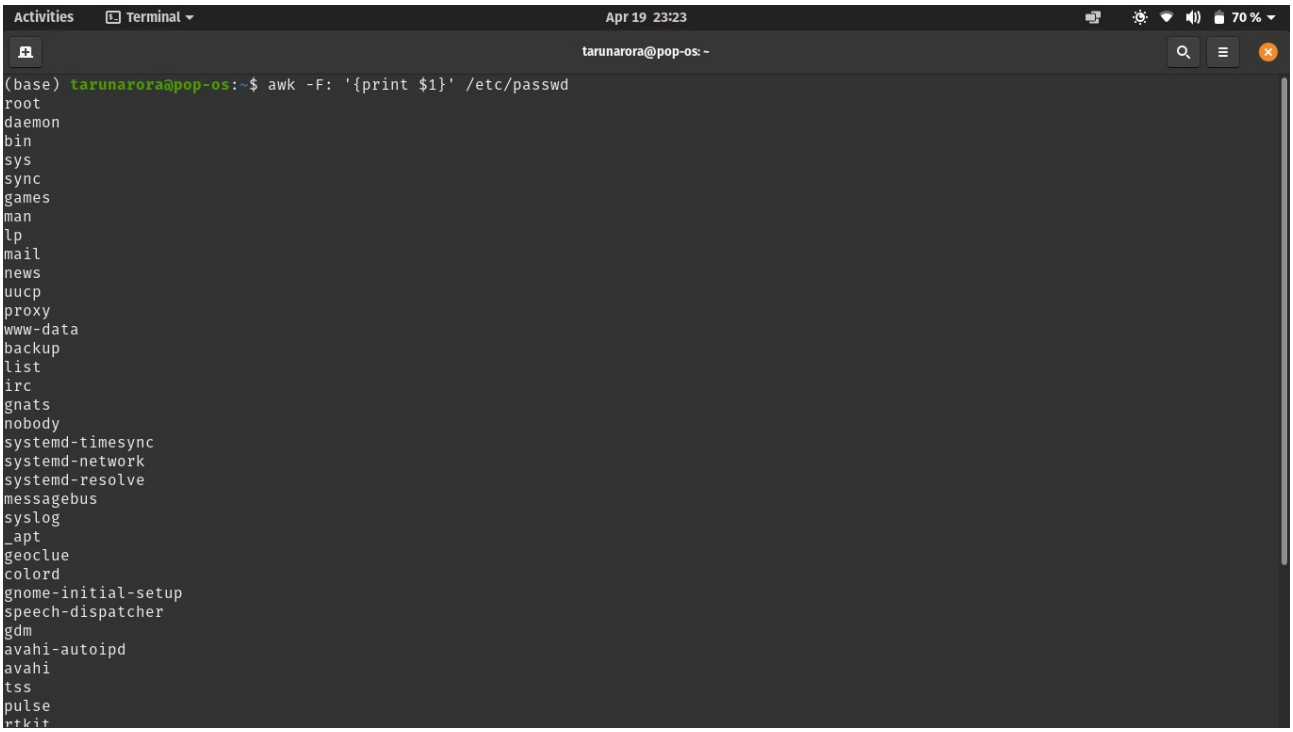
Q5. How will you print the login names of all users on a system?

Solution:-

Code:-

```
awk -F: '{print $1}' /etc/passwd
```

NOTE: This prints all users on system whether the are logged in or not.



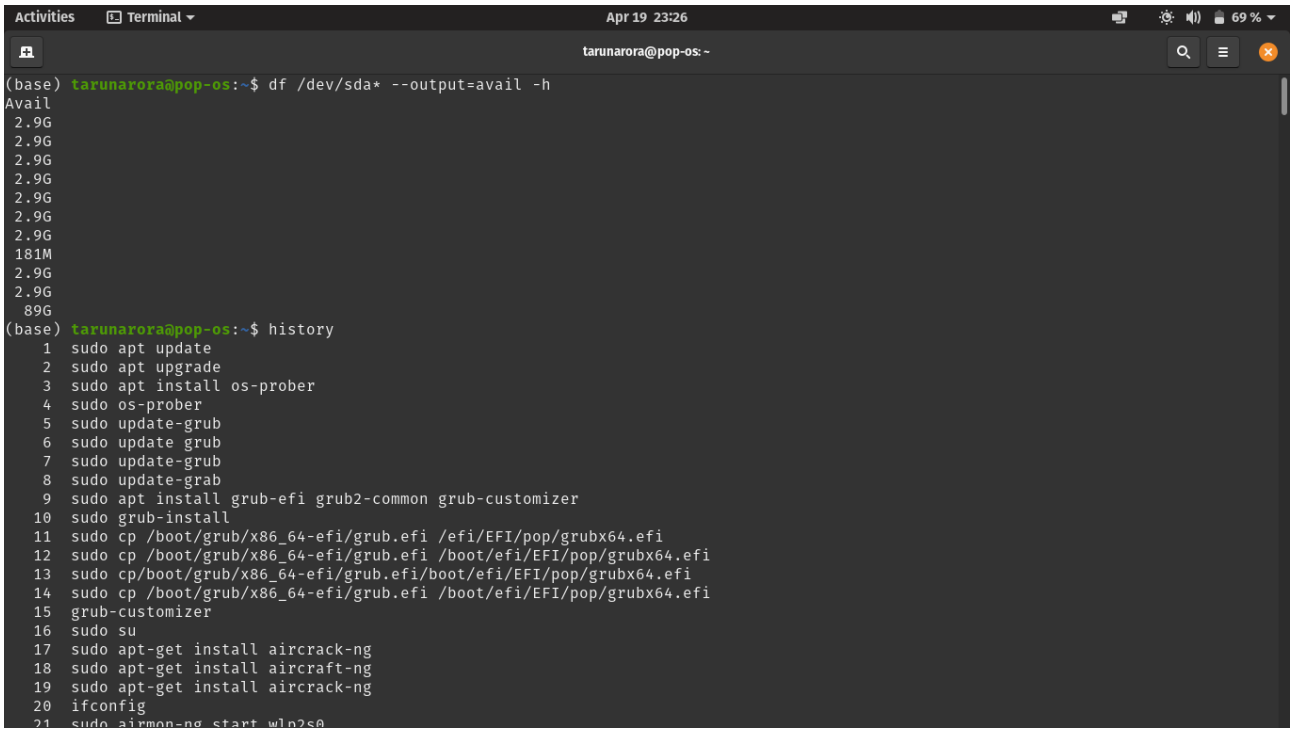
Q6. **What is the command to find remaining disk space in unix server? Also find the method to see command line history ?**

Solution:-

Code:-

1.
```
df /dev/sda* --output=avail -h
```

2.
```
history
```



Q7. **Write a command to copy one file into another ? Also find, how to concatenate the files.**

Solution:-

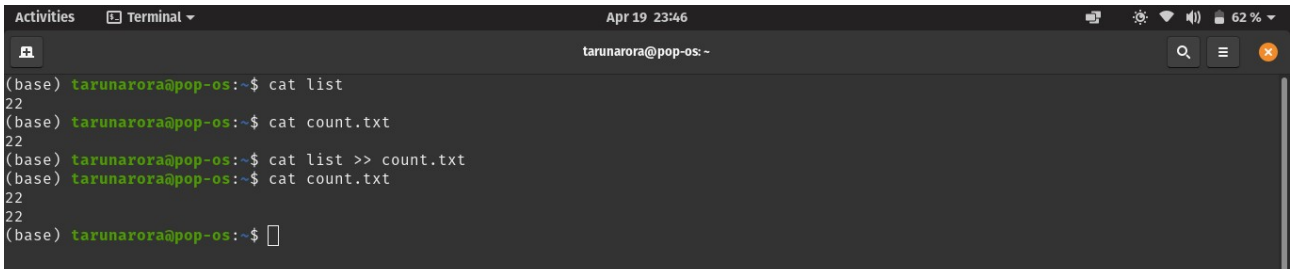
Code:-

1. Command to copy file to other (overwriting)

```
cp file1.txt  file2.txt
```

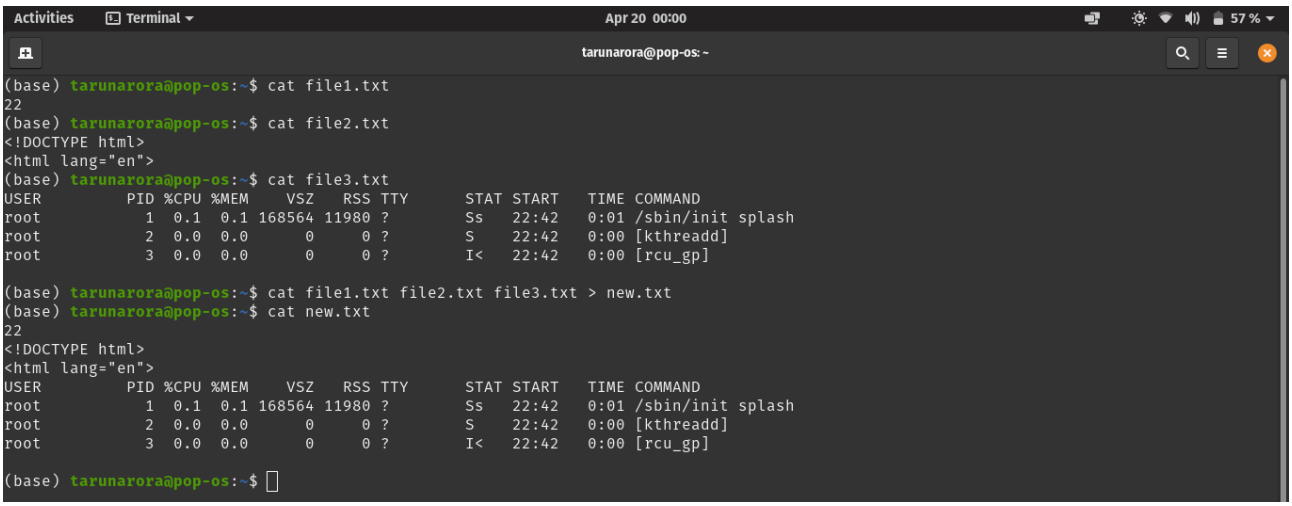
2. Command to copy file to other (appending)

```
cat file1.txt >> file2.txt
```



3. Command to concatenate files together

```
cat  file1.txt file2.txt file3.txt > new.txt
```



Q8. **Write a command to copy one file into another ? Also find, how to concatenate the files.**

Solution:-

a. File system commands :

- cat
- cd
- cp
- ls
- mkdir
- mv
- popd
- pushd

b. Process control command :

- bg - put suspended process into background
- fg - bring process into foreground
- jobs - list processes

c. Utility commands :

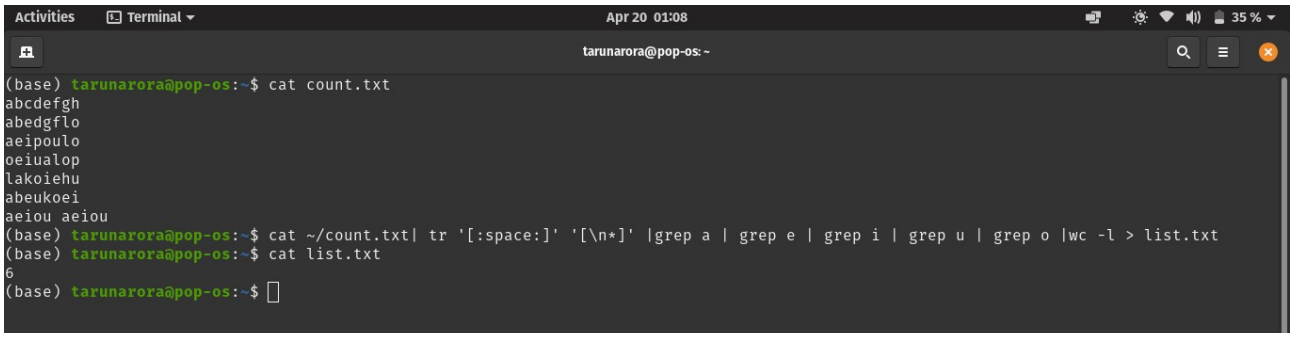
- pwd
- chmod
- emacs
- less

Q9. **Count the number of words in the file which contain all the letters a, e, i, o, u. These letters may occur more than once & other letters are also permitted.**

Solution:-

Code:

```
cat ~/count.txt | tr '[:space:]' '[\n*]' |grep a | grep e | grep i
| grep u | grep o |wc -l > list.txt
```

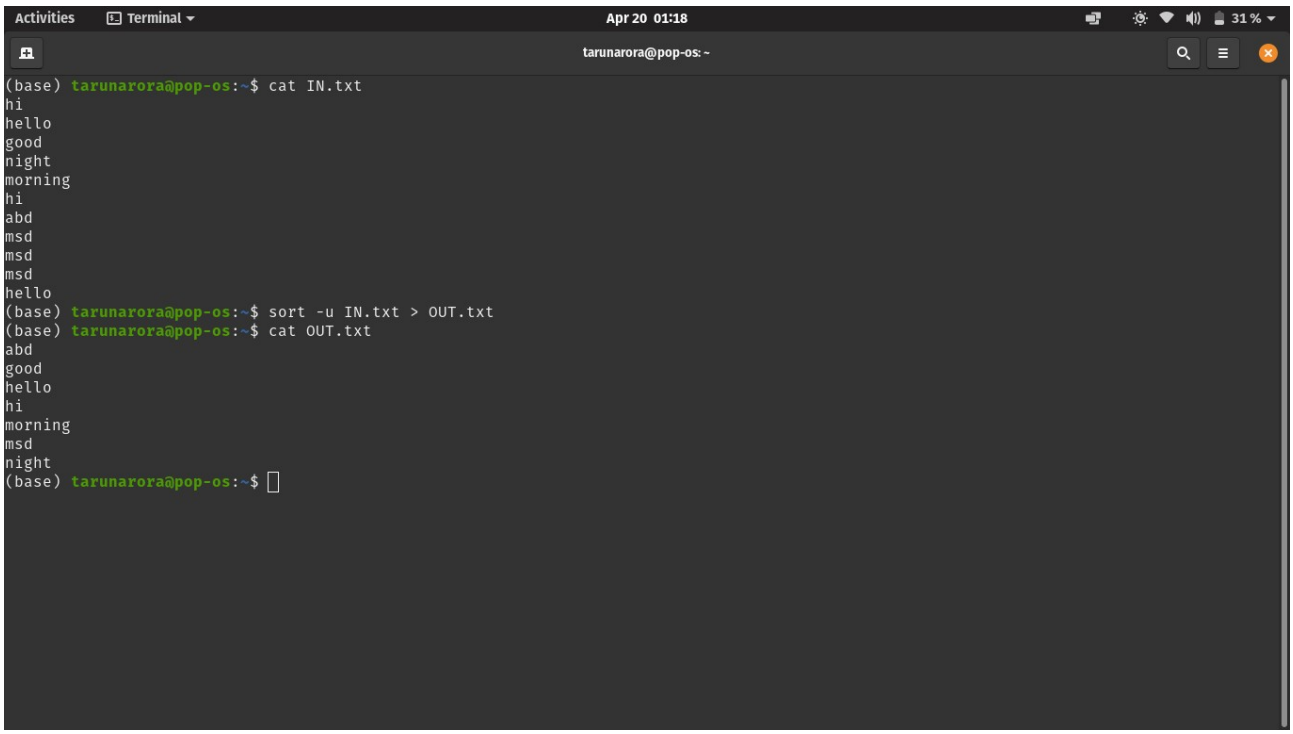


Q10. **Write a command that will output the sorted contents of a file named IN.txt and place the output in another file named OUT.txt while at the same time excluding duplicate entries**

Solution:-

Code:

```
sort -u IN.txt > OUT.txt
```

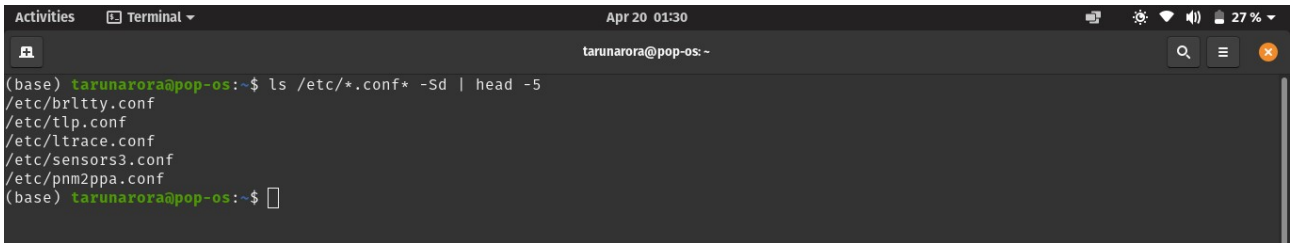


Q11. **List 5 largest files in the /etc directory which contain the string ‘.conf’,sorted by decreasing file size.**

Solution:-

Code:

```
ls /etc/*.conf* -Sd | head -5
```

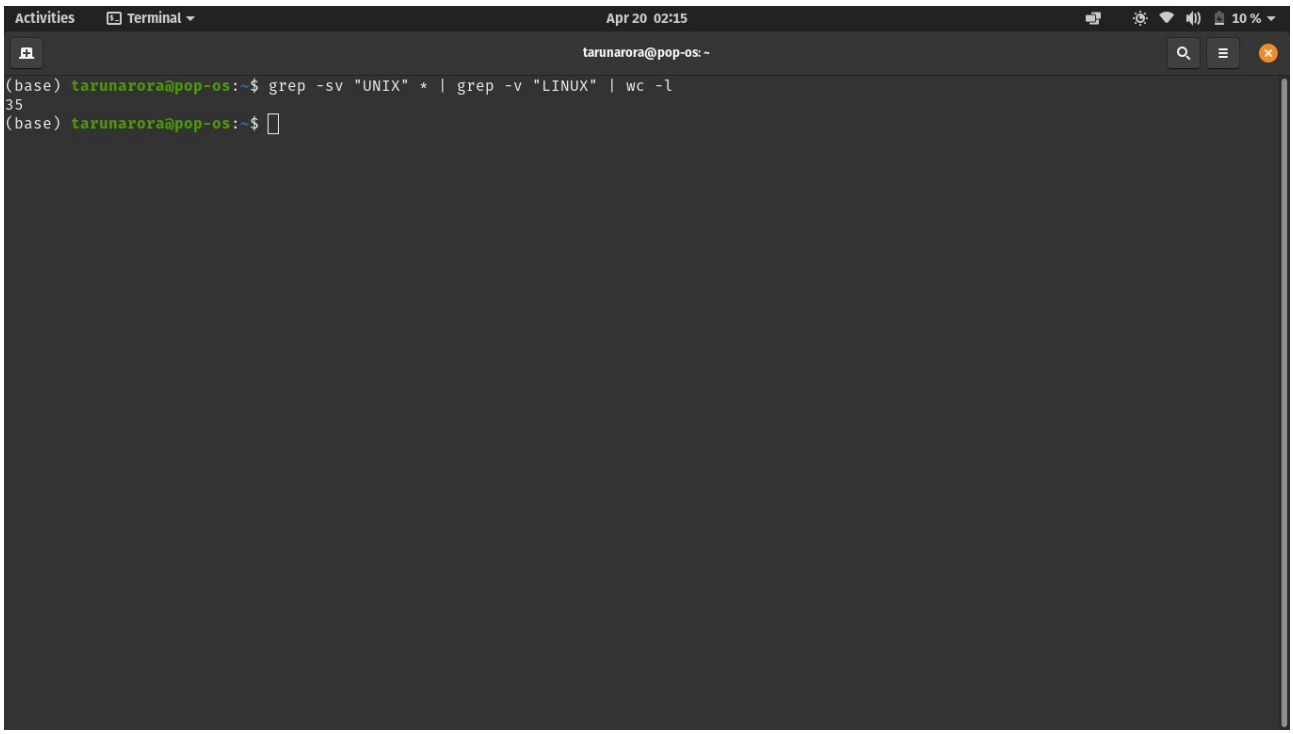


Q12. **Write a command to search contents of all files in current directory and display the total number of lines that contain the string 'LINUX' but not 'UNIX'.**

Solution:-

Code:

```
grep -sv "UNIX" * | grep -v "LINUX" | wc -l
```

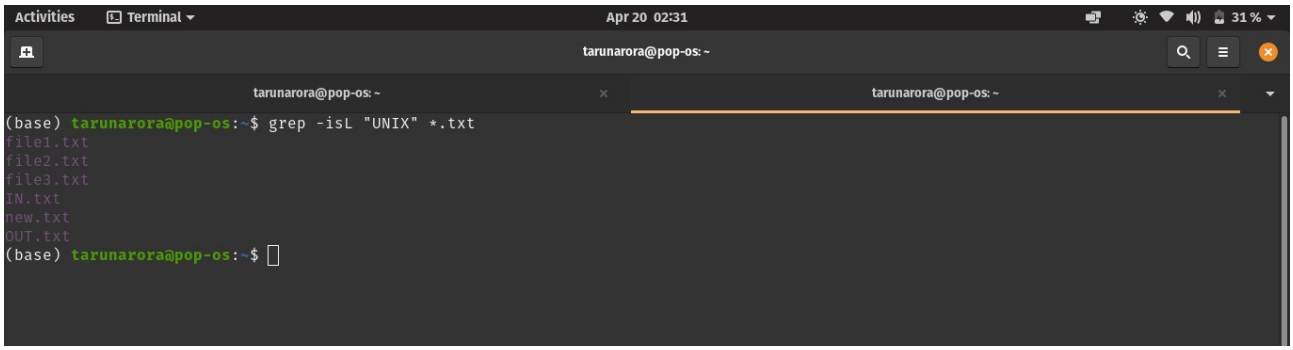


Q13. **Write a command that will find all text files in a directory such that it does not contain the word “unix” in any form (that is, it must include the words Unix, UNIX, or uNIx).**

Solution:-

Code:

```
grep -isL "UNIX" *.txt
```



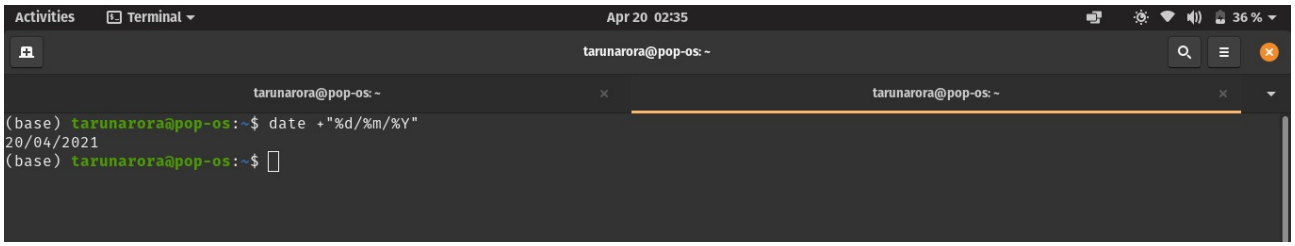
Q14. **How will you display Today's date in the format of dd/mm/yyyy ? In a file word UNIX is appearing many times. How you count the number ?**

Solution:-

Code:

1. **Displaying today's Date.**

```
date +"%d/%m/%Y"
```



2. **Counting number of times UNIX occurs**

```
grep -o UNIX IN.txt | wc -l
```