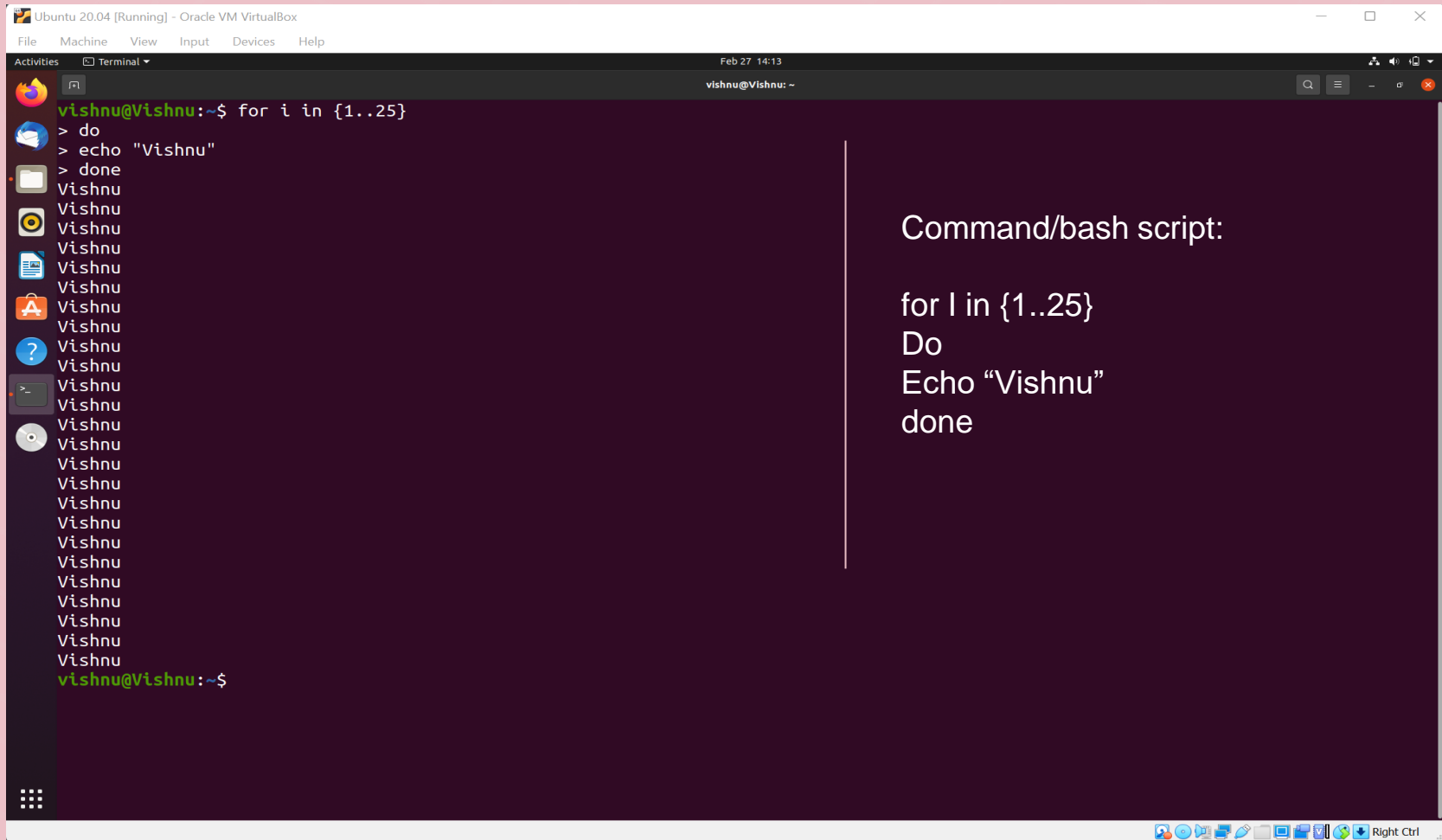




TASK 5 CYS BASICS PART-2

VISHNU KASILYA 21064 – CSE AI

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



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal output displays the execution of a bash script that prints the name "Vishnu" 25 times. The script uses a for loop to iterate from 1 to 25, with each iteration printing "Vishnu". The prompt "vishnu@Vishnu:~\$" is visible at the bottom of the terminal.

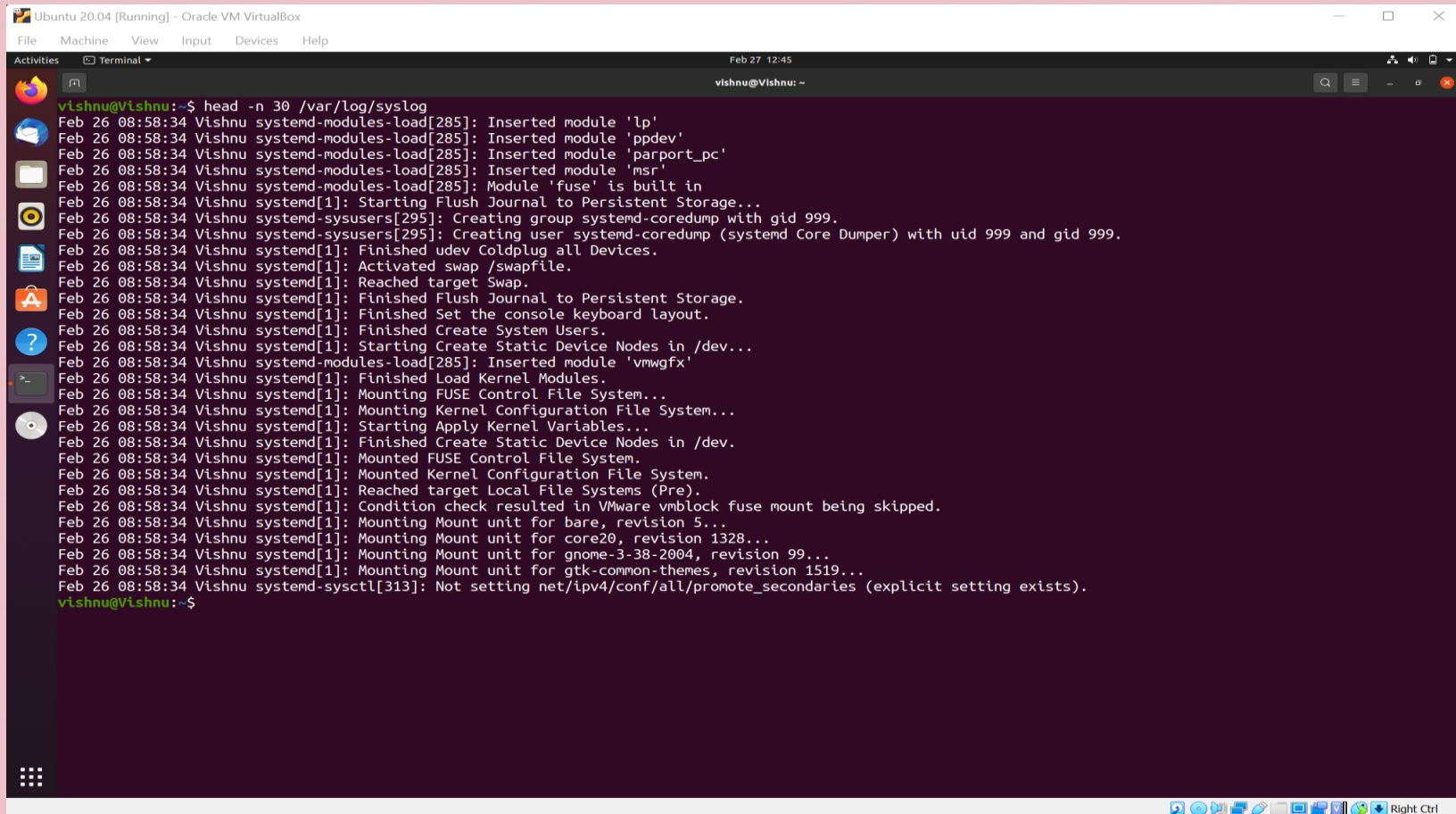
```
vishnu@Vishnu:~$ for i in {1..25}
> do
> echo "Vishnu"
> done
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
Vishnu
vishnu@Vishnu:~$
```

Command/bash script:

```
for I in {1..25}
Do
Echo "Vishnu"
done
```

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

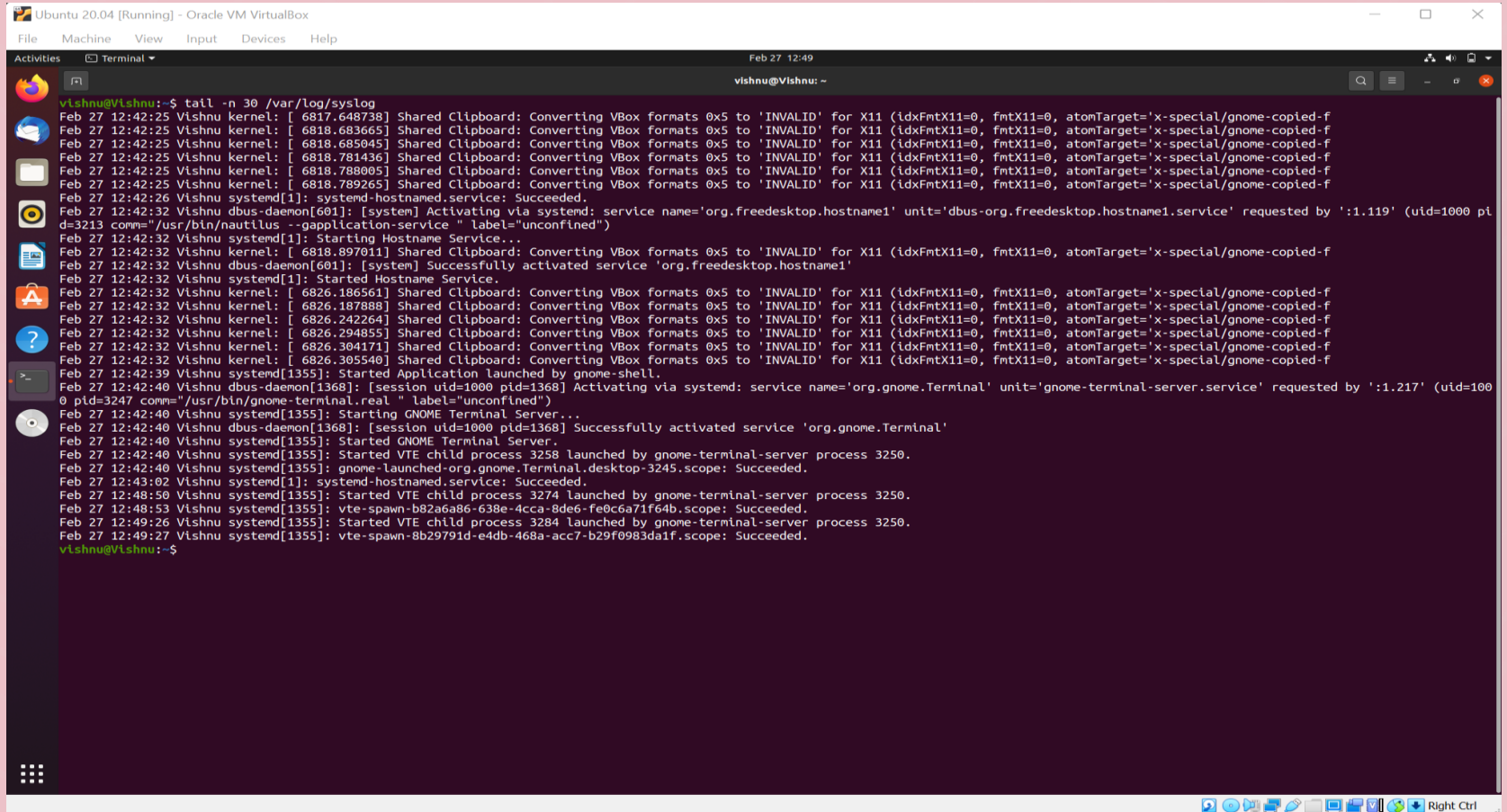
COMMAND : `head -n 30 /var/log/syslog`



```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal
Feb 27 12:45
vishnu@Vishnu: ~
vishnu@Vishnu:~$ head -n 30 /var/log/syslog
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Inserted module 'lp'
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Inserted module 'ppdev'
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Inserted module 'parport_pc'
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Inserted module 'msr'
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Module 'fuse' is built in
Feb 26 08:58:34 Vishnu systemd[1]: Starting Flush Journal to Persistent Storage...
Feb 26 08:58:34 Vishnu systemd-sysusers[295]: Creating group systemd-coredump with gid 999.
Feb 26 08:58:34 Vishnu systemd-sysusers[295]: Creating user systemd-coredump (systemd Core Dumper) with uid 999 and gid 999.
Feb 26 08:58:34 Vishnu systemd[1]: Finished udev Coldplug all Devices.
Feb 26 08:58:34 Vishnu systemd[1]: Activated swap /swapfile.
Feb 26 08:58:34 Vishnu systemd[1]: Reached target Swap.
Feb 26 08:58:34 Vishnu systemd[1]: Finished Flush Journal to Persistent Storage.
Feb 26 08:58:34 Vishnu systemd[1]: Finished Set the console keyboard layout.
Feb 26 08:58:34 Vishnu systemd[1]: Finished Create System Users.
Feb 26 08:58:34 Vishnu systemd[1]: Starting Create Static Device Nodes in /dev...
Feb 26 08:58:34 Vishnu systemd-modules-load[285]: Inserted module 'vmwgfx'
Feb 26 08:58:34 Vishnu systemd[1]: Finished Load Kernel Modules.
Feb 26 08:58:34 Vishnu systemd[1]: Mounting FUSE Control File System...
Feb 26 08:58:34 Vishnu systemd[1]: Mounting Kernel Configuration File System...
Feb 26 08:58:34 Vishnu systemd[1]: Starting Apply Kernel Variables...
Feb 26 08:58:34 Vishnu systemd[1]: Finished Create Static Device Nodes in /dev.
Feb 26 08:58:34 Vishnu systemd[1]: Mounted FUSE Control File System.
Feb 26 08:58:34 Vishnu systemd[1]: Mounted Kernel Configuration File System.
Feb 26 08:58:34 Vishnu systemd[1]: Reached target Local File Systems (Pre).
Feb 26 08:58:34 Vishnu systemd[1]: Condition check resulted in VMware vmblock fuse mount being skipped.
Feb 26 08:58:34 Vishnu systemd[1]: Mounting Mount unit for bare, revision 5...
Feb 26 08:58:34 Vishnu systemd[1]: Mounting Mount unit for core20, revision 1328...
Feb 26 08:58:34 Vishnu systemd[1]: Mounting Mount unit for gnome-3-38-2004, revision 99...
Feb 26 08:58:34 Vishnu systemd[1]: Mounting Mount unit for gtk-common-themes, revision 1519...
Feb 26 08:58:34 Vishnu systemd-sysctl[313]: Not setting net/ipv4/conf/all/promote_secondaries (explicit setting exists).
vishnu@Vishnu:~$
```

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

COMMAND : `tail -n 30 /var/log/syslog`



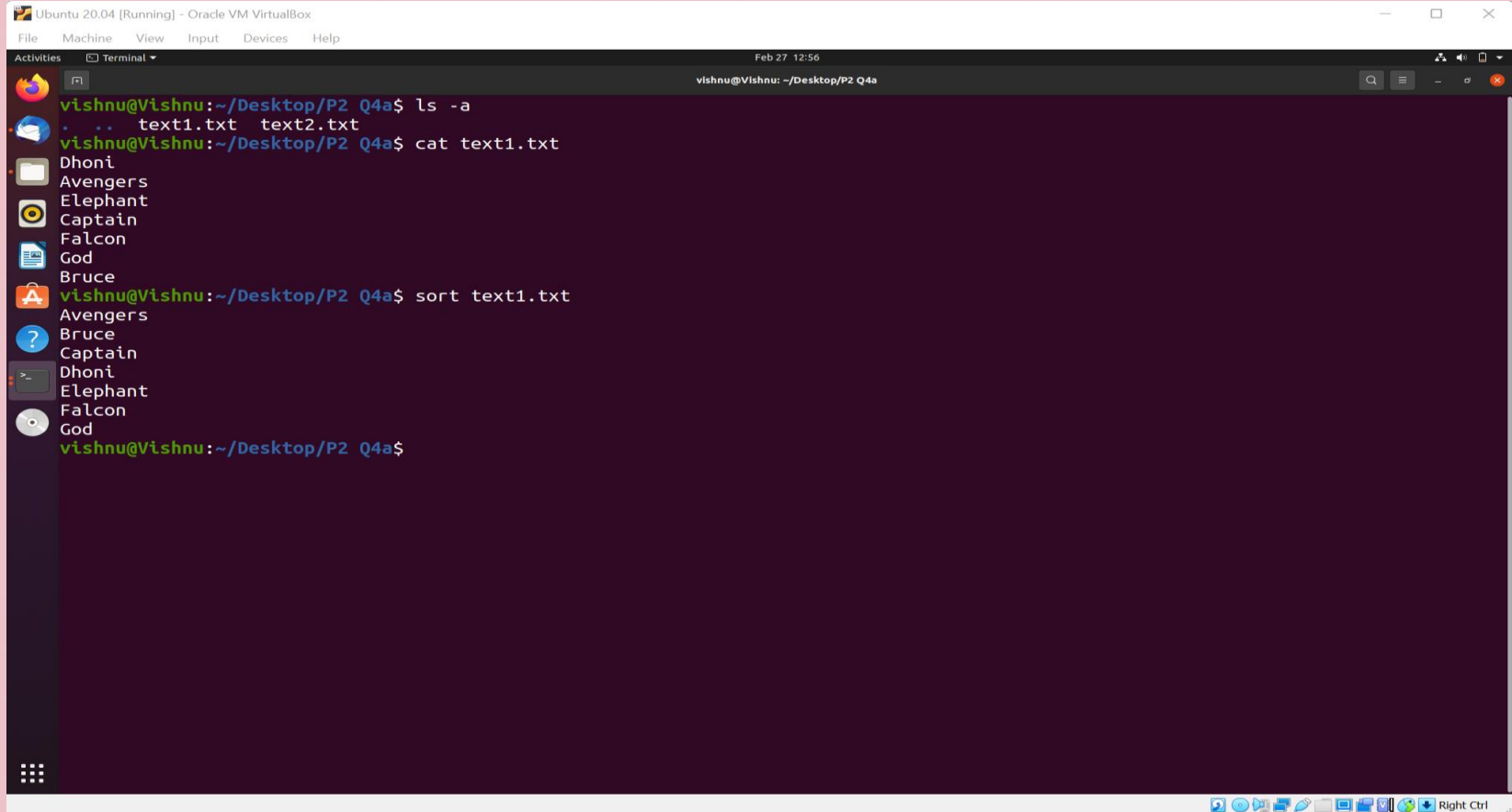
The screenshot shows a terminal window titled 'Ubuntu 20.04 [Running] - Oracle VM VirtualBox'. The terminal displays the output of the command `tail -n 30 /var/log/syslog`. The output consists of 30 lines of system logs, including kernel messages, clipboard sharing events, and systemd service activation logs. The terminal window has a dark background with a light-colored text. The top of the window shows the title bar and menu options (File, Machine, View, Input, Devices, Help). The bottom of the window shows the taskbar with various application icons and the system tray.

```
Feb 27 12:42:25 Vishnu kernel: [ 6817.648738] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:25 Vishnu kernel: [ 6818.683665] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:25 Vishnu kernel: [ 6818.685045] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:25 Vishnu kernel: [ 6818.781436] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:25 Vishnu kernel: [ 6818.788005] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:25 Vishnu kernel: [ 6818.789265] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:26 Vishnu systemd[1]: systemd-hostnamed.service: Succeeded.
Feb 27 12:42:32 Vishnu dbus-daemon[601]: [system] Activating via systemd: service name='org.freedesktop.hostname1' unit='dbus-org.freedesktop.hostname1.service' requested by ':1.119' (uid=1000 pt
Feb 27 12:42:32 Vishnu systemd[1]: Starting Hostname Service...
Feb 27 12:42:32 Vishnu kernel: [ 6818.897011] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu dbus-daemon[601]: [system] Successfully activated service 'org.freedesktop.hostname1'
Feb 27 12:42:32 Vishnu systemd[1]: Started Hostname Service.
Feb 27 12:42:32 Vishnu kernel: [ 6826.186561] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu kernel: [ 6826.187888] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu kernel: [ 6826.242264] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu kernel: [ 6826.294855] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu kernel: [ 6826.304171] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:32 Vishnu kernel: [ 6826.305540] Shared Clipboard: Converting VBox formats 0x5 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0, atomTarget='x-special/gnome-copied-f
Feb 27 12:42:39 Vishnu systemd[1355]: Started Application launched by gnome-shell.
Feb 27 12:42:40 Vishnu dbus-daemon[1368]: [session uid=1000 pid=1368] Activating via systemd: service name='org.gnome.Terminal' unit='gnome-terminal-server.service' requested by ':1.217' (uid=100
Feb 27 12:42:40 Vishnu systemd[1355]: Starting GNOME Terminal Server...
Feb 27 12:42:40 Vishnu dbus-daemon[1368]: [session uid=1000 pid=1368] Successfully activated service 'org.gnome.Terminal'
Feb 27 12:42:40 Vishnu systemd[1355]: Started GNOME Terminal Server.
Feb 27 12:42:40 Vishnu systemd[1355]: Started VTE child process 3258 launched by gnome-terminal-server process 3250.
Feb 27 12:42:40 Vishnu systemd[1355]: gnome-launched-org.gnome.Terminal.desktop-3245.scope: Succeeded.
Feb 27 12:43:02 Vishnu systemd[1]: systemd-hostnamed.service: Succeeded.
Feb 27 12:48:50 Vishnu systemd[1355]: Started VTE child process 3274 launched by gnome-terminal-server process 3250.
Feb 27 12:48:53 Vishnu systemd[1355]: vte-spawn-b82a6a86-638e-4cca-8de6-fe0c6a71f64b.scope: Succeeded.
Feb 27 12:49:26 Vishnu systemd[1355]: Started VTE child process 3284 launched by gnome-terminal-server process 3250.
Feb 27 12:49:27 Vishnu systemd[1355]: vte-spawn-8b29791d-e4db-468a-acc7-b29f0983da1f.scope: Succeeded.
vishnu@vishnu:~$
```

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

ALPHABETICALLY:

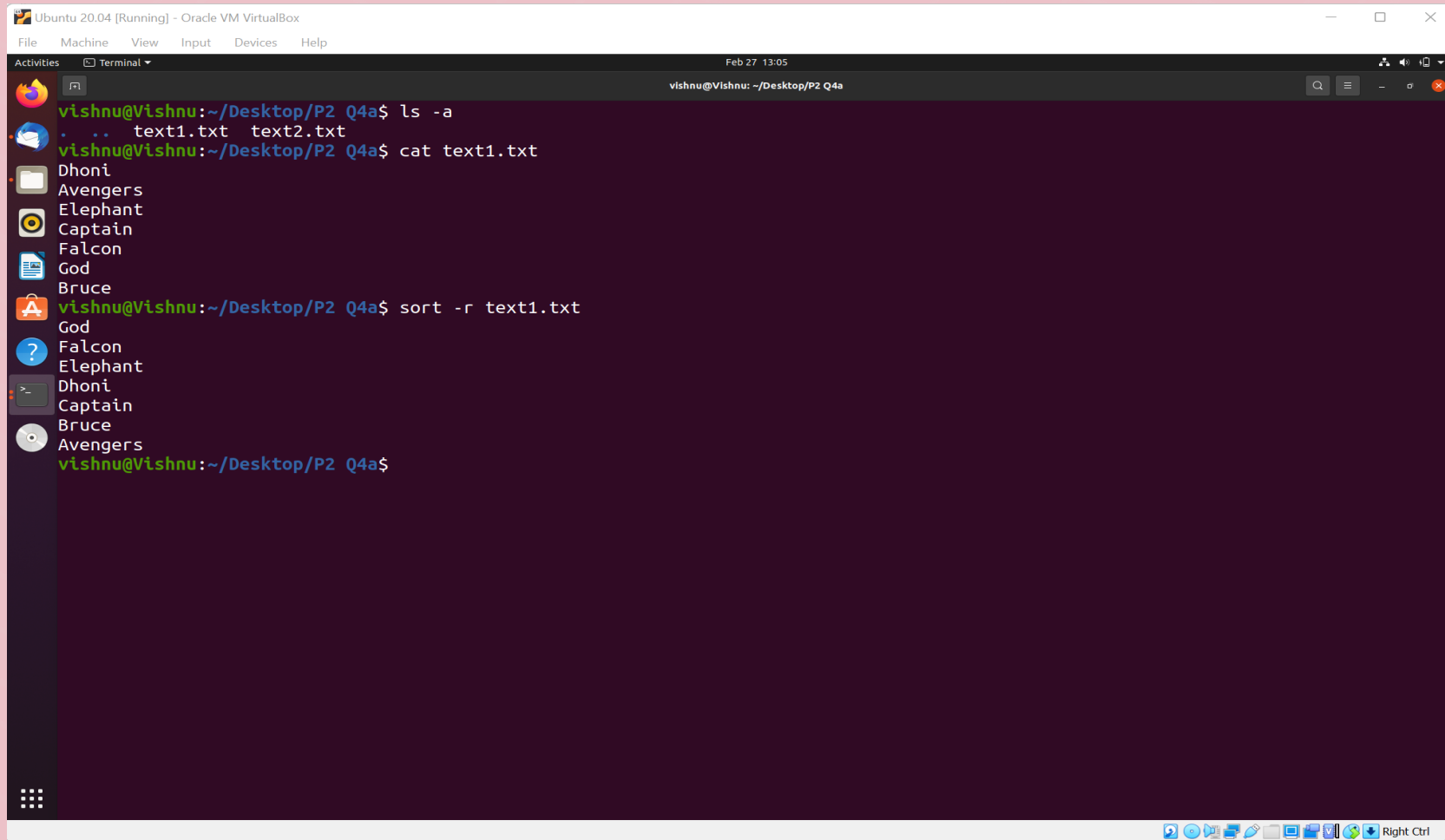
COMMAND : **sort filename**



```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Feb 27 12:56 vishnu@Vishnu: ~/Desktop/P2 Q4a
vishnu@Vishnu:~/Desktop/P2 Q4a$ ls -a
. .. text1.txt text2.txt
vishnu@Vishnu:~/Desktop/P2 Q4a$ cat text1.txt
Dhoni
Avengers
Elephant
Captain
Falcon
God
Bruce
vishnu@Vishnu:~/Desktop/P2 Q4a$ sort text1.txt
Avengers
Bruce
Captain
Dhoni
Elephant
Falcon
God
vishnu@Vishnu:~/Desktop/P2 Q4a$
```


REVERSE ORDER :

COMMAND : **sort -r filename**



The screenshot shows a terminal window titled "vishnu@Vishnu: ~/Desktop/P2 Q4a" within an "Ubuntu 20.04 [Running] - Oracle VM VirtualBox" environment. The terminal displays the following commands and their outputs:

```
vishnu@Vishnu:~/Desktop/P2 Q4a$ ls -a
.  ..  text1.txt  text2.txt
vishnu@Vishnu:~/Desktop/P2 Q4a$ cat text1.txt
Dhoni
Avengers
Elephant
Captain
Falcon
God
Bruce
vishnu@Vishnu:~/Desktop/P2 Q4a$ sort -r text1.txt
God
Falcon
Elephant
Dhoni
Captain
Bruce
Avengers
vishnu@Vishnu:~/Desktop/P2 Q4a$
```

The left sidebar of the terminal window shows various application icons, and the bottom status bar includes system icons and the text "Right Ctrl".

NUMERICAL ORDER :

COMMAND : **sort -n filename**

Ubuntu 20.04 [Running] - Oracle VM VirtualBox

FileMachineViewInputDevicesHelp

ActivitiesTerminalFeb 27 19:13vishnu@Vishnu: ~/Desktop/P2 Q4a

```
. .. text1.txt text2.txt text3.txt
vishnu@Vishnu:~/Desktop/P2 Q4a$ cat text2.txt
0
1
3
4
2
5
8
7
9
6
vishnu@Vishnu:~/Desktop/P2 Q4a$ sort -n text2.txt
0
1
2
3
4
5
6
7
8
9
vishnu@Vishnu:~/Desktop/P2 Q4a$ sort -r text2.txt
9
8
7
6
5
4
3
2
1
0
vishnu@Vishnu:~/Desktop/P2 Q4a$
```

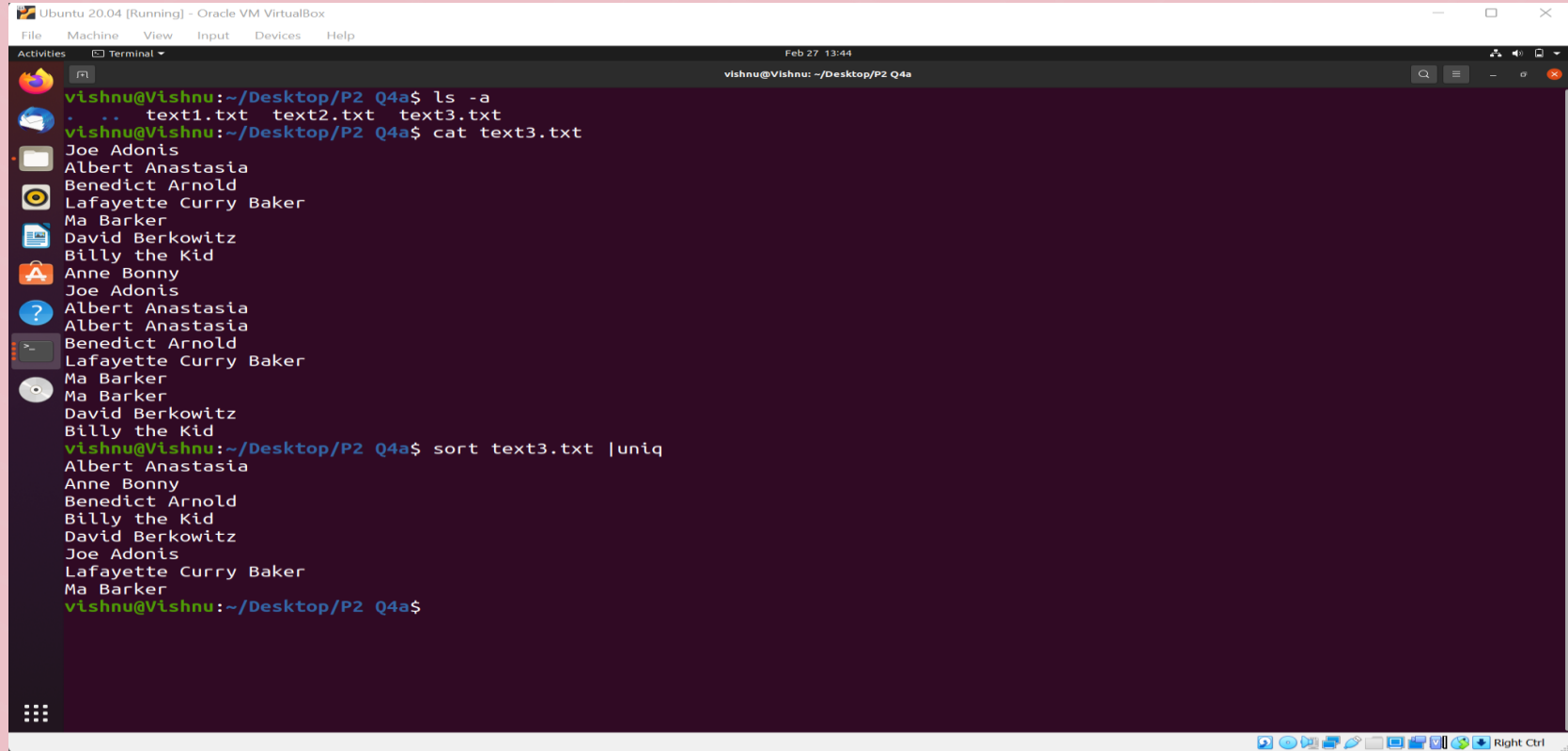
Sorted in order

Reverse order

Right Ctrl

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?

COMMAND : `sort filename | uniq` (or) `sort -u filename`



```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Feb 27 13:44 vishnu@Vishnu: ~/Desktop/P2 Q4a
vishnu@Vishnu:~/Desktop/P2 Q4a$ ls -a
. .. text1.txt text2.txt text3.txt
vishnu@Vishnu:~/Desktop/P2 Q4a$ cat text3.txt
Joe Adonis
Albert Anastasia
Benedict Arnold
Lafayette Curry Baker
Ma Barker
David Berkowitz
Billy the Kid
Anne Bonny
Joe Adonis
Albert Anastasia
Albert Anastasia
Benedict Arnold
Lafayette Curry Baker
Ma Barker
Ma Barker
David Berkowitz
Billy the Kid
vishnu@Vishnu:~/Desktop/P2 Q4a$ sort text3.txt | uniq
Albert Anastasia
Anne Bonny
Benedict Arnold
Billy the Kid
David Berkowitz
Joe Adonis
Lafayette Curry Baker
Ma Barker
vishnu@Vishnu:~/Desktop/P2 Q4a$
```


6) What are the Three parts of file's permission?

- ☐ Read : User can read the file and list the directory.
- ☐ Write : User can write new files in the directory.
- ☐ Execute : User can access and run the file in a directory.