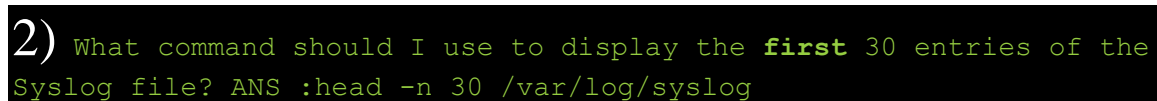


- 1) Write a bash script to echo your name 25 times

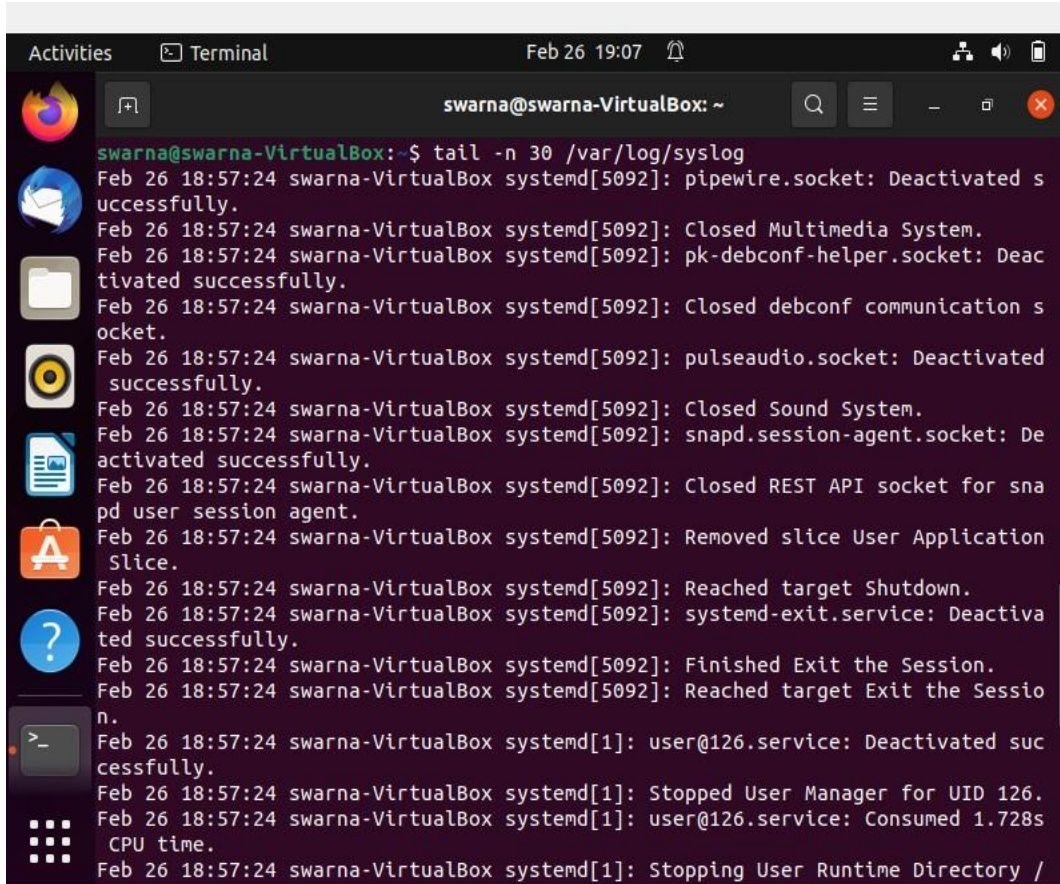


```
Activities Terminal Feb 26 19:05 swarna@swarna-VirtualBox: ~
swarna@swarna-VirtualBox:~$ head -n 30 /var/log/syslog
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Inserted module 'lp'
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Starting Flush Journal to Persistent Storage...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Load/Save Random Seed.
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Inserted module 'pnpdev'
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Condition check resulted in First Boot Complete being skipped.
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Inserted module 'pairport_pc'
Jan 11 16:04:27 swarna-VirtualBox systemd-sysusers[299]: Creating group systemd-coredump with gid 999.
Jan 11 16:04:27 swarna-VirtualBox systemd-sysusers[299]: Creating user systemd-coredump (systemd Core Dumper) with uid 999 and gid 999.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Activated swap /swapfile.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Reached target Swap.
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Inserted module 'mssr'
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Module 'fuse' is built in
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Coldplug All udev Devices.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Set the console keyboard layout.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Flush Journal to Persistent Storage.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Create System Users.
```

```
Activities Terminal Feb 26 19:05 swarna@swarna-VirtualBox: ~
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Create System Users.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Starting Create Static Device Nodes in /dev...
Jan 11 16:04:27 swarna-VirtualBox systemd-modules-load[287]: Inserted module 'vmwgfx'
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Create Static Device Nodes in /dev.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Finished Load Kernel Modules.
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Reached target Local File Systems (Pre).
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for bare, revision 5...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for core, revision 11743...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for core20, revision 1169...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for firefox, revision 631...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for gnome-3-38-2004, revision 76...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for gtk-common-themes, revision 1519...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Mounting Mount unit for snap-store, revision 557...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Starting Apply Kernel Variables...
Jan 11 16:04:27 swarna-VirtualBox systemd[1]: Starting Rule-based Manager for Device Events and Files...
swarna@swarna-VirtualBox:~$ tail -n 30 /var/log/syslog
```



- 3) What command should I use to display the **last** 30 entries of the Syslog file? **ANS:** `tail -n 30 /var/log/syslog`

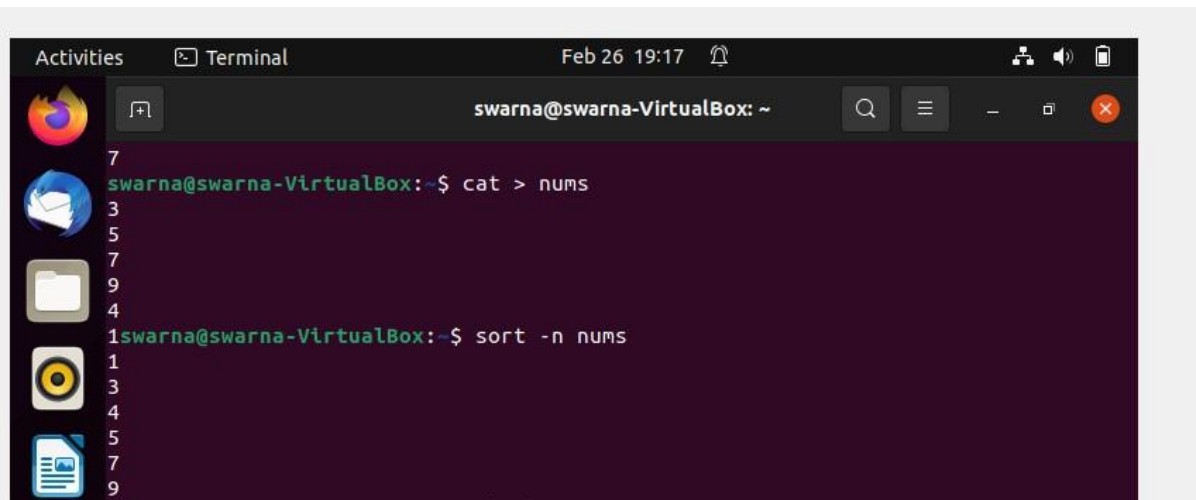


```
swarna@swarna-VirtualBox: ~  
swarna@swarna-VirtualBox:~$ tail -n 30 /var/log/syslog  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: pipewire.socket: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Closed Multimedia System.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: pk-debconf-helper.socket: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Closed debconf communication socket.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: pulseaudio.socket: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Closed Sound System.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: snapd.session-agent.socket: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Closed REST API socket for snapd user session agent.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Removed slice User Application Slice.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Reached target Shutdown.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: systemd-exit.service: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Finished Exit the Session.  
Feb 26 18:57:24 swarna-VirtualBox systemd[5092]: Reached target Exit the Session.  
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: user@126.service: Deactivated successfully.  
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: Stopped User Manager for UID 126.  
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: user@126.service: Consumed 1.728s CPU time.  
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: Stopping User Runtime Directory /
```

```
Activities Terminal Feb 26 19:08 swarna@swarna-VirtualBox: ~
run/user/126...
Feb 26 18:57:24 swarna-VirtualBox systemd[1528]: run-user-126.mount: Deactivated successfully.
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: user-runtime-dir@126.service: Deactivated successfully.
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: Stopped User Runtime Directory /run/user/126.
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: Removed slice User Slice of UID 126.
Feb 26 18:57:24 swarna-VirtualBox systemd[1]: user-126.slice: Consumed 8.928s CPU time.
Feb 26 18:57:25 swarna-VirtualBox pulseaudio[5612]: GetManagedObjects() failed: org.freedesktop.DBus.Error.TimedOut: Failed to activate service 'org.bluez': timed out (service_start_timeout=25000ms)
Feb 26 18:57:33 swarna-VirtualBox systemd[1]: fprintd.service: Deactivated successfully.
Feb 26 18:57:43 swarna-VirtualBox systemd[1]: systemd-hostnamed.service: Deactivated successfully.
Feb 26 18:57:43 swarna-VirtualBox systemd[1]: systemd-localed.service: Deactivated successfully.
Feb 26 18:58:02 swarna-VirtualBox geoclue[5252]: Service not used for 60 seconds. Shutting down..
Feb 26 18:58:02 swarna-VirtualBox systemd[1]: geoclue.service: Deactivated successfully.
Feb 26 18:58:13 swarna-VirtualBox systemd[1528]: Started Application launched by gnome-session-binary.
Feb 26 18:59:12 swarna-VirtualBox systemd[1528]: Started Application launched by gnome-session-binary.
swarna@swarna-VirtualBox:~$
```

- 4) What command should I use to arrange the entries of a file
  - Alphabetically
  - Reverse order
  - Numerical order

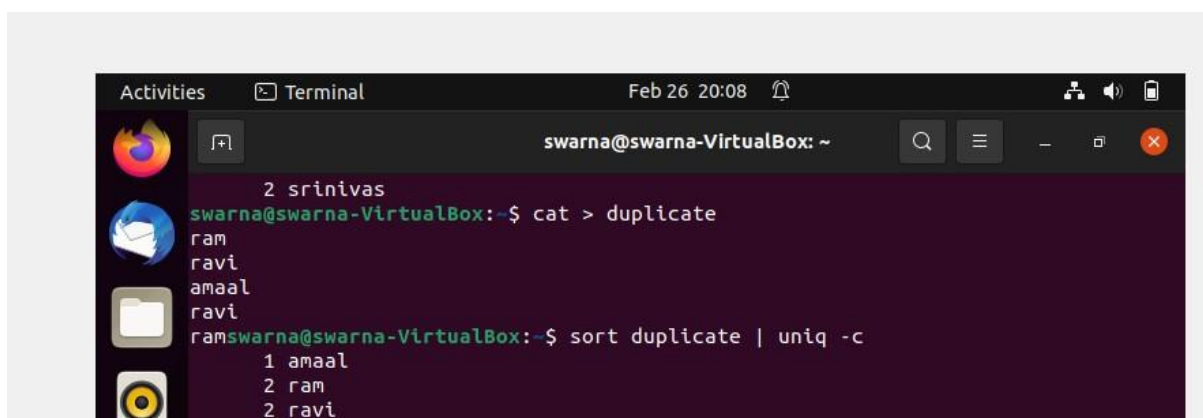
```
Activities Terminal Feb 26 19:16 swarna@swarna-VirtualBox: ~
swarna@swarna-VirtualBox:~$ cat >names
abi
ravi
snake
emi
laxmi
anand
swarna@swarna-VirtualBox:~$ sort names
Rhythmbox
emi
laxmi
ravi
snake
swarna@swarna-VirtualBox:~$ sort -r names
snake
ravi
laxmi
emi
anand
abi
```

A terminal window titled 'swarna@swarna-VirtualBox: ~' showing the creation of a file named 'nums' and its sorting. The user enters 'cat > nums' and then 'sort -n nums'. The output shows the numbers 1 through 9 in ascending order.

```
swarna@swarna-VirtualBox:~$ cat > nums
7
3
5
7
9
4
swarna@swarna-VirtualBox:~$ sort -n nums
1
3
4
5
7
9
```

- a) Alphabetically → `sort <filename>`
- b) Reverse order → `sort -r <filename>`
- c) Numerical order → `sort -n <filename>`

- 5) Cope is a hard-working cop. He found a case and was almost on 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?

A terminal window titled 'swarna@swarna-VirtualBox: ~' showing the creation of a file named 'duplicate' and its deduplication. The user enters 'cat > duplicate' and then 'sort duplicate | uniq -c'. The output shows the frequency of each name: 1 amaal, 2 ram, and 2 ravi.

```
2 srinivas
swarna@swarna-VirtualBox:~$ cat > duplicate
ram
ravi
amaal
ravi
ram
swarna@swarna-VirtualBox:~$ sort duplicate | uniq -c
1 amaal
2 ram
2 ravi
```

Ans: `sort <filename> | uniq -c`

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

1) Read

2) Write

3) Execute