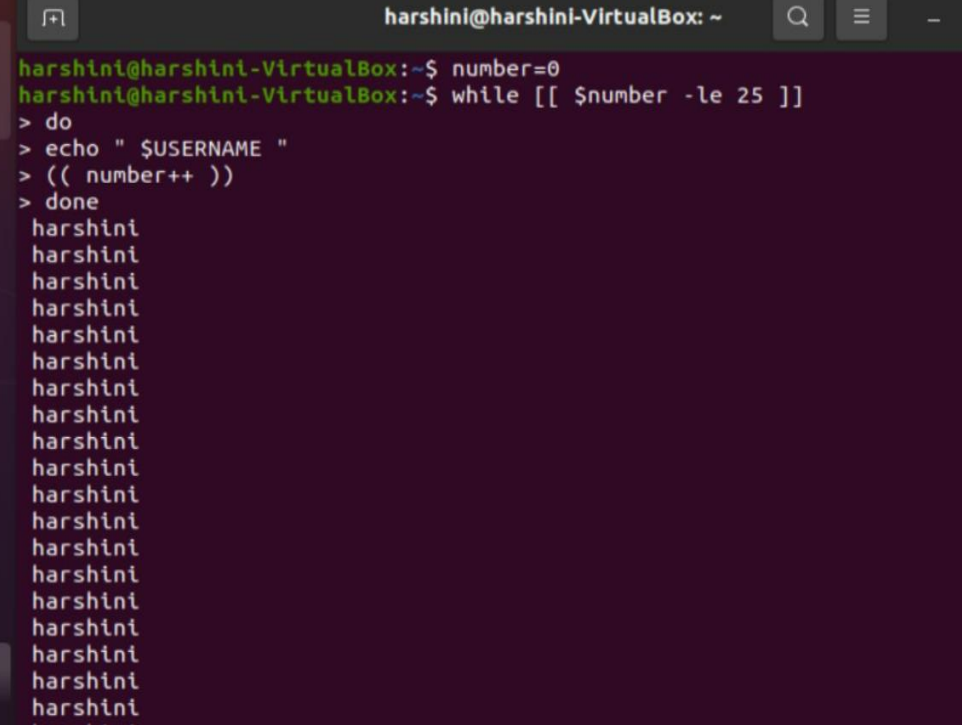


Dept.: CCE

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



The screenshot shows a terminal window titled "harshini@harshini-VirtualBox: ~". The terminal output is as follows:

```

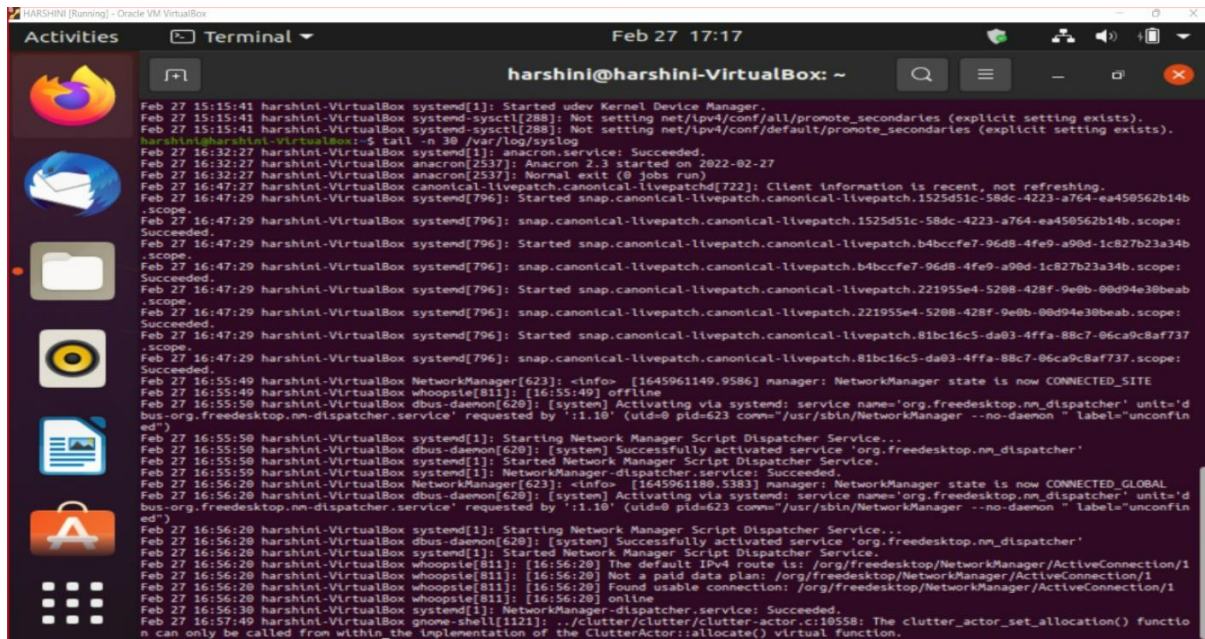
harshini@harshini-VirtualBox:~$ number=0
harshini@harshini-VirtualBox:~$ while [[ $number -le 25 ]]
> do
> echo " $USERNAME "
> (( number++ ))
> done
harshini
harshini
harshini
harshini
harshini
harshini
harshini
harshini
harshini
harshini
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harshini
harshini
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harshini
harshini
harshini
harshini

```

The terminal window has a dark background and a light-colored text. The prompt is green. The window title bar shows "Feb 27 16:58". The top of the window shows the Oracle VM VirtualBox interface with a menu bar (Activities, Files, Terminal) and a status bar (Feb 27 16:58). The left sidebar shows icons for Files, Applications, and a search icon.



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



```
Feb 27 15:15:41 harshini-VirtualBox systemd[1]: Started udev Kernel Device Manager.
Feb 27 15:15:41 harshini-VirtualBox systemd-sysctl[288]: Not setting net/ipv4/conf/all/promote_secondaries (explicit setting exists).
Feb 27 15:15:41 harshini-VirtualBox systemd-sysctl[288]: Not setting net/ipv4/conf/default/promote_secondaries (explicit setting exists).
harshini@harshini-VirtualBox:~$ tail -n 30 /var/log/syslog
Feb 27 16:32:27 harshini-VirtualBox systemd[1]: anacron.service: Succeeded.
Feb 27 16:32:27 harshini-VirtualBox anacron[2537]: Anacron 2.3 started on 2022-02-27
Feb 27 16:32:27 harshini-VirtualBox anacron[2537]: Normal exit (0 jobs run)
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: Started snap.canonical-livepatch.canonical-livepatch.1525d51c-58dc-4223-a764-ea450562b14b.scope.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: snap.canonical-livepatch.canonical-livepatch.1525d51c-58dc-4223-a764-ea450562b14b.scope: Succeeded.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: Started snap.canonical-livepatch.canonical-livepatch.b4bccfe7-96d8-4fe9-a90d-1c827b23a34b.scope.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: snap.canonical-livepatch.canonical-livepatch.b4bccfe7-96d8-4fe9-a90d-1c827b23a34b.scope: Succeeded.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: Started snap.canonical-livepatch.canonical-livepatch.221955e4-5208-428f-9e0b-00d94e30beab.scope.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: snap.canonical-livepatch.canonical-livepatch.221955e4-5208-428f-9e0b-00d94e30beab.scope: Succeeded.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: Started snap.canonical-livepatch.canonical-livepatch.81bc16c5-da03-4ffa-88c7-06ca9c8af737.scope.
Feb 27 16:47:29 harshini-VirtualBox systemd[796]: snap.canonical-livepatch.canonical-livepatch.81bc16c5-da03-4ffa-88c7-06ca9c8af737.scope: Succeeded.
Feb 27 16:55:49 harshini-VirtualBox NetworkManager[623]: <info> [1645961149.9586] manager: NetworkManager state is now CONNECTED_SITE
Feb 27 16:55:49 harshini-VirtualBox whoopie[811]: [16:55:49] offline
Feb 27 16:55:50 harshini-VirtualBox dbus-daemon[620]: [system] Activating via systemd: service name='org.freedesktop.nm_dispatcher' unit='dbus-org.freedesktop.nm_dispatcher.service' requested by ':1.10' (uid=0 pid=623 comm="/usr/sbin/NetworkManager --no-daemon" label="unconfined")
Feb 27 16:55:50 harshini-VirtualBox systemd[1]: Starting Network Manager Script Dispatcher Service...
Feb 27 16:55:50 harshini-VirtualBox dbus-daemon[620]: [system] Successfully activated service 'org.freedesktop.nm_dispatcher'
Feb 27 16:55:50 harshini-VirtualBox systemd[1]: Started Network Manager Script Dispatcher Service.
Feb 27 16:55:59 harshini-VirtualBox systemd[1]: NetworkManager-dispatcher.service: Succeeded.
Feb 27 16:56:20 harshini-VirtualBox NetworkManager[623]: <info> [1645961180.5383] manager: NetworkManager state is now CONNECTED_GLOBAL
Feb 27 16:56:20 harshini-VirtualBox dbus-daemon[620]: [system] Activating via systemd: service name='org.freedesktop.nm_dispatcher' unit='dbus-org.freedesktop.nm_dispatcher.service' requested by ':1.10' (uid=0 pid=623 comm="/usr/sbin/NetworkManager --no-daemon" label="unconfined")
Feb 27 16:56:20 harshini-VirtualBox systemd[1]: Starting Network Manager Script Dispatcher Service...
Feb 27 16:56:20 harshini-VirtualBox dbus-daemon[620]: [system] Successfully activated service 'org.freedesktop.nm_dispatcher'
Feb 27 16:56:20 harshini-VirtualBox systemd[1]: Started Network Manager Script Dispatcher Service.
Feb 27 16:56:20 harshini-VirtualBox whoopie[811]: [16:56:20] The default IPv4 route is: /org/freedesktop/NetworkManager/ActiveConnection/1
Feb 27 16:56:20 harshini-VirtualBox whoopie[811]: [16:56:20] Not a paid data plan: /org/freedesktop/NetworkManager/ActiveConnection/1
Feb 27 16:56:20 harshini-VirtualBox whoopie[811]: [16:56:20] Found usable connection: /org/freedesktop/NetworkManager/ActiveConnection/1
Feb 27 16:56:30 harshini-VirtualBox systemd[1]: NetworkManager-dispatcher.service: Succeeded.
Feb 27 16:57:49 harshini-VirtualBox gnome-shell[1121]: ../clutter/clutter/clutter-actor.c:10558: The clutter_actor_set_allocation() function can only be called from within the implementation of the ClutterActor::allocate() virtual function.
```

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

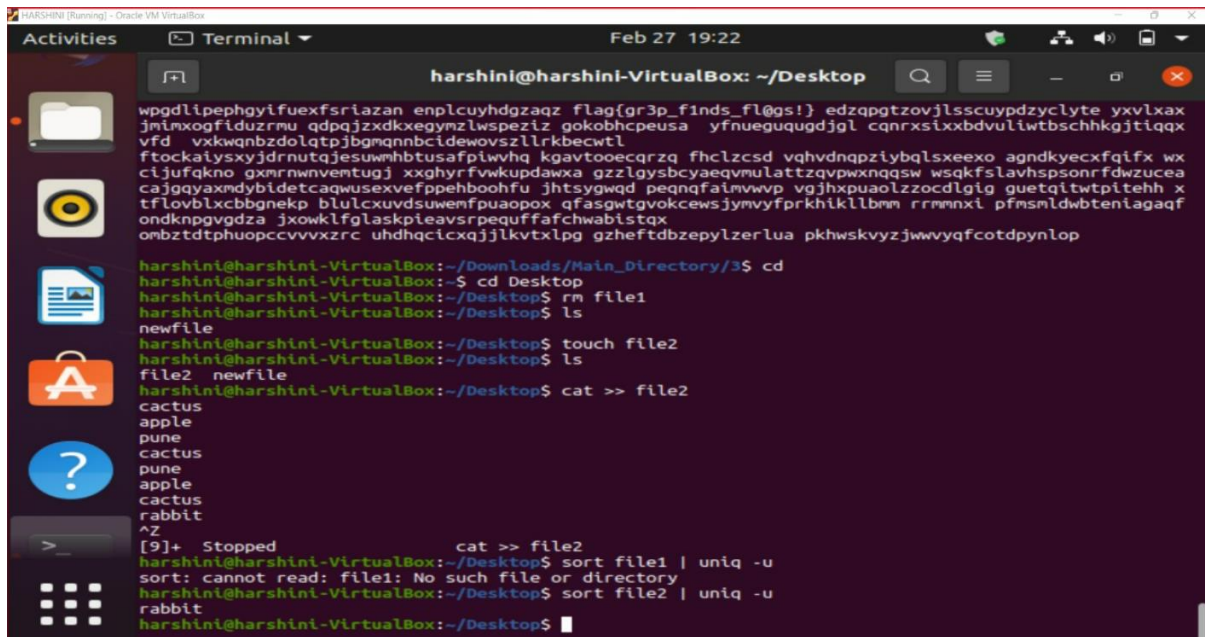
- Alphabetically
- Reverse order
- Numerical order

```
harshini@harshini-VirtualBox: ~/Desktop
harshini@harshini-VirtualBox:~/Desktop$ touch newfile
harshini@harshini-VirtualBox:~/Desktop$ ls
newfile
harshini@harshini-VirtualBox:~/Desktop$ cat >> newfile
rajeev
vishal
manvith
aaryan
thanoj
789
364
21
^Z
[5]+  Stopped                  cat >> newfile
harshini@harshini-VirtualBox:~/Desktop$ sort newfile
21
364
789
aaryan
manvith
rajeev
thanoj
vishal
harshini@harshini-VirtualBox:~/Desktop$ sort -r newfile
vishal
thanoj
rajeev
manvith
aaryan
789
364
21
harshini@harshini-VirtualBox:~/Desktop$ sort -n newfile
aaryan
manvith
```

```
789
aaryan
manvith
rajeev
thanoj
vishal
harshini@harshini-VirtualBox:~/Desktop$ sort -r newfile
vishal
thanoj
rajeev
manvith
aaryan
789
364
21
harshini@harshini-VirtualBox:~/Desktop$ sort -n newfile
aaryan
manvith
rajeev
thanoj
vishal
21
364
789
harshini@harshini-VirtualBox:~/Desktop$ cat -n newfile
 1 rajeev
 2 vishal
 3 manvith
 4 aaryan
 5 thanoj
 6 789
 7 364
 8 21
harshini@harshini-VirtualBox:~/Desktop$
```

5.Copee is a hardworking 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?





```
Harshini (Running) - Oracle VM VirtualBox
Feb 27 19:22
harshini@harshini-VirtualBox: ~/Desktop

wpgdlpephgyifuexfsriazan enplcuyhdgzaqz flag{gr3p_f1nds_fl@gs!} edzqpgtzovjlsscuypdzyclyte yxvlixax
jmimxogfiduzrmu qdpqjzxdkxegymzlwspesziz gokobhpcpeusa yfnueguqugdjgl cqnrxsioxbdvuliwtbschhkgjtiqqx
vfd vxkwqnbzdlotptjbgmqnnbcidewovszllrkbecwtl
ftockaiysxyjdrnutqjesuwmhbtusafpiwvhq kgavtoocqrzq fhclzcsd vqhvndqpzybqlsxeexo agndkyecxfqifx wx
cijufqkno gxmrmwvntugj xxghyrfvwkupdawxa gzzlgysbcyaeqvmulattzqvpwxnqqsw wsqkfslavhspsonrfdwzucea
cajggayaxmbybidetcaqwusexvefppehboohfu jhtsygwqd peqnqfaimvwp vgjhxpuolzocdlgig guetqitwtpitehh x
tflvblxcbbgnekp blulcxuvdsuwmfpuaopox qfasgwtgvokcewsjymvyfprkhikllbmm rrmnnxi pfmsmldwbteniagaqf
ondknpvgdza jxowklfglaskpieavsrpequffafchwbabstqx
ombztdtphuopccvxxzrc uhdhqcicxqjjlkvtxlpq gzheftdbzepylerlua pkhwskvzyzjwvyqfcotdpynlop

harshini@harshini-VirtualBox:~/Downloads/Main_Directory/3$ cd
harshini@harshini-VirtualBox:~$ cd Desktop
harshini@harshini-VirtualBox:~/Desktop$ rm file1
harshini@harshini-VirtualBox:~/Desktop$ ls
newfile
harshini@harshini-VirtualBox:~/Desktop$ touch file2
harshini@harshini-VirtualBox:~/Desktop$ ls
file2 newfile
harshini@harshini-VirtualBox:~/Desktop$ cat >> file2
cactus
apple
pune
cactus
pune
apple
cactus
rabbitt
^Z
[9]+ Stopped cat >> file2
harshini@harshini-VirtualBox:~/Desktop$ sort file1 | uniq -u
sort: cannot read: file1: No such file or directory
harshini@harshini-VirtualBox:~/Desktop$ sort file2 | uniq -u
rabbitt
harshini@harshini-VirtualBox:~/Desktop$
```

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

- The three parts of file permission: Read, Write, Execute.
- 1.Read(r): The read permission allows us to open and read the content of a file.
- 2.Write(w): The write permission allows us to edit, remove or rename a file.
- 3.Execute(x): It is used to run a program in linux.

The screenshot shows a terminal window titled 'harshini@harshini-VirtualBox: ~/Desktop'. The user has executed the following commands and received the following output:

```
harshini@harshini-VirtualBox:~/Desktop$ ls -l
total 4
-rw-rw-r-- 1 harshini harshini 47 Feb 27 17:38 newfile
harshini@harshini-VirtualBox:~/Desktop$ cd
harshini@harshini-VirtualBox:~$ ls -l
total 36
drwxr-xr-x 2 harshini harshini 4096 Feb 27 17:37 Desktop
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Documents
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Downloads
-rw-rw-r-- 1 harshini harshini 0 Feb 27 17:19 file1
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Music
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Pictures
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Public
drwx----- 4 harshini harshini 4096 Feb 27 15:26 snap
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Templates
drwxr-xr-x 2 harshini harshini 4096 Feb 27 15:15 Videos
```

Permission	file	directory
Read (r)	Read the file content (cat)	Read the directory content (ls)
Write(w)	Change the file content (vi)	Create file in directory (touch)
Execute(x)	Execute the file	Enter the directory (cd)

- Denotes file type

rw- permission for user

r—permission for other