

COGNIZANCE CLUB

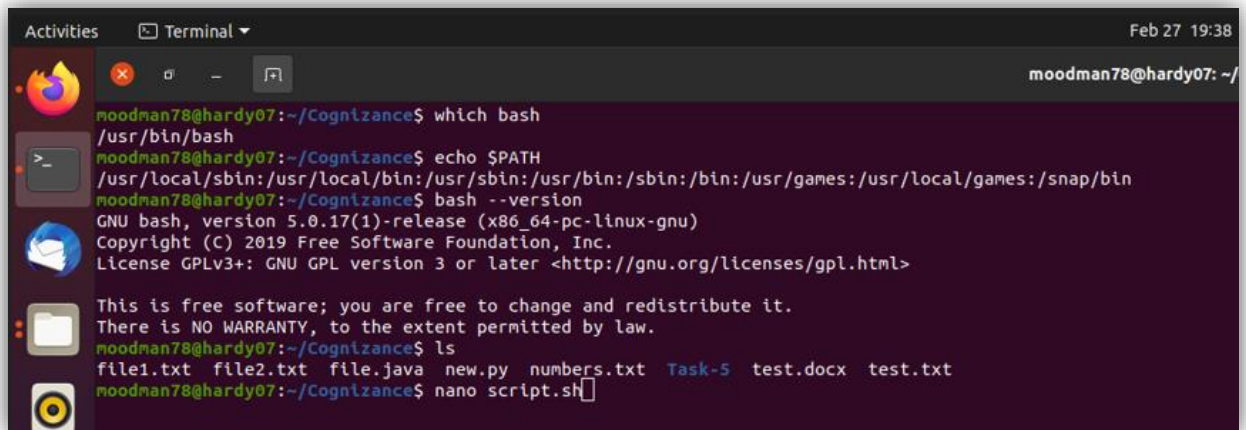
TASK-5

PART-2

BY

Sakthivel V

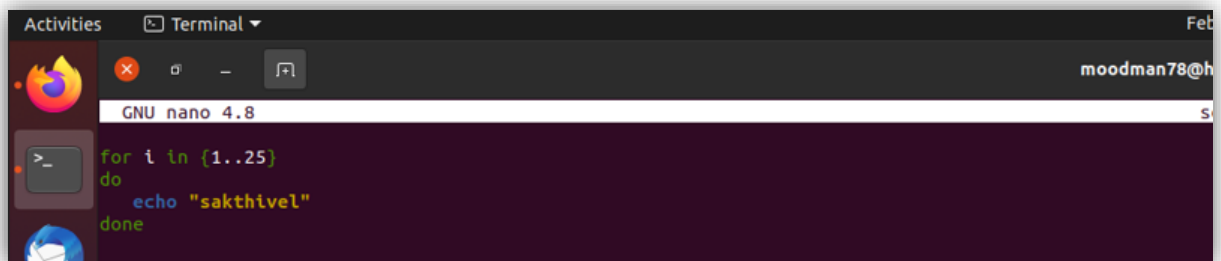
1) Write a bash script to echo your name 25 times.



A terminal window titled 'Terminal' with a date and time of 'Feb 27 19:38'. The user 'moodman78@hardy07' is in the directory '~/'. The terminal shows the following commands and output:

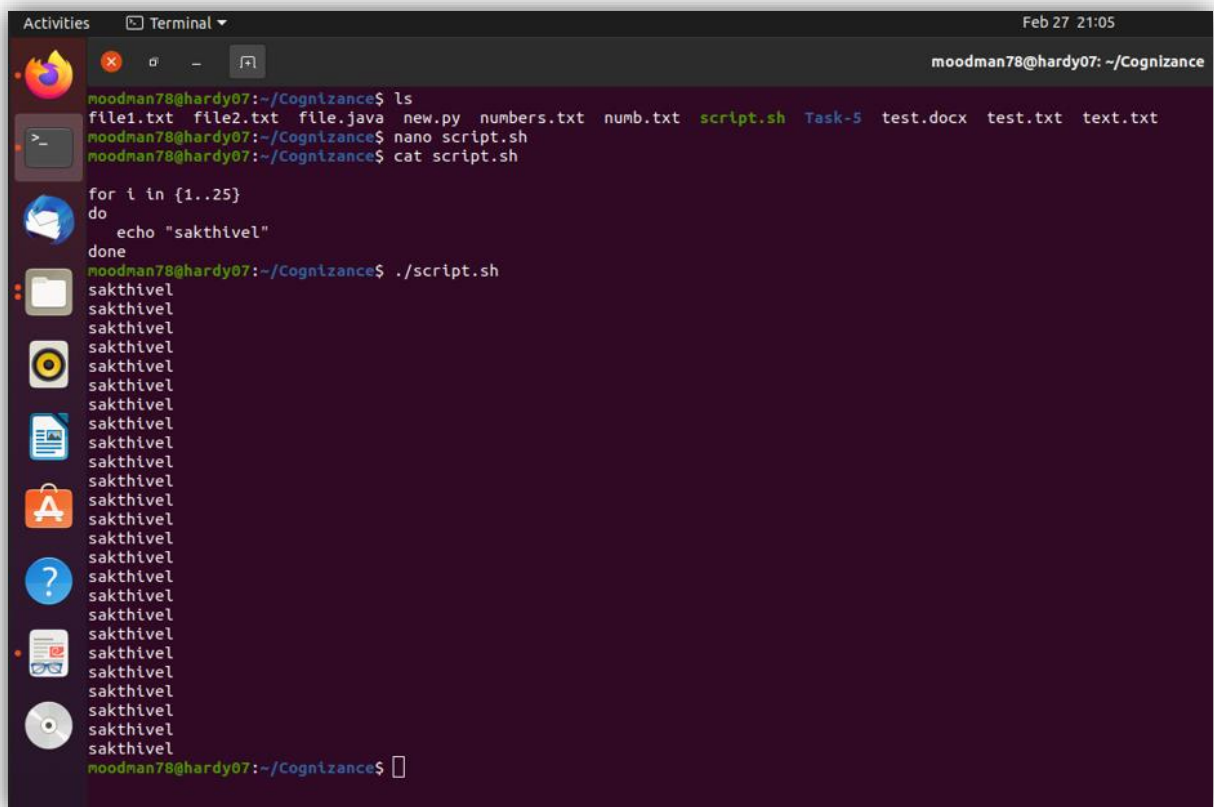
```
moodman78@hardy07:~/Cognizance$ which bash
/usr/bin/bash
moodman78@hardy07:~/Cognizance$ echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin
moodman78@hardy07:~/Cognizance$ bash --version
GNU bash, version 5.0.17(1)-release (x86_64-pc-linux-gnu)
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This is free software; you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
moodman78@hardy07:~/Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt Task-5 test.docx test.txt
moodman78@hardy07:~/Cognizance$ nano script.sh
```



A terminal window titled 'Terminal' with a date and time of 'Feb 27 20:05'. The user 'moodman78@hardy07' is in the directory '~/'. The terminal shows the following commands and output:

```
GNU nano 4.8
for i in {1..25}
do
    echo "sakthivel"
done
```

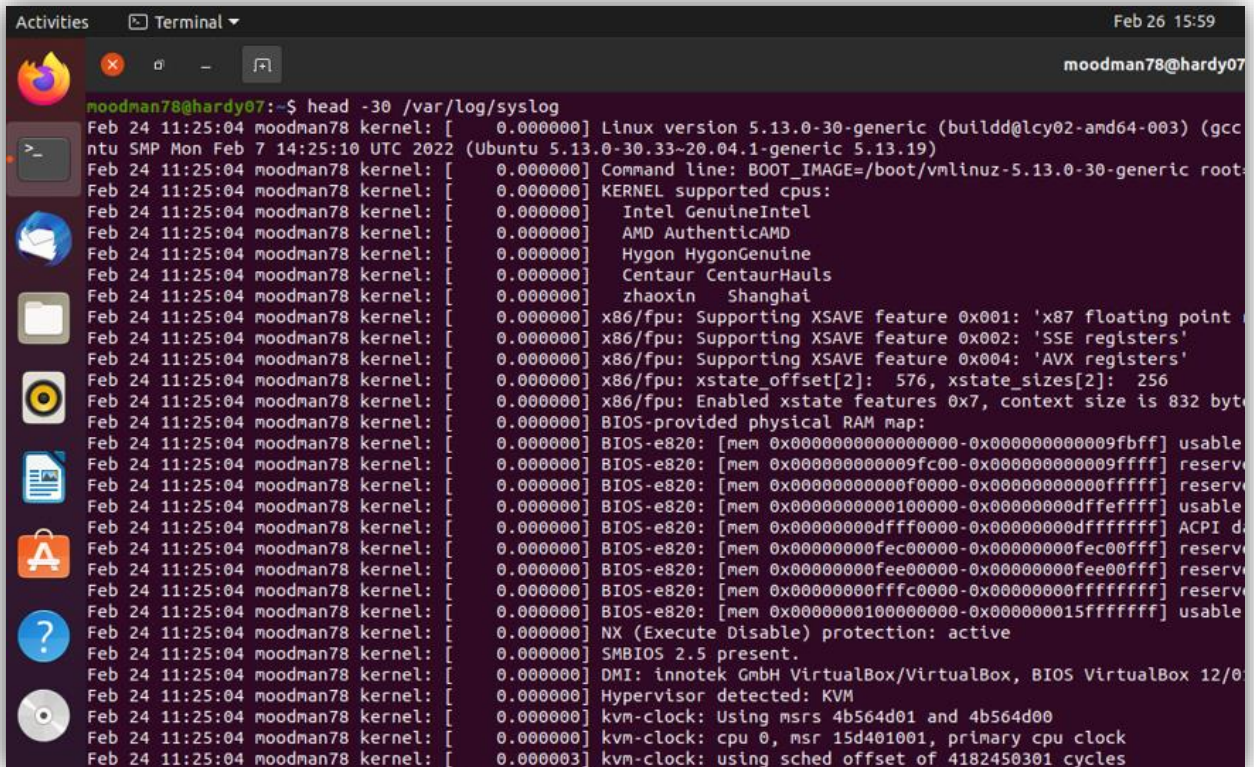


A terminal window titled 'Terminal' with a date and time of 'Feb 27 21:05'. The user 'moodman78@hardy07' is in the directory '~/'. The terminal shows the following commands and output:

```
moodman78@hardy07:~/Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt numb.txt script.sh Task-5 test.docx test.txt text.txt
moodman78@hardy07:~/Cognizance$ nano script.sh
moodman78@hardy07:~/Cognizance$ cat script.sh

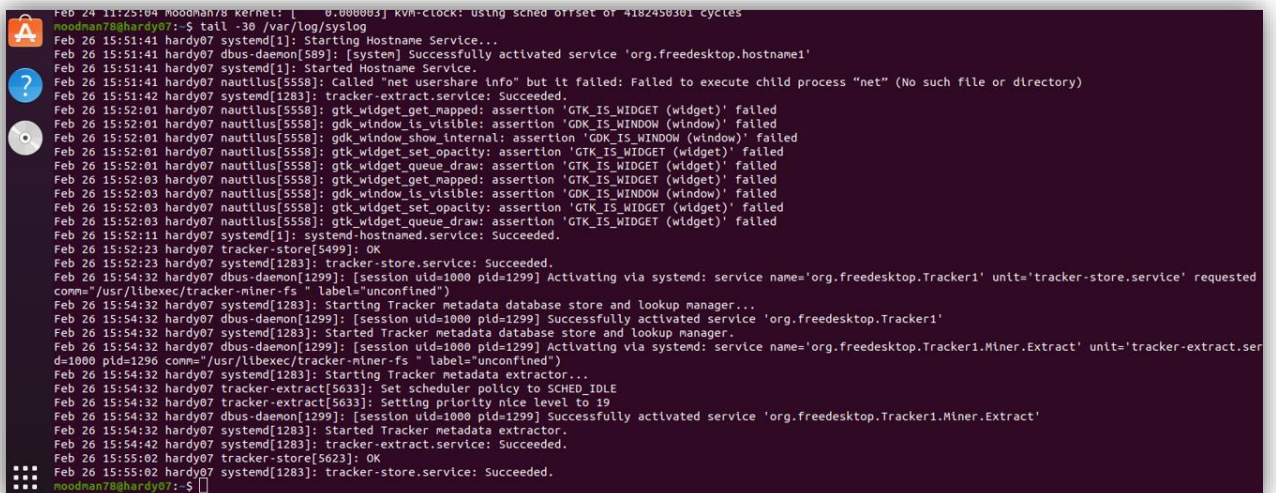
for i in {1..25}
do
    echo "sakthivel"
done
moodman78@hardy07:~/Cognizance$ ./script.sh
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
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sakthivel
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sakthivel
sakthivel
sakthivel
sakthivel
sakthivel
moodman78@hardy07:~/Cognizance$
```

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



```
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Linux version 5.13.0-30-generic (buildd@lcy02-amd64-003) (gcc
ntu SMP Mon Feb 7 14:25:10 UTC 2022 (Ubuntu 5.13.0-30.33~20.04.1-generic 5.13.19)
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-5.13.0-30-generic root=
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] KERNEL supported cpus:
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Intel GenuineIntel
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] AMD AuthenticAMD
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Hygon HygonGenuine
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Centaur CentaurHauls
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] zhaoxin Shanghai
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] x86/fpu: xstate_offset[2]: 576, xstate_sizes[2]: 256
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 byt
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-provided physical RAM map:
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009fbff] usable
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x000000000009fc00-0x000000000000ffff] reserv
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x000000000000f000-0x000000000000ffff] reserv
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000100000-0x0000000000dfffff] usable
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x0000000000dffff000-0x0000000000dfffff] ACPI d
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x00000000fec00000-0x00000000fec00fff] reserv
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x00000000fee00000-0x00000000fee00fff] reserv
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x00000000fffc0000-0x00000000ffffff] reserv
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] BIOS-e820: [mem 0x0000000010000000-0x0000000015ffffff] usable
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] NX (Execute Disable) protection: active
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] SMBIOS 2.5 present.
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] DMI: innotek GmbH VirtualBox/VirtualBox, BIOS VirtualBox 12/0
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] Hypervisor detected: KVM
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] kvm-clock: Using msrs 4b564d01 and 4b564d00
Feb 24 11:25:04 moodman78 kernel: [ 0.000000] kvm-clock: cpu 0, msr 15d401001, primary cpu clock
Feb 24 11:25:04 moodman78 kernel: [ 0.000003] kvm-clock: using sched offset of 4182450301 cycles
```

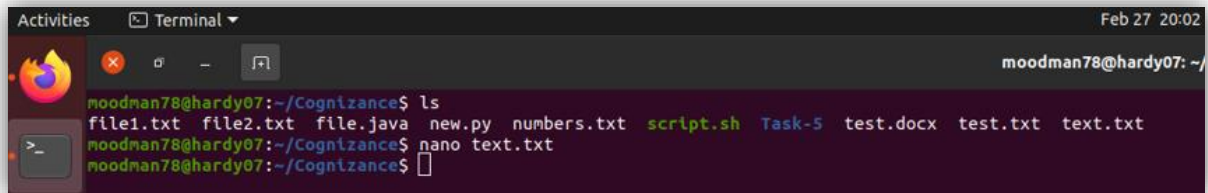
3) What command should I use to display the last 30 entries of syslog file?



```
Feb 24 11:25:04 moodman78 kernel: [ 0.000003] kvm-clock: using sched offset of 4182450301 cycles
moodman78@hardy07:~$ tail -30 /var/log/syslog
Feb 26 15:51:41 hardy07 systemd[1]: Starting Hostname Service...
Feb 26 15:51:41 hardy07 dbus-daemon[589]: [system] Successfully activated service 'org.freedesktop.hostname1'
Feb 26 15:51:41 hardy07 systemd[1]: Started Hostname Service.
Feb 26 15:51:41 hardy07 nautilus[5558]: Called "net usershare info" but it failed: Failed to execute child process "net" (No such file or directory)
Feb 26 15:51:42 hardy07 systemd[1283]: tracker-extract.service: Succeeded.
Feb 26 15:52:01 hardy07 nautilus[5558]: gtk_widget_get_mapped: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:01 hardy07 nautilus[5558]: gdk_window_is_visible: assertion 'GDK_IS_WINDOW (window)' failed
Feb 26 15:52:01 hardy07 nautilus[5558]: gdk_window_show_internal: assertion 'GDK_IS_WINDOW (window)' failed
Feb 26 15:52:01 hardy07 nautilus[5558]: gtk_widget_set_opacity: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:01 hardy07 nautilus[5558]: gtk_widget_queue_draw: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:03 hardy07 nautilus[5558]: gtk_widget_get_mapped: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:03 hardy07 nautilus[5558]: gdk_window_is_visible: assertion 'GDK_IS_WINDOW (window)' failed
Feb 26 15:52:03 hardy07 nautilus[5558]: gtk_widget_set_opacity: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:03 hardy07 nautilus[5558]: gtk_widget_queue_draw: assertion 'GTK_IS_WIDGET (widget)' failed
Feb 26 15:52:11 hardy07 systemd[1]: systemd-hostnamed.service: Succeeded.
Feb 26 15:52:23 hardy07 tracker-store[5499]: OK
Feb 26 15:52:23 hardy07 systemd[1283]: tracker-store.service: Succeeded.
Feb 26 15:54:32 hardy07 dbus-daemon[1299]: [session uid=1000 pid=1299] Activating via systemd: service name='org.freedesktop.Tracker1' unit='tracker-store.service' requested
conn=/usr/libexec/tracker-mntr-fs "label=unconfined")
Feb 26 15:54:32 hardy07 systemd[1283]: Starting Tracker metadata database store and lookup manager...
Feb 26 15:54:32 hardy07 dbus-daemon[1299]: [session uid=1000 pid=1299] Successfully activated service 'org.freedesktop.Tracker1'
Feb 26 15:54:32 hardy07 systemd[1283]: Started Tracker metadata database store and lookup manager.
Feb 26 15:54:32 hardy07 dbus-daemon[1299]: [session uid=1000 pid=1299] Activating via systemd: service name='org.freedesktop.Tracker1.Mntr.Extract' unit='tracker-extract.ser
d=1000 pid=1296 conn=/usr/libexec/tracker-mntr-fs "label=unconfined")
Feb 26 15:54:32 hardy07 systemd[1283]: Starting Tracker metadata extractor...
Feb 26 15:54:32 hardy07 tracker-extract[5633]: Set scheduler policy to SCHED_IDLE
Feb 26 15:54:32 hardy07 tracker-extract[5633]: Setting priority nice level to 19
Feb 26 15:54:32 hardy07 dbus-daemon[1299]: [session uid=1000 pid=1299] Successfully activated service 'org.freedesktop.Tracker1.Mntr.Extract'
Feb 26 15:54:32 hardy07 systemd[1283]: Started Tracker metadata extractor.
Feb 26 15:54:42 hardy07 systemd[1283]: tracker-extract.service: Succeeded.
Feb 26 15:55:02 hardy07 tracker-store[5623]: OK
Feb 26 15:55:02 hardy07 systemd[1283]: tracker-store.service: Succeeded.
moodman78@hardy07:~$
```

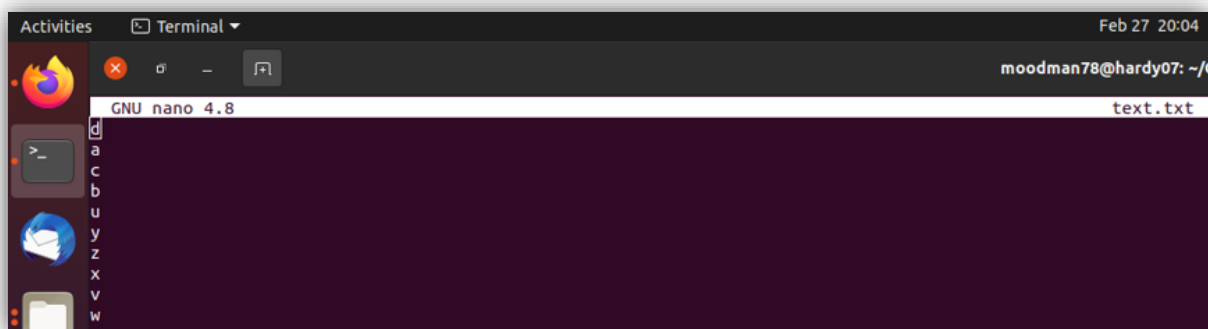
4) What command should I use to arrange the entries of a file

- Alphabetically
- Reverse order
- Numerical order



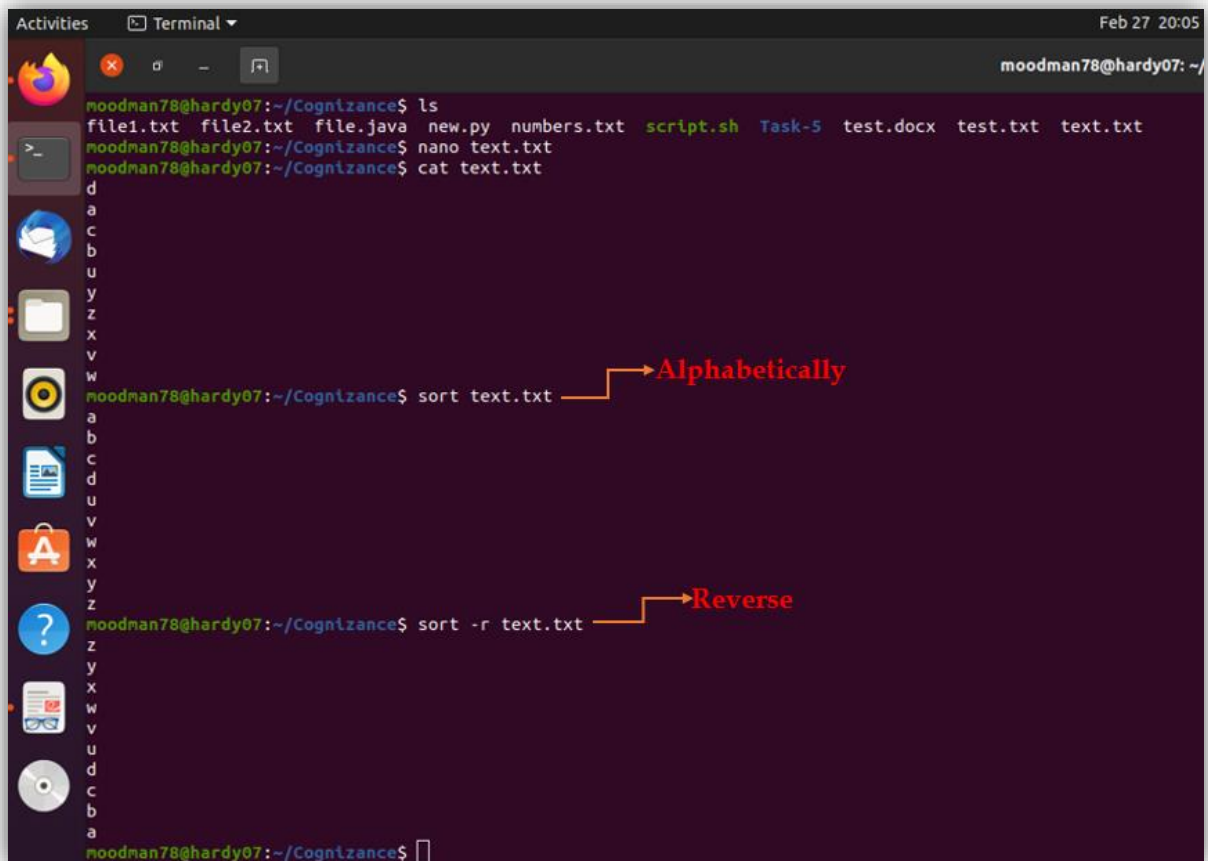
A terminal window titled 'Terminal' with a date of Feb 27 20:02. The user 'moodman78@hardy07' is in the directory '~/.Cognizance'. The command 'ls' is executed, showing a list of files: file1.txt, file2.txt, file.java, new.py, numbers.txt, script.sh, Task-5, test.docx, test.txt, and text.txt. Then, the command 'nano text.txt' is entered, opening the nano text editor.

```
moodman78@hardy07: ~/.Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt script.sh Task-5 test.docx test.txt text.txt
moodman78@hardy07: ~/.Cognizance$ nano text.txt
moodman78@hardy07: ~/.Cognizance$
```



The nano text editor interface for 'text.txt'. The title bar says 'GNU nano 4.8 text.txt'. The editor shows a list of characters: d, a, c, b, u, y, z, x, v, w.

```
GNU nano 4.8 text.txt
d
a
c
b
u
y
z
x
v
w
```



The terminal window shows the same file list as before. The command 'cat text.txt' is executed, displaying the same list of characters. Then, the command 'sort text.txt' is entered, with a red arrow pointing to it and the text 'Alphabetically'. The output shows the characters sorted alphabetically: a, b, c, d, u, v, w, x, y, z. Then, the command 'sort -r text.txt' is entered, with a red arrow pointing to it and the text 'Reverse'. The output shows the characters sorted in reverse alphabetical order: z, y, x, w, v, u, d, c, b, a.

```
moodman78@hardy07: ~/.Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt script.sh Task-5 test.docx test.txt text.txt
moodman78@hardy07: ~/.Cognizance$ nano text.txt
moodman78@hardy07: ~/.Cognizance$ cat text.txt
d
a
c
b
u
y
z
x
v
w
moodman78@hardy07: ~/.Cognizance$ sort text.txt → Alphabetically
a
b
c
d
u
v
w
x
y
z
moodman78@hardy07: ~/.Cognizance$ sort -r text.txt → Reverse
z
y
x
w
v
u
d
c
b
a
moodman78@hardy07: ~/.Cognizance$
```



```
Activities Terminal Feb 27 20:07 moodman78@hardy07: ~/Co
moodman78@hardy07:~/Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt script.sh Task-5 test.docx test.txt text.txt
moodman78@hardy07:~/Cognizance$ touch numb.txt
moodman78@hardy07:~/Cognizance$ nano numb.txt
```

```
Activities Terminal
GNU nano 4.8
52
12
11
9
1
2
89
6
25
3
8
4
```

```
Activities Terminal Feb 27 20:07 moodman78@hardy07: ~/C
moodman78@hardy07:~/Cognizance$ ls
file1.txt file2.txt file.java new.py numbers.txt script.sh Task-5 test.docx test.txt text.txt
moodman78@hardy07:~/Cognizance$ touch numb.txt
moodman78@hardy07:~/Cognizance$ nano numb.txt
moodman78@hardy07:~/Cognizance$ cat numb.txt
52
12
11
9
1
2
89
6
25
3
8
4
moodman78@hardy07:~/Cognizance$ sort -n numb.txt
1
2
3
4
6
8
9
11
12
25
52
89
moodman78@hardy07:~/Cognizance$
```

Numerical order

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?

Ans:

Using the command "**sort filename.txt | uniq --c**"

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

Ans:

- 1) Read,
- 2) Write,
- 3) Execute.