less : it open up output in seperate window, which you can
close and get back to this without printing it in this window.

```
rizon@rizon:~$ less /var/log/syslog
```
} You will get main entries printed here

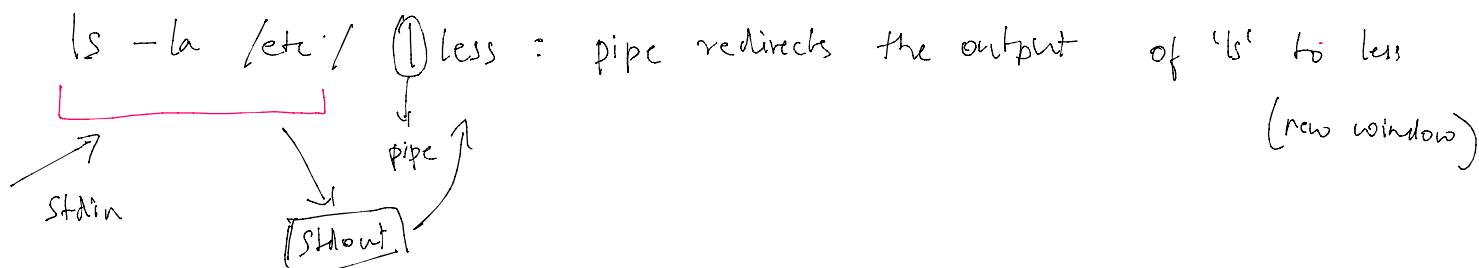Then press 'q' → quits the window opened by 'less'

How to open other command using less

```
rizon@rizon:~$ less ls -la /etc/
ls: No such file or directory
-la: No such file or directory
/etc/ is a directory
rizon@rizon:~$
```
for e.g. etc folda has too many entries.

```
rizon@rizon:~$ ls -la /etc/ | less
```
⇒ This the command

ls — la /etc/ (|) less : pipe redirects the output of 'ls' to less
(new window)

stdin

pipe

stdout

✗ pipe basically takes the standard output of one command and
feeds it to another command as a standard input.

⁂ ENIIVORMENT:

✦ echo $HOME : Show the location of home

```
rizon@rizon:~$ echo $HOME
/home/rizon
rizon@rizon:~$
```

* echo $USER : Show the username

```
rizon@rizon:~$ echo $USER
rizon
rizon@rizon:~$
```

* echo $PWD : Show the present working directory

```
rizon@rizon:~$ echo $PWD
/home/rizon
rizon@rizon:~$
```

* echo $PATH : Show all the path on the system (seperated by :)

```
rizon@rizon:~$ echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbi
n:/usr/bin:/sbin:/bin:/usr/games:/usr/l
ocal/games:/snap/bin:/snap/bin
rizon@rizon:~$
```

Basically, show all the path that system will search when we execute a cmd.

* ls /user/bin/ | less : Show all the command in this path

```
rizon@rizon:~$ ls /user/bin/ | less
rizon@rizon:~$ S
```

* head : print first 10 line of file.

Example: head /var/log/syslog

```
rizon@rizon:~$ head /var/log/syslog
May 22 08:05:38 rizon systemd[1]: rsys
og.service: Sent signal SIGHUP to main
process 784 (rsyslogd) on client reques
t.
May 22 08:05:38 rizon systemd[1]: logr
tate.service: Deactivated successfully.
May 22 08:05:38 rizon systemd[1]: Finis
hed Rotate log files.
May 22 08:05:38 rizon snapd[785]: over
ord.go:263: Acquiring state lock file
May 22 08:05:38 rizon snapd[785]: over
ord.go:268: Acquired state lock file
```

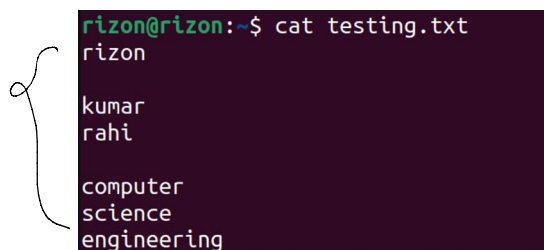To show first 15 lines of that file, the command is

head -n 15 /var/log/syslog

Generally, head -n 15 <file-names>
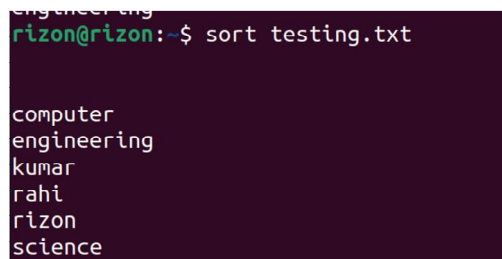
* tail : show last 10 lines of file

Command   tail <file-name>

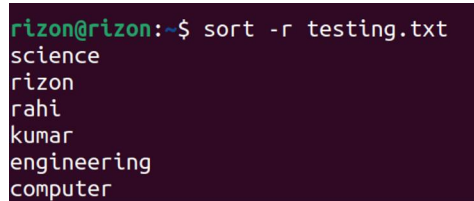* tail -f /var/log/syslog : Update on the go

* Sort : Sort them (a-z)   sorted

```
rizon@rizon:~$ cat testing.txt
rizon

kumar
rahi

computer
science
engineering
```

```
engineering
rizon@rizon:~$ sort testing.txt


computer
engineering
kumar
rahi
rizon
science
```

* Reverse Sorting : sort -r <file-name>

```
rizon@rizon:~$ sort -r testing.txt
science
rizon
rahi
kumar
engineering
computer
```

* cat <file-name> | tr a-z A-z :

Convert all lower case to upper-case

```
rizon@rizon:~$ cat testing.txt | tr a-z A-Z
RIZON

KUMAR
RAHI

COMPUTER
SCIENCE
ENGINEERING
rizon@rizon:~$
```

& unique ?

uniq <file-name> Give all the unique values (words in the file

uniq -c <file-name> : give nos of occurences a word had in the file

uniq -u <file-name> : Omits the duplicates one-

uniq -d <file-name> : display the duplicate values,

wc <file-name> : gives word count of the file.

no of lines, no. of words, filesize

```
rizon@rizon:~$ wc testing.txt
8  6 48 testing.txt
```

wc -l <file-name> : gives nos of lines

```
rizon@rizon:~$ wc -l testing.txt
8 testing.txt
```

wc -c <file-name> : gives the size of file in bytes

```
rizon@rizon:~$ wc -c testing.txt
48 testing.txt
```

env | grep PWD : Shows current working directory and previous working directory.