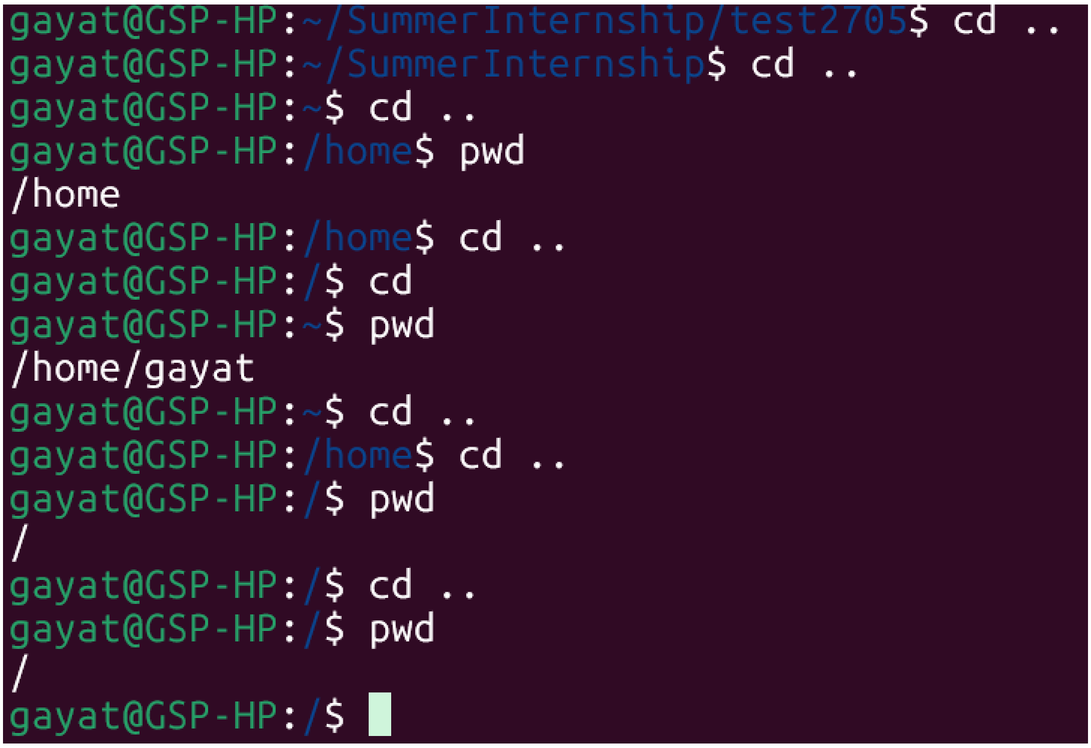
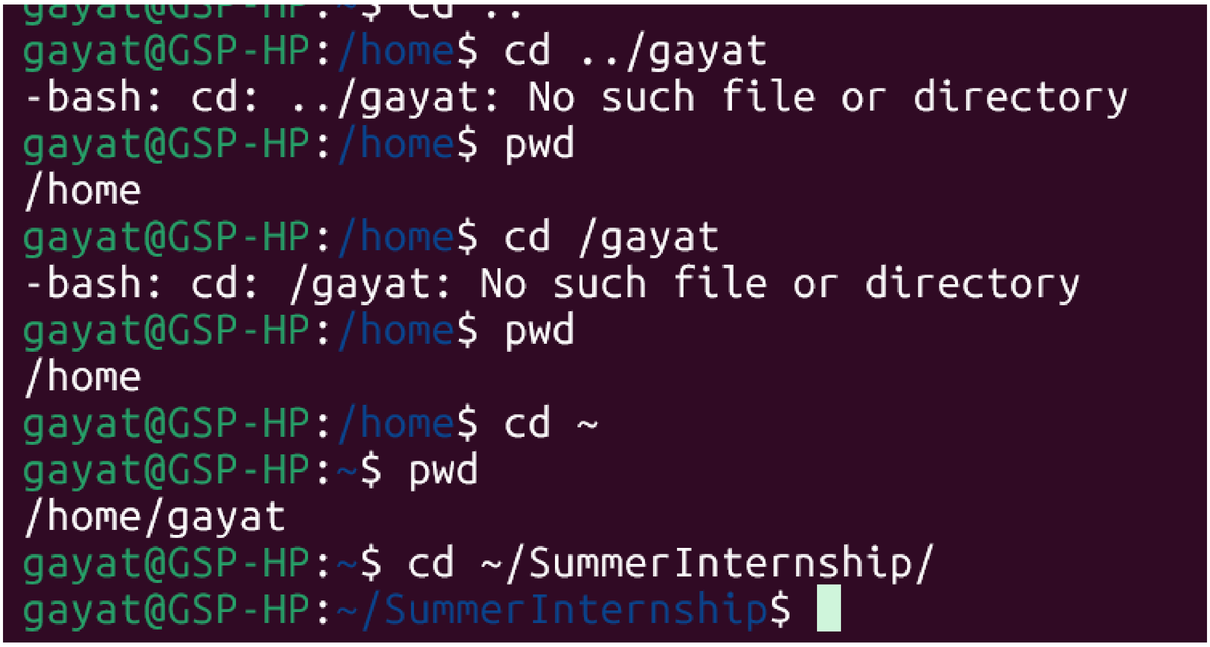
27th May 2025

Here, by using cd .. from test2705, I went to SummerInternship. Again with the command, to the /home/gayat, then to /home and finally to /, which is the root directory.



```
gayat@GSP-HP:~/SummerInternship/test2705$ cd ..
gayat@GSP-HP:~/SummerInternship$ cd ..
gayat@GSP-HP:~$ cd ..
gayat@GSP-HP:/home$ pwd
/home
gayat@GSP-HP:/home$ cd ..
gayat@GSP-HP:/$ cd
gayat@GSP-HP:~$ pwd
/home/gayat
gayat@GSP-HP:~$ cd ..
gayat@GSP-HP:/home$ cd ..
gayat@GSP-HP:/$ pwd
/
gayat@GSP-HP:/$ cd ..
gayat@GSP-HP:/$ pwd
/
gayat@GSP-HP:/$
```

As per the text, cd ../user, must give you opens to /home/gayat, but using cd .., takes you a step higher, it is not possible.cd tilde notation brings you to the home directory which is /home/gayat



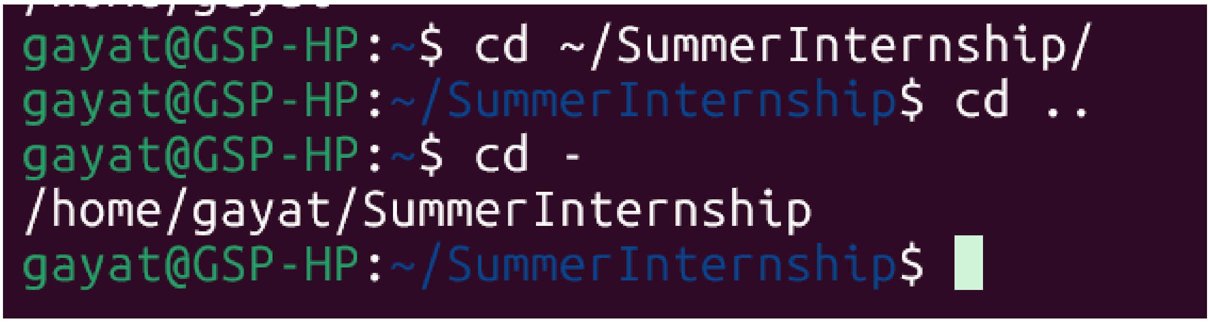
```
gayat@GSP-HP:~$ cd ..
gayat@GSP-HP:/home$ cd ../gayat
-bash: cd: ../gayat: No such file or directory
gayat@GSP-HP:/home$ pwd
/home
gayat@GSP-HP:/home$ cd /gayat
-bash: cd: /gayat: No such file or directory
gayat@GSP-HP:/home$ pwd
/home
gayat@GSP-HP:/home$ cd ~
gayat@GSP-HP:~$ pwd
/home/gayat
gayat@GSP-HP:~$ cd ~/SummerInternship/
gayat@GSP-HP:~/SummerInternship$
```

- / → is the root directory that contains all the files on the UNIX system.
- /home/ → is the **parent directory** that typically contains home directories for all users.

- /home/gayat/ → is **your** home directory.
- ~ → is a shortcut for **your** home directory (so ~ = /home/gayat in your case).

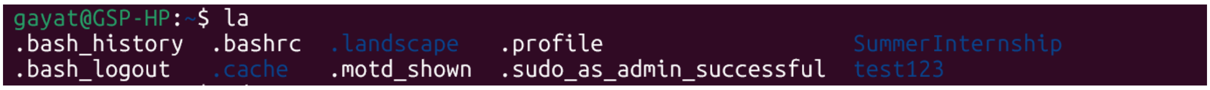
```
/
├── home/
│   ├── gayat/        ← Your home directory
├── etc/
├── bin/
├── usr/
├── var/
├── tmp/
```

Using cd – to undo the command to go back a level.



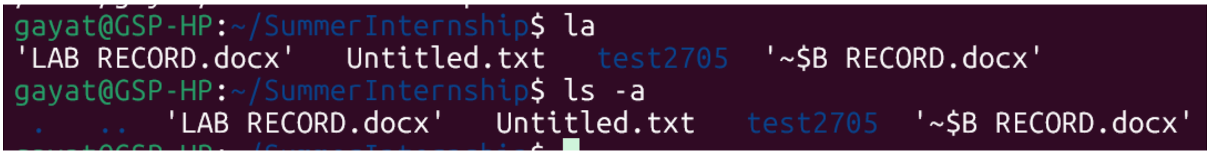
```
gayat@GSP-HP:~$ cd ~/SummerInternship/
gayat@GSP-HP:~/SummerInternship$ cd ..
gayat@GSP-HP:~$ cd -
/home/gayat/SummerInternship
gayat@GSP-HP:~/SummerInternship$
```

Using the command la, able to see the list of all files, hidden and revealed ones except the current and parent directories (. and ..). (In the physical folder, I can only see SummerIntership and test123 folders. The rest are hidden.)



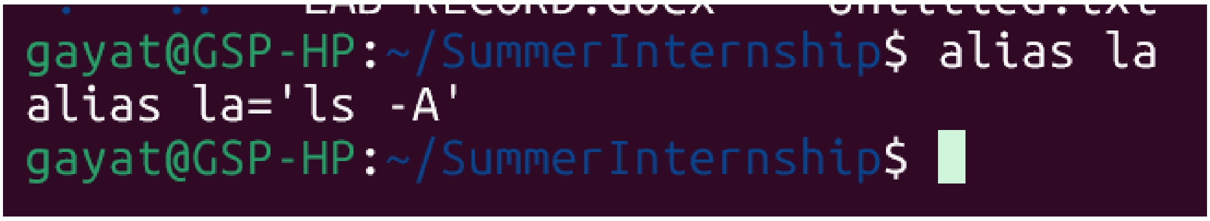
```
gayat@GSP-HP:~$ la
.bash_history  .bashrc  .landscape   .profile                   SummerInternship
.bash_logout   .cache   .motd_shown  .sudo_as_admin_successful  test123
```

I thought ls -a and la did the same, but, ls -a showed all the files- hidden or not, including current and parent directories.



```
gayat@GSP-HP:~/SummerInternship$ la
'LAB RECORD.docx'   Untitled.txt   test2705   '~$B RECORD.docx'
gayat@GSP-HP:~/SummerInternship$ ls -a
 .   ..   'LAB RECORD.docx'   Untitled.txt   test2705   '~$B RECORD.docx'
```

After running alias code for la to know its real function,

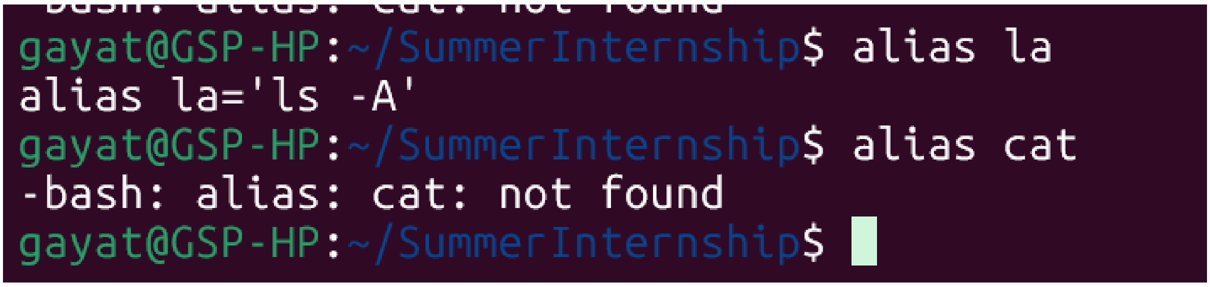


```
gayat@GSP-HP:~/SummerInternship$ alias la
alias la='ls -A'
gayat@GSP-HP:~/SummerInternship$
```

The command la means ls -A, which excludes the parent and current directories.

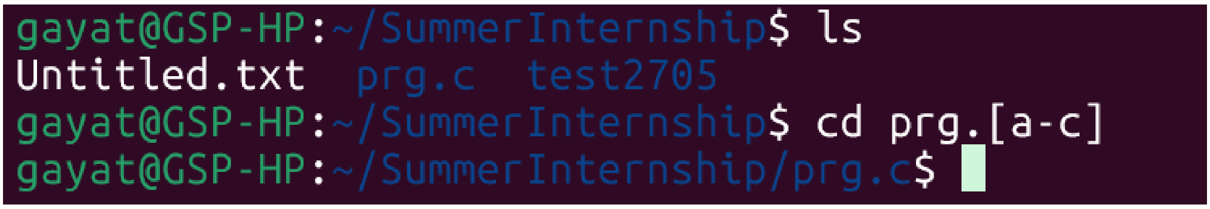
Command	Description
ls	List visible files
ls -a	List **all** files (including hidden)
ls -l	Long listing format
ls -la	Long listing with hidden files
la	Alias (may be ls -l, ls -la, etc.)
cat	A binary executable(A **binary executable** is a file that contains **compiled machine code** — code that your computer's processor can directly run. It's the end result of taking source code (written in a language like C, C++, etc.- the human code) and **compiling** it into a form the computer understands.) cat stands for **concatenate**, and its primary function is **to read and display the contents of files.**

So using alias, no result is found, but using which cat, you get from where the cat is working from.



```
-bash: alias: cat: not found
gayat@GSP-HP:~/SummerInternship$ alias la
alias la='ls -A'
gayat@GSP-HP:~/SummerInternship$ alias cat
-bash: alias: cat: not found
gayat@GSP-HP:~/SummerInternship$
```

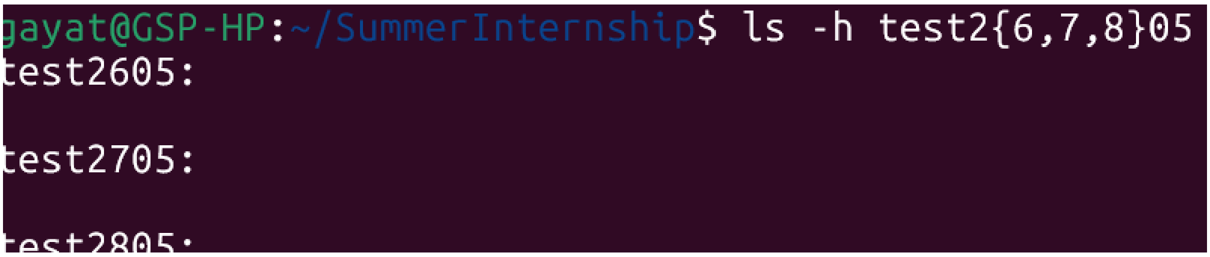
Using set wildcards:



```
gayat@GSP-HP:~/SummerInternship$ ls
Untitled.txt  prg.c  test2705
gayat@GSP-HP:~/SummerInternship$ cd prg.[a-c]
gayat@GSP-HP:~/SummerInternship/prg.c$
```

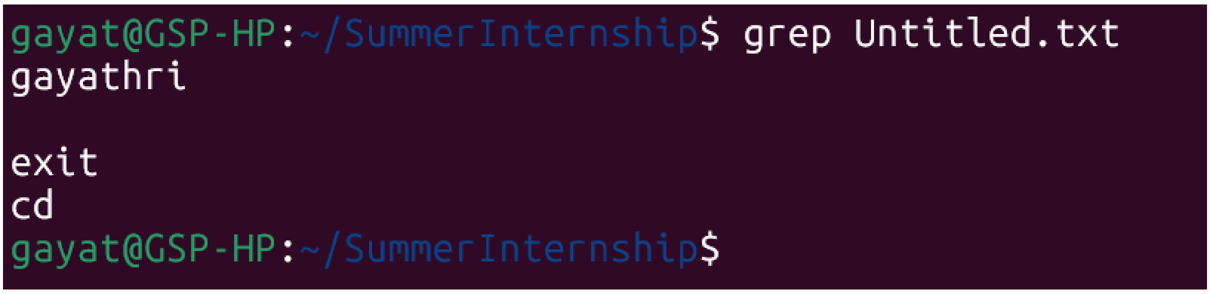
The cd command only takes one argument at a time.

Brace Expansion



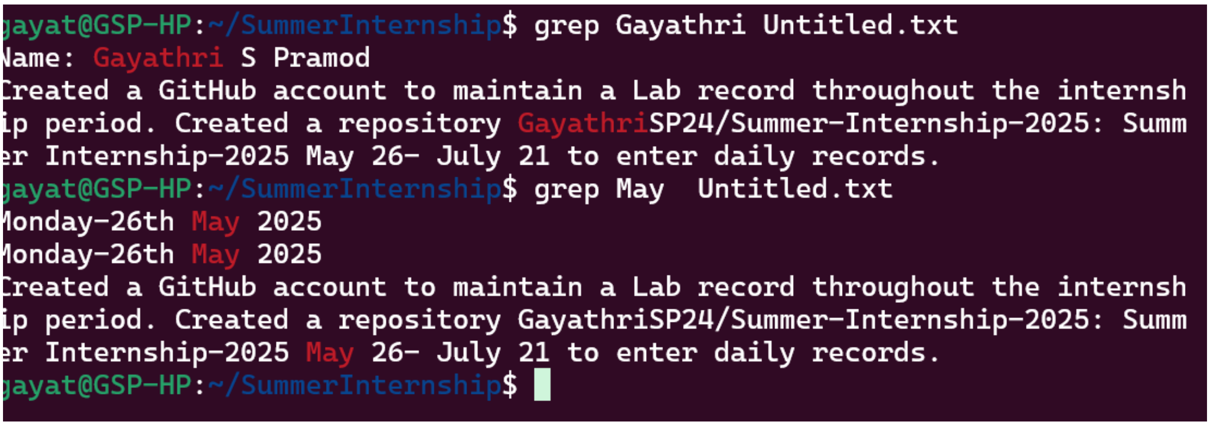
```
gayat@GSP-HP:~/SummerInternship$ ls -h test2{6,7,8}05
test2605:

test2705:

test2805:
```

So, while running the grep command, I didn't follow the correct format, causing it to continue while asking for input. I ended the command using Ctrl+D.



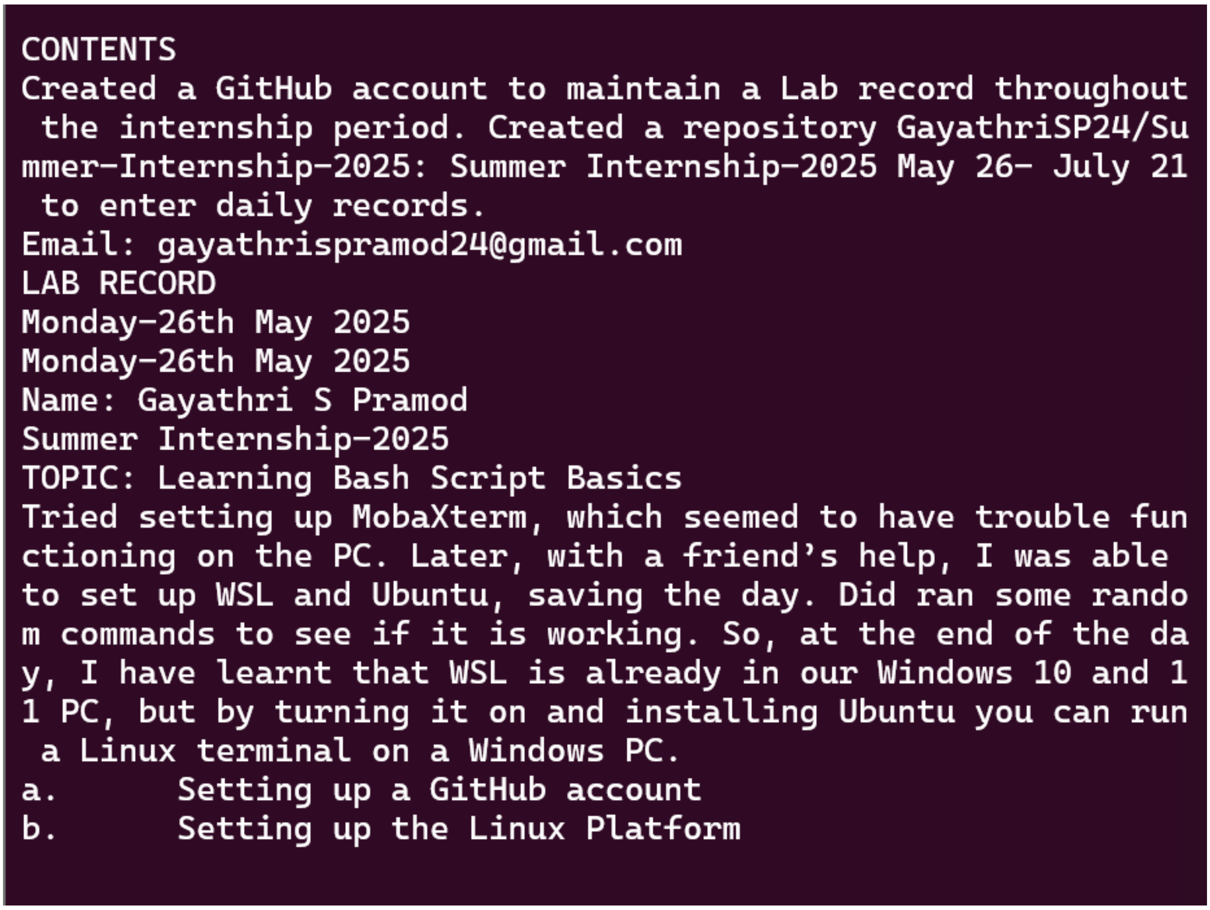
```
gayat@GSP-HP:~/SummerInternship$ grep Untitled.txt
gayathri

exit
cd
gayat@GSP-HP:~/SummerInternship$
```

The correct way to use grep command



```
ayat@GSP-HP:~/SummerInternship$ grep Gayathri Untitled.txt
ame: Gayathri S Pramod
reated a GitHub account to maintain a Lab record throughout the internsh
ip period. Created a repository GayathriSP24/Summer-Internship-2025: Summ
er Internship-2025 May 26- July 21 to enter daily records.
ayat@GSP-HP:~/SummerInternship$ grep May  Untitled.txt
onday-26th May 2025
onday-26th May 2025
reated a GitHub account to maintain a Lab record throughout the internsh
ip period. Created a repository GayathriSP24/Summer-Internship-2025: Summ
er Internship-2025 May 26- July 21 to enter daily records.
ayat@GSP-HP:~/SummerInternship$
```

Sort command- sort (options) (filename)- came in alphabetical order

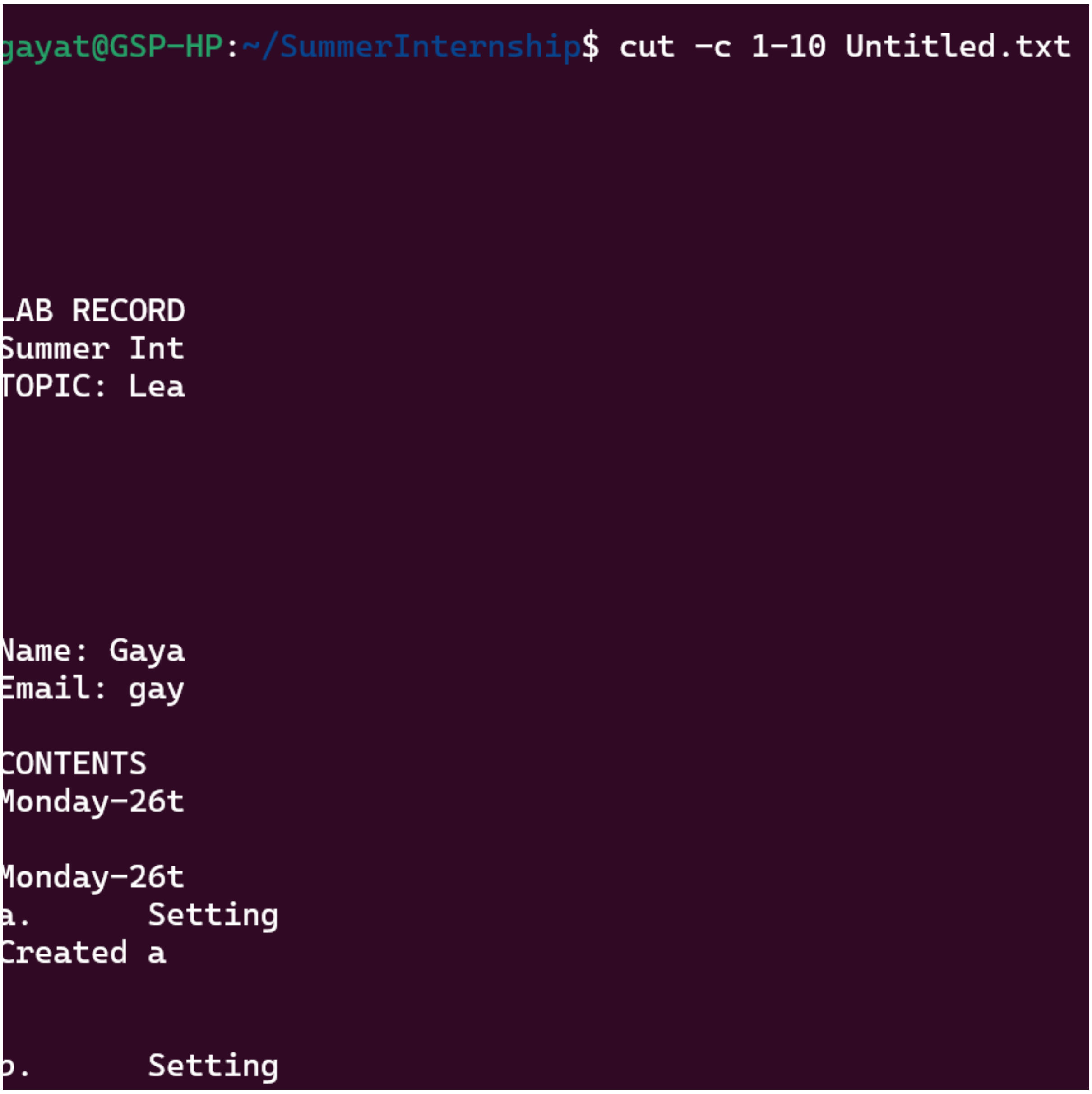


```
CONTENTS
Created a GitHub account to maintain a Lab record throughout
 the internship period. Created a repository GayathriSP24/Su
mmer-Internship-2025: Summer Internship-2025 May 26- July 21
 to enter daily records.
Email: gayathrispramod24@gmail.com
LAB RECORD
Monday-26th May 2025
Monday-26th May 2025
Name: Gayathri S Pramod
Summer Internship-2025
TOPIC: Learning Bash Script Basics
Tried setting up MobaXterm, which seemed to have trouble fun
ctioning on the PC. Later, with a friend's help, I was able
to set up WSL and Ubuntu, saving the day. Did ran some rando
m commands to see if it is working. So, at the end of the da
y, I have learnt that WSL is already in our Windows 10 and 1
1 PC, but by turning it on and installing Ubuntu you can run
 a Linux terminal on a Windows PC.
a.      Setting up a GitHub account
b.      Setting up the Linux Platform
```

Using cut- you need to mention after how many bytes (-b), characters (-c) you need to cut it.

The format is cut -c 1-10 filename

This cuts all the characters after 10th character, which includes the space between each character too.



```
gayat@GSP-HP:~/SummerInternship$ cut -c 1-10 Untitled.txt




LAB RECORD
Summer Int
TOPIC: Lea






Name: Gaya
Email: gay

CONTENTS
Monday-26t

Monday-26t
a.      Setting
Created a


b.      Setting
```

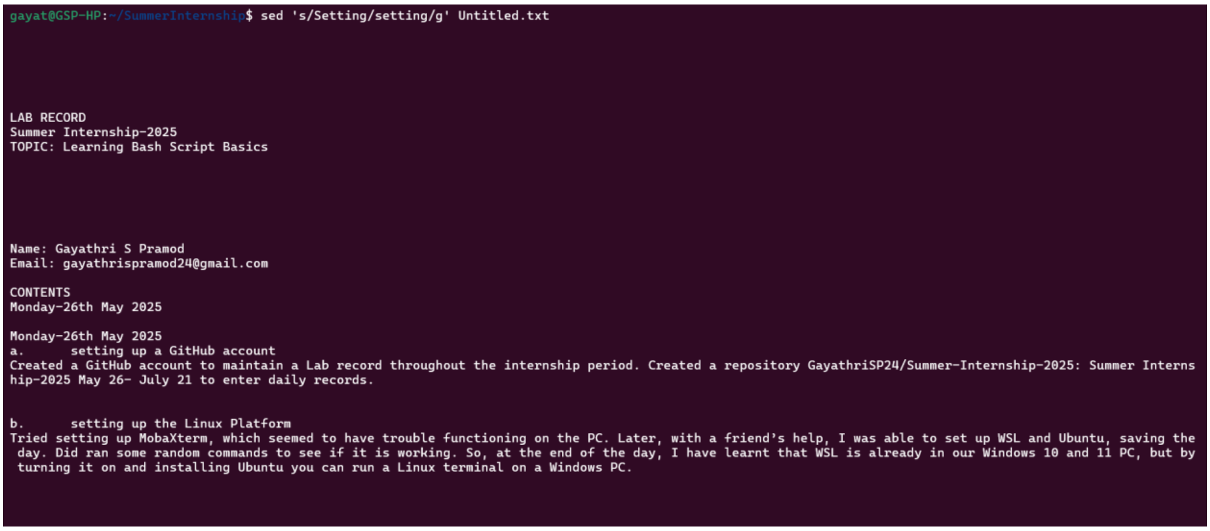
Sed command

Substitution- sed ‘s/to be changed/changed to what/g’ filename

Deletion- sed ‘/word to be deleted/Id’ filename

Print the lines with a word specifically- sed ‘/word/p’ filename

Print only those lines- sed -n ‘/word/p’ filename



```
gayat@GSP-HP:~/SummerInternship$ sed 's/Setting/setting/g' Untitled.txt




LAB RECORD
Summer Internship-2025
TOPIC: Learning Bash Script Basics






Name: Gayathri S Pramod
Email: gayathrispramod24@gmail.com

CONTENTS
Monday-26th May 2025

Monday-26th May 2025
a.      setting up a GitHub account
Created a GitHub account to maintain a Lab record throughout the internship period. Created a repository GayathriSP24/Summer-Internship-2025: Summer Interns
hip-2025 May 26- July 21 to enter daily records.


b.      setting up the Linux Platform
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 day. Did ran some random commands to see if it is working. So, at the end of the day, I have learnt that WSL is already in our Windows 10 and 11 PC, but by
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```

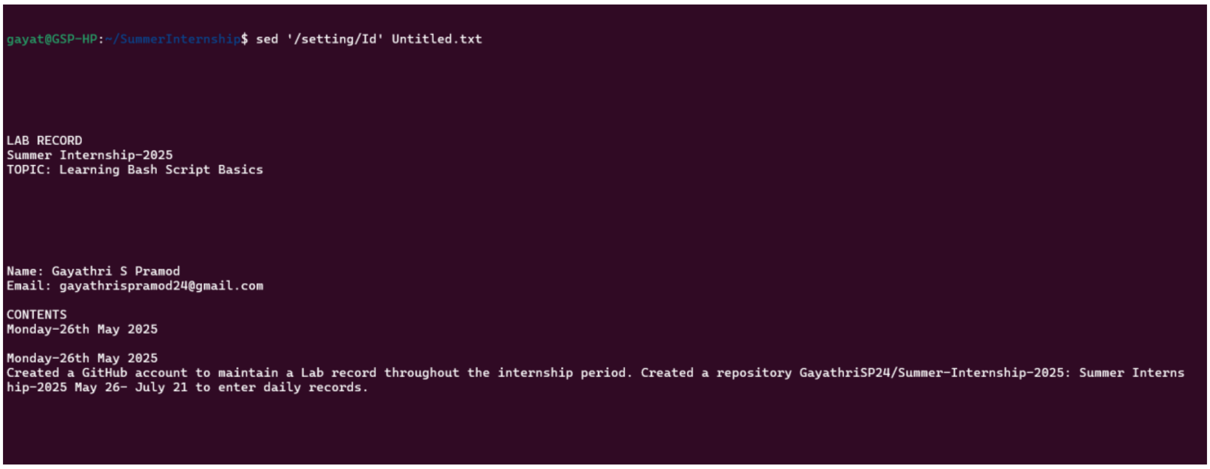

```
gayat@GSP-HP:~/SummerInternship$ sed '/setting/Id' Untitled.txt




LAB RECORD
Summer Internship-2025
TOPIC: Learning Bash Script Basics






Name: Gayathri S Pramod
Email: gayathrispramod24@gmail.com

CONTENTS
Monday-26th May 2025

Monday-26th May 2025
Created a GitHub account to maintain a Lab record throughout the internship period. Created a repository GayathriSP24/Summer-Internship-2025: Summer Interns
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```

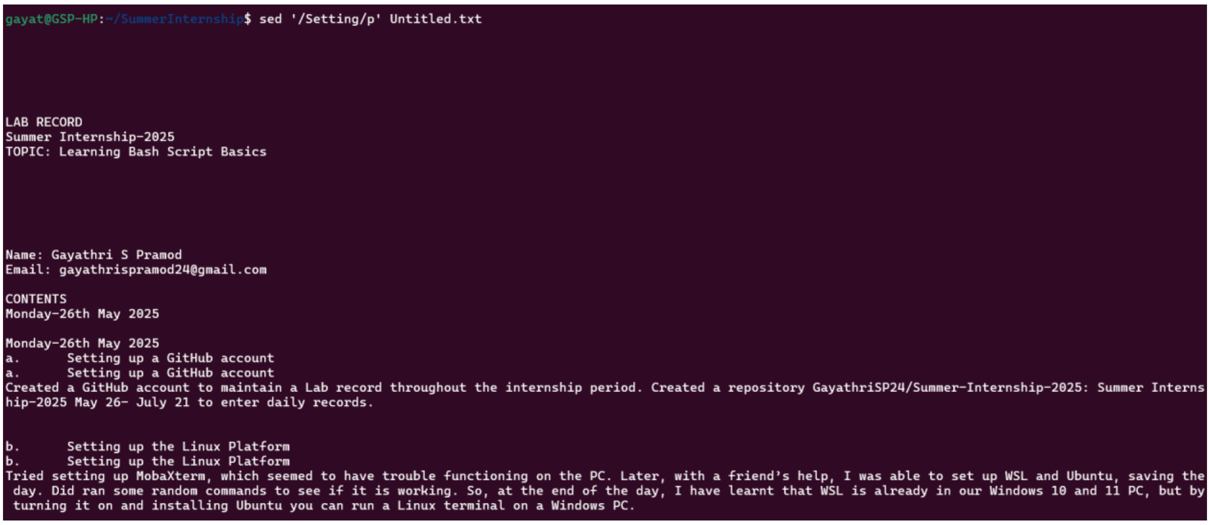

```
gayat@GSP-HP:~/SummerInternship$ sed '/Setting/p' Untitled.txt




LAB RECORD
Summer Internship-2025
TOPIC: Learning Bash Script Basics






Name: Gayathri S Pramod
Email: gayathrispramod24@gmail.com

CONTENTS
Monday-26th May 2025

Monday-26th May 2025
a.      Setting up a GitHub account
a.      Setting up a GitHub account
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```
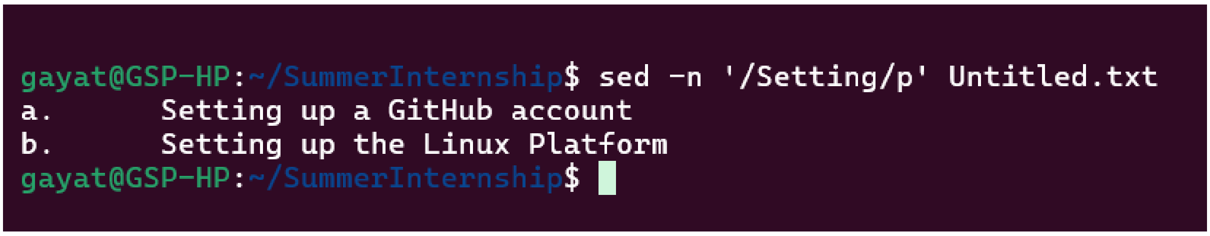
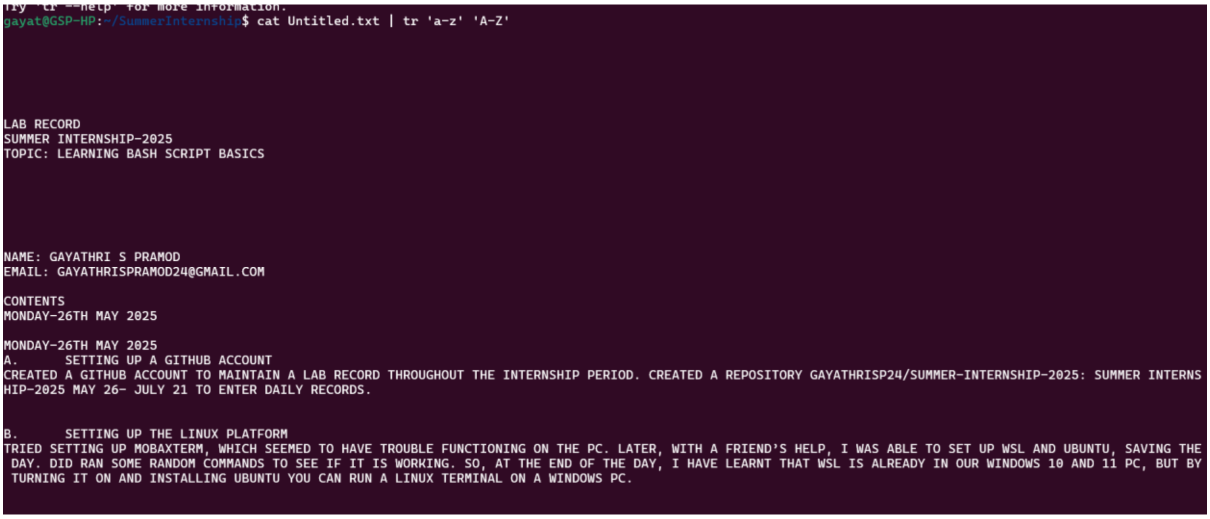



```
gayat@GSP-HP:~/SummerInternship$ sed -n '/Setting/p' Untitled.txt
a.      Setting up a GitHub account
b.      Setting up the Linux Platform
gayat@GSP-HP:~/SummerInternship$
```

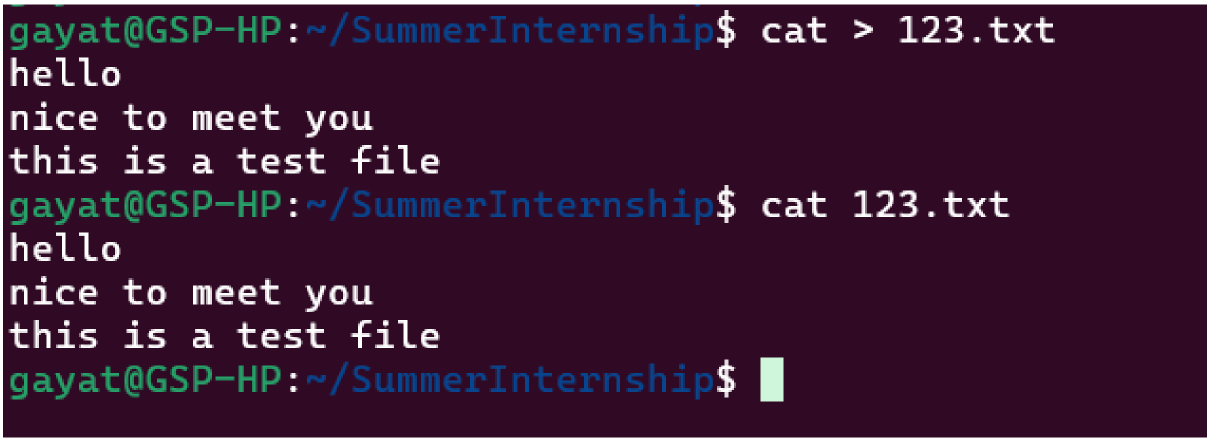
Tr command use- to transliterate or delete something and put something else.

Format: tr set1 set2



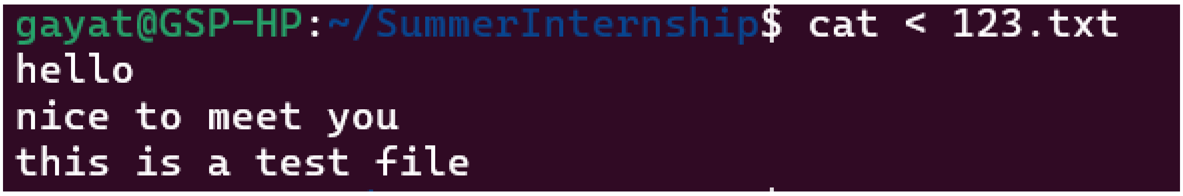
```
Try 'tr --help' for more information.
gayat@GSP-HP:~/SummerInternship$ cat Untitled.txt | tr 'a-z' 'A-Z'




LAB RECORD
SUMMER INTERNSHIP-2025
TOPIC: LEARNING BASH SCRIPT BASICS






NAME: GAYATHRI S PRAMOD
EMAIL: GAYATHRISPRAMOD24@GMAIL.COM

CONTENTS
MONDAY-26TH MAY 2025

MONDAY-26TH MAY 2025
A.      SETTING UP A GITHUB ACCOUNT
CREATED A GITHUB ACCOUNT TO MAINTAIN A LAB RECORD THROUGHOUT THE INTERNSHIP PERIOD. CREATED A REPOSITORY GAYATHRISP24/SUMMER-INTERNSHIP-2025: SUMMER INTERNS
HIP-2025 MAY 26- JULY 21 TO ENTER DAILY RECORDS.


B.      SETTING UP THE LINUX PLATFORM
TRIED SETTING UP MOBAXTERM, WHICH SEEMED TO HAVE TROUBLE FUNCTIONING ON THE PC. LATER, WITH A FRIEND’S HELP, I WAS ABLE TO SET UP WSL AND UBUNTU, SAVING THE
 DAY. DID RAN SOME RANDOM COMMANDS TO SEE IF IT IS WORKING. SO, AT THE END OF THE DAY, I HAVE LEARNT THAT WSL IS ALREADY IN OUR WINDOWS 10 AND 11 PC, BUT BY
 TURNING IT ON AND INSTALLING UBUNTU YOU CAN RUN A LINUX TERMINAL ON A WINDOWS PC.
```

This way, you are directing the standard output to the file.(> is for redirecting output)



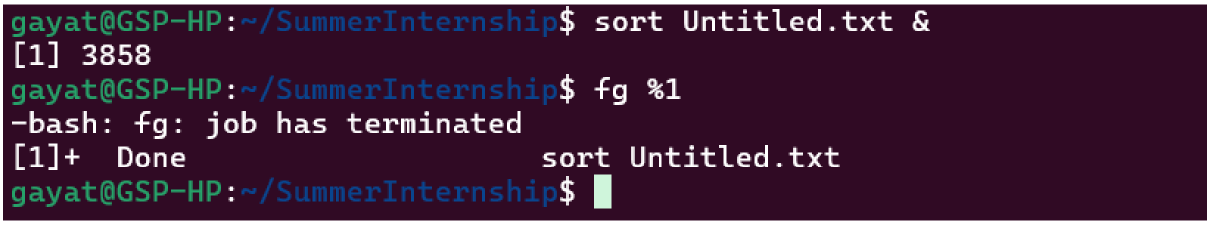
```
gayat@GSP-HP:~/SummerInternship$ cat > 123.txt
hello
nice to meet you
this is a test file
gayat@GSP-HP:~/SummerInternship$ cat 123.txt
hello
nice to meet you
this is a test file
gayat@GSP-HP:~/SummerInternship$
```

This way, the contents of the file become standard input, by redirecting it. So the screen prints the contents of the file (< for redirecting input)



```
gayat@GSP-HP:~/SummerInternship$ cat < 123.txt
hello
nice to meet you
this is a test file
```

Background Jobs



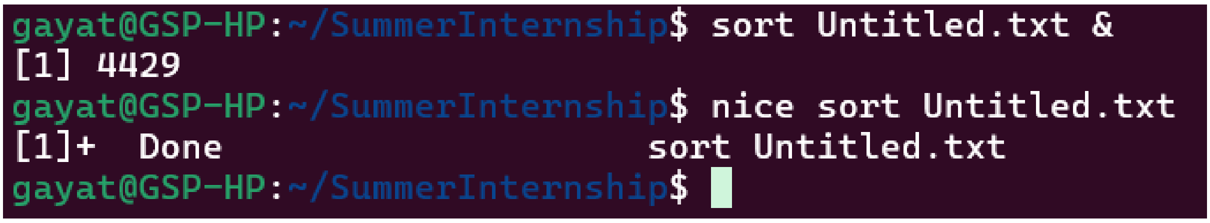
```
gayat@GSP-HP:~/SummerInternship$ sort Untitled.txt &
[1] 3858
gayat@GSP-HP:~/SummerInternship$ fg %1
-bash: fg: job has terminated
[1]+  Done                    sort Untitled.txt
gayat@GSP-HP:~/SummerInternship$
```

Here, with the &, you make the sorting process a background job and since only one work was going on, it got priority 1 and the 3858 is the process ID. With fg %1, you brought the command foreground and it showed a completion message.

Priority for BG Jobs

The command ‘nice’ is used to lower the priority of the job and run/rerun the command.(You are asking the command to be nicer and not take too much CPU power!)

Here, you successfully ran sort in the background, and then you successfully ran sort again with a lower priority using nice. The [1]+ Done message just happened to appear when your previous background job completed.



```
gayat@GSP-HP:~/SummerInternship$ sort Untitled.txt &
[1] 4429
gayat@GSP-HP:~/SummerInternship$ nice sort Untitled.txt
[1]+  Done                    sort Untitled.txt
gayat@GSP-HP:~/SummerInternship$ 
```

Echo- a command used to print whatever you type in.

For continuing the line, just press shift+ enter to the next line.