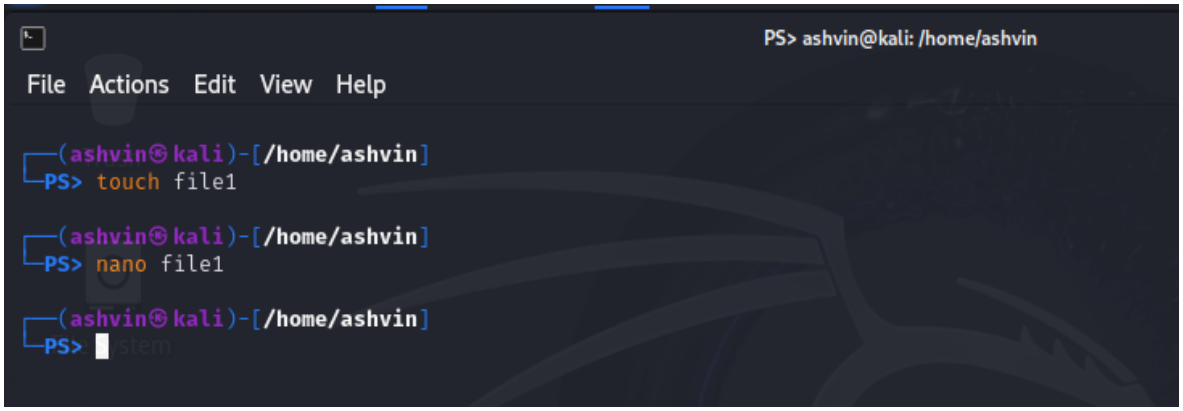
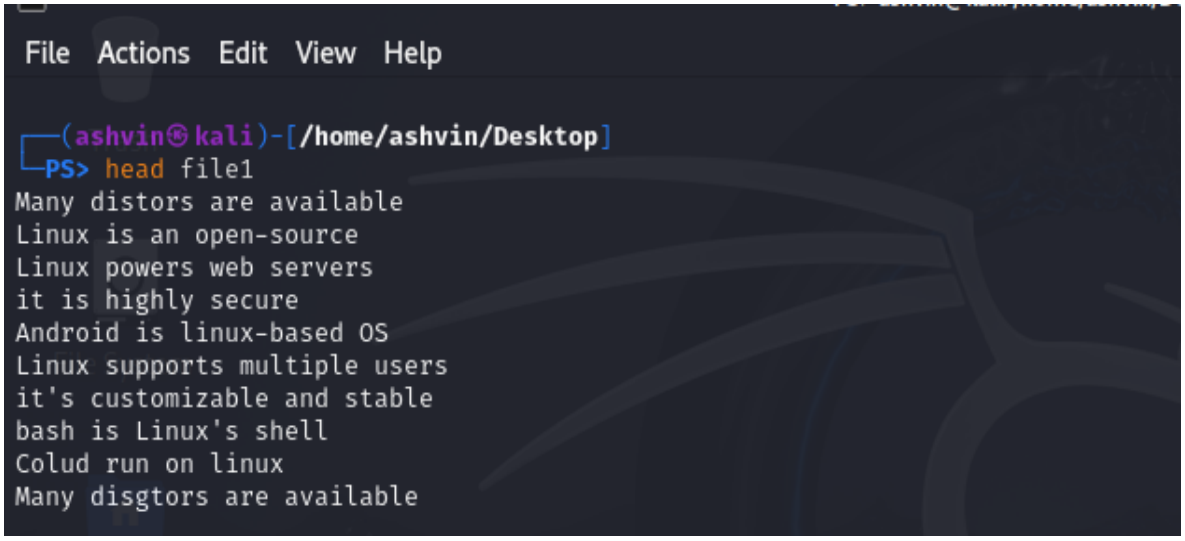
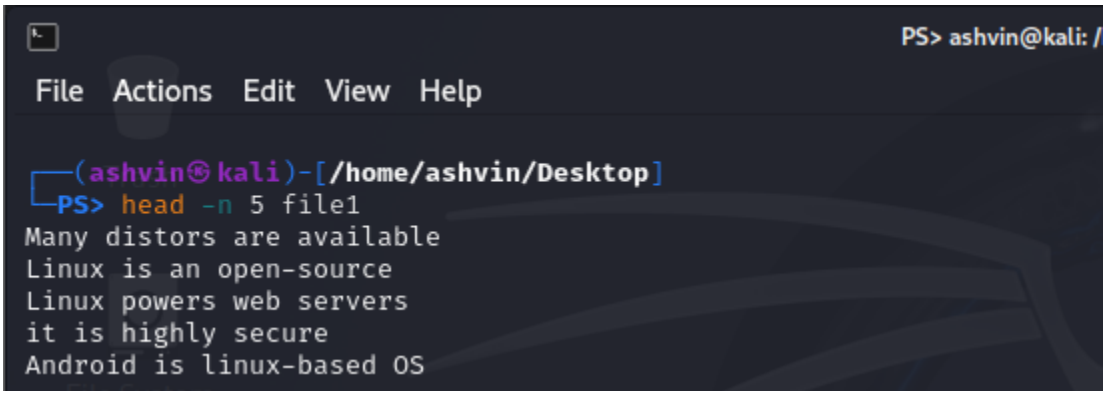
Lab 4
Filter commands

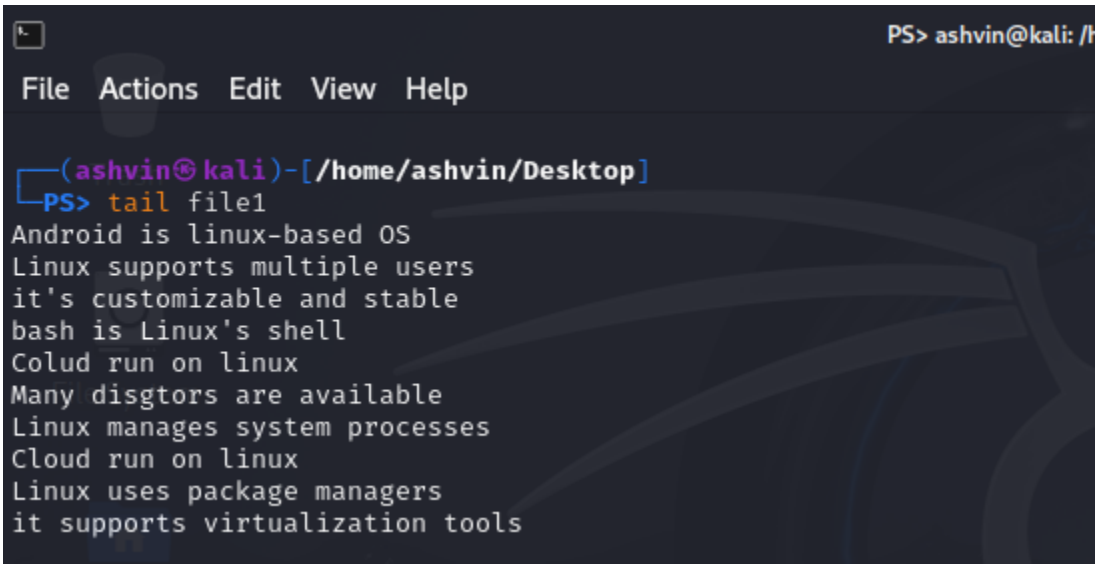
1. head command (create file1.see the end of the page for the content of file1)
    - give command which prints first 10 lines without specifying any number.
    - give the command which prints first 5 lines.

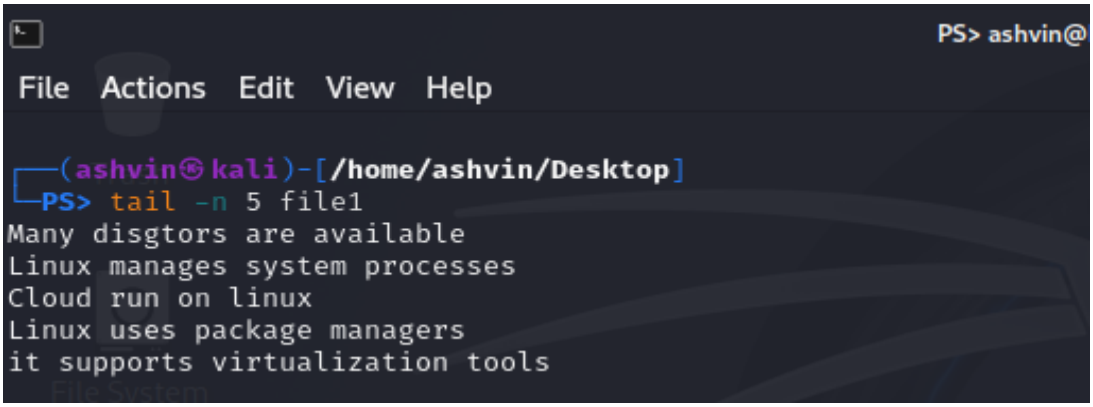






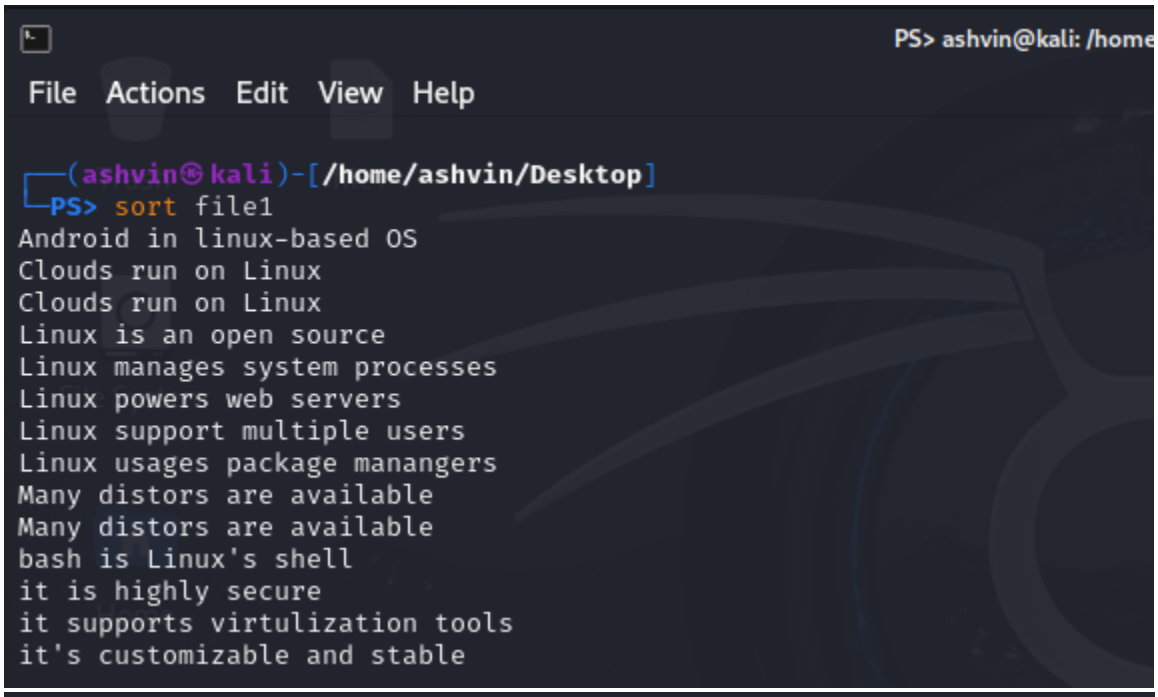
2. tail command (use file1)
   - give command which prints last 10 lines without specifying any number.
   - give the command which prints last 5 lines.

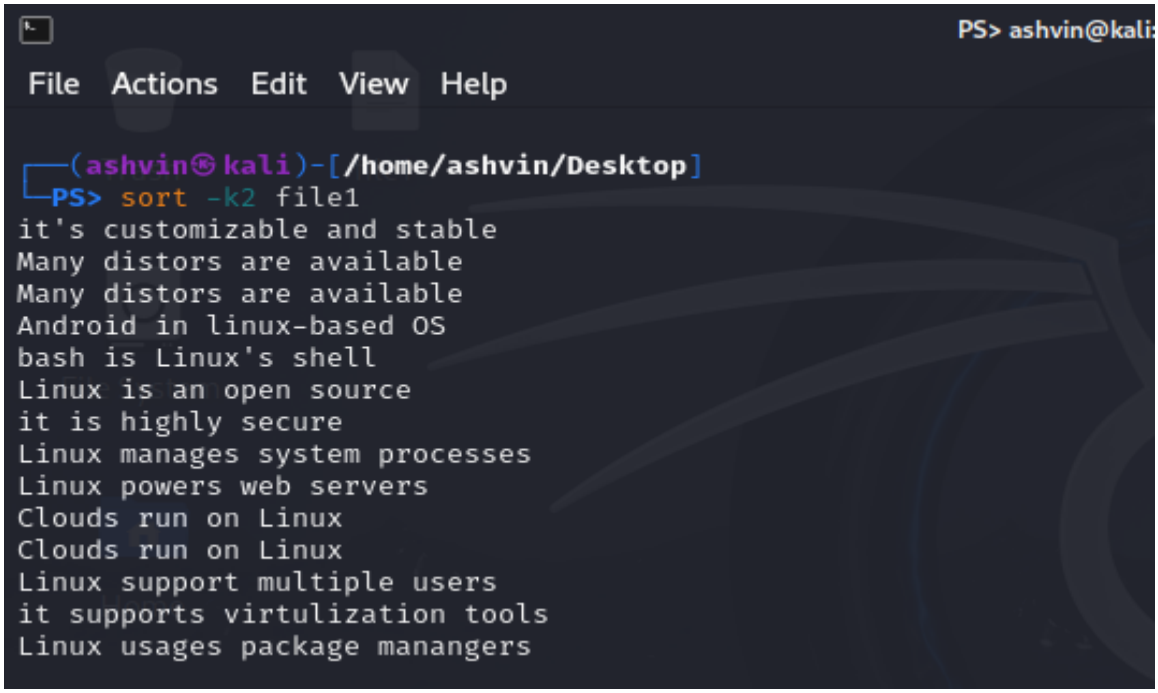




3. sort command (use file1)

- sort the file
- sort a file by using column 2
- sort a file by numbers which in column 3

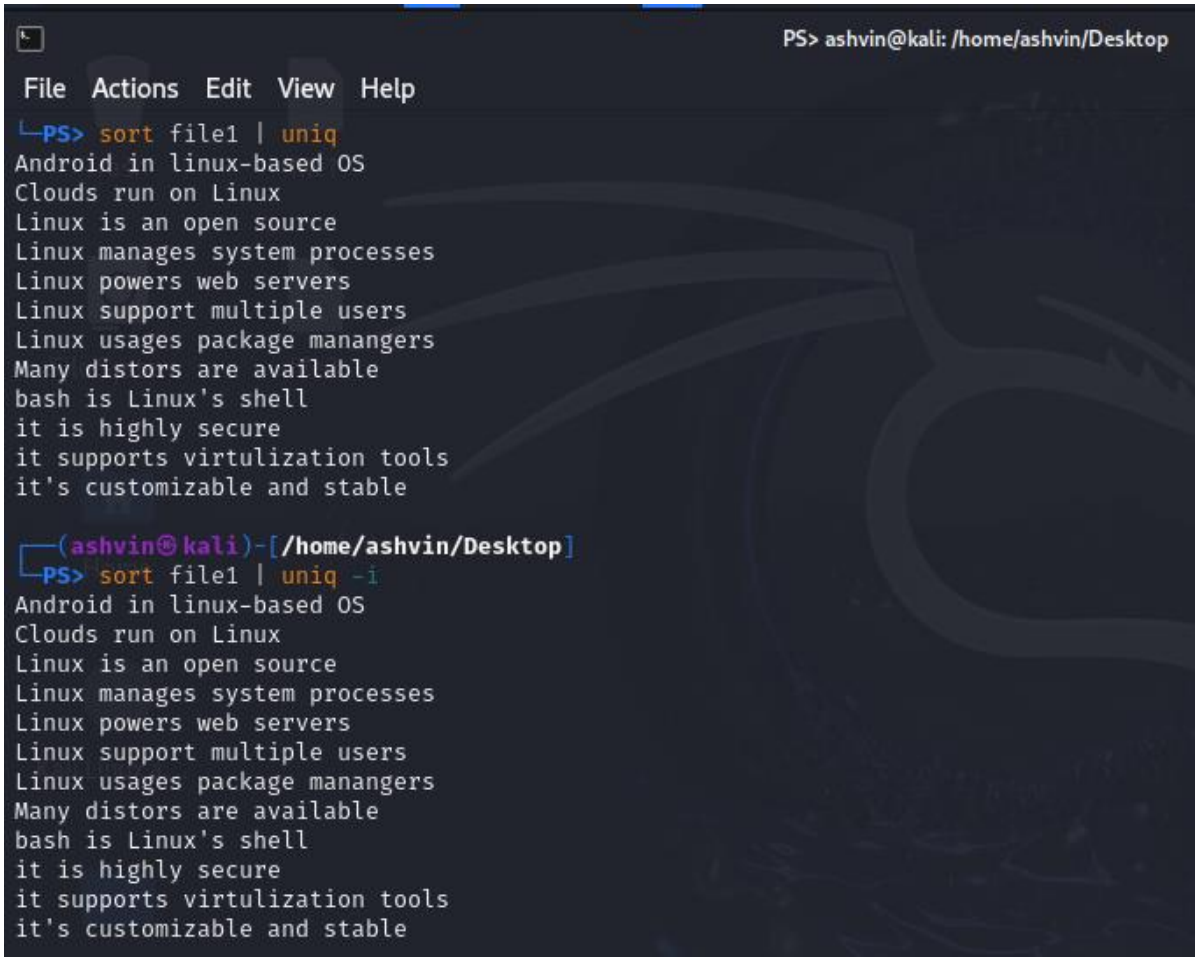


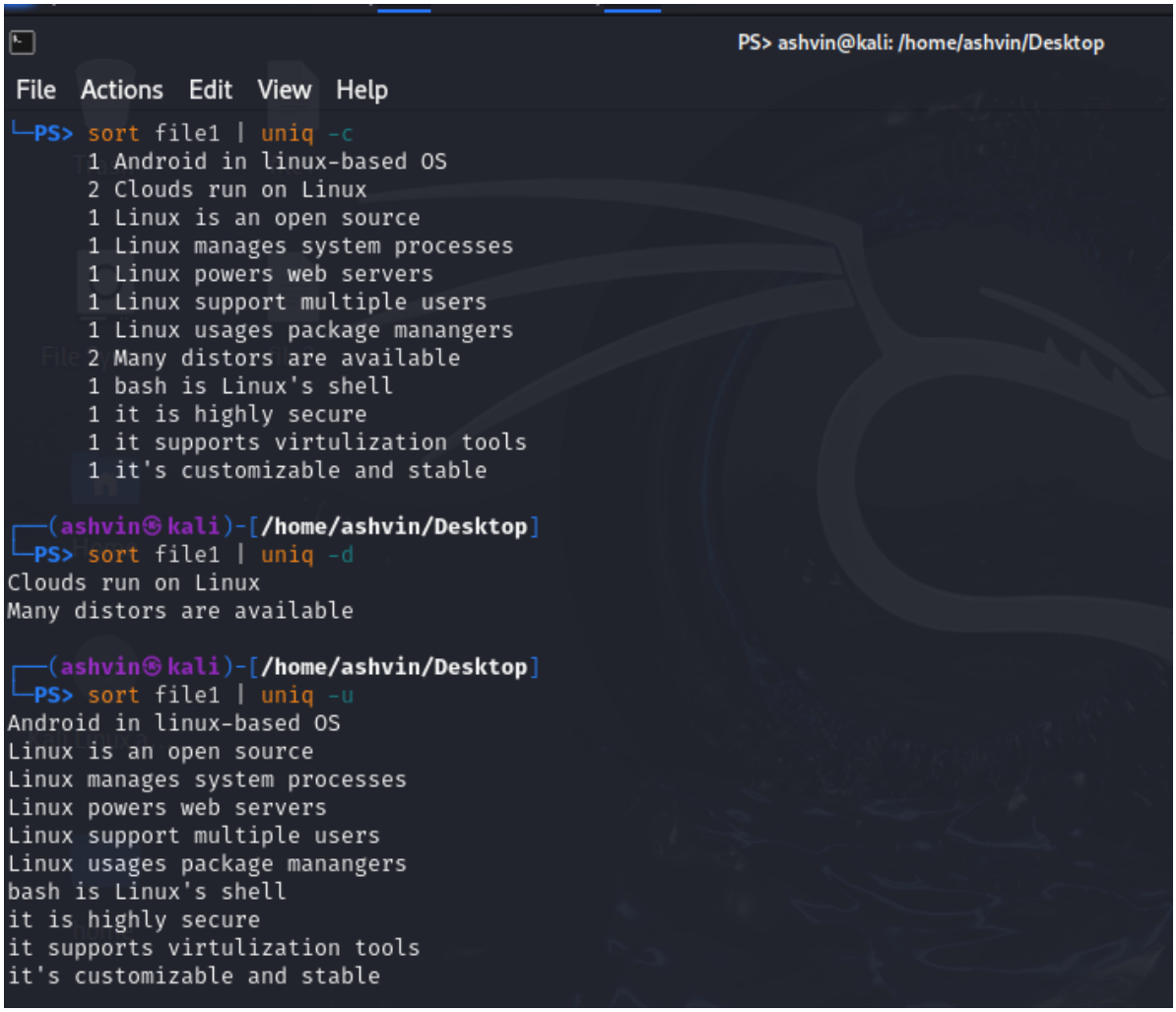


```
┌──(ashvin㉿kali)-[/home/ashvin/Desktop]
└─PS> sort -n -k3 file1
Android in linux-based OS
Clouds run on Linux
Clouds run on Linux
Linux is an open source
Linux manages system processes
Linux powers web servers
Linux support multiple users
Linux usages package manangers
Many distors are available
Many distors are available
bash is Linux's shell
it is highly secure
it supports virtulization tools
it's customizable and stable
```

4. uniq command (use file1)
    - remove duplicates line from file (you can only remove duplicates line while it is sorted if it is not sorted you have to use sort command along with the pipe)

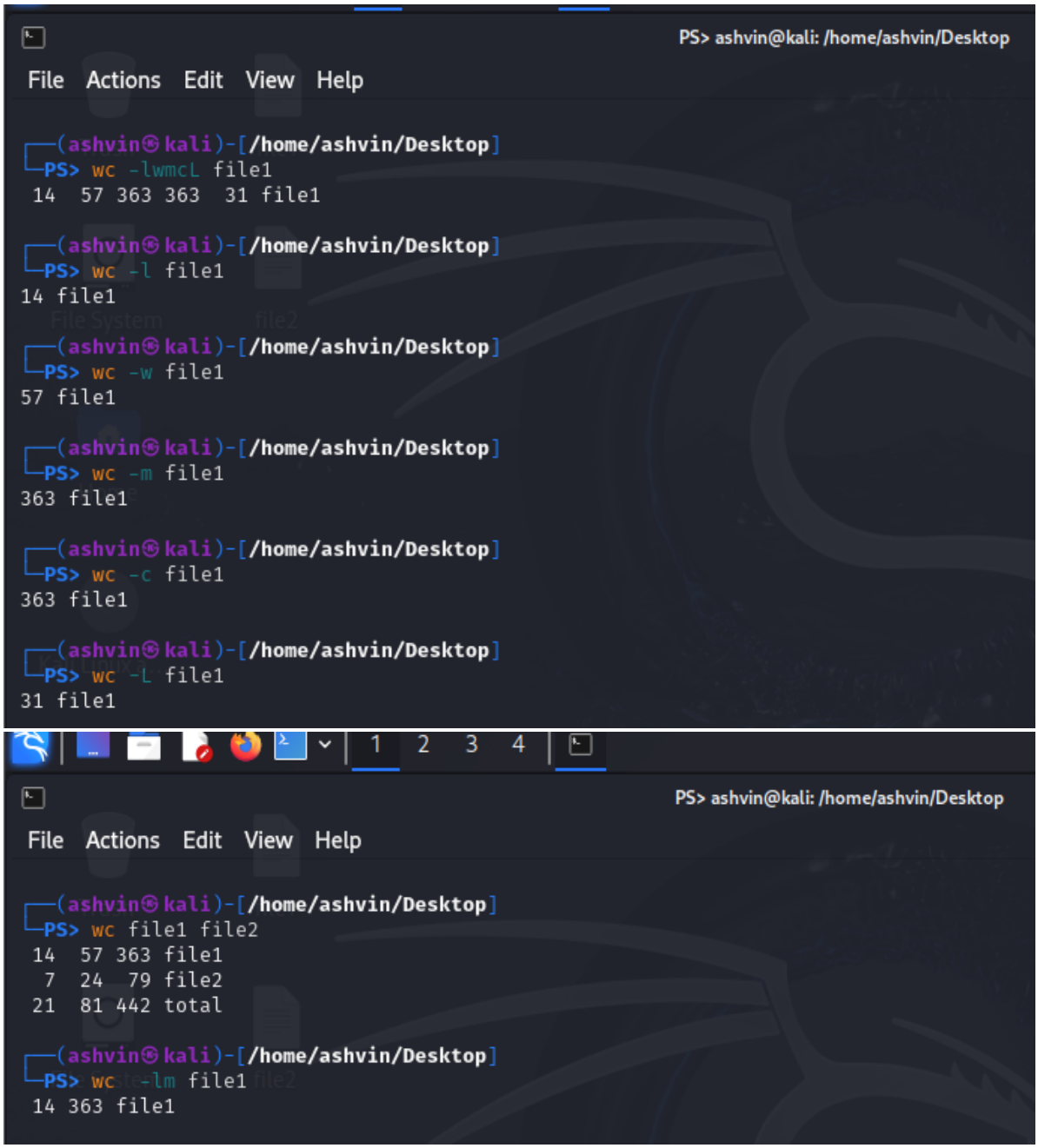
    - change First letter uppercase to lowercase in **one** of the two similar lines.
    - write the uniq command which ignores the case differences
    - again change the cases as original content
    - prefixes the line by number of occurrences.
    - Prints only duplicate line.
    - Print only uniq line.


PS> ashvin@kali: /home/ashvin/Desktop
File Actions Edit View Help
└─PS> sort file1 | uniq
Android in linux-based OS
Clouds run on Linux
Linux is an open source
Linux manages system processes
Linux powers web servers
Linux support multiple users
Linux usages package manangers
Many distors are available
bash is Linux's shell
it is highly secure
it supports virtulization tools
it's customizable and stable
┌──(ashvin㉿kali)-[/home/ashvin/Desktop]
└─PS> sort file1 | uniq -i
Android in linux-based OS
Clouds run on Linux
Linux is an open source
Linux manages system processes
Linux powers web servers
Linux support multiple users
Linux usages package manangers
Many distors are available
bash is Linux's shell
it is highly secure
it supports virtulization tools
it's customizable and stable



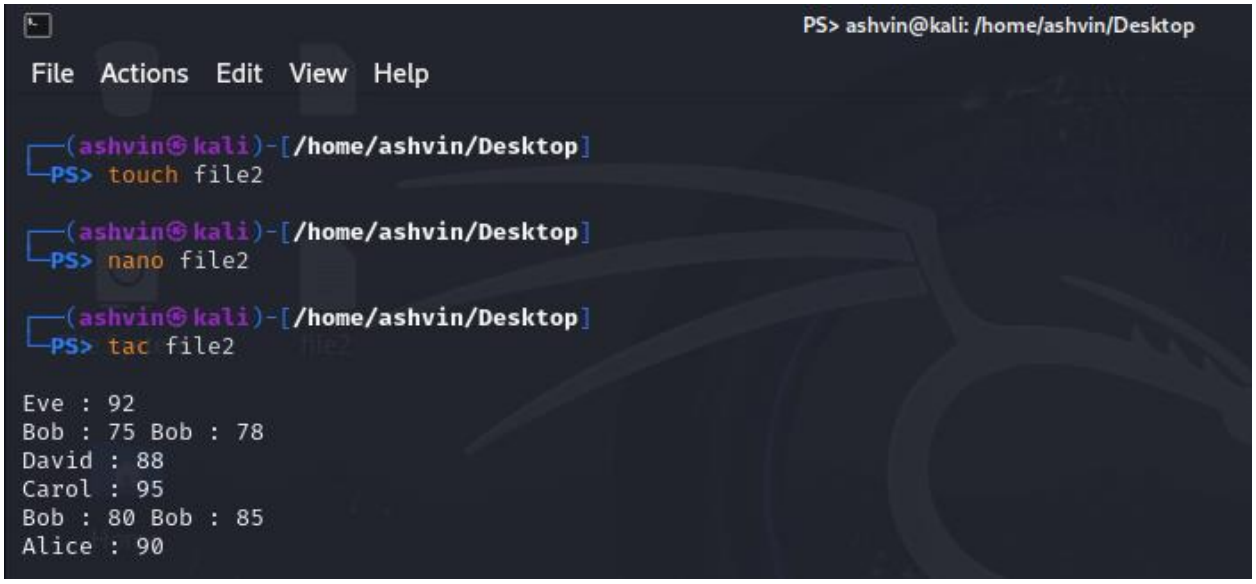
5. wc command (use file1)
    - give the command which prints number of lines, word, and characters/bytes.
    - Count only lines
    - Count only words
    - Count only characters
    - Count only bytes
    - Count maximux line length
    - List the lines, words, and characters of multiple files

- Print only lines and characters of particular file using combine option.



6. tac command

Use file2 Content which is at the end of the page

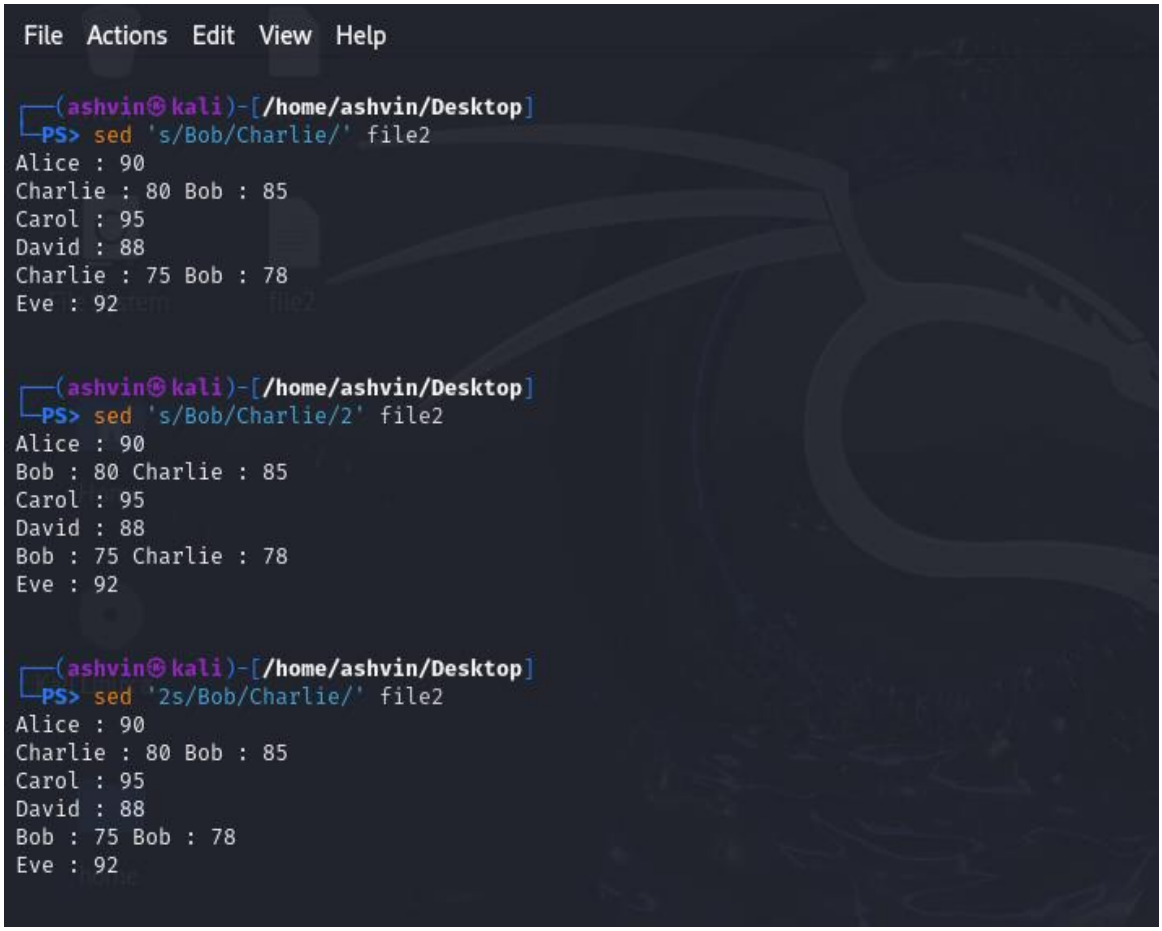


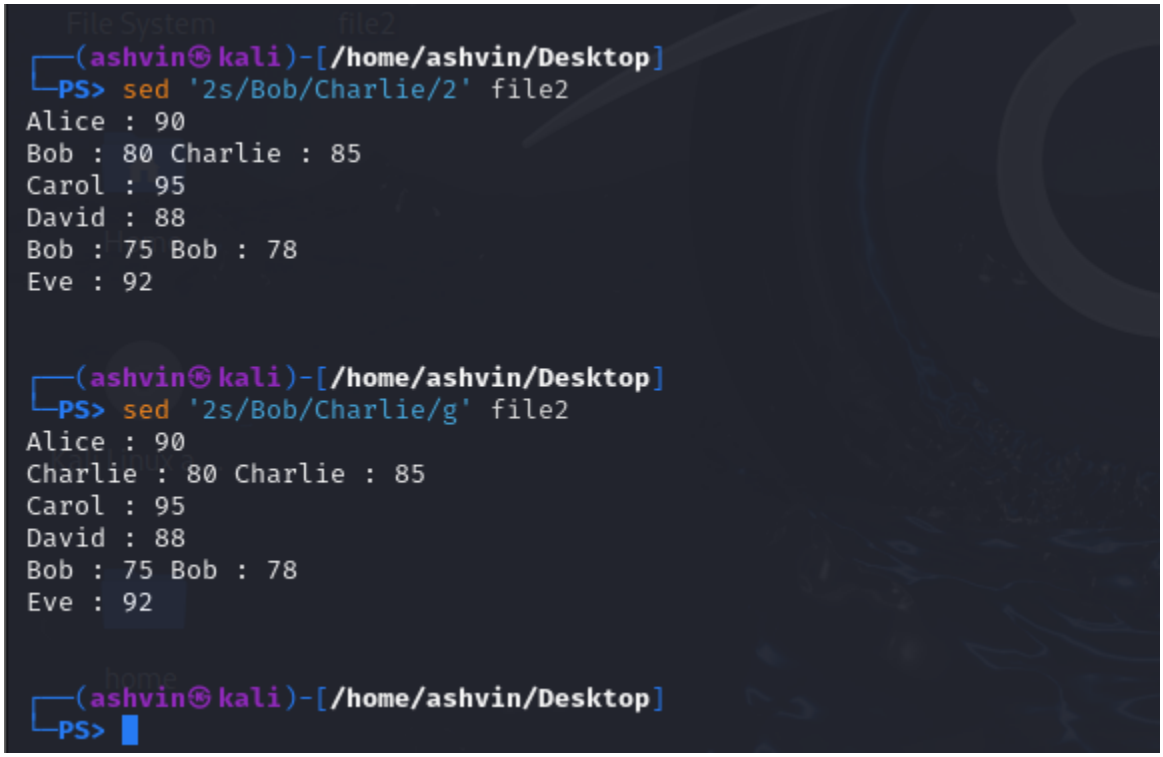
7. sed command : It allows us to apply search and replace operation on our data effectively. Use the following data throughout this command.

   Alice : 90
   Bob : 85 Bob : 80
   Carol : 95
   David: 88
   Bob: 75
   Eve: 92

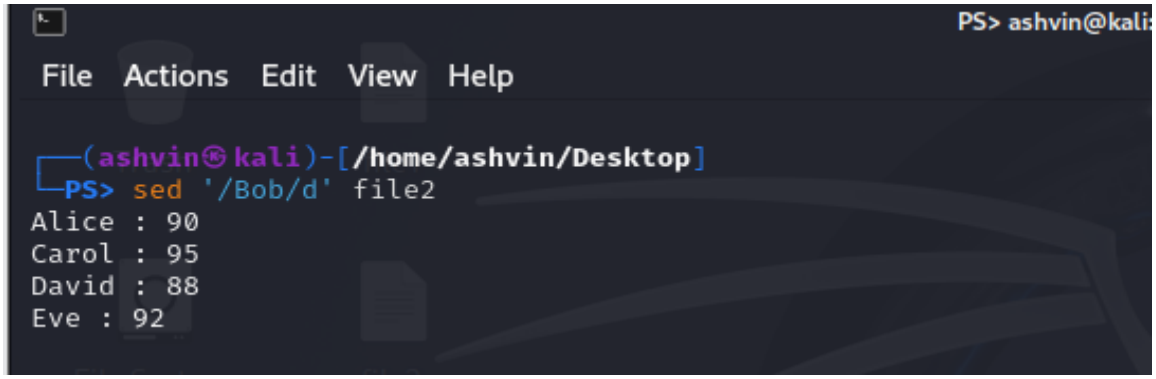
   - **Substitute :** sed ‘s/Bob/Charlie/’ file2 : Replace first occurrence of each line
   - sed ‘s/Bob/Charlie/2’ file2 : Replace second occurrence of each line

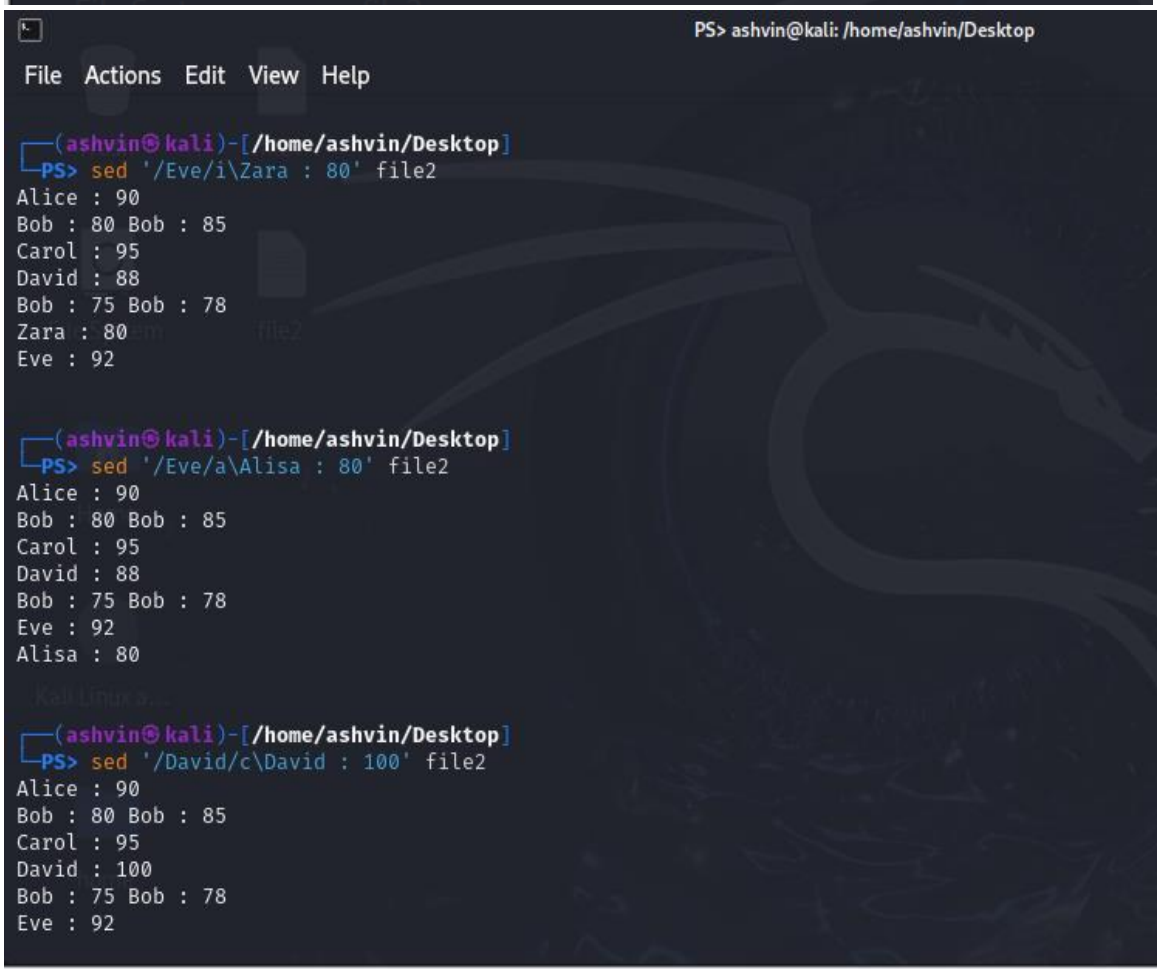
- sed ‘s/Bob/Charlie/g’ file2 : Replace all occurrences(all Bobs) exist on file1. ‘g’ means globally.
- sed ‘2s/Bob/Charlie/’ file2: Replace first occurrence of line 2 only.
- sed ‘2s/Bob/Charlie/2’ file2 : Replace second occurrence(Second Bob) of line 2 only.
- sed ‘2s/Bob/Charlie/g’ file2 : Replace all Bob on line2
- **Delete :** sed ‘/Bob/d’ file2 : delete the whole line which matches specific word.
- **Print :** sed -n ‘/David/p’ file2 : Print the whole line which matches the word David
- **Insert:** sed ‘/Eve/i\Zara : 80 ’ file2 : Insert a new line before a pattern.
- **Append:** sed ‘/Eve/a\Alisa : 80’ file2: Append a new line after a matching pattern.
- **Replace:** sed '/David/c\David : 100' file2 : This Replace the entire line that matches the pattern.



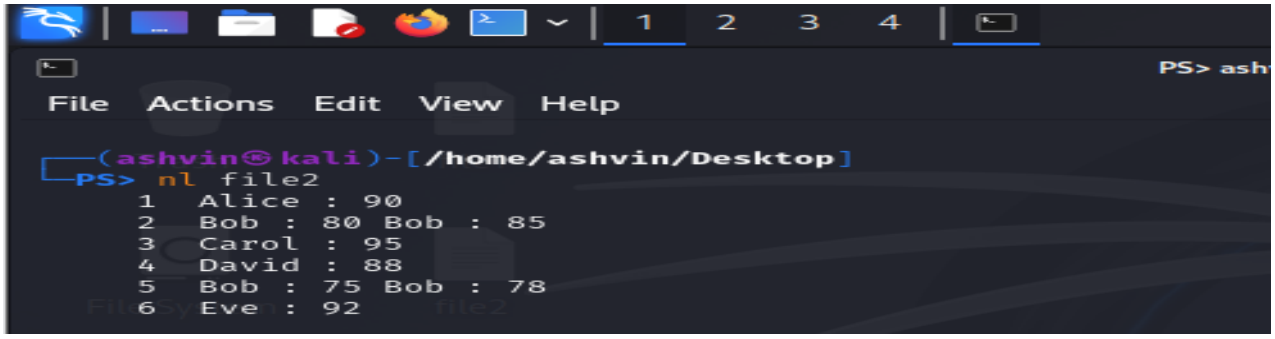


Name:Parmar Ashvin R Enrollment No:24034211039

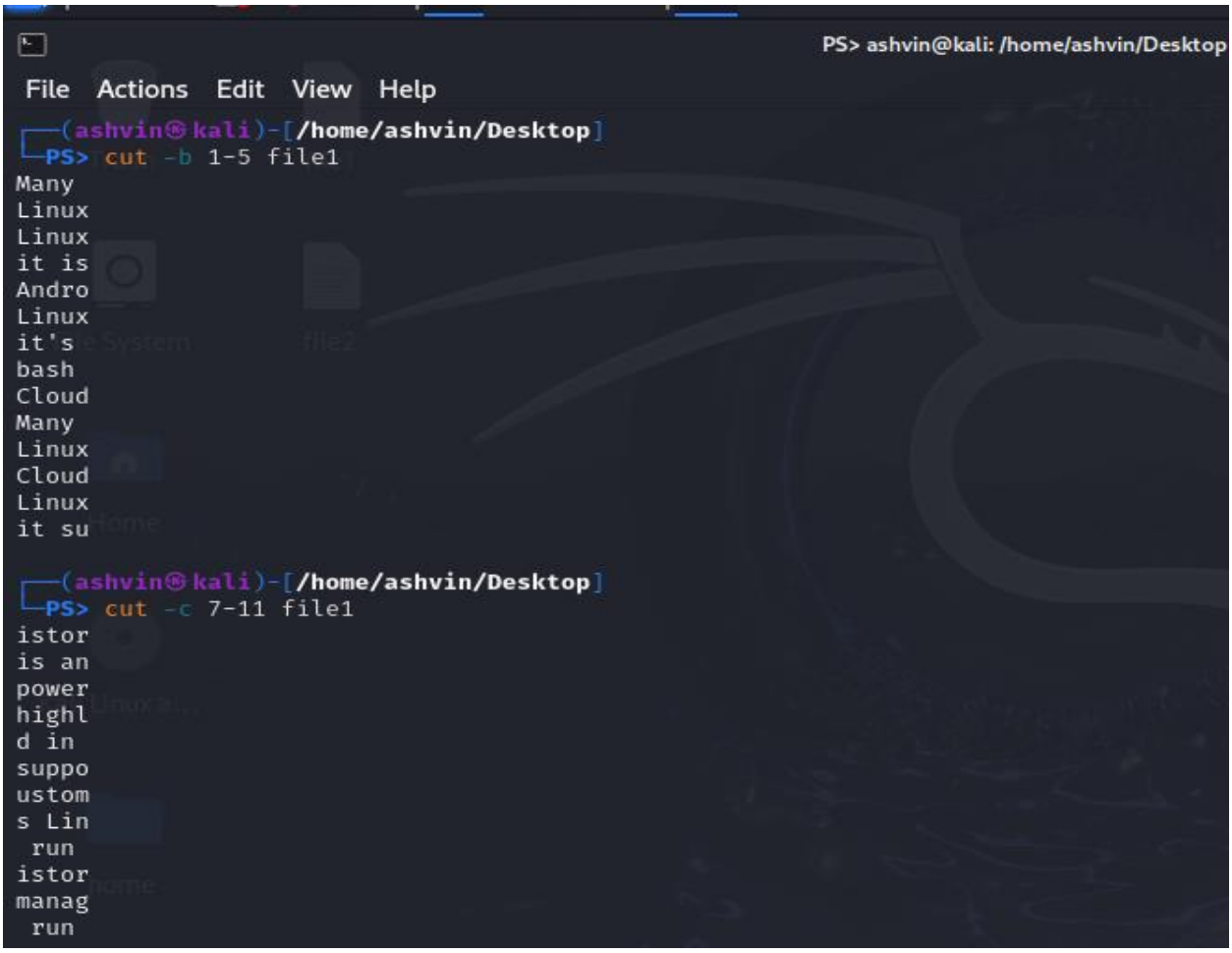




8. nl command : number each line



9. cut command :



File1

Many distros are available.

Linux is an open-source.

Linux powers web servers

Name:Parmar Ashvin R Enrollment No:24034211039

it is highly secure.

Android is Linux-based OS.

Linux supports multiple users.

It’s customizable and stable.

bash is Linux’s shell.

Clouds run on Linux.

Many distros are available.

Linux manages system processes.

Clouds run on Linux.

Linux uses package managers.

It supports virtualization tools.

File2

Alice : 90

Bob : 85 Bob : 80

Carol : 95

David: 88

Bob: 75 Bob : 78

Eve: 92