NETWORKING & SYSTEM ADMINISTRATION LAB

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Batch: B

Date: 28/3/2022

Experiment No.: 3

Aim

Familiarization of the linux commands.

Procedure

17. cat -n

This command is used to specify the contents with line number.

Syntax :- $ cat -n filename

Output :

```
student@S55:~$ cat -n a.txt
     1  student  mark
     2  anu     30
     3  sree   30
     4  lachu   50
     5  akhil  75
     6  kichu 29
     7  sachu 40
     8  appu  80
     9  sam  48
    10
    11  ammu  45
    12
```

18. cat -b

This command is used to remove the empty lines from the file.

Syntax :- $ cat -b filename

Output :

```
student@S55:~$ cat -b a.txt
     1  student  mark
     2  anu     30
     3  sree   30
     4  lachu   50
     5  akhil  75
     6  kichu 29
     7  sachu 40
     8  appu  80
     9  sam  48
    10
    11  ammu  45
```

19. touch

This command is used to create an empty file.

Syntax :- $ touch filename

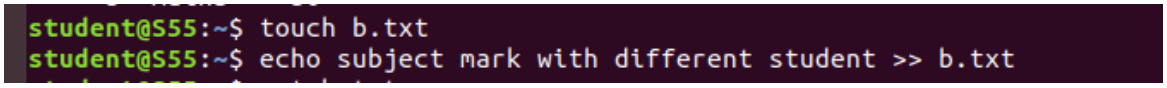
Output :

20. echo

This command is used to add contents to the file.

Syntax :- $ echo content >> filename

Output :- Contents will be added to the file.



21. head

This command is used to display the first 10 lines of the file by default.

Syntax :- $ head filename

Output:

22. head -3 filename

This command is used to display the lines of the file to the specified number from head.

Syntax :- $ head -n filename

Output :

```
student@S55:~$ head -3 a.txt
student  mark
anu     30
sree    30
```

23. tail

This command is used to display the last 10 lines of the file by default.

Syntax :- $ tail filename

Output :

```
student@S55:~$ tail a.txt
sree   30
lachu   50
akhil  75
kichu 29
sachu 40
appu  80
sam  48

ammu  45
```

24. tail -3 a.txt

This command is used to display the lines of the file to the specified number from tail.

Syntax :- $ tail -n filename

Output :-

```
student@S55:~$ tail -2 a.txt
ammu  45
```

25. cut -d- -f2

This command is used to cut and the display the contents based on the delimiter given.

Syntax :- $ cut -d- -f2 filename

Output :

26. rmdir :

Used to delete a directory if it is empty.

Syntax : $ rmdir [directory name]

Output :

27. **cut -b 2 [filename] :** It can be used to cut parts of a line by byte position(n).

syntax : cut -b number filename

output:

```
student@S55:~$ cut -b 2 a.txt
t
n
r
a
k
i
a
p
a

m
```

28. cut --complement -c 1 [filename] :

This option instructs cut to display all thefields, bytes or characters except the selected.

Syntax : $ cut –complement -c num [filename]

Output :

```
student@S55:~$ cut --complement -c 1 a.txt
tudent  mark
nu     30
ree   30
achu   50
khil  75
ichu 29
achu 40
ppu  80
am  48

mmu  45
```

29. paste a.txt b.txt :

To paste the content in one file to another file.

Syntax : $ paste file1 file2

Output:

```
student@S55:~$ paste a.txt b.txt
student  mark   123
anu     30      abc
sree   30       hello
lachu   50
akhil  75
kichu 29
sachu 40
appu  80
sam  48

ammu  45
```

30. paste a.txt b.txt > c.txt :

To copy the contents of two given files to athird file.

Syntax : $ paste file1 file2 > file

Output:

31. paste -d '%|' a.txt b.txt c.txt :

Two delimiters are used. The lines from the first and the second file are separated with the first character from the delimiters list. The second and the third file lines are separated with the second delimiter.

Syntsx : $ paste -d '%|' file2 file 1

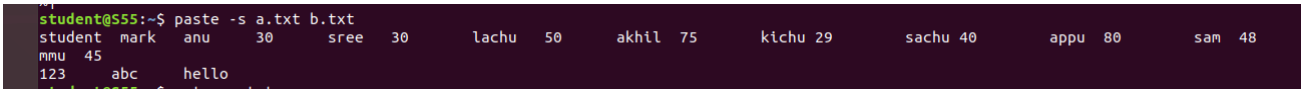
Output:

32. paste -s a.txt b.txt:

This command will merge all lines from the given filein separated lines.

Syntax : $ paste -s file 1 file2

Output:

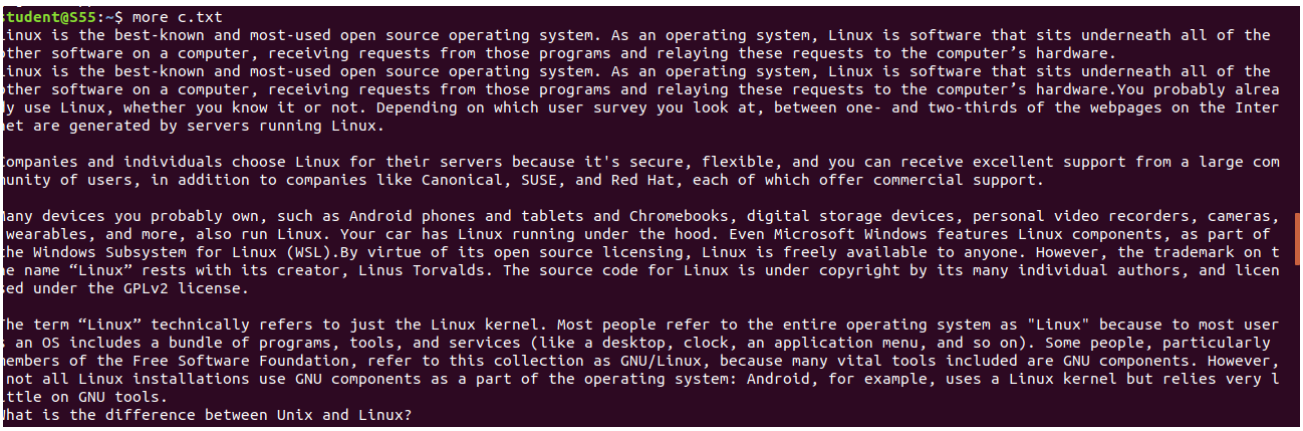


33. more name :

The more command displays the first section of the file. By pressingthe “ENTER” key, we can scroll line by line, all the way to the bottom of the file.

Syntax :$ more filename

output:



```
 and Linux are similar in many ways, and in fact, Linux was originally created to be indistinguishable from Unix. Both have similar
interfacing with the system, programming tools, filesystem layouts, and other key components. However, not all Unices are free and o
.

Over the years, a number of different operating systems have been created that attempted to be “unix-like” or “unix-compatible,” but
 been the most successful, far surpassing its predecessors in popularity.
How was Linux created?

Linux was created in 1991 by Linus Torvalds, a then-student at the University of Helsinki. Torvalds built Linux as a free and open s
rnative to Minix, another Unix clone that was predominantly used in academic settings. He originally intended to name it “Freax,” bu
nistrator of the server Torvalds used to distribute the original code named his directory “Linux” after a combination of Torvalds’ f
and the word Unix, and the name stuck.

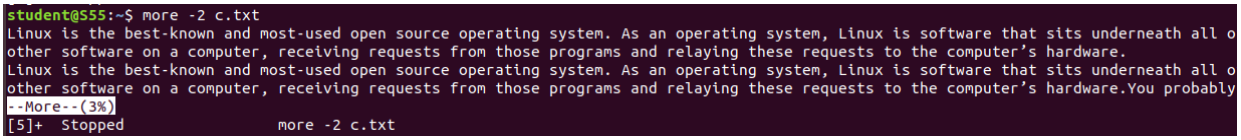
--More--(24%)
[4]+  Stopped                 more c.txt
```

34. more -3 name :

Used to type the number of lines(num) to display per screen.

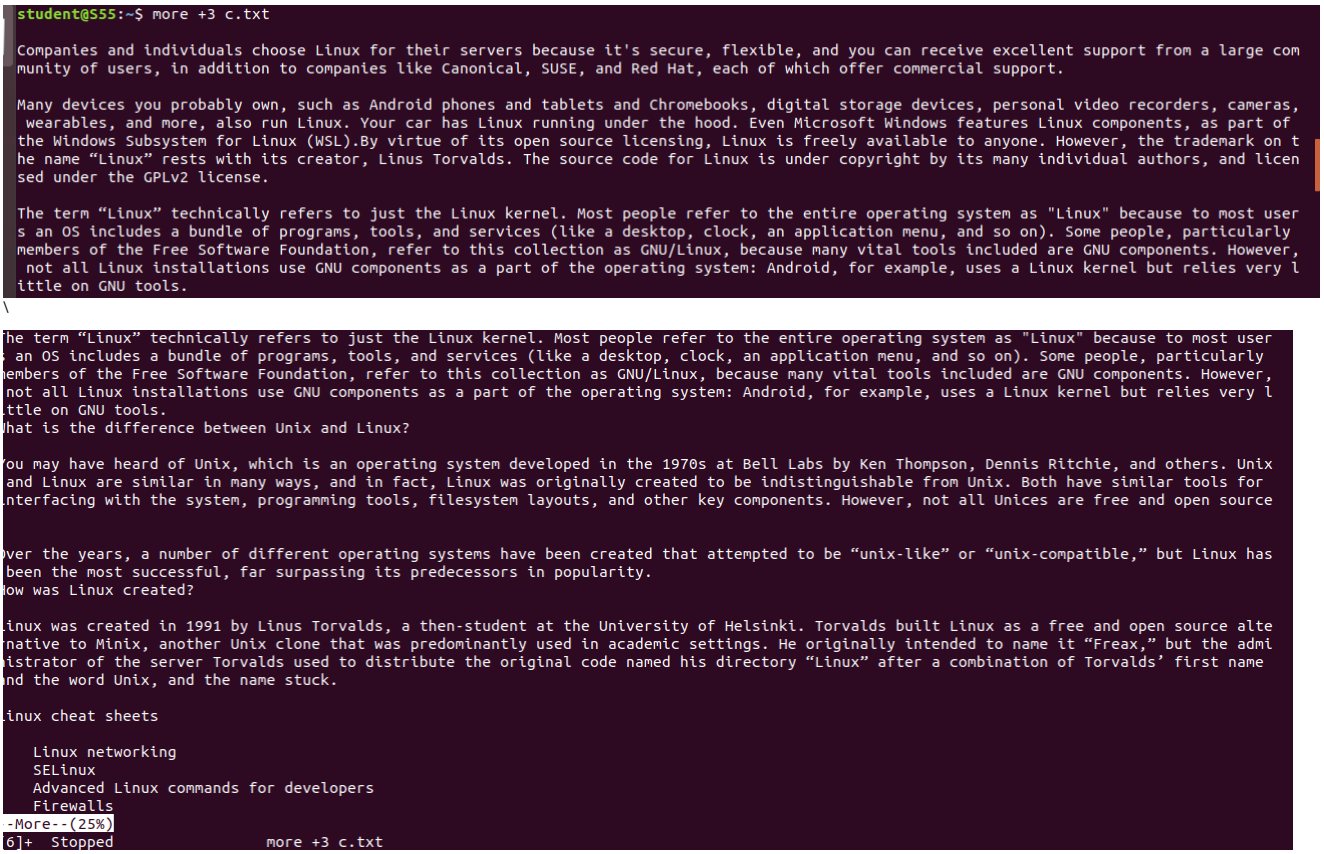
Syntax : $more -num filename

Output:



35. more +3 name :

This option displays the text after the specified number of linesof the document.
Syntax : $ more + num filename



36. more -s name :

This option squeezes multiple blank lines into one single blankline.

Syntax : $ more -s filename

Output:

```
student@S55:~$ more -s c.txt
Linux is the best-known and most-used open source operating system. As an operating system, Linux is software that sits underneath all of the
other software on a computer, receiving requests from those programs and relaying these requests to the computer’s hardware.
Linux is the best-known and most-used open source operating system. As an operating system, Linux is software that sits underneath all of the
other software on a computer, receiving requests from those programs and relaying these requests to the computer’s hardware.You probably alrea
dy use Linux, whether you know it or not. Depending on which user survey you look at, between one- and two-thirds of the webpages on the Inter
net are generated by servers running Linux.

Companies and individuals choose Linux for their servers because it's secure, flexible, and you can receive excellent support from a large com
munity of users, in addition to companies like Canonical, SUSE, and Red Hat, each of which offer commercial support.

Many devices you probably own, such as Android phones and tablets and Chromebooks, digital storage devices, personal video recorders, cameras,
 wearables, and more, also run Linux. Your car has Linux running under the hood. Even Microsoft Windows features Linux components, as part of
the Windows Subsystem for Linux (WSL).By virtue of its open source licensing, Linux is freely available to anyone. However, the trademark on t
he name “Linux” rests with its creator, Linus Torvalds. The source code for Linux is under copyright by its many individual authors, and licen
sed under the GPLv2 license.

The term “Linux” technically refers to just the Linux kernel. Most people refer to the entire operating system as "Linux" because to most user
s an OS includes a bundle of programs, tools, and services (like a desktop, clock, an application menu, and so on). Some people, particularly
members of the Free Software Foundation, refer to this collection as GNU/Linux, because many vital tools included are GNU components. However,
 not all Linux installations use GNU components as a part of the operating system: Android, for example, uses a Linux kernel but relies very l
ittle on GNU tools.
What is the difference between Unix and Linux?

You may have heard of Unix, which is an operating system developed in the 1970s at Bell Labs by Ken Thompson, Dennis Ritchie, and others. Unix
 and Linux are similar in many ways, and in fact, Linux was originally created to be indistinguishable from Unix. Both have similar tools for
interfacing with the system, programming tools, filesystem layouts, and other key components. However, not all Unices are free and open source
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