

grep commands:

It is for pattern matching. Shows the lines from a file where the keyword is found

Syntax: `grep 'keyword' filename`

-i (ignores case)

-c (Counts matching pattern in the starting of lines)

-l (Prints the files name where the keyword is found)

-w (Does not consider substring)

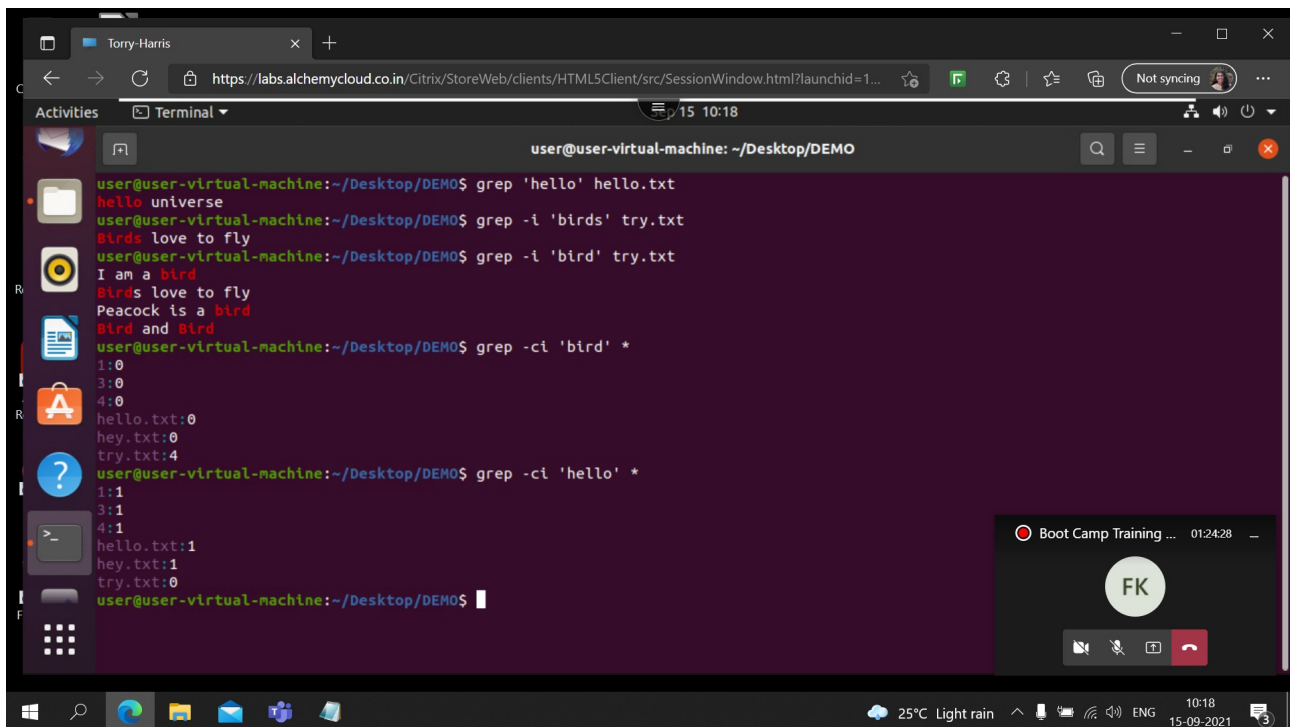
-o (Prints only the pattern)

-n (Prints only the pattern along with line number)

-v (Prints the lines except that with that keyword)

'^keyword' : Searches for line starting from that keyword

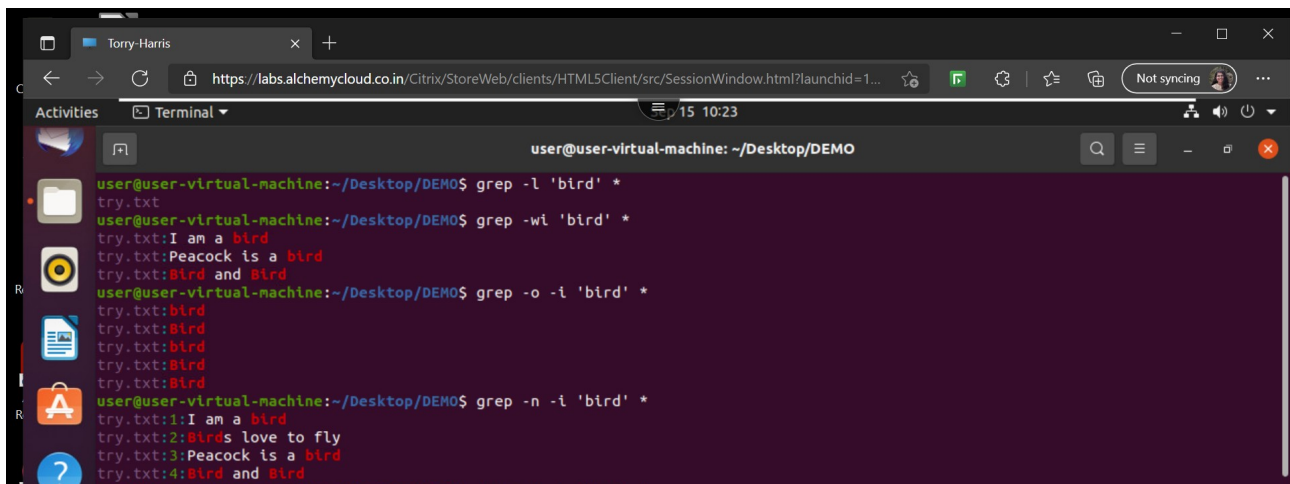
'keyword\$' : Searches for line ending from that keyword



The screenshot shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/DEMO'. The terminal displays several grep commands and their outputs:

```
user@user-virtual-machine:~/Desktop/DEMO$ grep 'hello' hello.txt
hello universe
user@user-virtual-machine:~/Desktop/DEMO$ grep -i 'birds' try.txt
Birds love to fly
user@user-virtual-machine:~/Desktop/DEMO$ grep -i 'bird' try.txt
I am a bird
Birds love to fly
Peacock is a bird
Bird and Bird
user@user-virtual-machine:~/Desktop/DEMO$ grep -ci 'bird' *
1:0
3:0
4:0
hello.txt:0
hey.txt:0
try.txt:4
user@user-virtual-machine:~/Desktop/DEMO$ grep -ci 'hello' *
1:1
3:1
4:1
hello.txt:1
hey.txt:1
try.txt:0
user@user-virtual-machine:~/Desktop/DEMO$
```

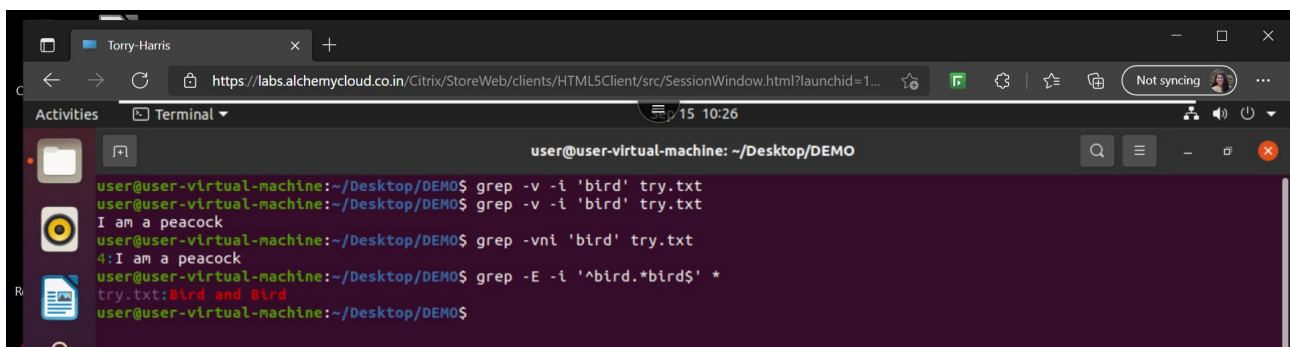
The terminal window is part of a desktop environment. The top bar shows the URL <https://labs.alchemycloud.co.in/Citrix/StoreWeb/clients/HTML5Client/src/SessionWindow.html?launchid=1...> and the time 15:10:18. The bottom status bar shows the date 15-09-2021, time 10:18, and weather 25°C Light rain.



A terminal window titled "user@user-virtual-machine: ~/Desktop/DEMO" showing the following commands and output:

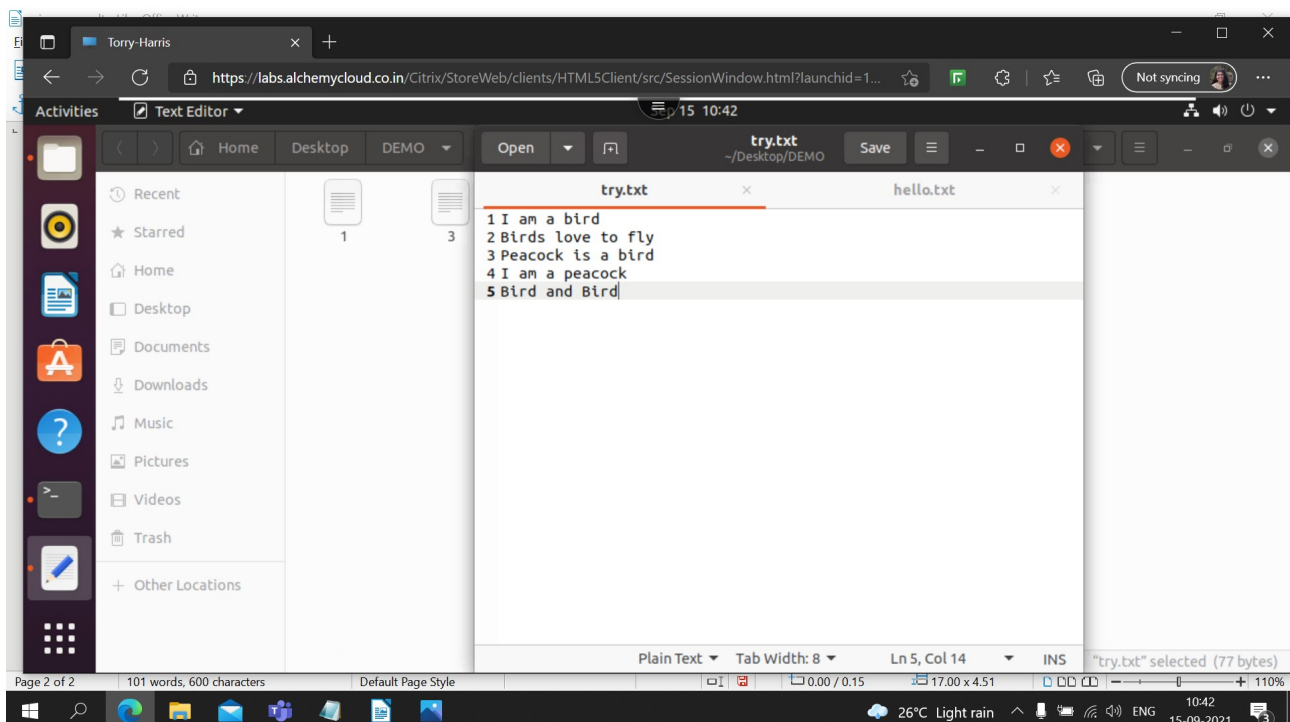
```
user@user-virtual-machine:~/Desktop/DEMO$ grep -l 'bird' *
try.txt
user@user-virtual-machine:~/Desktop/DEMO$ grep -wi 'bird' *
try.txt:I am a bird
try.txt:Peacock is a bird
try.txt:Bird and Bird
user@user-virtual-machine:~/Desktop/DEMO$ grep -o -i 'bird' *
try.txt:bird
try.txt:Bird
try.txt:bird
try.txt:Bird
try.txt:Bird
user@user-virtual-machine:~/Desktop/DEMO$ grep -n -i 'bird' *
try.txt:1:I am a bird
try.txt:2:Birds love to fly
try.txt:3:Peacock is a bird
try.txt:4:Bird and Bird
```

Assignment question: Find the line which has same ending and starting keyword



A terminal window titled "user@user-virtual-machine: ~/Desktop/DEMO" showing the following commands and output:

```
user@user-virtual-machine:~/Desktop/DEMO$ grep -v -i 'bird' try.txt
user@user-virtual-machine:~/Desktop/DEMO$ grep -v -i 'bird' try.txt
I am a peacock
user@user-virtual-machine:~/Desktop/DEMO$ grep -vni 'bird' try.txt
4:I am a peacock
user@user-virtual-machine:~/Desktop/DEMO$ grep -E -i '^bird.*bird$' *
try.txt:Bird and Bird
user@user-virtual-machine:~/Desktop/DEMO$
```



A text editor window titled "try.txt" showing the following content:

```
1 I am a bird
2 Birds love to fly
3 Peacock is a bird
4 I am a peacock
5 Bird and Bird
```

The status bar at the bottom indicates "try.txt" selected (77 bytes).

[ ]: Matches any one of a set characters

[ ] with hyphen: Matches any one of a range characters

^: The pattern following it must occur at the beginning of each line

^ with [ ]: The pattern must not contain any character in the set specified

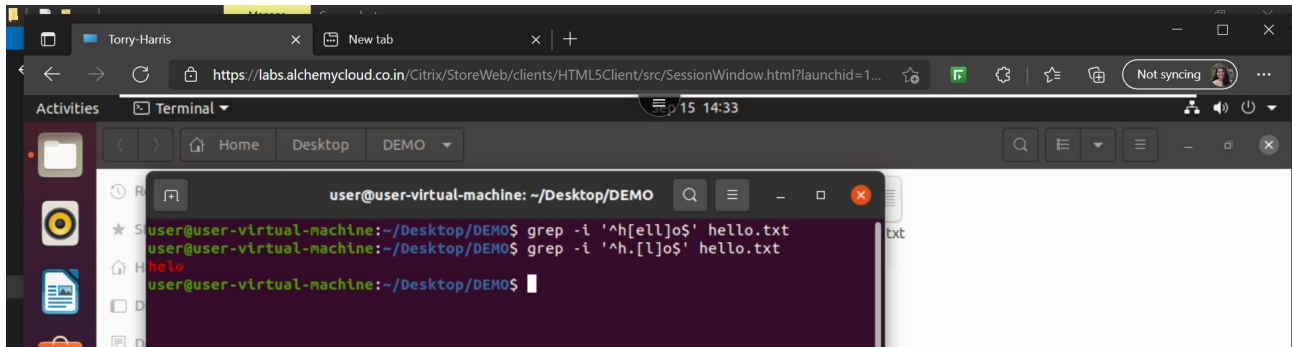
\$: The pattern preceding it must occur at the end of each line

. (dot): Matches any one character

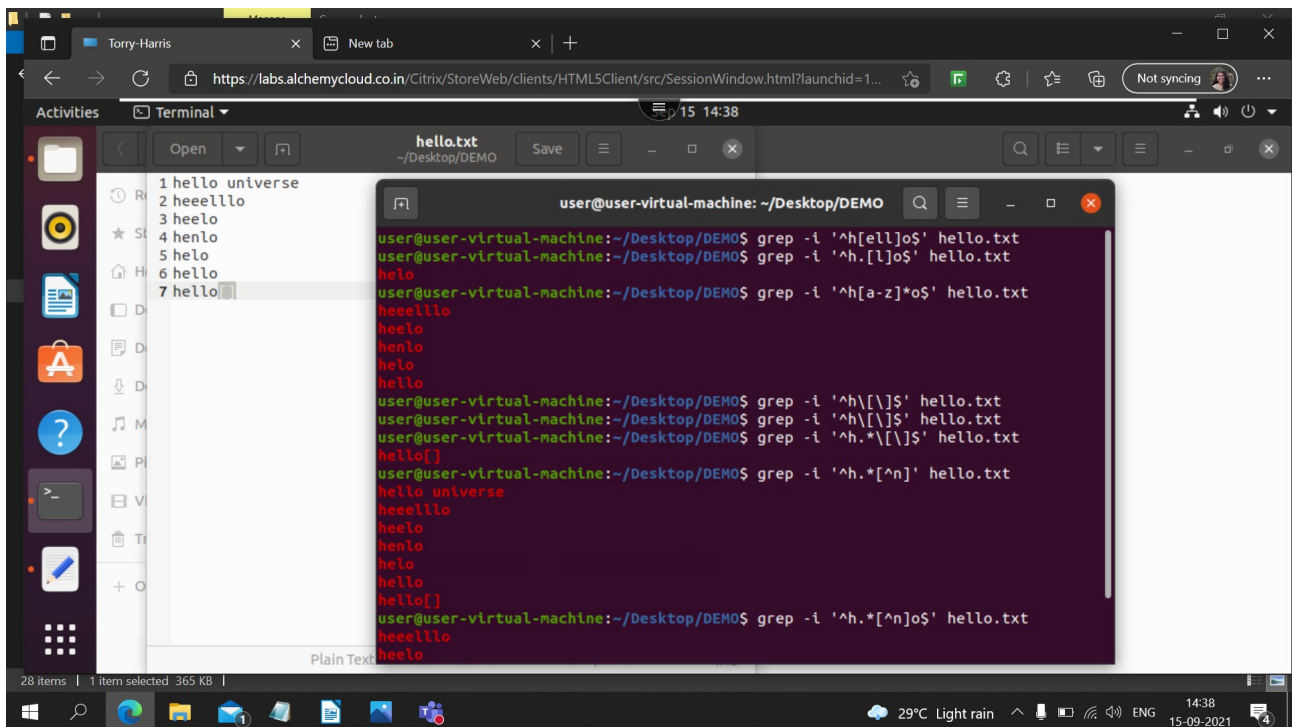
\ (backslash): Ignores the special meaning of the character following it

\*: zero or more occurrences of the previous character

(dot)\*: Nothing or any numbers of characters.

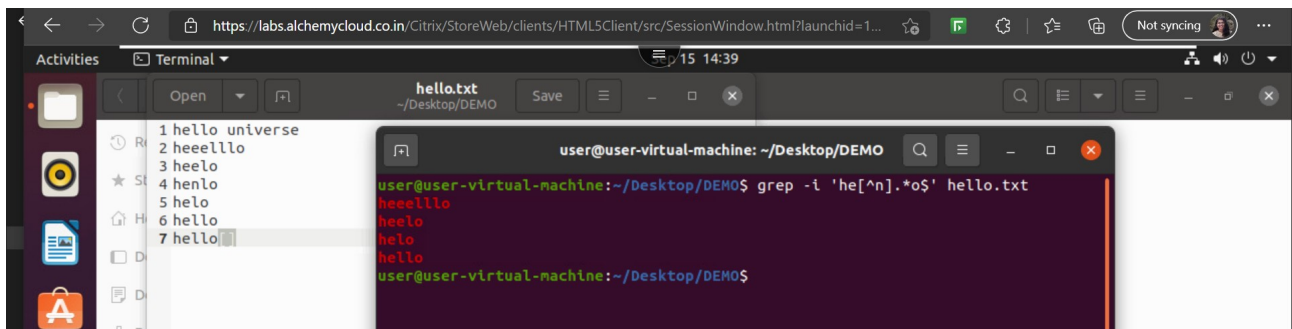


```
user@user-virtual-machine: ~/Desktop/DEMO
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h[ell]o$' hello.txt
hello
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h.[l]o$' hello.txt
hello
user@user-virtual-machine:~/Desktop/DEMO$
```



```
1 hello universe
2 heeello
3 heelo
4 henlo
5 helo
6 hello
7 hello

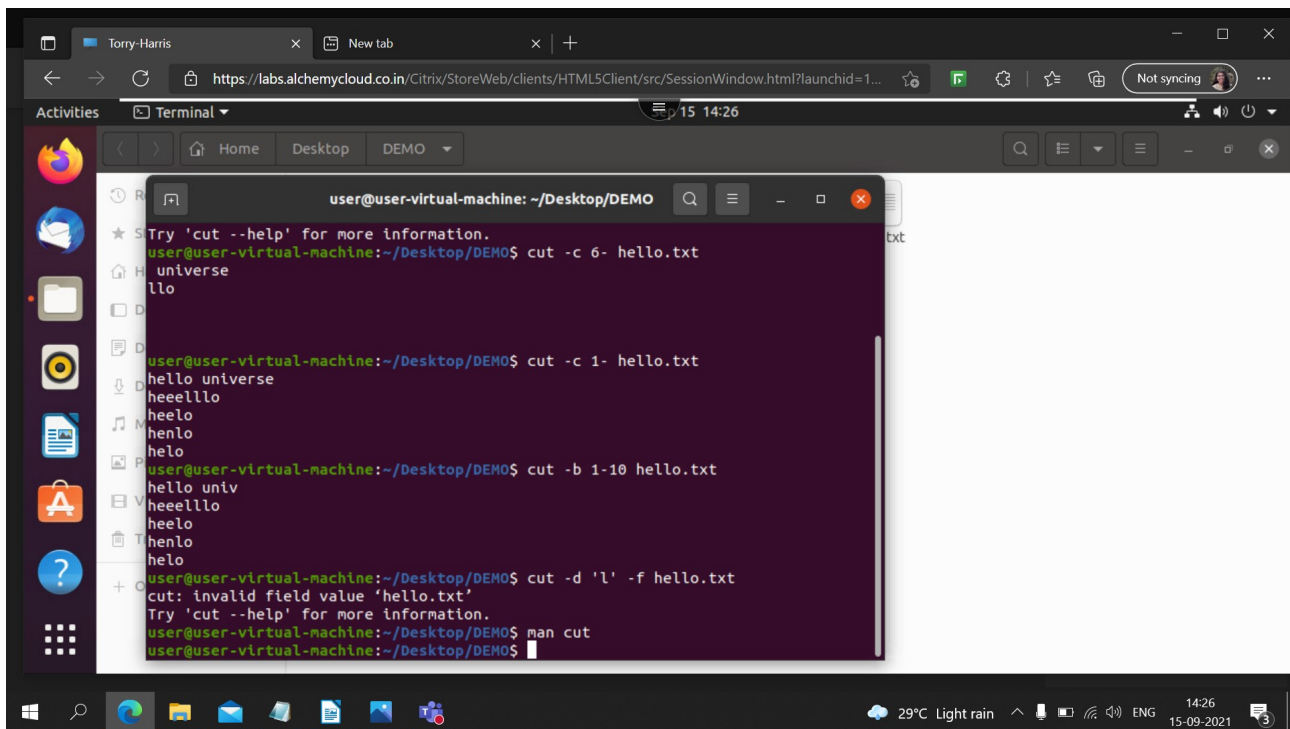
user@user-virtual-machine: ~/Desktop/DEMO
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h[ell]o$' hello.txt
hello
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h.[l]o$' hello.txt
hello
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h[a-z]*o$' hello.txt
heeello
heelo
henlo
helo
hello
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h\[\]\$' hello.txt
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h\[\]\$' hello.txt
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h.*\[\]\$' hello.txt
hello[]
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h.*[an]' hello.txt
hello universe
heeello
heelo
henlo
helo
hello
hello[]
user@user-virtual-machine:~/Desktop/DEMO$ grep -i '^h.*[an]o$' hello.txt
heeello
heelo
helo
hello
user@user-virtual-machine:~/Desktop/DEMO$
```



```
user@user-virtual-machine: ~/Desktop/DEMO
user@user-virtual-machine:~/Desktop/DEMO$ grep -i 'he[an].*o$' hello.txt
heeello
heelo
helo
hello
user@user-virtual-machine:~/Desktop/DEMO$
```

Cut commands...

- b Select only the bytes from each line
- c Select only the characters from each line
- d use characters for delimiter
- f select only these fields on each line
- complement Select except the specified
- output-delimiter Puts the new delimiter that is specified

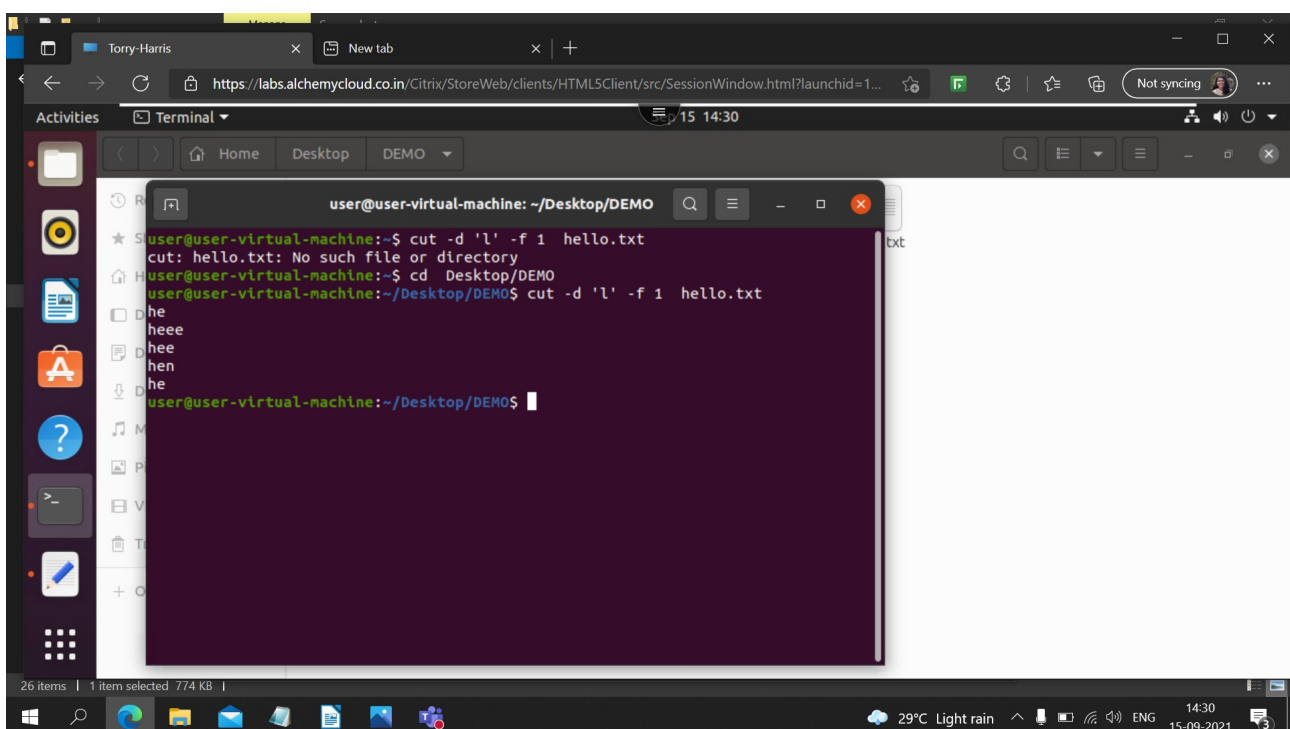


```
user@user-virtual-machine: ~/Desktop/DEMO
Try 'cut --help' for more information.
user@user-virtual-machine:~/Desktop/DEMO$ cut -c 6- hello.txt
universe
llo

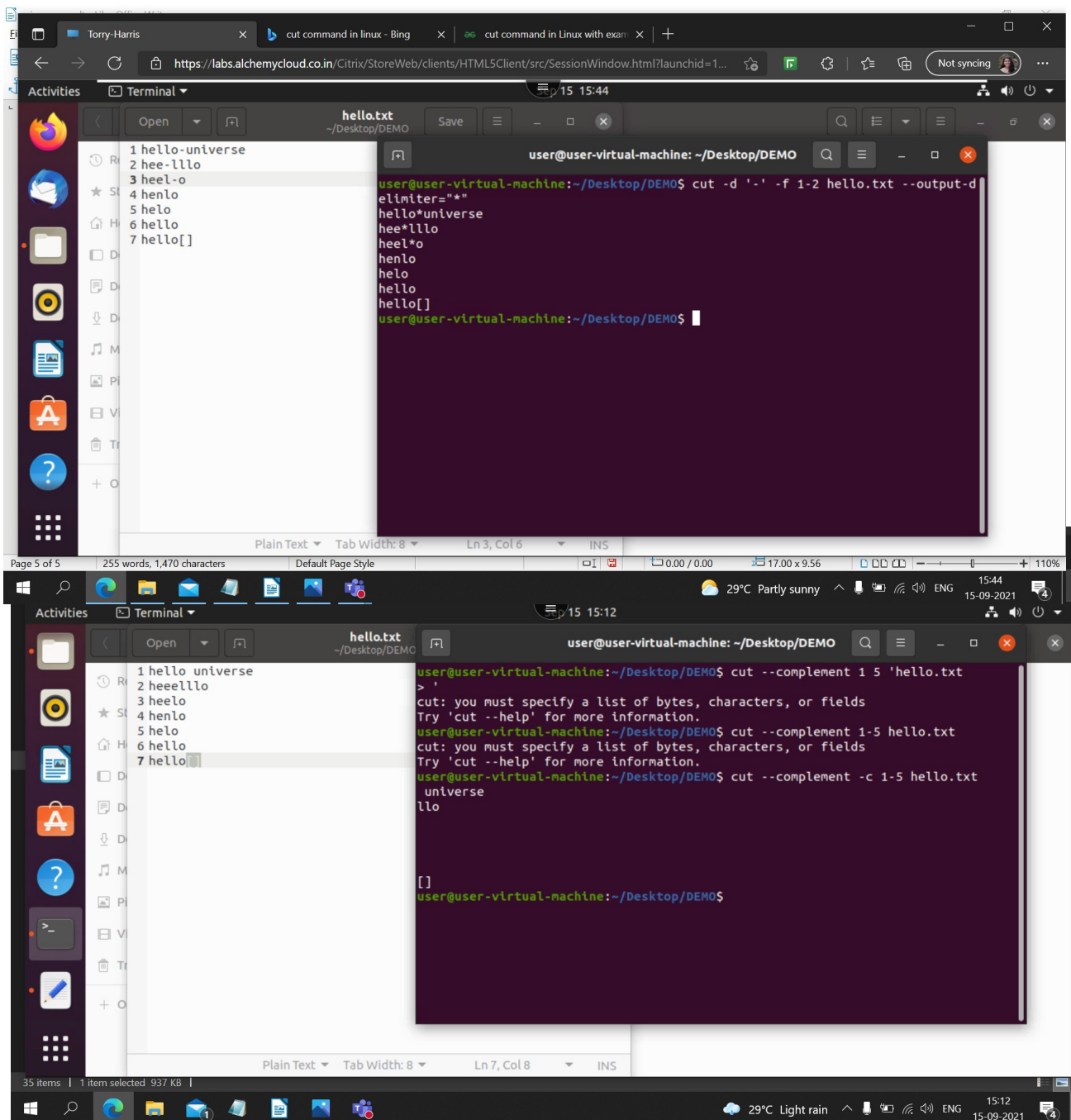
user@user-virtual-machine:~/Desktop/DEMO$ cut -c 1- hello.txt
hello universe
heeeello
heelo
henlo
helo

user@user-virtual-machine:~/Desktop/DEMO$ cut -b 1-10 hello.txt
hello univ
heeeello
heelo
henlo
helo

user@user-virtual-machine:~/Desktop/DEMO$ cut -d 'l' -f hello.txt
cut: invalid field value 'hello.txt'
Try 'cut --help' for more information.
user@user-virtual-machine:~/Desktop/DEMO$ man cut
user@user-virtual-machine:~/Desktop/DEMO$
```



```
user@user-virtual-machine:~/Desktop/DEMO$ cut -d 'l' -f 1 hello.txt
cut: hello.txt: No such file or directory
user@user-virtual-machine:~/Desktop/DEMO$ cd Desktop/DEMO
user@user-virtual-machine:~/Desktop/DEMO$ cut -d 'l' -f 1 hello.txt
he
heee
hee
hen
he
he
user@user-virtual-machine:~/Desktop/DEMO$
```



Few tr commands  
Tr stands for transformation here are the examples



Activities Terminal 15 16:23

hello.txt  
~/Desktop/DEMO

1 hello-universe  
2 hee-llo  
3 heel-o  
4 henlo  
5 helo  
6 hello  
7 hello[] .1234

user@user-virtual-machine: ~/Desktop/DEMO

```
HEE-LLLO  
HEEL-O  
HENLO  
HELO  
HELLO  
HELLO[]  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr '[:lower:]' '[:upper:]'  
HELLO-UNIVERSE  
HEE-LLLO  
HEEL-O  
HENLO  
HELO  
HELLO  
HELLO[]  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr '[:i:]' '[:h:]'  
hello-unhverse  
hee-llo  
heel-o  
henlo  
helo  
hello  
hello[]  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt
```

Plain Text Tab Width: 8 Ln 7, Col 13 INS

29°C Partly sunny 16:23 15-09-2021

Activities Terminal 15 16:24

hello.txt  
~/Desktop/DEMO

1 hello-universe  
2 hee-llo  
3 heel-o  
4 henlo  
5 HELLO  
6 helo  
7 hello  
8 hello[] .1234

user@user-virtual-machine: ~/Desktop/DEMO

```
helo  
hello  
hello[]  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d '[:digits:]'  
tr: invalid character class 'digits'  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d '[:digit:]'  
hello-universe  
hee-llo  
heel-o  
henlo  
helo  
hello  
hello[] .  
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d '[:digit:]'[:upper:]  
:  
HELLO-UNIVERSE  
HEE-LLLO  
HEEL-O  
HENLO  
helo  
hello  
hello[] .  
user@user-virtual-machine:~/Desktop/DEMO$
```

Plain Text Tab Width: 8 Ln 5, Col 6 INS

29°C Partly sunny 16:24 15-09-2021

Activities Terminal 15 16:26

hello.txt  
~/Desktop/DEMO

1 hello-universe  
2 hee-llo  
3 heel-o  
4 henlo  
5 HELLO  
6 helo  
7 hello  
8 hello[] .1234

user@user-virtual-machine: ~/Desktop/DEMO

```
Try 'tr --help' for more information.  
user@user-virtual-machine:~/Desktop/DEMO$ echo 'I Am a bird' | tr '[:upper:]' '[:lower:]'  
i am a bird  
user@user-virtual-machine:~/Desktop/DEMO$
```

Plain Text Tab Width: 8 Ln 5, Col 6 INS

29°C Partly sunny 16:26 15-09-2021

The screenshot shows a terminal window titled "user@user-virtual-machine: ~/Desktop/DEMO". The terminal displays the following commands and output:

```
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d [:digit:][:upper:]
:]
hello-universe
hee-llo
heel-o
henlo
helo
hello
hello[]
user@user-virtual-machine:~/Desktop/DEMO$ echo I AM A bird | tr [:upper:]
tr: missing operand after '[:upper:]'
Two strings must be given when translating.
Try 'tr --help' for more information.
user@user-virtual-machine:~/Desktop/DEMO$ echo 'I Am a bIrD' | tr [:upper:]
tr: missing operand after '[:upper:]'
Two strings must be given when translating.
Try 'tr --help' for more information.
user@user-virtual-machine:~/Desktop/DEMO$ echo 'I Am a bIrD' | tr [:upper:] [:lower:]
i am a bird
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d [:digit:][:upper:]
:] > newfile
user@user-virtual-machine:~/Desktop/DEMO$
```

The output of the first command shows the file content with digits and uppercase letters removed. The subsequent commands demonstrate the use of the `tr` command for character translation, including an error message for missing operands and a successful translation of case.

writing it to a new file

The screenshot shows a terminal window titled "user@user-virtual-machine: ~/Desktop/DEMO". The terminal displays the following commands and output:

```
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d -c [:digit:][:upper:] > newfile
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d -c [:digit:][:upper:]
HELLO1234user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr -d -c [Hel][Hen]
ellneeeelllelenlHelellell[]user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr ' ' '\n'
hello-universe
hee-llo
heel-o
henlo
HELLO
helo
hello
hello[]
1234
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr '[-]' '\n'
hello-universe
hee-llo
heel-o
henlo
HELLO
helo
hello
hello[]
1234
user@user-virtual-machine:~/Desktop/DEMO$ cat hello.txt | tr '\n' '\t'
hello-universe hee-llo      heel-o henlo  HELLO helo   hello  hello[]
1234
user@user-virtual-machine:~/Desktop/DEMO$
```

The output of the first command shows the file content with all characters except digits and uppercase letters removed. The subsequent commands demonstrate the use of the `tr` command for character translation, including removing specific characters, inserting newlines, and inserting tabs.

more

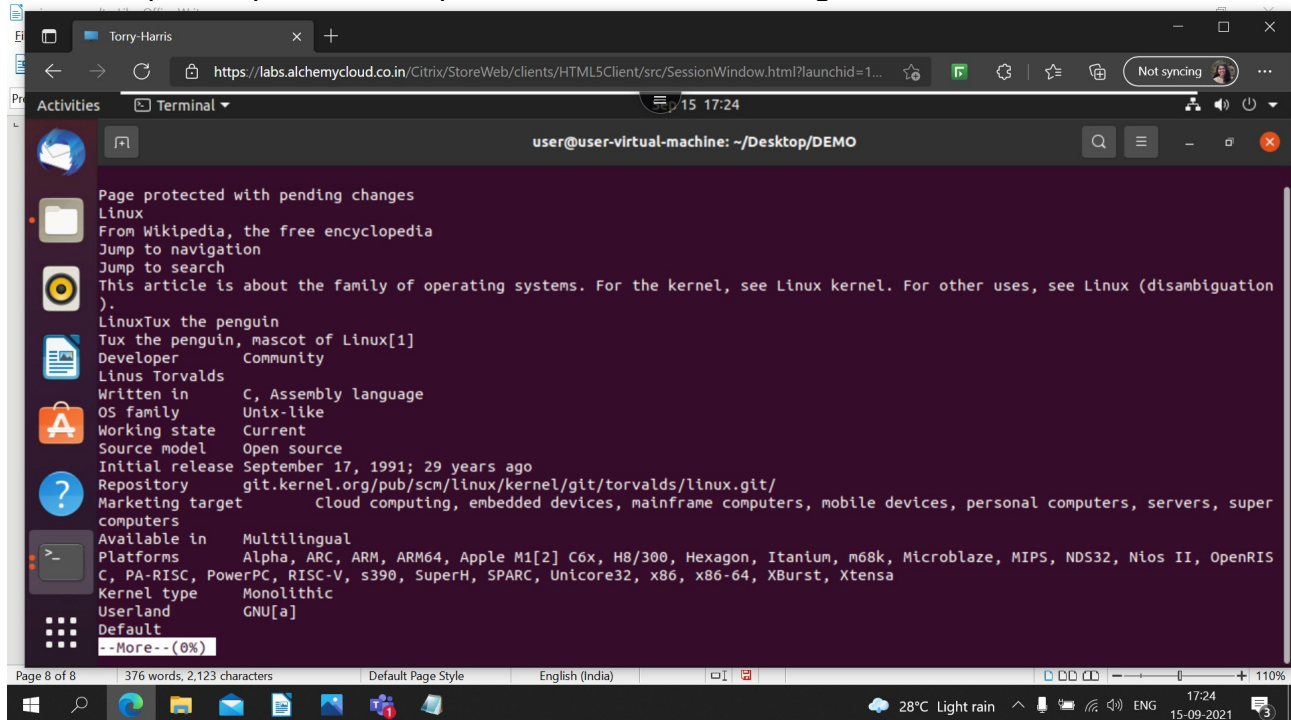
more command is used to view the text files in the command prompt, displaying one screen at a time in case the file is large

-d : Use this command in order to help the user to navigate. It displays “[Press space to continue, ‘q’ to quit.]” and displays “[Press ‘h’ for instructions.]” when wrong key is pressed.

-p : This option clears the screen and then displays the text.

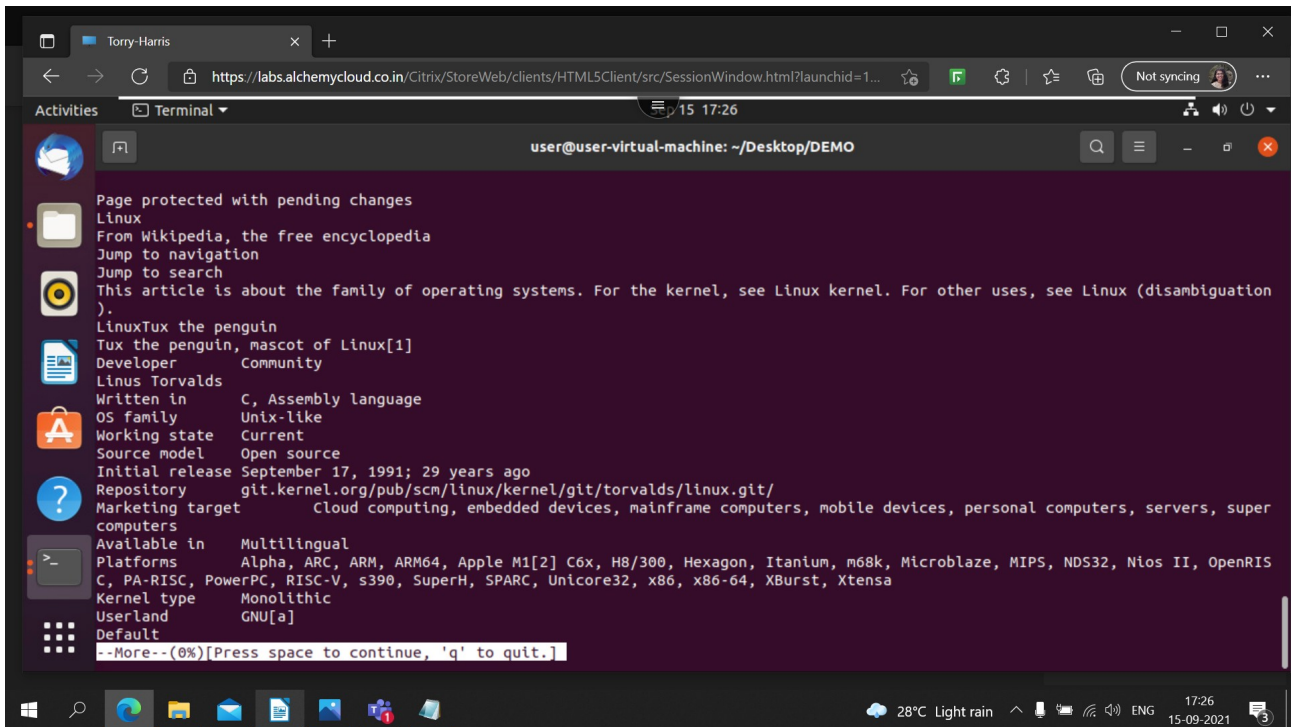
-c : This command is used to display the pages on the same area by overlapping the previously displayed text.

-s : This option squeezes multiple blank lines into one single blank line

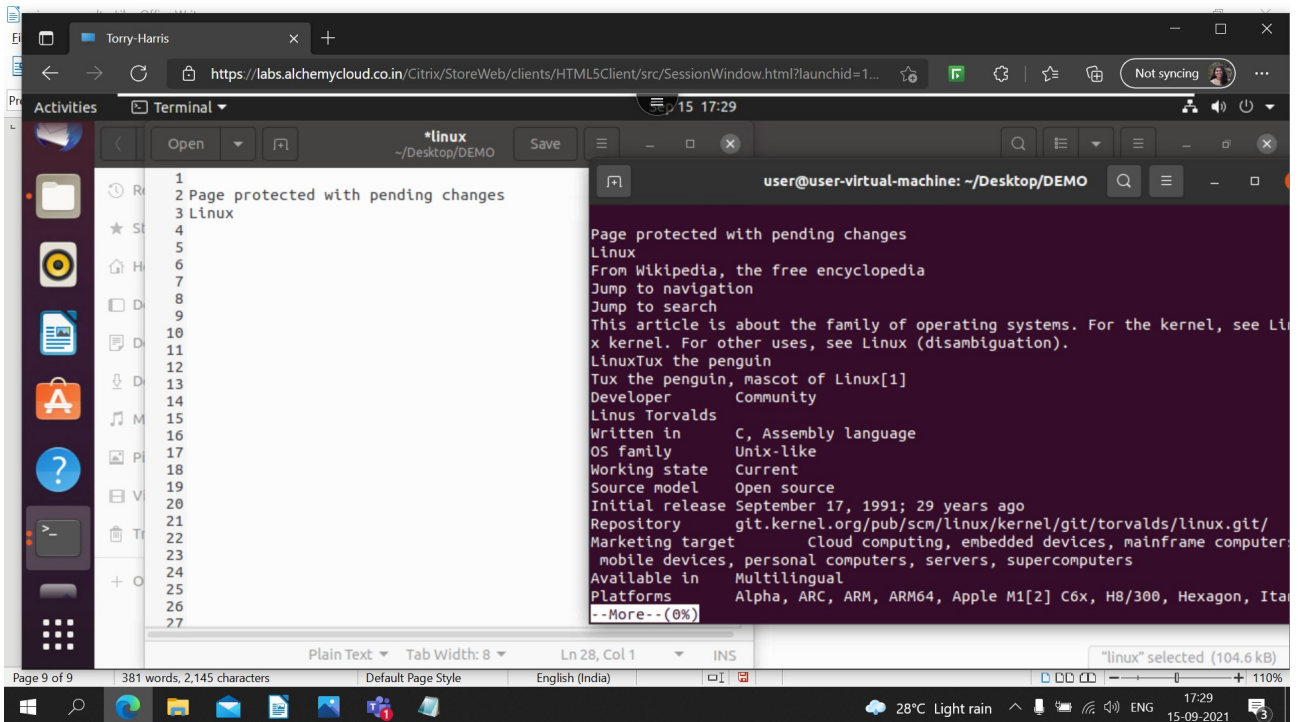


Similar output for -p, -c





Output of -d



Output for -s