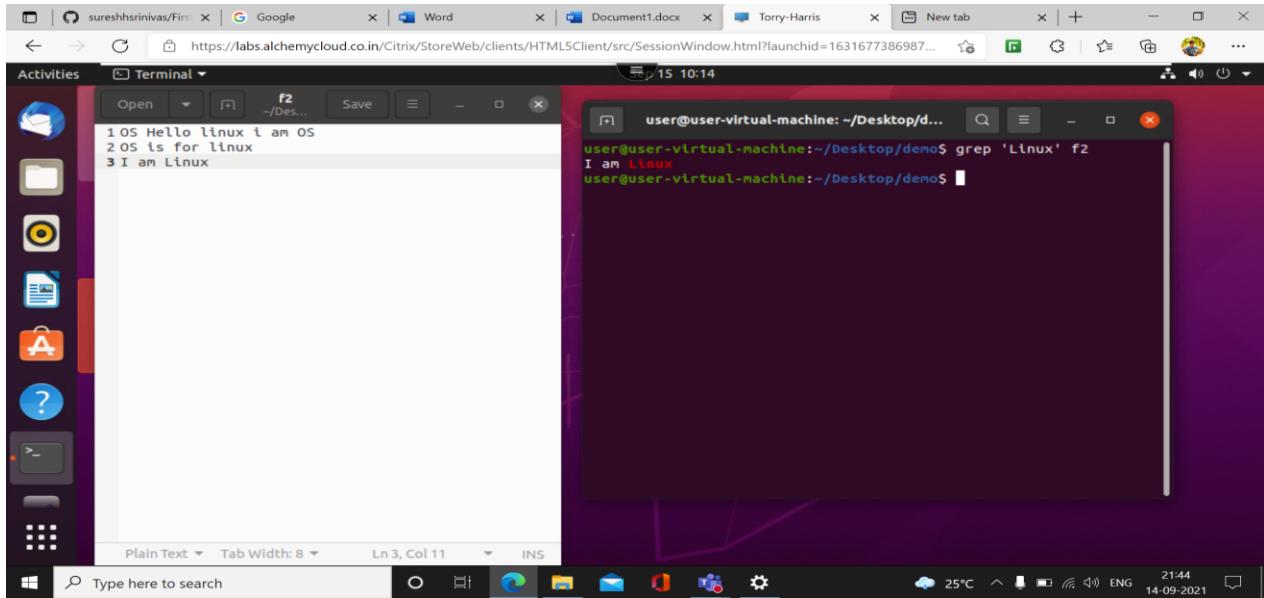


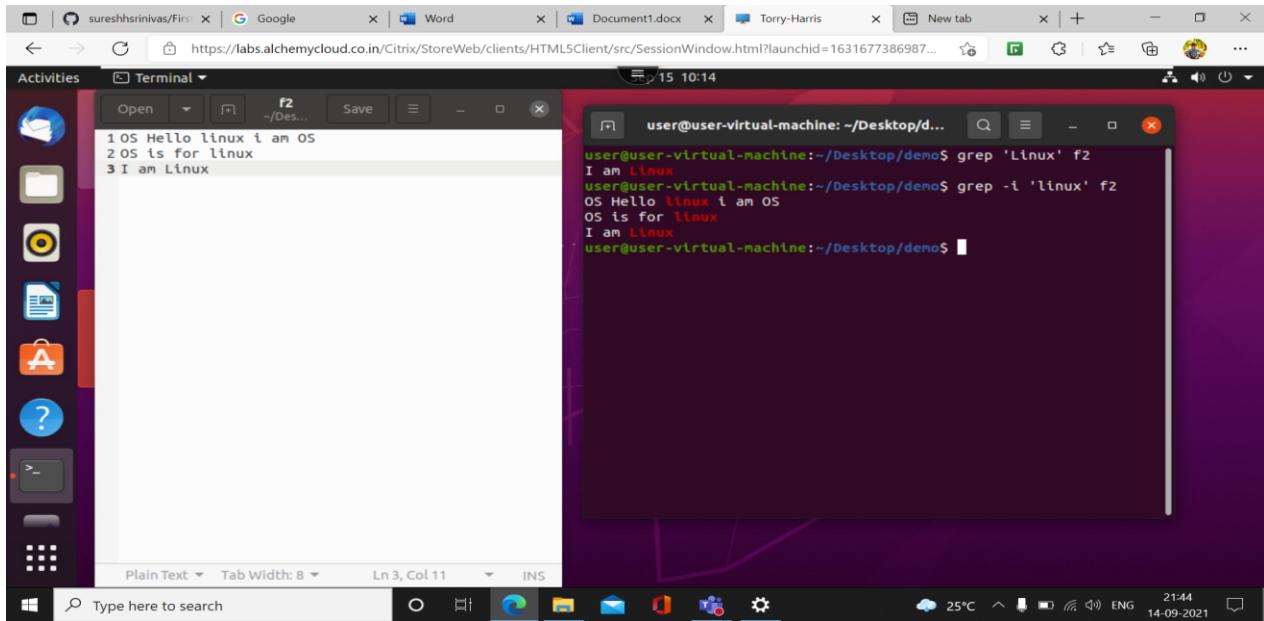
Linux Commands

1). \$grep 'pattern' filename :- This Command is used to Search and display the particular pattern of characters.



The screenshot shows a Linux desktop environment. On the left, there's a dock with icons for various applications like a file manager, terminal, and browser. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/d...". It contains the command "grep 'Linux' f2" and its output, which is "I am Linux". To the left of the terminal, there's a file viewer window showing a plain text file with three lines of text: "1 OS Hello linux i am OS", "2 OS is for linux", and "3 I am Linux". The desktop background is purple, and the overall interface is clean and modern.

2). \$grep -I 'pattern' filename :- This command is used to display the particular pattern with ignoring case sensitive.



This screenshot is similar to the previous one, showing a Linux desktop with a terminal and a file viewer. The terminal window now shows the command "grep -i 'linux' f2" and its output, which includes "I am Linux" and "OS Hello linux i am OS". The file viewer window on the left still displays the same three lines of text. The desktop environment remains consistent with the first screenshot.

3). \$grep -c 'pattern' filename :- This Command I used to print only the count of the lines that matches the pattern.

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for messaging, files, and system tools. In the center, a terminal window titled "Terminal" is open, showing the command-line interface. The terminal displays the following text:

```
1 OS Hello linux i am OS
2 OS is for linux
3 I am Linux

user@user-virtual-machine:~/Desktop/d... grep 'Linux' f2
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -i 'linux' f2
OS Hello linux i am OS
OS is for linux
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -c 'linux' f2
2
user@user-virtual-machine:~/Desktop/demo$
```

4). \$grep -c -i 'pattern' filename :- This Command is used to print only the count of lines that matches the pattern with ignoring case sensitive.

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for messaging, files, and system tools. In the center, a terminal window titled "Terminal" is open, showing the command-line interface. The terminal displays the following text:

```
1 OS Hello linux i am OS
2 OS is for linux
3 I am Linux

user@user-virtual-machine:~/Desktop/d... grep 'Linux' f2
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -i 'linux' f2
OS Hello linux i am OS
OS is for linux
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -c -i 'linux' f2
2
user@user-virtual-machine:~/Desktop/demo$ grep -c -i 'linux' f2
3
user@user-virtual-machine:~/Desktop/demo$
```

5). \$grep -l 'pattern' filename :- this command is used to display the list of a filenames only.

A screenshot of a Windows desktop environment. At the top, there's a taskbar with several open windows: 'sureshhsrinivas/Firs...', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'New tab', and a browser window showing a URL from labs.alchemycloud.co.in. Below the taskbar is a vertical docked application bar titled 'Activities' containing icons for various apps like Mail, Photos, and File Explorer. The main area shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/d...'. The terminal displays the following text:

```
1 OS Hello linux i am OS
2 OS is for linux
3 I am Linux

user@user-virtual-machine:~/Desktop/demo$ grep 'Linux' f2
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -i 'linux' f2
OS Hello linux i am OS
OS is for linux
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -c 'linux' f2
2
user@user-virtual-machine:~/Desktop/demo$ grep -c -i 'linux' f2
3
user@user-virtual-machine:~/Desktop/demo$ grep -l 'linux' *
f2
grep: folder 1: Is a directory
grep: folder 2: Is a directory
user@user-virtual-machine:~/Desktop/demo$
```

6). \$grep -w 'pattern' filename :- This command is used to print the pattern that matched whole word.

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar and docked application bar are visible. The terminal window shows the same initial text as before, followed by the addition of the '-w' option:

```
1 OS Hello linux i am OS
2 OS is for linux
3 I am Linux

user@user-virtual-machine:~/Desktop/demo$ grep 'Linux' f2
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -i 'linux' f2
OS Hello linux i am OS
OS is for linux
I am Linux
user@user-virtual-machine:~/Desktop/demo$ grep -c 'linux' f2
2
user@user-virtual-machine:~/Desktop/demo$ grep -c -i 'linux' f2
3
user@user-virtual-machine:~/Desktop/demo$ grep -l 'linux' *
f2
grep: folder 1: Is a directory
grep: folder 2: Is a directory
user@user-virtual-machine:~/Desktop/demo$ grep -w 'linux' f2
OS Hello linux i am OS
OS is for linux
user@user-virtual-machine:~/Desktop/demo$
```

7). \$grep -o 'pattern' filename :- This command is used to print only the matched parts of a matching line, with each such part on a separate output line.

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for messaging, files, and system tools. In the center, a terminal window titled "user@user-virtual-machine: ~/Desktop/d..." shows a series of grep commands being run against a file named "f2". The terminal output includes several matches for the word "linux". To the right of the terminal is a file viewer window showing the contents of "f2", which contains the text "OS Hello linux i am OS", "OS is for linux", and "I am Linux". The desktop bar at the bottom shows various application icons and system status.

```
user@user-virtual-machine:~/Desktop/d...$ grep 'Linux' f2
I am Linux
user@user-virtual-machine:~/Desktop/d...$ grep -i 'linux' f2
OS Hello linux i am OS
OS is for linux
I am LInux
user@user-virtual-machine:~/Desktop/d...$ grep -c 'linux' f2
2
user@user-virtual-machine:~/Desktop/d...$ grep -c -i 'linux' f2
3
user@user-virtual-machine:~/Desktop/d...$ grep -l 'linux' *
f2
grep: folder 1: Is a directory
grep: folder 2: Is a directory
user@user-virtual-machine:~/Desktop/d...$ grep -w 'linux' f2
OS Hello linux i am OS
OS is for linux
user@user-virtual-machine:~/Desktop/d...$ grep -o 'linux' f2
linux
linux
user@user-virtual-machine:~/Desktop/d...
```

8). \$grep -o -w 'pattern' filename :- This command is used to print all the specific pattern without any matching or unmatching.

A screenshot of a Linux desktop environment, similar to the previous one. A terminal window shows the same grep command sequence as before, but the output is different. Instead of printing the entire line, it only prints the matched part ("linux") preceded by an offset. The file viewer window shows the same content as the previous screenshot. The desktop bar at the bottom is visible.

```
user@user-virtual-machine:~/Desktop/d...$ grep -o -w 'linux' f2
OS Hello linux i am OS
OS is for linux
I am LInux
user@user-virtual-machine:~/Desktop/d...$ grep -c -i 'linux' f2
3
user@user-virtual-machine:~/Desktop/d...$ grep -l 'linux' *
f2
grep: folder 1: Is a directory
grep: folder 2: Is a directory
user@user-virtual-machine:~/Desktop/d...$ grep -w 'linux' f2
OS Hello linux i am OS
OS is for linux
user@user-virtual-machine:~/Desktop/d...$ grep -o 'linux' f2
linux
linux
user@user-virtual-machine:~/Desktop/d...$ grep -o -w 'linux' f2
linux
linux
user@user-virtual-machine:~/Desktop/d...$ grep -ow 'linux' f2
linux
linux
user@user-virtual-machine:~/Desktop/d...
```

9). \$grep -n 'pattern' filename :- This Command is used to display the matched lines and their line numbers.

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a messaging app, file manager, and browser. In the center, there's a terminal window titled "Activities Terminal" showing the command "grep -n 'linux' f2" and its output. To the right of the terminal is a file viewer window showing the same text content. The desktop background is purple.

```
1 OS Hello linux i am OS  
2 OS is for linux  
3 I am Linux  
  
user@user-virtual-machine:~/Desktop/demo$ grep -n 'linux' f2  
1:OS Hello linux i am OS  
2:OS is for linux  
user@user-virtual-machine:~/Desktop/demo$
```

10). \$grep -v 'pattern' filename :- This Command is used to print out all the lines that do not matches the pattern.

A screenshot of a Linux desktop environment, similar to the previous one. It shows a terminal window with the command "grep -v 'linux' f2" and its output. The output shows only the line "I am Linux" because it does not contain the word "linux". The desktop background is purple.

```
1 OS Hello linux i am OS  
2 OS is for linux  
3 I am Linux  
  
user@user-virtual-machine:~/Desktop/demo$ grep -v 'linux' f2  
I am Linux  
user@user-virtual-machine:~/Desktop/demo$
```

11). \$grep '^pattern' filename :- This command is used to print only the pattern that is in starting of the line.

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a file manager, terminal, and browser. In the center, there's a terminal window titled 'Terminal' with the command 'grep '^OS' f2' running, which outputs the lines '1 OS Hello linux i am OS' and '2 os is for linux'. Below the terminal is a file viewer window showing the same two lines of text. The desktop background is purple.

12). \$grep -i '^pattern' filename :- This Command is used to print the whole pattern comes in starting of the line without any case sensitive.

A screenshot of a Linux desktop environment, similar to the one above. The terminal window now shows the command 'grep -i '^OS' f2', which outputs the lines 'os Hello linux i am OS' and 'os is for linux'. The desktop background is purple.

13). \$grep 'pattern\$' filename :- This Command is used to print the pattern the comes in the ending of the line.

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open windows: 'sureshhsrinivas/Firs', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'New tab', and others. Below the taskbar is a docked application bar with icons for File, Open, Save, and others. On the left, there is a vertical docked application bar with icons for Home, Activities, Terminal, and others. A terminal window titled 'user@user-virtual-machine: ~/Desktop/d...' is open, showing the command 'grep -n 'pattern\$' filename'. The terminal output shows line numbers 1, 2, and 3, each followed by the text 'OS Hello linux i am OS', 'os is for linux', and 'I am Linux' respectively. To the right of the terminal is a file viewer window showing the same text content. The desktop background is purple.

14). \$grep -n 'pattern\$' filename :- This Command is used to print the pattern the comes in the ending of the line with line numbers.

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar at the top has windows for 'sureshhsrinivas/Firs', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'New tab', and others. A terminal window titled 'user@user-virtual-machine: ~/Desktop/d...' is open, showing the command 'grep -n 'pattern\$' filename'. The terminal output shows line numbers 1, 2, and 3, each followed by the text 'OS Hello linux i am OS', 'os is for linux', and 'I am Linux' respectively. To the right of the terminal is a file viewer window showing the same text content. The desktop background is purple.

15). \$grep -E -I '^Starting_pattern.*Ending_pattern\$' filename :- This Command is used to print the pattern that matches in Starting of the line and ending of the line with ignoring case sensitive.

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for various applications like a terminal, file manager, and system settings. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". It shows the command "grep -E -i '^os.*OS\$' f2" being run, which outputs:

```
1 OS Hello linux i am OS
2 os is for linux
3 I am Linux
```

Below the terminal is a file viewer window showing the same text content.

16). \$grep -ni -E '^h[lp]\$' f2 :-

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for various applications like a terminal, file manager, and system settings. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". It shows the command "grep -ni -E '^h[lp]\$' f2" being run, which outputs:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShell i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hylio
8 hyilo
9 hip
10 hillip
11 hiiiiiiiiip
12 hp
```

The file viewer window below shows the same list of words.

17). \$grep -ni -E '^h.*p\$' f2 :-

The screenshot shows a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and terminal. A terminal window titled "user@user-virtual-machine: ~/Desktop/demo" is open, displaying the command \$grep -ni -E '^h.*p\$' f2 and its output. The output shows lines 9 through 12, which are "9:hp", "10:http", "11:hilllllllp", and "12:hp". To the left of the terminal, a file viewer window shows the same text file with the same content. The desktop background is purple.

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h.*p$' f2
9:hp
10:http
11:hilllllllp
12:hp
user@user-virtual-machine:~/Desktop/demo$
```

18). \$grep -ni -E '^h[!]*p\$' f2 :-

The screenshot shows a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and terminal. A terminal window titled "user@user-virtual-machine: ~/Desktop/demo" is open, displaying the command \$grep -ni -E '^h[!]*p\$' f2 and its output. The output shows lines 9 through 12, which are "9:hp", "10:http", "11:hilllllllp", and "12:hp". To the left of the terminal, a file viewer window shows the same text file with the same content. The desktop background is purple.

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[!]*p$' f2
9:hp
10:http
11:hilllllllp
12:hp
user@user-virtual-machine:~/Desktop/demo$
```

19). \$grep -ni -E ^h[!]+p\$' f2 :-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and terminal. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows two grep commands being run on a file named "f2". The first command, "grep -ni -E '^h[i]*p\$' f2", finds lines 9, 10, 11, and 12. The second command, "grep -ni -E '^h[i]+p\$' f2", finds lines 9, 10, and 11. To the left of the terminal, a file viewer window is open, showing the same text content.

```
1 OS Hello linux i am OS
2 os ls for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hytlo
9 hp
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[i]*p$' f2
9:hp
10:hilip
11:hiiiiiiip
12:hp
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[i]+p$' f2
9:hp
10:http
11:htttttip
user@user-virtual-machine:~/Desktop/demo$
```

20). \$grep -ni -E '^c. .a\$' f2 :-

A screenshot of a Linux desktop environment. Similar to the previous one, it shows a dock with icons and a terminal window in the center. The terminal window is titled "user@user-virtual-machine: ~/Desktop/demo". It shows a grep command being run on a file named "f2". The command "grep -ni -E '^c. .a\$' f2" finds line 14, which contains "cola ca".

```
1 OS Hello linux i am OS
2 os ls for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hytlo
9 hp
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^c. .a$' f2
14:co ca
user@user-virtual-machine:~/Desktop/demo$
```

21). \$grep -ni -E '^h[^l].*o\$' f2 :-

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open windows: 'sureshhsrinivas/Fire', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', and 'New tab'. Below the taskbar is a docked application bar with icons for various apps like File Explorer, Mail, and Photos. A large terminal window is open in the center, showing the output of a grep command. To the left of the terminal is a file viewer displaying the same grep command and its output. The desktop background is purple, and the system tray at the bottom right shows the date as 14-09-2021.

```
1 OS Hello linux i am OS
2 os is for linux
3 Oshello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiiip
11 hittillip
12 hp
13 cola co
14 co ca
15 cacca
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^c. .a$' f2
14:co ca
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^i].*o$' f2
5:hello
7:hyillo
8:hyiilo
user@user-virtual-machine:~/Desktop/demo$
```

22). \$grep -ni -E '^h[^e].*o\$' f2 :-

A screenshot of a Windows desktop environment, similar to the one above. It shows a terminal window with the output of a grep command. The file viewer on the left shows the same grep command and its output. The desktop background is purple, and the system tray at the bottom right shows the date as 14-09-2021.

```
1 OS Hello linux i am OS
2 os is for linux
3 Oshello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiiip
11 hittillip
12 hp
13 cola co
14 co ca
15 cacca
```

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^c. .a$' f2
14:co ca
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^i].*o$' f2
5:hello
7:hyillo
8:hyiilo
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^e].*o$' f2
6:hillo
7:hyillo
8:hyiilo
user@user-virtual-machine:~/Desktop/demo$
```

23). \$grep -ni -E '^h[^i].*o\$' f2 :-

A screenshot of a Windows desktop environment. At the top, there's a taskbar with several open windows: 'sureshhsrinivas/Firefox', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'New tab', and a browser window showing a URL from labs.alchemycloud.co.in. Below the taskbar is a vertical docked application bar labeled 'Activities' containing icons for various apps like File Explorer, Mail, and Task View. The main area shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo'. The terminal displays the following grep command and its output:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h.[^y].*o$' f2
14:co ca
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^i].*o$' f2
5:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^e].*o$' f2
6:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^l].*o$' f2
5:hello
6:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$
```

The terminal window has a dark purple background. The bottom right corner of the screen shows system status: 27°C, ENG, 23:56, 14-09-2021.

24). \$grep -ni -E '^h.[^y].*o\$' f2 :-

A screenshot of a Windows desktop environment, similar to the one above. The taskbar shows the same set of open windows. The terminal window in the foreground displays the following grep command and its output:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^c. .a$' f2
14:co ca
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^i].*o$' f2
5:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^e].*o$' f2
6:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^l].*o$' f2
5:hello
6:hello
7:hyillo
8:hytio
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[y].*o$' f2
5:hello
6:hello
user@user-virtual-machine:~/Desktop/demo$
```

The terminal window has a dark purple background. The bottom right corner of the screen shows system status: 27°C, ENG, 23:56, 14-09-2021.

25). \$grep -n -E '^[A-Z].*' f2 :-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and system tools. In the center, a terminal window is open with the command:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^c. .a$' f2
```

The output shows several lines starting with 'c' followed by a space and 'a'. Then, another terminal window is shown with the command:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^i].*o$' f2
```

The output shows lines starting with 'h' followed by any character except 'i', followed by any characters, and ending with 'o'. Below these, another terminal window shows:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[ae].*o$' f2
```

Output: lines starting with 'h' followed by 'a' or 'e', followed by any characters, and ending with 'o'. Finally, another terminal window shows:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^l].*o$' f2
```

Output: lines starting with 'h' followed by any character except 'l', followed by any characters, and ending with 'o'. The desktop bar at the bottom shows the date and time as 14-09-2021 23:58.

26). \$grep -n -E '^[a-z].*' f2 :-

A screenshot of a Linux desktop environment, similar to the previous one. A terminal window is open with the command:

```
user@user-virtual-machine:~/Desktop/demo$ grep -ni -E '^h[^y].*o$' f2
```

The output shows lines starting with 'h' followed by any character except 'y', followed by any characters, and ending with 'o'. Below it, another terminal window shows:

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E '^[A-Z].*' f2
```

Output: lines starting with any uppercase letter, followed by any characters. Then, another terminal window shows:

```
user@user-virtual-machine:~/Desktop/demo$ grep -n -E '^[a-z].*' f2
```

Output: lines starting with any lowercase letter, followed by any characters. The desktop bar at the bottom shows the date and time as 14-09-2021 23:58.

27). \$grep -E -i '^h[^el]*o\$' f2 :-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and system tools. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows the output of a command: "grep -E -i '^h[^el]*os\$' f2". The file "f2" contains the following text:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hylio
9 hip
10 hiiip
11 hittiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

28). \$cut -c 4 f2 :- This command is used to display the selected column of the file.

A screenshot of a Linux desktop environment, similar to the previous one. The terminal window shows the output of the command "cut -c 4 f2". The output is:

```
H
i
e
m
l
l
i
i
a
c
c
```

29). \$cut -c 1-4 f2 :- This command is used to display the the data from 1 column to 4th column.

A screenshot of a Windows desktop environment. On the left, there's a vertical docked application bar with icons for various apps like File Explorer, Mail, and Task View. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows the output of the command "cut -c 1-4 f2", which displays the first four columns of a file named "f2". The file "f2" contains the following text:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiiip
11 hiiiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

The terminal output shows:

```
user@user-virtual-machine:~/Desktop/demo$ cut -c 1-4 f2
OS H
os i
OSh
I am
hell
hill
hyll
hyi
hip
hili
hp
cola
co c
cacca
user@user-virtual-machine:~/Desktop/demo$
```

30). \$cut -c 1,4 f2 :- This command is used to display the 1st & 4th column of File.

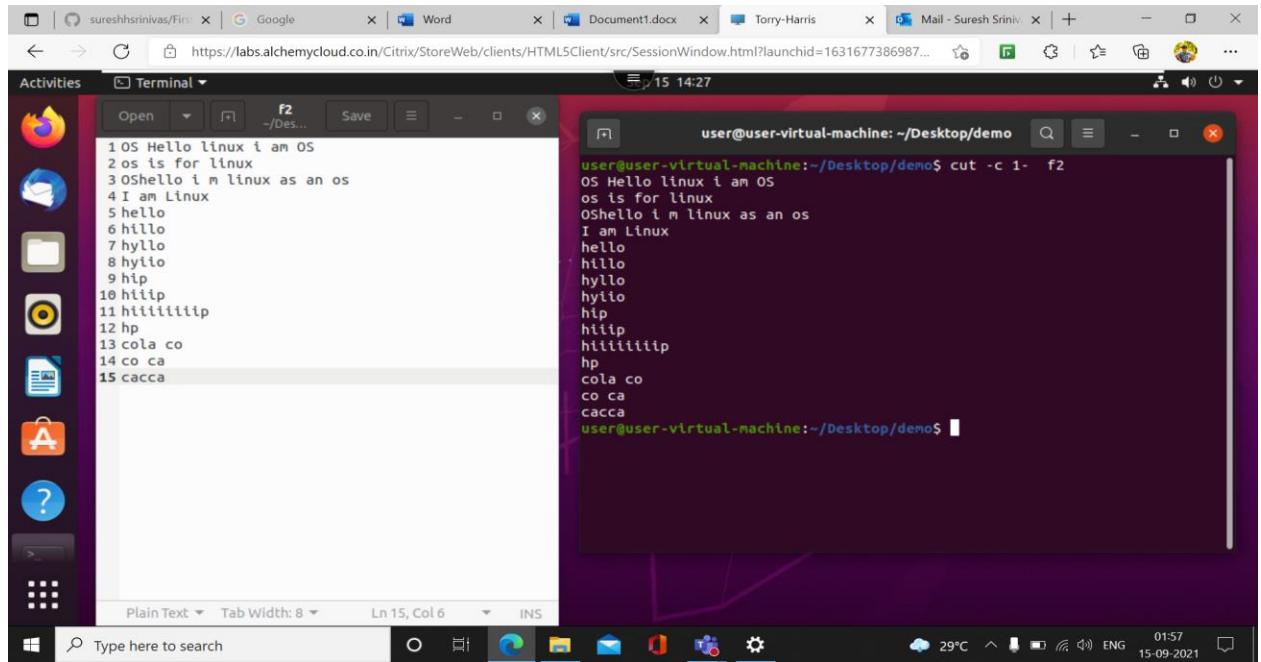
A screenshot of a Windows desktop environment. On the left, there's a vertical docked application bar with icons for various apps like File Explorer, Mail, and Task View. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows the output of the command "cut -c 1,4 f2", which displays the first and fourth columns of a file named "f2". The file "f2" contains the following text:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiiip
11 hiiiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

The terminal output shows:

```
user@user-virtual-machine:~/Desktop/demo$ cut -c 1,4 f2
OH
oi
Oe
Im
hl
hl
hl
ht
h
ht
hl
h
ca
cc
cc
user@user-virtual-machine:~/Desktop/demo$
```

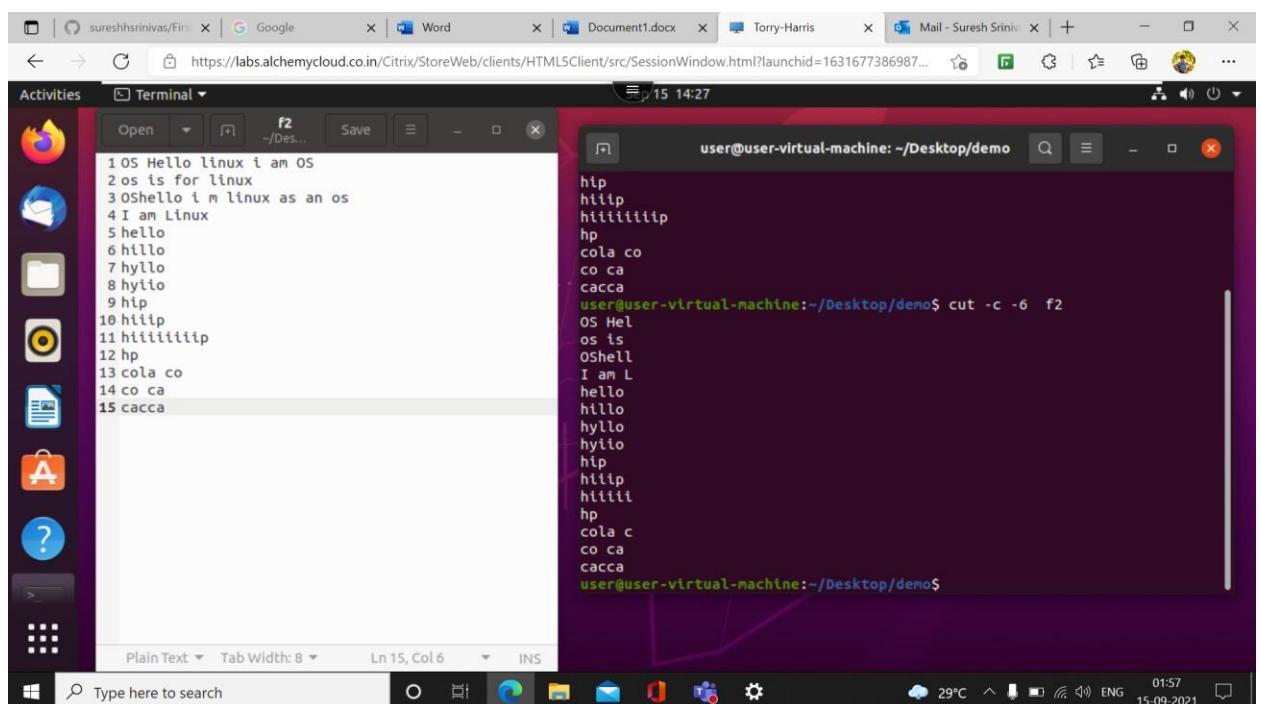
31). \$cut -c 1- f2 :- This command is used to display the file from 1st column to full.



```
1 OS Hello linux i am OS
2 os is for linux
3 OShelllo i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 htipiP
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
user@user-virtual-machine:~/Desktop/demo$ cut -c 1- f2
OS Hello linux i am OS
os is for linux
OShelllo i m linux as an os
I am Linux
hello
hillo
hyillo
hyiilo
hip
htipiP
hiiiiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

32). \$cut -c -6 f2 :- This command is used to display the file upto 6th column.



```
1 OS Hello linux i am OS
2 os is for linux
3 OShelllo i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 htipiP
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hip
hiipiP
hiiiiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$ cut -c -6 f2
OS Hel
os is
OShell
I am L
hello
hillo
hyillo
hyiilo
hip
htipiP
hiiiiiiip
hp
cola c
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

33). \$cut -c 1,3-6 f2 :- This command is used to display the 1st column and 3rd to 6th column.

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and system tools. In the center, a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" is open, displaying a list of numbers from 1 to 15 followed by short strings of letters. Below the terminal is a code editor window showing the same data. The status bar at the bottom shows the date and time as 15-09-2021 01:58.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hytlo
9 hip
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hp
hilp
hiipi
hp
cola c
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$ cut -c 1,3-6 f2
O Hel
o is
Ohell
Iam L
hillo
hilo
hito
hp
hilp
hiili
h
cla c
c ca
ccca
user@user-virtual-machine:~/Desktop/demo$
```

34). \$cut -c 1-7,8-14 f2 :- This command is used to display from 1st to 7th column and from 8th to 14th column.

A screenshot of a Linux desktop environment, similar to the previous one. The terminal window now shows the output of the command \$cut -c 1-7,8-14 f2, which filters the input to show columns 1 through 7 and 8 through 14. The code editor window below it also reflects this filtered data.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hytlo
9 hip
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hp
OS Hello
os is for
OShello i m
I am Linux
hello
hillo
hyllo
hytlo
hp
hilip
hiiiiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

35). \$cut -b 1-7,8-14 f2 :- This command is used to display from 1st to 7th column and from 8th to 14th column, but it does the operation of bytes.

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open windows: 'sureshhsrinivas/Firefox', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'Mail - Suresh Sriniv...', and a browser tab for 'https://labs.alchemycloud.co.in/Citrix/StoreWeb/clients/HTML5Client/src/SessionWindow.html?launchid=1631677386987...'. Below the taskbar is a Unity-style dock with icons for various applications like a browser, file manager, and system tools. The main area shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo'. The terminal displays the following text:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hylio
9 hip
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca

hip
hilip
hiiiiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$ cut -b 1-7,8-14 f2
OS Hello linux
os is for linu
OShello i m li
I am Linux
hello
hillo
hyllo
hylio
hip
hilip
hiiiiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

36). \$cut -d '' -f 2 f2 :- This Command is used to display the column after one space.

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar and dock are identical. The terminal window shows the same initial text as before. When the user runs the command '\$cut -d '' -f 2 f2', the output changes to:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hylio
9 hip
10 hilip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca

Hello
is
t
am
hello
hillo
hyllo
hylio
hip
hilip
hiiiiiiip
hp
co
ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

37). \$cut -d 's' -f -2 f2 :- This command is used to display the column until first s letter comes in file.

```
user@user-virtual-machine:~/Desktop/demo$ cut -d 's' -f -2 f2
OS Hello linux i am OS
os is for linux
OShello i m linux as an os
I am Linux
hello
hillo
hylio
hylio
cola co
co ca
cacc
user@user-virtual-machine:~/Desktop/demo$
```

38). \$cut --complement -c 1,5 f2 :-

```
user@user-virtual-machine:~/Desktop/demo$ cut --complement -c 1,5 f2
cut: unrecognized option '--compliment'
Try 'cut --help' for more information.
user@user-virtual-machine:~/Desktop/demo$ cut --complement -c 1,5 f2
S Hlo linux i am OS
s i for linux
Shelo i m linux as an os
amLinux
ell
ill
yll
yli
ip
ill
illiiip
p
olaco
o c
acc
user@user-virtual-machine:~/Desktop/demo$
```

39). \$cut --complement -c 5- f2 :-

A screenshot of a Linux desktop environment. On the left is a dock with icons for various applications. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" showing the command output:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiito
9 hip
10 hiiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

Below the terminal is a file viewer window showing the same text content.

40). \$cut --complement -d '' -f 3 f2 :-

A screenshot of a Linux desktop environment. On the left is a dock with icons for various applications. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" showing the command output:

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiito
9 hip
10 hiiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

The terminal command shown is:

```
user@user-virtual-machine:~/Desktop/demo$ cut --complement -d '' -f 3 f2
```

Below the terminal is a file viewer window showing the output of the command:

```
htip
hiip
hiiiiiiip
hp
co
ca
cacca
```

41). \$cut --complement -d '' -3 f2 :-

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open applications: 'sureshhsrinivas/Firefox', 'Google', 'Word', 'Document1.docx', 'Torry-Harris', 'Mail - Suresh Sriniv...', and a browser tab for 'https://labs.alchemycloud.co.in/Citrix/StoreWeb/clients/HTML5Client/src/SessionWindow.html?launchid=1631696647584...'. Below the taskbar is a docked application bar with icons for various functions like Open, Save, and Print. On the left, there is a vertical 'Activities' panel showing a grid of application icons. The main area shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo' and a file viewer window. The terminal window displays the command '\$cut --complement -d '' '' -f 1-2 f2' followed by its output, which is the complement of the input file's content. The file viewer window shows the same input file with numbered lines from 1 to 15. The desktop background is purple, and the system tray at the bottom right shows the date and time as 15-09-2021.

```
1 OS Hello linux i am OS
2 os ts for linux
3 Oshelllo i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hyito
9 hip
10 hiiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hillp
hilliiiiip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$ cut --complement -d '' '' -f 1-2 f2
2
i am OS
linux
linux as an os
hello
hillo
hyllo
hyito
hip
hillp
hilliiiiip
hp

cacca
user@user-virtual-machine:~/Desktop/demo$
```

42). \$cut -d ' ' -f 1-2 f2 –output-delimiter='*' :-

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar and application icons are identical. The terminal window now shows the command '\$cut -d ' ' -f 1-2 f2 --output-delimiter='*''. The output of this command is the original input file content, but with each line preceded by a unique identifier consisting of the line number followed by an asterisk and a double quote. The file viewer window shows the same input file with numbered lines from 1 to 15. The desktop background is purple, and the system tray at the bottom right shows the date and time as 15-09-2021.

```
1 OS Hello linux i am OS
2 os ts for linux
3 Oshelllo i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyllo
8 hyito
9 hip
10 hiiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hillp
hilliiiiip
hp

cacca
user@user-virtual-machine:~/Desktop/demo$ cut -d ' ' -f 1-2 f2 --output-delimiter='*'
1*Hello
2*ts
3*shelllo
4*I
5*hello
6*hillo
7*hyllo
8*hyito
9*ip
10*hiiip
11*hiiiiiiip
12*hp
13*cola
14*co
15*cacca
user@user-virtual-machine:~/Desktop/demo$
```

43). \$cut --complement -d ' ' -f 1-2 f2 –output-delimiter='*' :-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and system tools. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows the output of a command that reads from two files, "f1" and "f2", and then uses "cut" to extract specific fields and "sort" to arrange them. The terminal window has a dark purple background. Below the terminal is a standard Linux desktop interface with a taskbar showing open applications and system status indicators.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca

hip
hiip
hiiiiiiip
hp

cacca
user@user-virtual-machine:~/Desktop/demo$ cut --complement -d ' ' -f 1-2 f2 --output-delimiter='*' | sort
linux*!am*OS
for*linux
m*linux*as*an*os
Linux
hello
hillo
hyillo
hyiilo
hip
hiip
hiiiiiiip
hp

cacca
user@user-virtual-machine:~/Desktop/demo$
```

44). \$cut -d ' ' -f 1 f2 | sort :-

A screenshot of a Linux desktop environment, similar to the one above. It shows a terminal window with the same command and output as the previous screenshot. The terminal window is titled "user@user-virtual-machine: ~/Desktop/demo". The desktop interface includes a dock with application icons and a taskbar at the bottom.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiilo
9 hip
10 hiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca

hip
hiip
hiiiiiiip
hp

cacca
user@user-virtual-machine:~/Desktop/demo$ cut -d ' ' -f 1 f2 | sort
cacca
co
cola
hello
hiiiiiiip
hiip
hillo
hip
hp
hyiilo
hyillo
I
os
OS
OShello
user@user-virtual-machine:~/Desktop/demo$
```

45). \$cut -d ' ' -f 1 f2 | sort -r :-

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for a browser, Google, Word, Document1.docx, Torry-Harris, Mail, and a session window. The main window is a terminal titled "Activities Terminal". It shows the command `cat f2` being run, followed by the output of the file "f2" which contains lines like "1 OS Hello linux i am OS", "2 os is for linux", etc. Below the terminal is a file editor window titled "f2" showing the same content. The desktop bar at the bottom has a search bar, a task switcher, and system status indicators.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyito
9 hip
10 hilip
11 hililliliip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hp
hyito
hyillo
I
os
OS
OShello
user@user-virtual-machine:~/Desktop/demo$ cut -d ' ' -f 1 f2 | sort -r
OShello
OS
os
I
hyillo
hyito
hp
hip
hillo
hilip
hililliliip
hello
cola
co
cacca
user@user-virtual-machine:~/Desktop/demo$
```

46). \$cat f2 | cut -d ' ' -f 1-3 | sort :-

A screenshot of a Linux desktop environment, similar to the previous one. The terminal window shows the command `cat f2 | cut -d ' ' -f 1-3 | sort` being run. The output is the first three columns of the file "f2" sorted. The desktop bar at the bottom has a search bar, a task switcher, and system status indicators.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyito
9 hip
10 hilip
11 hililliliip
12 hp
13 cola co
14 co ca
15 cacca
```

```
hiip
hililliliip
hello
cola
co
cacca
user@user-virtual-machine:~/Desktop/demo$ cat f2 | cut -d ' ' -f 1-3 | sort
cacca
co ca
cola co
hello
hililliliip
hilip
hillo
hp
hyito
hyillo
I am Linux
OShello i m
OS Hello linux
os is for
user@user-virtual-machine:~/Desktop/demo$
```

47). \$cat f2 | cut -d ' ' -f 1-3 | sort -r :-

A screenshot of a Windows desktop environment. At the top, there's a taskbar with several open applications: a browser window, Microsoft Word, a document named 'Document1.docx', and a Mail application. Below the taskbar is a vertical docked panel titled 'Activities' containing icons for various apps like File Explorer, Mail, and Task View. To the right of the dock is a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo'. Inside the terminal, the command `cat f2 | cut -d ' ' -f 1-3 | sort` is run, and its output is displayed. The output shows the first three columns of the file 'f2' sorted by the first column. Below the terminal is a file viewer window titled 'f2' showing the same content. The desktop background is purple.

```
1 OS Hello linux i am OS
2 os is for linux
3 OShello i m linux as an os
4 I am Linux
5 hello
6 hillo
7 hyillo
8 hyiio
9 hip
10 hiiip
11 hiiiiiiip
12 hp
13 cola co
14 co ca
15 cacca

user@user-virtual-machine:~/Desktop/demo$ cat f2 | cut -d ' ' -f 1-3 | sort
1 am Linux
2 OShello i m
3 OS Hello linux
4 os is for
5 user@user-virtual-machine:~/Desktop/demo$ cat f2 | cut -d ' ' -f 1-3 | sort -r
15 os is for
2 os is for
3 OS Hello linux
4 OShello i m
5 I am Linux
6 hillo
7 hiiip
8 hiiiiiiip
9 hello
10 cola co
11 co ca
12 cacca
user@user-virtual-machine:~/Desktop/demo$
```

48). \$cat f2 | cut -d ' ' -f 1-3 | sort > Album :-

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar at the top has the same set of open applications: a browser, Word, 'Document1.docx', and Mail. The 'Activities' dock is also present. A terminal window titled 'user@user-virtual-machine: ~/Desktop/demo' is running the command `cat f2 | cut -d ' ' -f 1-3 | sort > Album`. The output of this command is visible in the terminal. Below the terminal is a file viewer window titled 'f2' which now contains the sorted data from 'Album'. The desktop background is purple.

```
I am Linux
OShello i m
OS Hello linux
os is for
user@user-virtual-machine:~/Desktop/demo$ cat f2 | cut -d ' ' -f 1-3 | sort -r
15 os is for
2 os is for
3 OS Hello linux
4 OShello i m
5 I am Linux
6 hillo
7 hiiip
8 hiiiiiiip
9 hello
10 cola co
11 co ca
12 cacca
user@user-virtual-machine:~/Desktop/demo$ cat f2 | cut -d ' ' -f 1-3 | sort > Album
user@user-virtual-machine:~/Desktop/demo$
```

49). \$cat f3 | tr '[a-z]' '[A-Z]' :-

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several open windows: 'sureshhsrinivas/Firstlinux', 'Google', 'Document1.docx', and 'Torry-Harris'. Below this is a dock with icons for various applications. On the left, there is a vertical 'Activities' panel containing a 'Terminal' entry. The main workspace shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo'. Inside the terminal, the user has run the command 'cat f3 | tr "[a-z]" "[A-Z]"'. The output shows the contents of file 'f3' converted to uppercase. To the left of the terminal, a file editor window titled 'f3' displays the original text: '1 I am Suresh', '2 Hello every crazy guys', and '3 hello {buddy} 724.'.

50). \$cat f3 | tr '[lower:]' '[upper:]' :-

A screenshot of a Linux desktop environment, similar to the previous one. The terminal window shows the command 'cat f3 | tr '[lower:]' '[upper:]' being run. The output is identical to the previous screenshot, showing the text from file 'f3' converted to uppercase. The file editor window 'f3' on the left still contains the original lowercase text.

51). \$echo "Hello World" | tr '[lower:]' '[upper:]' :-

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several open windows: 'sureshhsrinivas/Firstlinux', 'Google', 'Document1.docx', and 'Torry-Harris'. Below this is a dock with icons for various applications. On the left, there is a vertical 'Activities' panel containing a 'Terminal' entry. The main workspace shows a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo' and a file editor window titled 'f3'. The terminal window displays the command 'echo "Hello World" | tr "[upper]" "[lower]"' followed by the output 'Hello world'. The file editor window shows a plain text file with three lines of text: '1 I am Suresh', '2 Hello every crazy guys', and '3 hello {buddy} 724.' The desktop background is a purple gradient.

52). \$echo "Hello World" | tr '[upper]' '[lower]':-

A screenshot of a Linux desktop environment, similar to the one above. It features a horizontal bar with windows for 'sureshhsrinivas/Firstlinux', 'Google', 'Document1.docx', and 'Torry-Harris'. A dock with various application icons is at the bottom. On the left, an 'Activities' panel includes a 'Terminal' entry. The main area has a terminal window ('user@user-virtual-machine: ~/Desktop/demo') and a file editor window ('f3'). The terminal window runs the command 'echo "Hello World" | tr "[upper]" "[lower]"' and shows the result 'Hello world'. The file editor window contains the same three lines of text as the previous screenshot. The desktop background is purple.

53). \$cat f3 | tr '[upper]' '[lower]':-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for various applications like a browser, file manager, and terminal. A terminal window titled 'Terminal' is open, showing the command '\$cat f3 | tr [:space:] "\t"' and its output: 'I am Suresh', 'Hello every crazy guys', and 'hello {buddy} 724.' Below it, a file viewer window shows the same three lines of text. The desktop background is purple.

```
I am Suresh
Hello every crazy guys
hello {buddy} 724.
```

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr [:space:] "\t"
I am Suresh
Hello every crazy guys
hello {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

54). \$cat f3 | tr 'e' 'K' :-

A screenshot of a Linux desktop environment, similar to the one above. It shows a terminal window with the command '\$cat f3 | tr "e" "K"' and its output: 'I am Suresh' becomes 'I am Surksh', 'Hello every crazy guys' becomes 'Hklllo KvKry crazy guys', and 'hello {buddy} 724.' becomes 'hklllo {buddy} 724.'. The desktop background is purple.

```
I am Suresh
Hello every crazy guys
hello {buddy} 724.
```

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr "e" "K"
I am Surksh
Hklllo KvKry crazy guys
hklllo {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

55). \$cat f3 | tr '[eH]' 'K' :-

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several application icons and windows. Below this is a vertical dock on the left containing various application icons. In the center, there is a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" showing the command output:

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr '[eH]' 'K'
I am Surksh
KKllo KvKry crazy guys
hKllo {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

Next to it is a code editor window titled "f3" showing the same text content:

```
1 I am Suresh
2 Hello every crazy guys
3 hello {buddy} 724.
```

56). \$cat f3 | tr '[eHI]' 'o' :-

A screenshot of a Linux desktop environment, similar to the previous one. It shows a terminal window and a code editor window. The terminal window shows the command output:

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr '[eHI]' 'o'
o am Surosh
oollo ovory crazy guys
hollo {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

The code editor window shows the modified text content:

```
1 o am Suresh
2 oHello every crazy guys
3 ohello {buddy} 724.
```

57). \$echo "Hello World" | tr '[:space:]' '\n' :-

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for a browser, file manager, terminal, and other applications. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" showing the command "echo "Hello World" | tr '[[:space:]]' '\n'" and its output. To the right of the terminal is a file viewer window titled "f3" showing a file named "f3" with the same three lines of text. At the bottom, there's a taskbar with various icons and system status indicators.

```
user@user-virtual-machine:~/Desktop/demo$ echo "Hello World" | tr '[[:space:]]' '\n'
Hello
World
user@user-virtual-machine:~/Desktop/demo$
```

58). \$cat f3 | tr '{}' '()' :-

A screenshot of a Linux desktop environment, similar to the one above. It shows a terminal window with the command "cat f3 | tr '{}' '()'". The output shows the original text from file "f3" with curly braces replaced by parentheses. The file viewer window "f3" is also visible on the left.

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr '{}' '()'
I am Suresh
Hello every crazy guys
hello (buddy) 724.
user@user-virtual-machine:~/Desktop/demo$
```

59). \$cat f3 | tr -s '[:space:]' ' ':-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for a browser, Google, a document viewer, and a terminal. The terminal window shows the command `cat f3 | tr -s [:space:] ''` being run, followed by the output: "I am Suresh Hello every crazy guys hello {buddy} 724." Below the terminal is a file viewer window showing the same text content. The desktop background is purple.

60). `$cat f3 | tr -d 'e'`:-

A screenshot of a Linux desktop environment. On the left, there's a dock with icons for a browser, Google, a document viewer, and a terminal. The terminal window shows the command `cat f3 | tr -d 'e'` being run, followed by the output: "I am Sursh Hillo vry crazy guys hillo {buddy} 724." Below the terminal is a file viewer window showing the same text content with the letter 'e' removed. The desktop background is purple.

61). `$cat f3 | tr -d '[:digit:]'` :-

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several application icons and windows. Below this is a dock with various icons. On the left, there is a vertical dock labeled "Activities" containing icons for a browser, file manager, terminal, and other applications. In the center, there is a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal shows the command \$cat f3 | tr -d [:digit:] and its output, which is the content of the file f3 with all digits removed. To the left of the terminal is a code editor window titled "F3" showing the same content.

```
I am Suresh  
Hello every crazy guys  
hello {buddy} 724.  
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr -d [:digit:]  
I am Suresh  
Hello every crazy guys  
hello {buddy} .  
user@user-virtual-machine:~/Desktop/demo$
```

62). \$cat f3 | tr -d '[:upper:]' :-

A screenshot of a Linux desktop environment, similar to the one above. It shows a terminal window titled "user@user-virtual-machine: ~/Desktop/demo" with the command \$cat f3 | tr -d '[:upper:]' and its output, where all uppercase letters have been converted to lowercase. To the left is a code editor window showing the original content of the file f3.

```
I am Suresh  
Hello every crazy guys  
hello {buddy} 724.  
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr -d '[:upper:]'  
am uresh  
ello every crazy guys  
hello {buddy} 724.  
user@user-virtual-machine:~/Desktop/demo$
```

63). \$cat f3 | tr -d '[:lower:]' :-

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several open windows: 'sureshhsrinivas/Firstlinux', 'Google', 'Document1.docx', and 'Torry-Harris'. Below this is a dock with icons for various applications. On the left, there is a vertical 'Activities' panel showing a grid of application icons. The main workspace contains two windows: a terminal window titled 'user@user-virtual-machine: ~/Desktop/demo' and a file editor window titled 'f3'. The terminal window shows the command 'cat f3 | tr -d [:lower:]' being run, and its output: 'I S H {} 724.' The file editor window shows the same text: '1 I am Suresh\n2 Hello every crazy guys\n3 hello {buddy} 724.'. The desktop interface includes a taskbar at the bottom with a search bar and various system status indicators.

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr -d [:lower:]
I S
H
{} 724.
user@user-virtual-machine:~/Desktop/demo$
```

64). \$cat f3 | tr -d '[A-e]' :-

A screenshot of a Linux desktop environment, similar to the previous one. It shows a terminal window and a file editor window. The terminal window displays the command 'cat f3 | tr -d '[A-e]'' and its output: 'm ursh llo vry rzy guys hlio {uy} 724.' The file editor window shows the original text: '1 I am Suresh\n2 Hello every crazy guys\n3 hello {buddy} 724.'. The desktop interface includes a taskbar at the bottom with a search bar and various system status indicators.

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr -d '[A-e]'
m ursh
llo vry rzy guys
hlio {uy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

65). \$cat f3 | tr -d -c '[a-o]' :-

A screenshot of a Linux desktop environment. On the left, there's a vertical dock with icons for various applications like a browser, file manager, and terminal. The main window shows a terminal session and a text editor. The terminal window has the title "Activities Terminal". It displays the command `cat f3 | tr -d -c '[a-o]'` followed by the output: "amehelloecaghellobdd". Below the terminal is a text editor window titled "f3" which contains the text: "1 I am Suresh", "2 Hello every crazy guys", and "3 hello {buddy} 724.". The desktop bar at the bottom shows the date and time as 15 16:28, and the system status including battery level (29°C), signal strength, and network connection.

```
user@user-virtual-machine: ~/Desktop/demo$ cat f3 | tr -d -c '[a-o]'  
amehelloecaghellobdduser@user-virtual-machine:~/Desktop/demo$
```

```
1 I am Suresh  
2 Hello every crazy guys  
3 hello {buddy} 724.
```

66). \$cat f3 | tr -d '[:upper:] [:digit:]' :-

A screenshot of a Linux desktop environment, similar to the one above. The terminal window now shows the command `cat f3 | tr -d '[:upper:] [:digit:]'` followed by the output: "am uresh ello every crazy guys hello {buddy} .". The text editor window remains the same, displaying the original text. The desktop bar at the bottom shows the date and time as 15 16:29, and the system status including battery level (29°C), signal strength, and network connection.

```
user@user-virtual-machine:~/Desktop/demo$ cat f3 | tr -d '[:upper:] [:digit:]'  
:  
am uresh  
ello every crazy guys  
hello {buddy} .  
user@user-virtual-machine:~/Desktop/demo$
```

```
1 I am Suresh  
2 Hello every crazy guys  
3 hello {buddy} 724.
```

67). \$more Database :-

The screenshot shows a Windows desktop environment with several open windows. In the center is a terminal window titled 'Terminal' with the command 'user@user-virtual-machine: ~/Desktop/demo\$ more Database'. The terminal displays text about Linux distributions, mentioning Debian, Fedora, and Ubuntu, and noting its use in various devices like routers and cars. At the bottom of the terminal window, there is a progress bar indicating '-More--(34%)'.

```
user@user-virtual-machine: ~/Desktop/demo$ more Database
Linux is typically packaged in a Linux distribution.

Distributions include the Linux kernel and supporting system software and libraries, many of which are provided by the GNU Project. Many Linux distributions use the word "Linux" in their name, but the Free Software Foundation uses the name "GNU/Linux" to emphasize the importance of GNU software, causing some controversy.[15][16]

Popular Linux distributions[17][18][19] include Debian, Fedora, and Ubuntu. Commercial distributions include Red Hat Enterprise Linux and SUSE Linux Enterprise Server. Desktop Linux distributions include a windowing system such as X11 or Wayland, and a desktop environment such as GNOME or KDE Plasma. Distributions intended for servers may omit graphics altogether, or include a solution stack such as LAMP. Because Linux is freely redistributable, anyone may create a distribution for any purpose.[20]

Linux was originally developed for personal computers based on the Intel x86 architecture, but has since been ported to more platforms than any other operating system.[21] Because of the dominance of the Linux-based Android on smartphones, Linux also has the largest installed base of all general-purpose operating systems.[22][23][24][25] Although it is used by only around 2.3 percent of desktop computers,[26][27] the Chromebook, which runs the Linux kernel-based Chrome OS, dominates the US K-12 education market and represents nearly 20 percent of sub-$300 notebook sales in the US.[28] Linux is the leading operating system on servers (over 96.4% of the top 1 million web servers' operating systems are Linux),[29] leads other big iron systems such as mainframe computers, and is the only OS used on TOP500 supercomputers (since November 2017, having gradually eliminated all competitors).[30][31][32]

Linux also runs on embedded systems, i.e. devices whose operating system is typically built into the firmware and is highly tailored to the system. This includes routers, automation controls, smart home technology (like Google Nest),[33] televisions (Samsung and LG Smart TVs use Tizen and WebOS, respectively),[34][35][36] automobiles (for example, Tesla, Audi, Mercedes-Benz, Hyundai, and Toyota all rely on Linux),[37] digital video recorders, video game consoles, and smartwatches.[38] The Falcon 9's and the Dragon 2's avionics use a customized version of Linux.

user@user-virtual-machine: ~/Desktop/demo$
```

68). \$more -p Database :-

This screenshot is identical to the one above, showing the same terminal window with the command '\$more -p Database'. The output is identical, displaying information about Linux distributions and its use in various devices. The progress bar at the bottom of the terminal window shows '-More--(34%)'.

```
user@user-virtual-machine: ~/Desktop/demo$ more Database
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Distributions include the Linux kernel and supporting system software and libraries, many of which are provided by the GNU Project. Many Linux distributions use the word "Linux" in their name, but the Free Software Foundation uses the name "GNU/Linux" to emphasize the importance of GNU software, causing some controversy.[15][16]

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Linux is one of the most prominent examples of free and open-source software collaboration. The source code may be used, modified and distributed commercially or non-commercially by anyone under the terms of its respective licenses, such as the GNU General Public License.[20]

--More--(34%)
```

Activities Terminal user@user-virtual-machine: ~/Desktop/demo

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

99% of all cloud infrastructure is powered by Linux including supercomputers and cloud providers.[40] 74% of smartphones in the world are Linux-based.

The Unix operating system was conceived and implemented in 1969, at AT&T's Bell Labs, in the United States by Ken Thompson, Dennis Ritchie, Douglas McIlroy, and Joe Ossanna.[42] First released in 1971, Unix was written entirely in assembly language, as was common practice at the time. In 1973 in a key, pioneering approach, it was rewritten in the C programming language by Dennis Ritchie (with the exception of some hardware and I/O routines). The availability of a high-level language implementation of Unix made its porting to different computer platforms easier.[43]

Due to an earlier antitrust case forbidding it from entering the computer business, AT&T was required to license the operating system's source code to anyone who asked. As a result, Unix grew quickly and became widely adopted by academic institutions and businesses. In 1984, AT&T divested itself of Bell Labs; freed of the legal obligation requiring free licensing, Bell Labs began selling Unix as a proprietary product, where users were not legally allowed to modify Unix. The GNU Project, started in 1983 by Richard Stallman, had the goal of creating a "complete Unix-compatible software system" composed entirely of free software. Work began in 1984.[44] Later, in 1985, Stallman started the Free Software Foundation and wrote the GNU General Public License (GNU GPL) in 1989. By the early 1990s, many of the programs required in an operating system (such as libraries, compilers, text editors, a command-line shell, and a windowing system) were completed, although low-level elements such as device drivers, daemons, and the kernel, called GNU Hurd, were stalled and incomplete.

Linus Torvalds has stated that if the GNU kernel had been available at the time (1991), he would not have decided to write his own.[46] Although not released until 1992, due to legal complications, development of 386BSD, from which NetBSD, OpenBSD and FreeBSD descended, predicated that of Linux. Torvalds has also stated that if 386BSD had been available at the time, he probably would not have created Linux.[47]

MINIX was created by Andrew S. Tanenbaum, a computer science professor, and released in 1987 as a minimal Unix-like operating system targeted at students and others who wanted to learn operating system principles. Although the complete source code of MINIX was freely available, the licensing terms prevented it from being free software until the licensing changed in April 2000. In 1991, while attending the University of Helsinki, Torvalds became curious about operating systems.[49] Frustrated by the licensing of MINIX, which at the time limited it to educational use only,[48] he began to work on his own operating system kernel, which eventually became the Linux kernel.

-More--(72%)

Windows Type here to search 28°C ENG 04:54 15-09-2021

Activities Terminal user@user-virtual-machine: ~/Desktop/demo

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

Torvalds began the development of the Linux kernel on MINIX and applications written for MINIX were also used on Linux. Later, Linux matured and further Linux kernel development took place on Linux systems.[50] GNU applications also replaced all MINIX components, because it was advantageous to use the freely available code from the GNU Project with the fledgling operating system; code licensed under the GNU GPL can be reused in other computer programs as long as they also are released under the same or a compatible license. Torvalds initiated a switch from his original license, which prohibited commercial redistribution, to the GNU GPL.[51] Developers worked to integrate GNU components with the Linux kernel, making a fully functional and free operating system.

Linus Torvalds had wanted to call his invention "Freak", a portmanteau of "free", "freak", and "x" (as an allusion to Unix). During the start of his work on the system, some of the project's makefiles included the name "Freak" for about half a year. Torvalds had already considered the name "Linux", but initially dismissed it as too egotistical.[53]

In order to facilitate development, the files were uploaded to the FTP server (ftp.funet.fi) of FUNET in September 1991. Ari Lemmke, Torvalds' coworker at the Helsinki University of Technology (HUT), who was one of the volunteer administrators for the FTP server at the time, did not think that "Freak" was a good name, so he named the project "Linux" on the server without consulting Torvalds.[53] Later, however, Torvalds consented to "Linux".

According to a newsgroup post by Torvalds,[10] the word "Linux" should be pronounced (/lɪnʊks/ (About this sound listen) LIN-uucks) with a short 'i' as in 'print' and 'u' as in 'put'. To further demonstrate how the word "Linux" should be pronounced, he included an audio guide (About this sound listen (help·info)) with the kernel source code.[54] Contradictory, in this recording, he pronounces "Linux" (/lɪnʊks/ (About this sound listen) LEEN-uucks with a short but close unrounded front vowel).

user@user-virtual-machine:~/Desktop/demo\$

Windows Type here to search 28°C ENG 04:55 15-09-2021

69). \$more -c Database :-

```
sureshhsrinivas/Firstlinux Google Document1.docx Tory-Harris 15 17:25 Activities Terminal user@user-virtual-machine: ~/Desktop/demo
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-More--(34%)
```

```
sureshhsrinivas/Firstlinux Google Document1.docx Tory-Harris 15 17:25 Activities Terminal user@user-virtual-machine: ~/Desktop/demo
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90% of all cloud infrastructure is powered by Linux including supercomputers and cloud providers.[40] 74% of smartphones in the world
-More--(36%)
```

