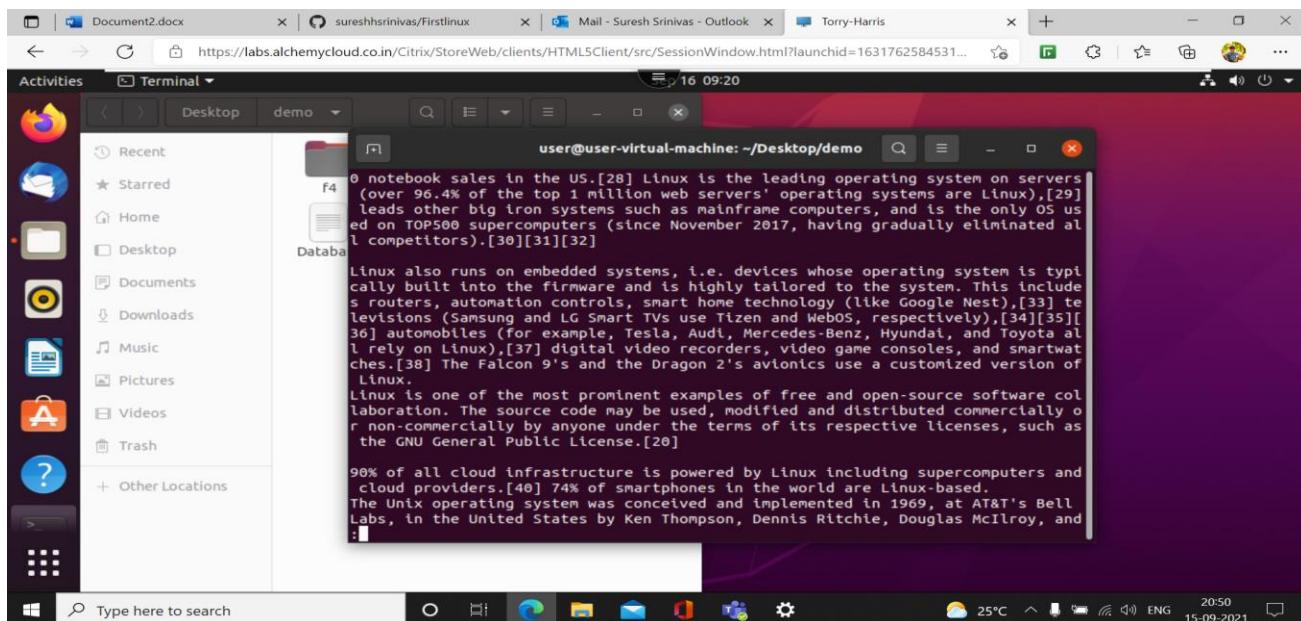
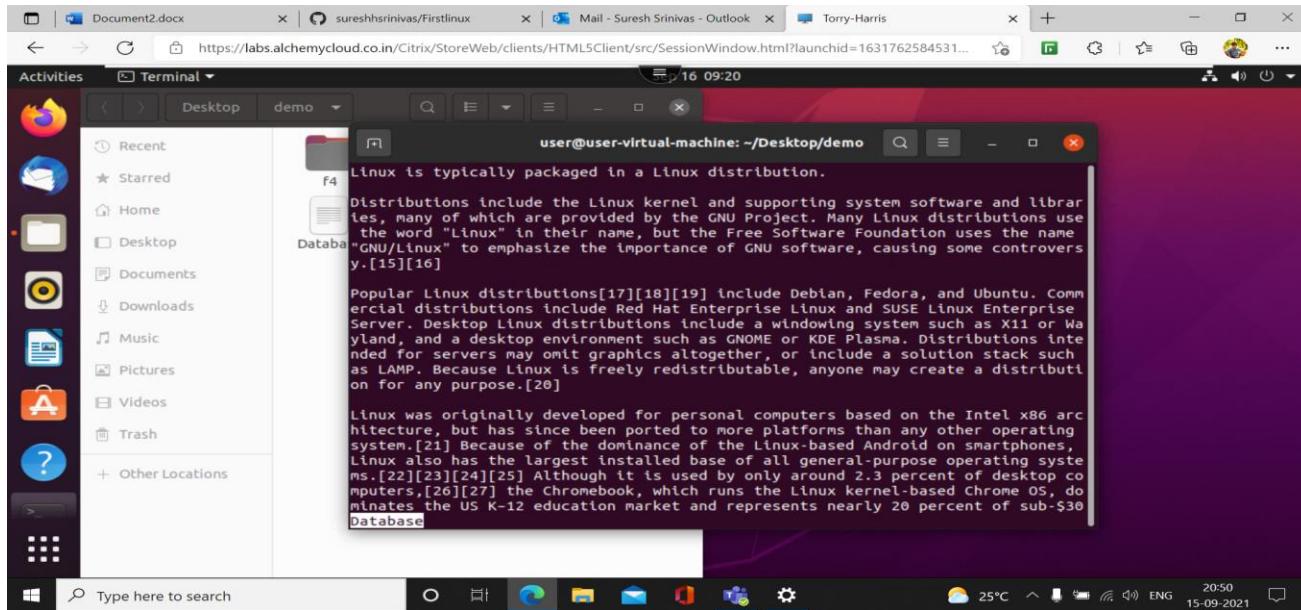


Linux Commands

1). \$less filename :- This command is used to fetch the data only page by page.



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.

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]

90% 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:

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]

2). \$less -p 'pattern_name' filename :- This Command is used to Match the specific pattern.

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3). \$less -N filename :- This command is used to print data with line numbers.

```
1 Linux is typically packaged in a Linux distribution.
2
3 Distributions include the Linux kernel and supporting system software and
4 libraries, many of which are provided by the GNU Project. Many Linux
5 distributions use the word "Linux" in their name, but the Free Software
6 Foundation uses the name "GNU/Linux" to emphasize the importance of GNU s
7 oftware, causing some controversy.[15][16]
8
9 Popular Linux distributions[17][18][19] include Debian, Fedora, and Ubun
10 tu. Commercial distributions include Red Hat Enterprise Linux and SUSE L
11 inux Enterprise Server. Desktop Linux distributions include a windowing
12 system such as X11 or Wayland, and a desktop environment such as GNOME o
13 r KDE Plasma. Distributions intended for servers may omit graphics alto
14 gether, or include a solution stack such as LAMP. Because Linux is freely
15 redistributable, anyone may create a distribution for any purpose.[20]
16
17 Linux was originally developed for personal computers based on the Intel
18 x86 architecture, but has since been ported to more platforms than any
19 other operating system.[21] Because of the dominance of the Linux-based
20 Android on smartphones, Linux also has the largest installed base of all
21 general-purpose operating systems.[22][23][24][25] Although it is used
22 by only around 2.3 percent of desktop computers,[26][27] the Chromebook,
23 which runs the Linux kernel-based Chrome OS, dominates the US K-12 educ
```

A screenshot of a Linux desktop environment. At the top, there is a horizontal bar with several open windows: 'Document2.docx', 'sureshhsrinivas/Firstlinux', 'Mail - Suresh Srinivas - Outlook', 'Torry-Harris', and a terminal window. The terminal window is active and displays a block of text from a vim editor session. The text discusses the history and widespread use of Linux, mentioning its market share, use in servers, mainframe computers, supercomputers, and various embedded systems like routers, automation controls, and smart home technology. It also notes its use in mobile devices like Google Nest, Samsung and LG Smart TVs, Tesla cars, and Toyota vehicles. The text highlights Linux's role in cloud infrastructure, supercomputers, and smartphones, noting that 74% of smartphones are Linux-based.

```
7 action market and represents nearly 20 percent of sub-$300 notebook sales
7 In the US.[28] Linux is the leading operating system on servers (over 9
7 6.4% of the top 1 million web servers' operating systems are Linux).[29]
7 leads other big iron systems such as mainframe computers, and is the on
7 ly OS used on TOP500 supercomputers (since November 2017, having gradual
7 ly eliminated all competitors).[30][31][32]
8
9 Linux also runs on embedded systems, i.e. devices whose operating system
9 ls typically built into the firmware and is highly tailored to the syst
9 em. This includes routers, automation controls, smart home technology (l
9 like Google Nest),[33] televisions (Samsung and LG Smart TVs use Tizen an
9 d WebOS, respectively).[34][35][36] automobiles (for example, Tesla, Aud
9 i, Mercedes-Benz, Hyundai, and Toyota all rely on Linux).[37] digital vi
9 deo recorders, video game consoles, and smartwatches.[38] The Falcon 9's
9 and the Dragon 2's avionics use a customized version of Linux.
10 Linux is one of the most prominent examples of free and open-source soft
10 ware collaboration. The source code may be used, modified and distribut
10 ed commercially or non-commercially by anyone under the terms of its resp
10 ective licenses, such as the GNU General Public License.[28]
11
12 90% of all cloud infrastructure is powered by Linux including supercompu
12 ters and cloud providers.[40] 74% of smartphones in the world are Linux-
12 based.
```

4). \$sudo apt-get install vim :- This command is used to install vim editor package.

A screenshot of a Linux desktop environment. The terminal window shows the command \$sudo apt-get install vim being run. The output of the command is displayed, showing the password prompt, the reading of package lists, building of dependency tree, and the reading of state information. It then lists the additional packages that will be installed (vim-runtime) and the suggested packages (ctags, vim-doc, vlm-scripts). It also lists the new packages that will be installed (vim, vim-runtime). The command continues to show the upgrade process, the amount of disk space required, and the user's confirmation to proceed (Y/n). Finally, it shows the fetching of files from the archive, the selection of previously unselected packages, the preparation for unpacking, and the addition of diversions for help files.

```
user@user-virtual-machine:~/Desktop/demo$ sudo apt-get install vim
[sudo] password for user:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  vim-runtime
Suggested packages:
  ctags vim-doc vlm-scripts
The following NEW packages will be installed:
  vim vim-runtime
0 upgraded, 2 newly installed, 0 to remove and 27 not upgraded.
Need to get 7,111 kB of archives.
After this operation, 34.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://in.archive.ubuntu.com/ubuntu focal/main amd64 vim-runtime all 2:8.1
.2269-1ubuntu5 [5,873 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu focal/main amd64 vim amd64 2:8.1.2269-
1ubuntu5 [1,238 kB]
Fetched 7,111 kB in 1s (8,052 kB/s)
Selecting previously unselected package vim-runtime.
(Reading database ... 184033 files and directories currently installed.)
Preparing to unpack .../vim-runtime_2%3a8.1.2269-1ubuntu5_all.deb ...
Adding 'diversion of /usr/share/vim/vim81/doc/help.txt to /usr/share/vim/vim81/d
```

A screenshot of a Linux desktop environment. On the left is a dock with icons for various applications like a browser, file manager, and system tools. In the center is a terminal window titled "user@user-virtual-machine: ~/Desktop/demo". The terminal displays the output of a command that installs the Vim editor. The log shows the unpacking of the Vim package, the configuration of update-alternatives to provide Vim variants, and the processing of man-db triggers. The desktop background is a purple gradient.

```
f4 Adding 'diversion of /usr/share/vim/vim81/doc/tags to /usr/share/vim/vim81/doc/tags.vim-tiny by vim-runtime'
Unpacking vim-runtime (2:8.1.2269-1ubuntu5) ...
Selecting previously unselected package vim.
Preparing to unpack .../vim_2k3a8.1.2269-1ubuntu5_amd64.deb ...
Unpacking vim (2:8.1.2269-1ubuntu5) ...
Setting up vim-runtime (2:8.1.2269-1ubuntu5) ...
Setting up vim (2:8.1.2269-1ubuntu5)...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode
Processing triggers for man-db (2.9.1-1) ...
user@user-virtual-machine:~/Desktop/demo$
```

5). \$vim :- This command is used to vim editor.

A screenshot of a Linux desktop environment, similar to the previous one. The terminal window shows the output of the \$vim command. It displays the Vim logo, version 8.1.2269, and credits to Bram Moolenaar et al. It also mentions that Vim is open source and freely distributable. Below this, it provides help information for poor children in Uganda and lists commands for exiting, getting online help, and viewing version info. The desktop interface and icons are visible on the left and bottom.

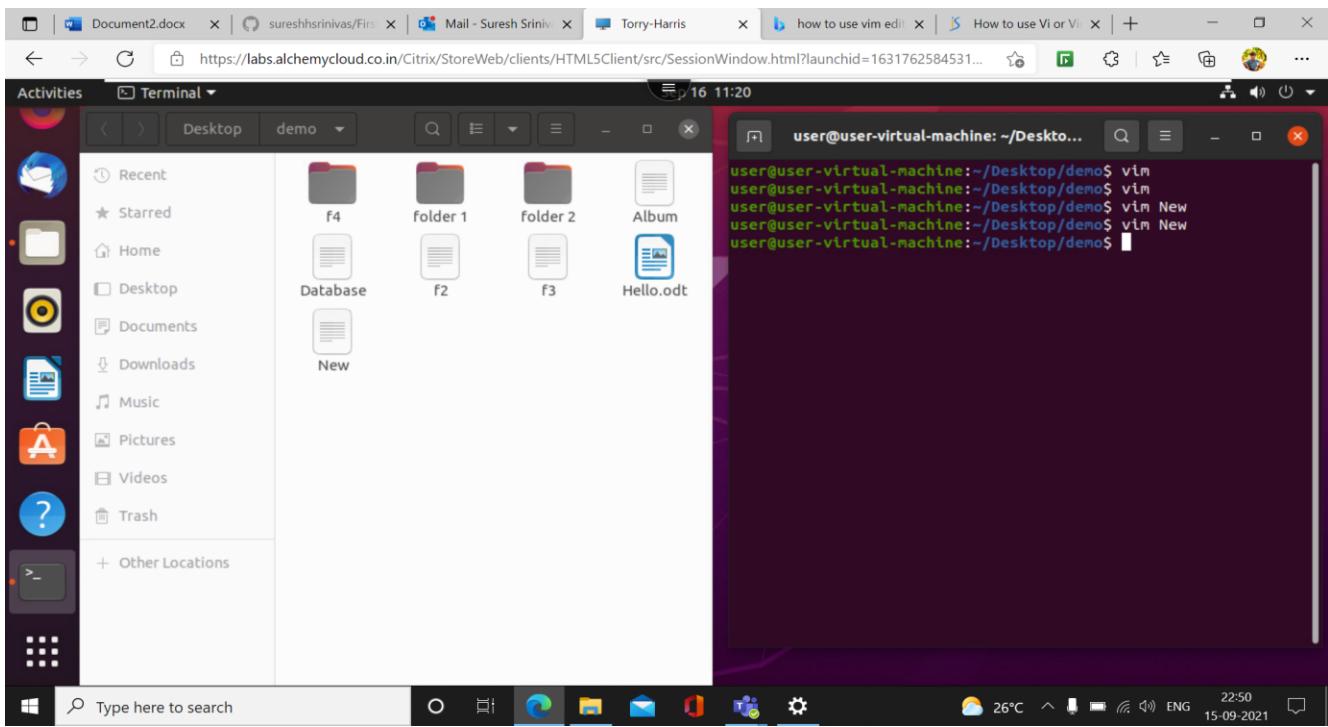
```
VIM - Vi IMproved
version 8.1.2269
by Bram Moolenaar et al.
Modified by team+vim@tracker.debian.org
Vim is open source and freely distributable

Help poor children in Uganda!
type :help iccf<Enter> for information

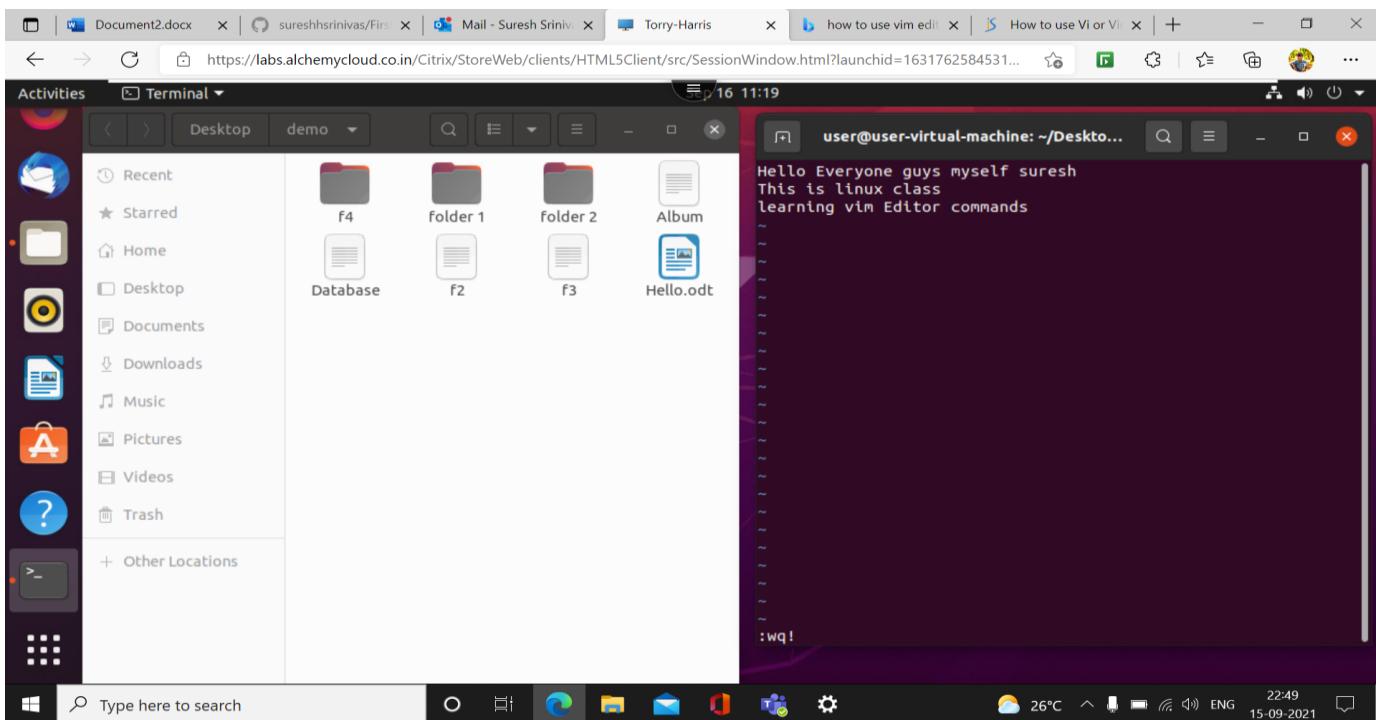
type :q<Enter> to exit
type :help:<Enter> or <F1> for on-line help
type :help version8<Enter> for version info

0,0-1          All .
```

6). \$vim filename :- This command is used to create new file.



7). \$vim :wq! :- this command is used to save and close the file.



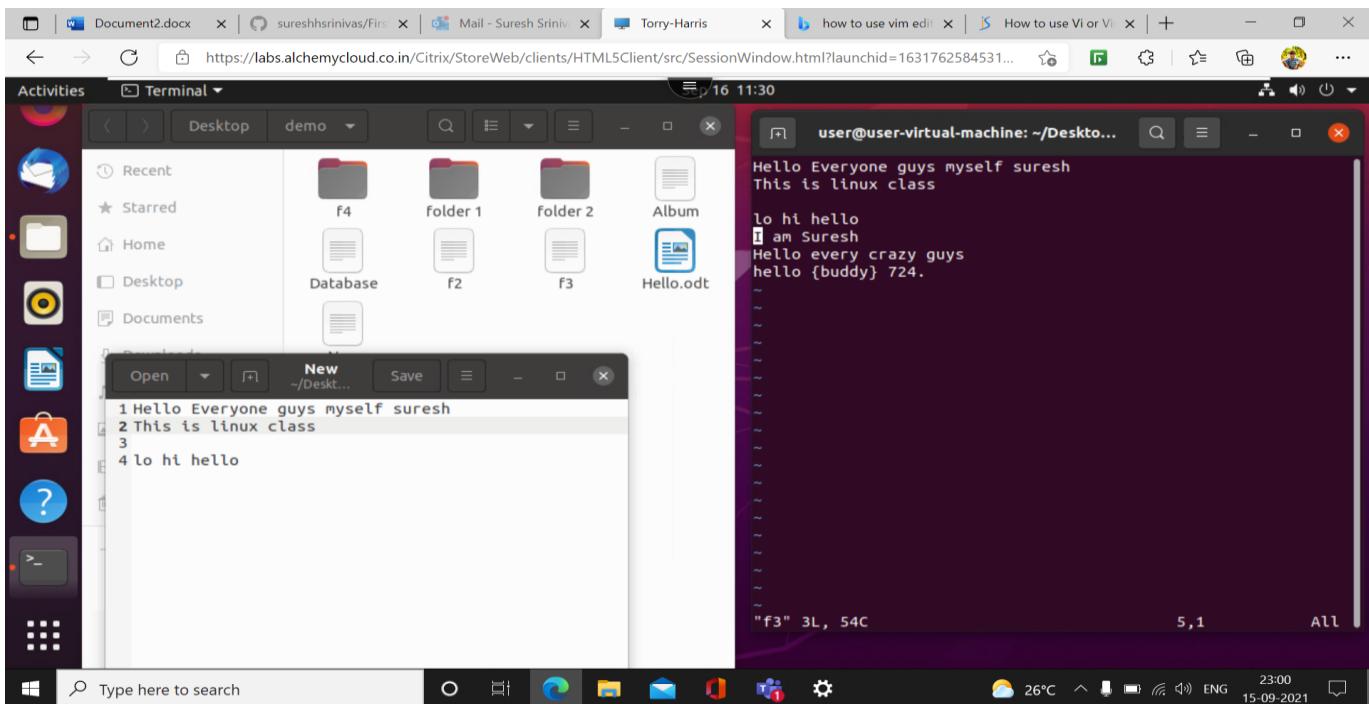
8). :q! :- this command is used to exit without Saving the file.

A screenshot of a Windows desktop environment. At the top, there's a taskbar with several open windows: 'Document2.docx', 'sureshhsrinivas/Fire', 'Mail - Suresh Sriniv...', 'Torry-Harris', 'how to use vim edit...', and 'How to use Vi or Vim...'. Below the taskbar is the Unity interface, showing the 'Activities' dock on the left with various application icons like Photos, Videos, and Documents. A terminal window is open in the dock, titled 'user@user-virtual-machine: ~/Desktop...', displaying the text 'Hello Everyone guys myself suresh', 'This is linux class', 'learning vim Editor commands', and some乱码. The terminal also shows the command ':q!' at the bottom. The desktop background is purple.

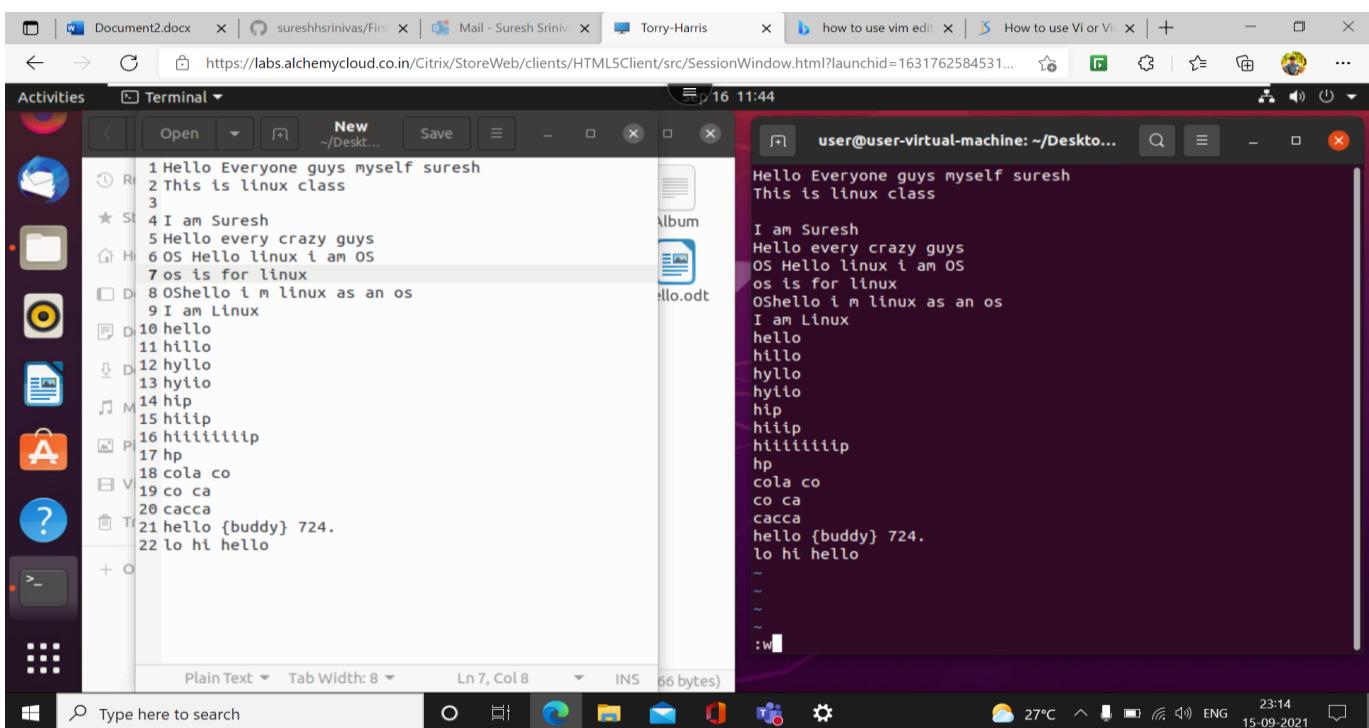
9). :q :- this command is used to exit vim editor without doing anything.

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar at the top has the same set of open windows. The Unity interface and activities dock are visible. A terminal window is open in the dock, showing the same vim editor content as before, including the command ':q!' at the bottom. The desktop background is purple.

10). :r filename :- This command is used to read the content from one file to other.



11). :w :- This command is used to write the read file from specific file.



12). \$head filename :- this command is used to display first 10 lines of the content in file.

A screenshot of a Windows desktop environment. On the left is a Start menu with various icons. In the center is a terminal window titled "Terminal" with the command "head New" run, showing the first few lines of a file named "New". To the right of the terminal is a file viewer showing the contents of the "New" file. The file contains several lines of text, including "Hello Everyone guys myself suresh", "I am Suresh", and "Hello every crazy guys". The desktop taskbar at the bottom shows other open applications like Microsoft Word, Mail, and a browser.

```
1 Hello Everyone guys myself suresh
2 This is linux class
3
4 I am Suresh
5 Hello every crazy guys
6 OS Hello linux i am OS
7 os is for linux
8 OShello i m linux as an os
9 I am Linux
10 hello
11 hillo
12 hyllo
13 hylio
14 hlp
15 hilip
16 hilillip
17 hp
18 cola co
19 co ca
20 cacca
21 hello {buddy} 724.
22 lo hi hello
```

```
user@user-virtual-machine:~/Desktop/demo$ head New
Hello Everyone guys myself suresh
This is linux class

I am Suresh
Hello every crazy guys
OS Hello linux i am OS
os is for linux
OShello i m linux as an os
I am Linux
hello
user@user-virtual-machine:~/Desktop/demo$
```

13). \$head -n 5 filename :- This command is used to print first 5 lines of the content.

A screenshot of a Windows desktop environment, similar to the previous one. It shows a terminal window with the command "head -n 5 New" run, which prints the first five lines of the "New" file. The file's content is identical to the previous screenshot. The desktop taskbar at the bottom shows other open applications like Microsoft Word, Mail, and a browser.

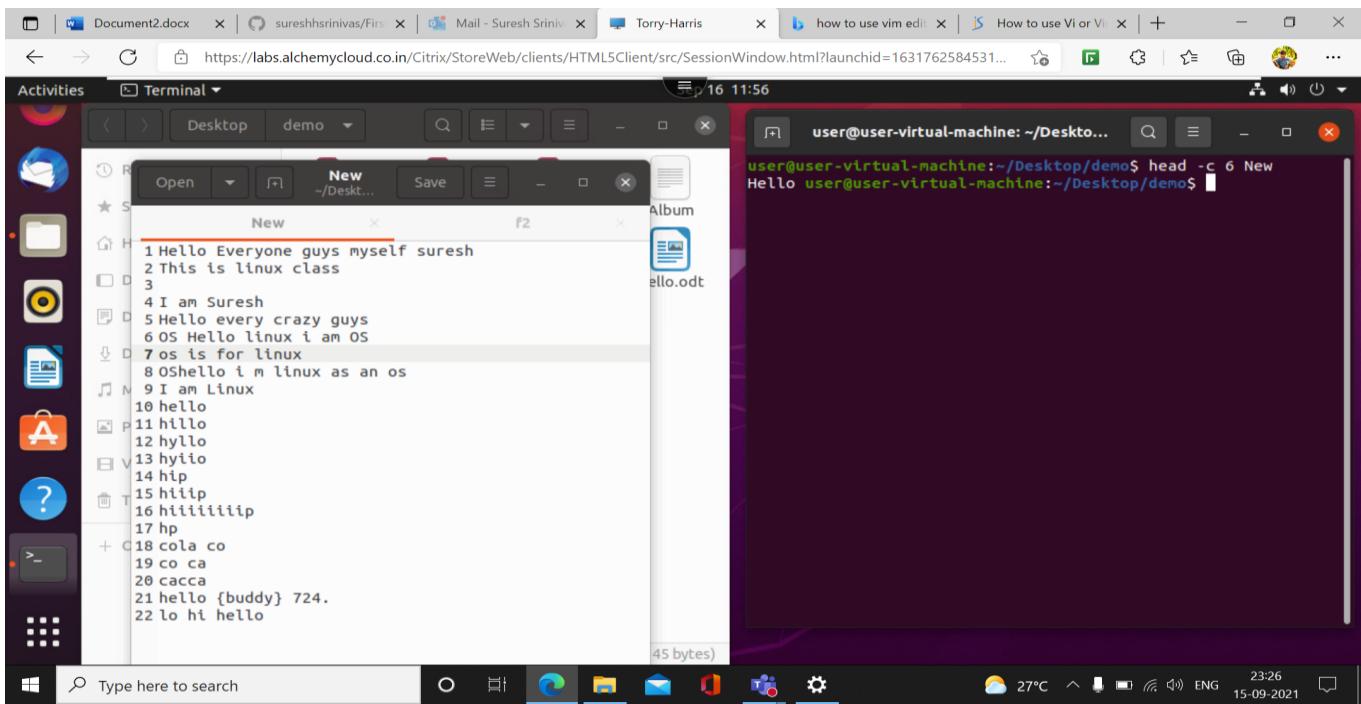
```
1 Hello Everyone guys myself suresh
2 This is linux class
3
4 I am Suresh
5 Hello every crazy guys
6 OS Hello linux i am OS
7 os is for linux
8 OShello i m linux as an os
9 I am Linux
10 hello
11 hillo
12 hyllo
13 hylio
14 hlp
15 hilip
16 hilillip
17 hp
18 cola co
19 co ca
20 cacca
21 hello {buddy} 724.
22 lo hi hello
```

```
user@user-virtual-machine:~/Desktop/demo$ head -n 5 New
Hello Everyone guys myself suresh
This is linux class

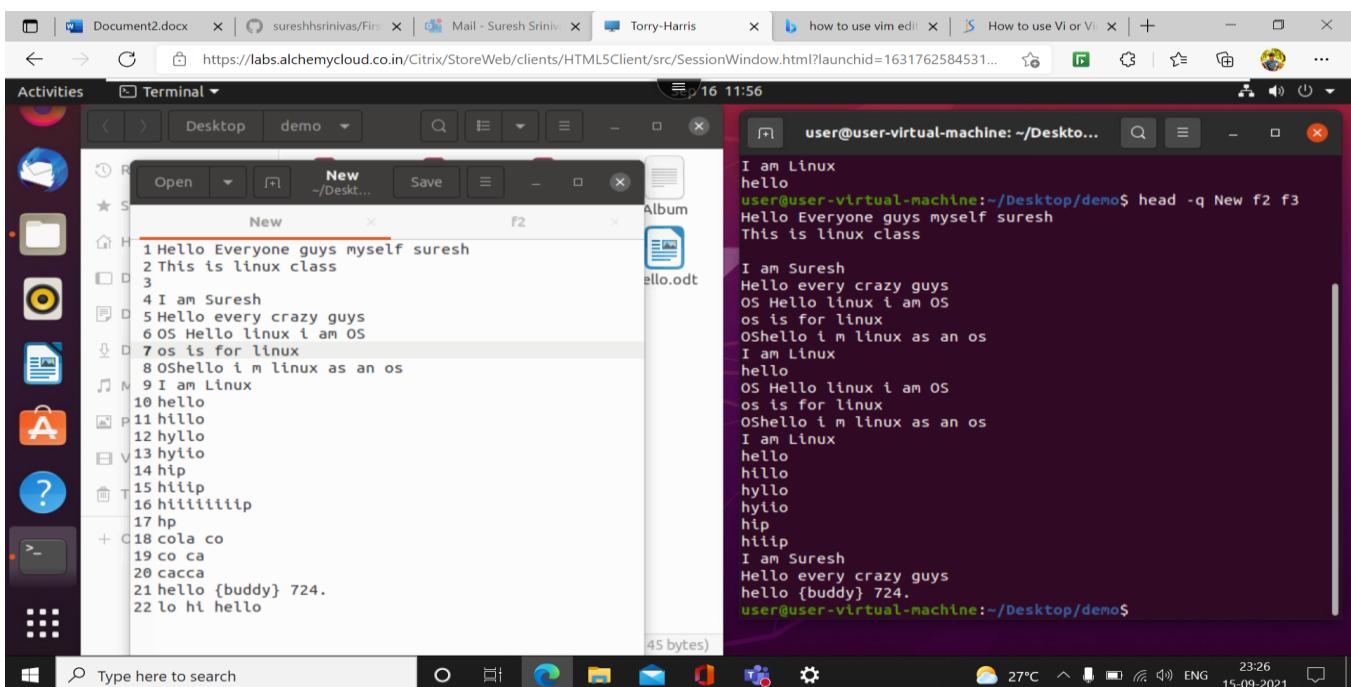
I am Suresh
Hello every crazy guys
OS Hello linux i am OS
os is for linux
OShello i m linux as an os
I am Linux
hello
user@user-virtual-machine:~/Desktop/demo$ head -n 5 New
Hello Everyone guys myself suresh
This is linux class

I am Suresh
Hello every crazy guys
user@user-virtual-machine:~/Desktop/demo$
```

14). \$head -c 6 filename:- This command is used to print the specified size of bytes of the data in file.



15). \$head -q filename1 filename2 filenamen :- This command is used to print the first 10 lines of all the specified files.



16). \$head -v filename :- this command is used to print the first 10 lines preceding with file name.

A screenshot of a Windows desktop environment. At the top, there's a taskbar with several open windows: 'Document2.docx', 'sureshhsrinivas/Fire', 'Mail - Suresh Sriniv...', 'Torry-Harris', 'how to use vim edit...', 'How to use Vi or V...', and a browser window for 'https://labs.alchemycloud.co.in/Citrix/StoreWeb/clients/HTML5Client/src/SessionWindow.html?launchid=1631762584531...'. Below the taskbar is a docked application bar with icons for various functions. The main area shows a terminal window titled 'Activities Terminal' with the command 'head -v New' run, displaying the contents of a file named 'New'. To the left of the terminal is a file viewer window showing the same 'New' file with its text content. The desktop background is purple.

```
user@user-virtual-machine:~/Desktop/demo$ head -v New
==> New <==
Hello Everyone guys myself suresh
This is linux class
I am Suresh
Hello every crazy guys
OS Hello linux i am OS
os is for linux
OShello i m linux as an os
I am Linux
hello
user@user-virtual-machine:~/Desktop/demo$ ~
```

17). \$head –n 20 filename | tail –10 :- This command is used to print data from line 20 upwards until 10th line.

A screenshot of a Windows desktop environment, similar to the previous one. The taskbar shows the same set of open windows. The terminal window now displays the command 'head -n 20 New | tail -10', which filters the 'New' file to show lines 20 through 10 from the end. The file viewer window remains visible, showing the full content of the 'New' file.

```
user@user-virtual-machine:~/Desktop/demo$ head -n 20 New | tail -10
-10
hillo
hyillo
hyilo
hip
hiipiip
hiilliliip
hp
cola co
co ca
cacca
user@user-virtual-machine:~/Desktop/demo$
```

18). \$ls –t :- This command is used to print latest modified files.

A screenshot of a Linux desktop environment. On the left is a dock with icons for Home, Trash, and a 'demo' folder. The desktop background features a purple and black geometric design. A terminal window titled 'Terminal' is open in the top right corner, displaying the command 'ls -t' and its output:

```
user@user-virtual-machine: ~/Desktop/demo$ ls -t
New      f3  Album 'folder 1'  Hello.odt
Database f4  f2  'folder 2'
user@user-virtual-machine:~/Desktop/demo$
```

19). \$ls -t | head -n 3 :- This command is used to print first 3 files that are modified recently.

A screenshot of a Linux desktop environment, identical to the previous one but with a different terminal command. The terminal window shows the command 'ls -t | head -n 3' and its output:

```
user@user-virtual-machine:~/Desktop/demo$ ls -t
New      f3  Album 'folder 1'  Hello.odt
Database f4  f2  'folder 2'
user@user-virtual-machine:~/Desktop/demo$ ls -t | head -n 3
New
Database
f3
user@user-virtual-machine:~/Desktop/demo$
```

20). \$tail filename :- This command is used to print last 10 lines from the file content.

A screenshot of a Windows desktop environment. On the left, there's a file explorer window showing a folder named 'New'. On the right, a terminal window is open with the command 'tail New' run, displaying the last 3 lines of a file named 'New'. The file 'New' contains a series of numbers followed by short lines of text. Below the terminal is a taskbar with various icons and a search bar.

```
user@user-virtual-machine:~/Desktop/demo$ tail New
hyilo
hip
hiip
hiiiiip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello
user@user-virtual-machine:~/Desktop/demo$
```

21). \$tail -3 filename :- this command is used to print last 3 lines of the data.

A screenshot of a Windows desktop environment, similar to the previous one. A terminal window on the right shows the command 'tail New' followed by 'tail -3 New', demonstrating the use of the -3 option to print the last 3 lines of the file 'New'. The file 'New' is the same as in the previous screenshot. The taskbar at the bottom includes a search bar and other application icons.

```
user@user-virtual-machine:~/Desktop/demo$ tail New
hyilo
hip
hiip
hiiiiip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello
user@user-virtual-machine:~/Desktop/demo$ tail -3 New
cacca
hello {buddy} 724.
lo hi hello
user@user-virtual-machine:~/Desktop/demo$
```

22). \$tail -3 -c filename :- this command is used to print last line pattern bytes.

A screenshot of a Windows desktop environment. On the left, there's a file explorer window showing a folder structure. In the center, there's a terminal window titled "user@user-virtual-machine: ~/Desktop...". The terminal shows the output of the command "tail New", which displays the last 10 lines of a file named "New". The file "New" contains several lines of text, including "Hello Everyone guys myself suresh", "This is linux class", and "I am Suresh". The desktop taskbar at the bottom shows various icons and the date/time (15-09-2021, 23:35).

```
user@user-virtual-machine:~/Desktop/demo$ tail New
hyito
hip
hiilp
hiilliliip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello
user@user-virtual-machine:~/Desktop/demo$ tail -3 New
cacca
hello {buddy} 724.
lo hi hello
user@user-virtual-machine:~/Desktop/demo$ tail -c -3 New
lo
user@user-virtual-machine:~/Desktop/demo$
```

23). \$tail filename1 filename2 :- this command is used to print last 10 lines of both the file preceding with file names.

A screenshot of a Windows desktop environment, similar to the previous one. It shows a terminal window with the command "tail New f3" run. The output shows the last 10 lines of the "New" file followed by the last 10 lines of the "f3" file. Both files contain the same text as the "New" file. The desktop taskbar at the bottom shows various icons and the date/time (15-09-2021, 23:38).

```
user@user-virtual-machine:~/Desktop/demo$ tail New f3
==> New <==
hyito
hip
hiilp
hiilliliip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello

==> f3 <==
I am Suresh
Hello every crazy guys
hello {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

24). \$tail -q filename1 filename2 :- This command is used to print combination last 10 lines of both the file.

A screenshot of a Windows desktop environment. At the top, there is a taskbar with several open windows: 'Document2.docx', 'sureshhsrinivas/Firefox', 'Mail - Suresh Sriniv...', 'Torry-Harris', 'how to use vim edit...', 'How to use Vi or V...', and a blank browser tab. Below the taskbar is a Start button and a search bar. The main area shows a terminal window titled 'user@user-virtual-machine: ~/Desktop...' with the command 'tail -q New f3' running. To the left of the terminal is a file viewer window titled 'New' showing the same text content. The desktop background is purple.

```
htiiiiiiip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello

==> f3 <==
I am Suresh
Hello every crazy guys
hello {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$ tail -q New f3
hyito
hip
hiip
htiiiiiiip
hp
cola co
co ca
cacca
hello {buddy} 724.
lo hi hello
I am Suresh
Hello every crazy guys
hello {buddy} 724.
user@user-virtual-machine:~/Desktop/demo$
```

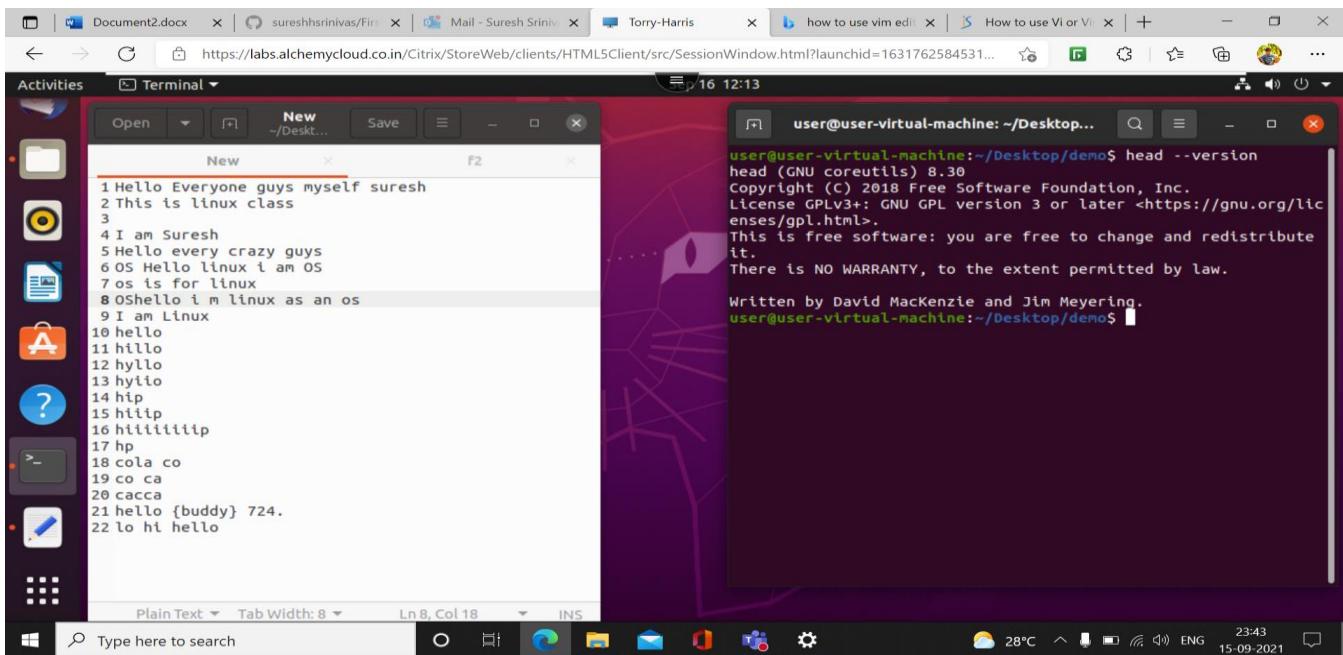
25). \$tail –version :- this command is used to check which version of tail command is running.

A screenshot of a Windows desktop environment. The setup is identical to the previous one, with the same taskbar and desktop background. The terminal window now displays the output of the 'tail --version' command.

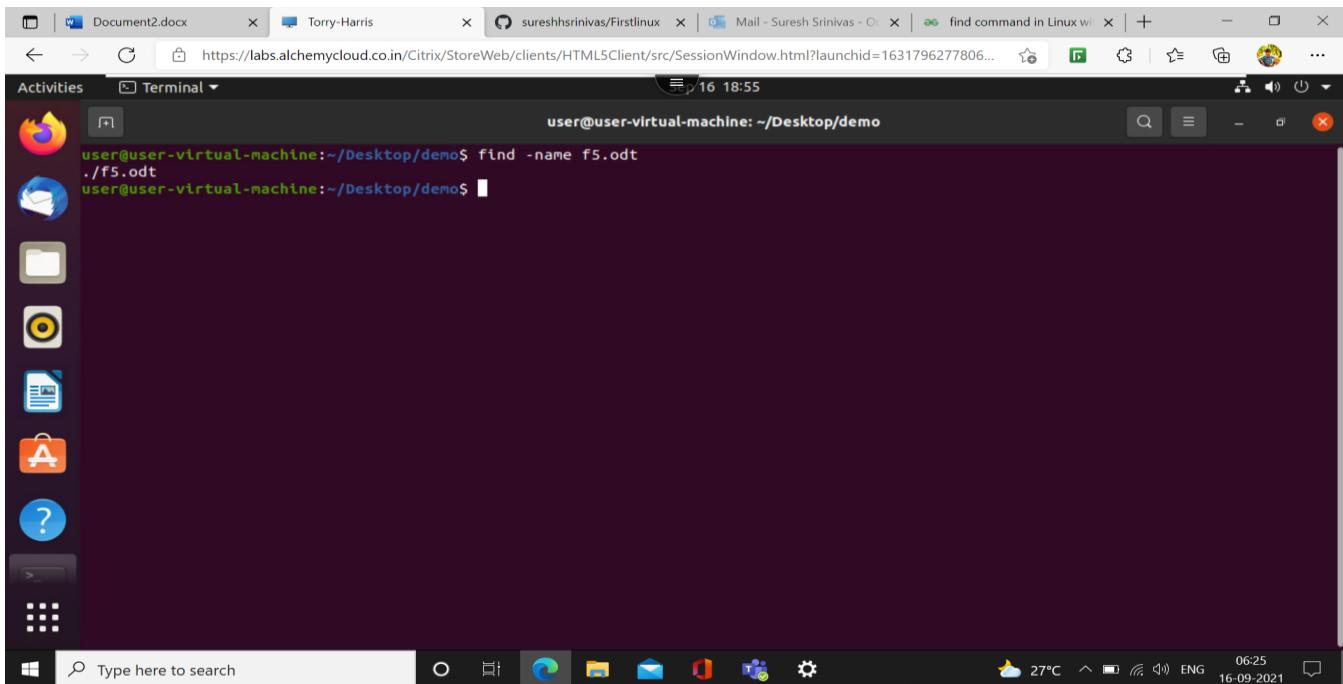
```
user@user-virtual-machine:~/Desktop/demo$ tail --version
tail (GNU coreutils) 8.30
Copyright (C) 2018 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Written by Paul Rubin, David MacKenzie, Ian Lance Taylor,
and Jim Meyering.
user@user-virtual-machine:~/Desktop/demo$
```

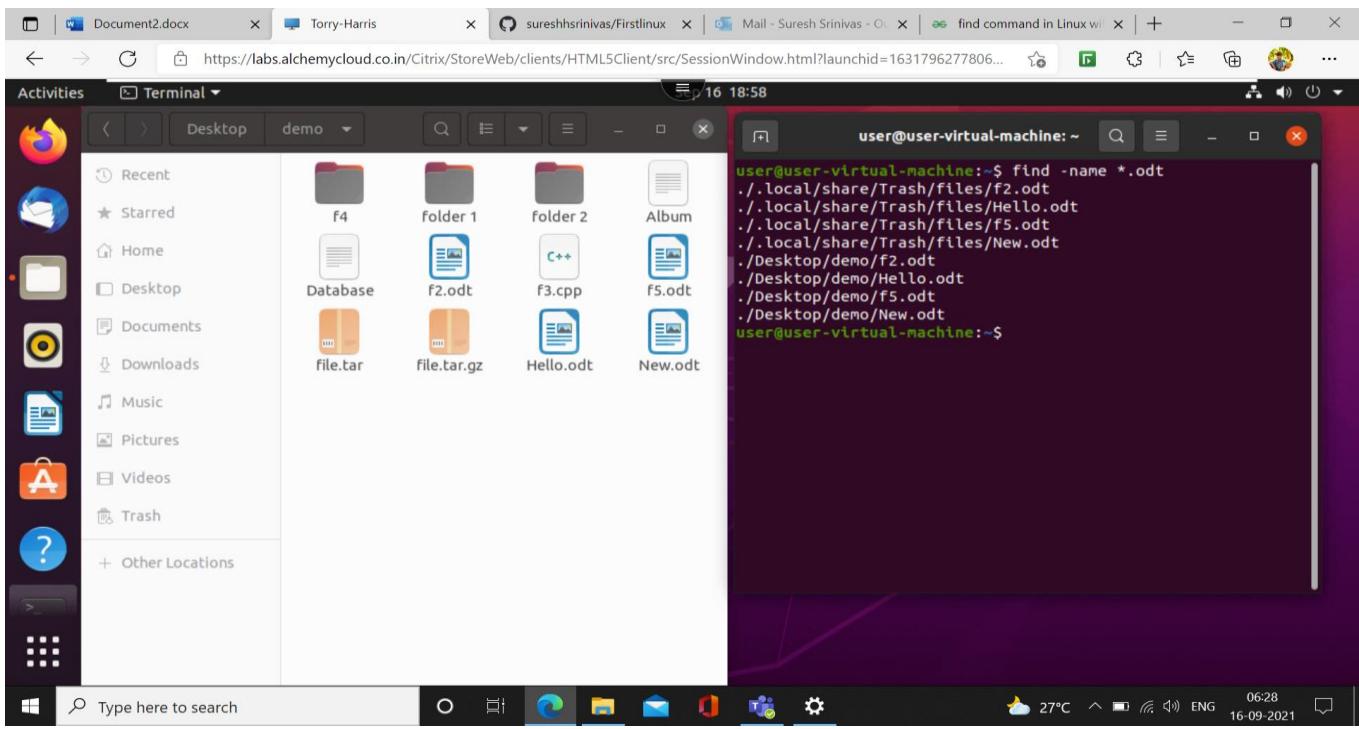
26). \$head –version :- this command is used to check which version of head command is working.



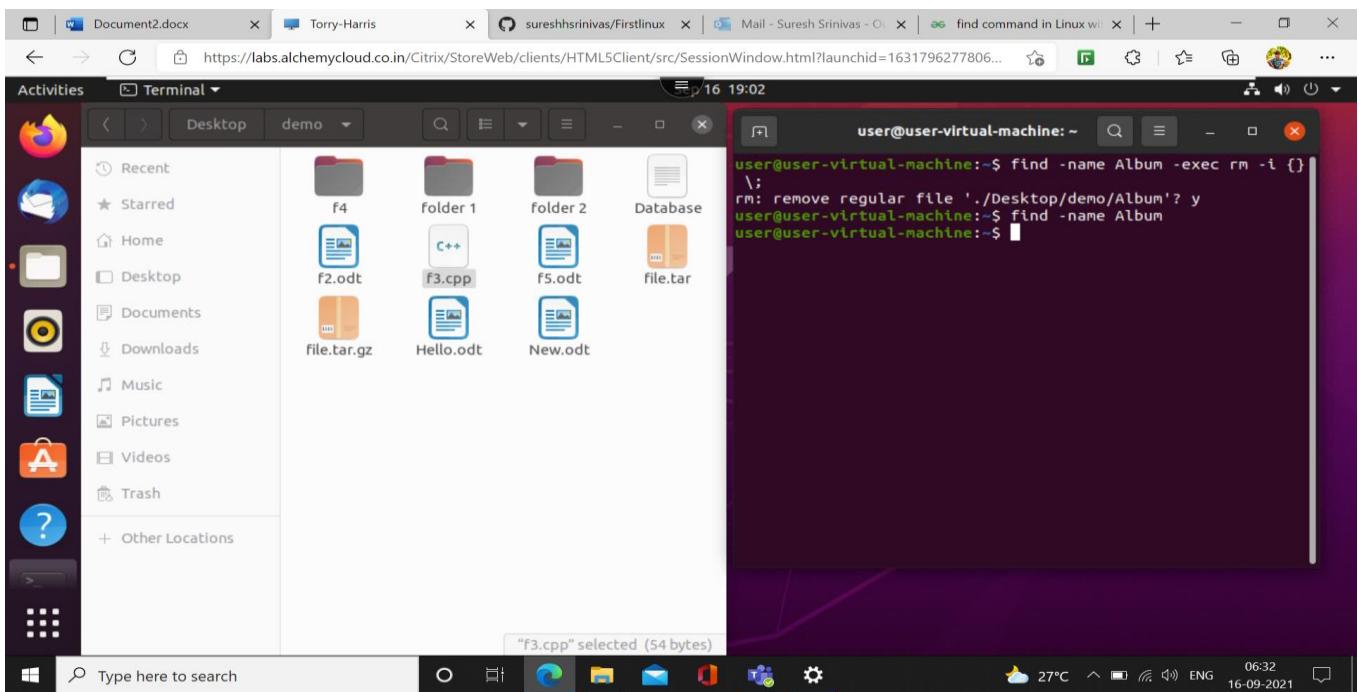
27). \$find –name filename.extension :- This command is used to search the specified filename in the directory.



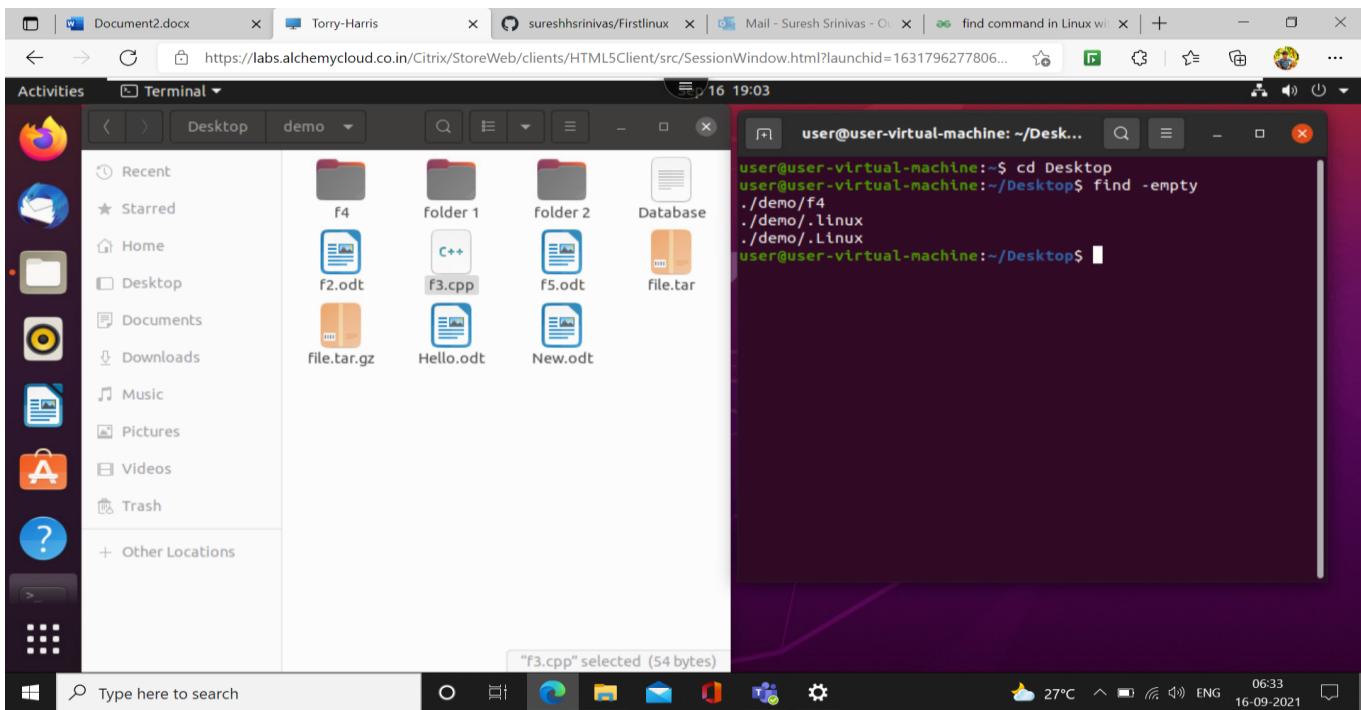
28). \$find –name *.extension :- This command is used to print all the files which have specified extension at the end



29). \$find -name Album –exec rm -i {} \; :- When this command is entered, a prompt will come for confirmation, if you want to delete specified file or not. If you enter y it will delete the file.



30). \$find –empty :- This command finds all the folders that are empty in the entered directory.



31). \$find –perm 664 :- This command find all the files that are in entered directory or sub-directory with the given permissions.

