

BASIC LINUX COMMANDS REPORT

SUBMITTED BY

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ROLL NO:-36

S4-CSE

EXPERIMENT NO:1

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AIM:-

To familiarise the following linux commands.

- 1.Linux basic commands for directory operations ,displaying directory structures in the tree format.
- 2.Linux commands for operations such as redirection ,pipes,filters,job control,changing ownership/permissions of files/links/directory.
- 3.Advanced linux commands curl,wget.ftp,ssh and grep

OUTPUT REDIRECTION

1.>stdout:-

Stdout can be redirected with a greater than sign. While scanning the line, the shell will see the > sign and will clear the file. Since this happens before resolving argument 0, this means that even when the command fails, the file will have been cleared.

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test10
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test10
```

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test10
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today!
```

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test10
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test10
```

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

2.Output file is erased

While scanning the line, the shell will see the > sign and will clear the file! Since this happens before resolving argument 0, this means that even when the command fails, the file will have been cleared.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test10
```

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test10
```

```
Command 'echo' not found, did you mean:
```

```
command 'echo' from deb coreutils
```

Try: `sudo apt install <deb name>`

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test10
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

3.noclobber

Erasing a file while using `>` can be prevented by setting noclobber option

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test10
```

```
it is cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ set -o noclobber
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test10
```

```
bash: test10: cannot overwrite existing file
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ set +o noclobber
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

4.Overruling noclobber

The noclobber can be overruled with `>|`

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ set -o noclobber
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is cold today! >test12
```

```
bash: test12: cannot overwrite existing file
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is very cold today! >|test12
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test12
```

```
it is very cold today!
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

5.append

use >> to append output to a file.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo it is very cold today! >|test12
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test12
```

it is very cold today!

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ echo where is the summer? >>test12
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat test12
```

it is very cold today!

where is the summer?

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

filters

6.cat:-

used to get the content of a file without opening the file.

```
s1736@linux-server:~$ nano newfile
```

input

```
s1736@linux-server:~$ cat newfile
```

output

Good

morning

World

How are you

good morning

Ramu

Radha

Ramu and Radha

7.grep:-

Grep command is a filter that is used to search for lines matching a specified pattern and print the matching lines to standard output.

input

```
inputs1736@linux-server:~$ grep g file2
```

output

good

morning

good morning

Raghav and Sheela

8.grep -i:-

case insensitive

input

```
s1736@linux-server:~$ grep -i "o" file2
```

output

good

morning

World

How are you

good morning

9.grep -w:-

used for to get the exact string

input

```
s1736@linux-server:~$ grep -w "and" file2
```

output

Ramu and Radha

Raghav and Sheela

10.sort:-

The sort filter will default to an alphabetical sort

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat new13
```

Queen

Brel

Queen

Abba

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ sort new13
```

Abba

Brel

Queen

Queen

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

11.uniq:-

With uniq you can remove duplicates from the sorted list

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat new13
```

Queen

Brel

Queen

Abba

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ sort new13
```

Abba

Brel

Queen

Queen

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ sort new13 |uniq
```

Abba

Brel

Queen

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

12.who:-

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ who
```

```
jilsha  :0      2019-02-08 21:03 (:0)
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

13.ls:-

to get all the file names that we created

input

```
s1736@linux-server:~$ ls
```

output

```
file1 file2 mydir1 mydir2 newdir newdirc newfile report
```

14.ls -la:-

it is used to get the details of the file we saved.

input

```
s1736@linux-server:~$ ls -la
```

output

```
total 64
```

```
drwx----- 6 s1736 s1736 4096 Feb 5 21:36 .
```

```
drwxr-xr-x 77 root root 4096 Jan 30 17:43 ..
```

```
-rwx----- 1 s1736 s1736 220 Apr 9 2014 .bash_logout
```



```
-rwx----- 1 s1736 s1736 3637 Apr 9 2014 .bashrc
drwx----- 2 s1736 s1736 4096 Feb 5 20:16 .cache
```

15.history:-

for to get the previously used commands

input

```
s1736@linux-server:~$ history
```

output

```
1 mkdir newdir
```

```
2 ls
```

```
3 touch ./newdir/hello
```

```
4 cd newdir
```

```
5 ls
```

```
6 cd ..
```

```
7 cd newdir
```

```
8 pwd
```

```
9 cd ..
```

```
10 tree
```

```
11 uname
```

```
12 man man
```

```
13 mkdir mydir1
```

```
14 touch ./mydir1/test1
```

```
15 mkdir mydir2
```

```
16 touch ./mydir2/test217 cd mydir1
```

```
18 ls
```

```
19 cd ..
```

```
20 cd mydir2
```

```
21 pwd
```

```
22 cd ..
```

```
23 mv test1 /home/us/s17/s1736/mydir2
```

```
24 cd mydir1
```

```
25 mv test1 /home/us/s17/s1736/mydir2
```

```
26 cd ..
```

```
27 cd mydir2
```

28 ls

29 cp test1 /home/us/s17/s1736/mydir1

16.echo:-

To print what we entered

input

```
s1736@linux-server:~$ echo hello world
```

output

hello world

17.mv:-

used to move a file or directory from one location to another location

```
s1736@linux-server:~$ cd mydir1
```

```
s1736@linux-server:~/mydir1$ ls
```

test00 test1

```
s1736@linux-server:~/mydir1$ cd ..
```

```
s1736@linux-server:~$ cd mydir2
```

```
s1736@linux-server:~/mydir2$ ls
```

test2

```
s1736@linux-server:~/mydir2$ cd ..
```

```
s1736@linux-server:~$ cd mydir1
```

```
s1736@linux-server:~/mydir1$ pwd
```

/home/us/s17/s1736/mydir1

```
s1736@linux-server:~/mydir1$ cd ..
```

```
s1736@linux-server:~$ cd mydir2
```

```
s1736@linux-server:~/mydir2$ mv test2 /home/us/s17/s1736/mydir1
```

```
s1736@linux-server:~/mydir2$ ls
```

```
s1736@linux-server:~/mydir2$ cd ..
```

```
s1736@linux-server:~$ cd mydir1
```

```
s1736@linux-server:~/mydir1$ ls
```

test00 test1 test2

```
s1736@linux-server:~/mydir1$ cd ..
```

18.cp:-

copy the file from one location to another location.

```
s1736@linux-server:~$ cp test1 test2
```

19.cp -r:-

copy the folder from one location to another location.

```
s1736@linux-server:~$ cp -r mydir1 /home/us/s17/s1736/mydir2
```

20.rm:-

used to remove a file.

```
s1736@linux-server:~$ cd mydir1
```

```
s1736@linux-server:~/mydir1$ ls
```

```
test00 test1 test2
```

```
s1736@linux-server:~/mydir1$ rm test00
```

```
s1736@linux-server:~/mydir1$ ls
```

```
test1 test2
```

```
s1736@linux-server:~/mydir1$
```

21.rm -r:-

used to remove a directory.

```
s1736@linux-server:~$ cd mydir1
```

```
s1736@linux-server:~/mydir1$ cd ..
```

```
s1736@linux-server:~$ rm -r mydir1
```

```
s1736@linux-server:~$ cd mydir1
```

```
-bash: cd: mydir1: No such file or directory
```

```
s1736@linux-server:~\$
```

22.man:-

input

```
s1736@linux-server:~$ man man
```

output

MAN(1)

MAN(1)

Manual pager utils

NAME

man - an interface to the on-line reference manuals

SYNOPSIS

```
man [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L locale] [-m system[,...]]
[-M path] [-S list] [-e extension]
[-i|-I] [--regex|--wildcard] [--names-only] [-a] [-u] [--no-subpages] [-P pager] [-r prompt] [-7]
[-E encoding] [--no-hyphenation]
[--no-justification] [-p string] [-t] [-T[device]] [-H[browser]] [-X[dpi]] [-Z] [[section]
page ...] ...
man -k [apropos options] regexp ...
man -K [-w|-W] [-S list] [-i|-I] [--regex] [section] term ...
man -f [whatis options] page ...
man -l [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L locale] [-P pager] [-r
prompt] [-7] [-E encoding] [-p string]
[-t] [-T[device]] [-H[browser]] [-X[dpi]] [-Z] file ...
man -w|-W [-C file] [-d] [-D] page ...
man -c [-C file] [-d] [-D] page ...
man [-?V]
```

DESCRIPTION

man is the system's manual pager. Each page argument given to man is normally the name of a program, utility or function. The manual page associated with each of these arguments is then found and displayed. A section, if provided, will direct man to look only in that section of the manual. The default action is to search in all of the available sections following a pre-defined order ("1 n l 8 etc

23.head:-

used to display first 10 lines in the file

input

```
s1736@linux-server:~$ head file2output
```

good
morning
World
How are you
good morning
Ramu
Radha
Ramu and Radha
Sheela
Prameela
s1736@linux-server:~\$

24.head -n 3:-

used to display the first 3 lines

input

s1736@linux-server:~\$ head -n 3 file2

output

good
morning
World

s1736@linux-server:~\$

25.head -n -3:-

input

s1736@linux-server:~\$ head -n -3 file2

output

good
morning
WorldHow are you
good morning
Ramu
Radha
Ramu and Radha

s1736@linux-server:~\$

26.tail:-

used to display the last 10 lines in the file

input

```
s1736@linux-server:~$ tail file2
```

output

morning

World

How are you

good morning

Ramu

Radha

Ramu and Radha

Sheela

Prameela

Raghav and Sheela

27.tail -n -3:-

used to display last 3 lines in the fileoutput

input

```
s1736@linux-server:~$ tail -n -3 file2
```

output

Sheela

Prameela

Raghav and Sheela

```
s1736@linux-server:~\$
```

28.curl:-

Used to transfer data from or to a server

INPUT

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ curl www.ksrtc.online
```

OUTPUT

```
<!DOCTYPE html>
```

```

<html class='v2' dir='ltr' lang='en'>
<head>
<link href='https://www.blogger.com/static/v1/widgets/2727757643-css_bundle_v2.css'
rel='stylesheet' type='text/css'/><meta content='width=1100' name='viewport'/>
<meta content='text/html; charset=UTF-8' http-equiv='Content-Type'/>
<meta content='blogger' name='generator'/>
<link href='http://www.ksrtc.online/favicon.ico' rel='icon' type='image/x-icon'/>
<link href='http://www.ksrtc.online/' rel='canonical'/>
<link rel="alternate" type="application/atom+xml" title="KSRTC.online - Atom"
href="http://www.ksrtc.online/feeds/posts/default" />
<link rel="alternate" type="application/rss+xml" title="KSRTC.online - RSS"
href="http://www.ksrtc.online/feeds/posts/default?alt=rss" />
<link rel="service.post" type="application/atom+xml" title="KSRTC.online - Atom" href="https://
www.blogger.com/feeds/1831678947928467708/posts/default" />
<!--[if IE]><script type="text/javascript" src="https://www.blogger.com/static/v1/jsbin/864213505-
ieretrofit.js"></script>
<![endif]-->
<meta content='Abode of Love, lessons in love, dating, seduction, sex and life.' name='description'/
>
<meta content='http://www.ksrtc.online/' property='og:url'/>
<meta content='KSRTC.online' property='og:title'/>
<meta content='Abode of Love, lessons in love, dating, seduction, sex and life.'
property='og:description'/>
<!--[if IE]> <script> (function() { var html5 = ("abbr,article,aside,audio,canvas,datalist,details," +
"figure,footer,header,hgroup,mark,menu,meter,nav,output," +
"progress,section,time,video").split(','); for (var i = 0; i < html5.length; i++)
etc...

```

29.clear:-

it is used to clear the terminal screen

30.tree:-

It will list contents of directories in a tree like format.

```
s1736@linux-server:~$ tree
```

The program 'tree' is currently not installed. To run 'tree' please ask your administrator to install the package 'tree'

```
s1736@linux-server:~\$
```

31.wget:-

It helps to download the files from the web

input

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ wget www.ksrtc.online
```

output

```
--2019-02-07 20:54:30-- http://www.ksrtc.online/
```

```
Resolving www.ksrtc.online (www.ksrtc.online)... 172.217.163.179, 2404:6800:4007:800::2013
```

```
Connecting to www.ksrtc.online (www.ksrtc.online)|172.217.163.179|:80... connected.
```

```
HTTP request sent, awaiting response... 200 OK
```

```
Length: unspecified [text/html]
```

```
Saving to: 'index.html'
```

```
index.html
```

```
] 54.65K 110KB/s
```

```
[ <=>
```

```
in 0.5s
```

```
2019-02-07 20:54:32 (110 KB/s) - 'index.html' saved [55965]
```

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~\$
```

32.to print the selected letter at its first position

syntax: `cat <filename> | grep ^a`

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cat new33 | grep a
```

```
hai
```


what

who are you

33.to print the selected letter

syntax: \$ cat <filename> grep t\$

jilsha@jilsha-HP-Laptop-15-bs0xx:~\$ cat new33 | grep t\$

what

34.to count the no of letter

syntax: cat <filename> grep ^n wc -l

jilsha@jilsha-HP-Laptop-15-bs0xx:~\$ cat new33 | grep a | wc -l

3

35. to create hardlink

syntax:ln <original file><link file>

eg:user@user:~\$ mkdir vin

user@user:~\$ touch s

user@user:~\$ nano test

user@user:~\$ ln s short vin

user@user:~\$ ls

o/p:s Templates vin

36 .to take l/p to linux command from file

synatx:command <filename>

o/p:user@user:~/tree\$ nano ash

user@user:~/tree\$ cat < ash

37 .to replace character

syntax:tr<character><new character>

o/p:user@user:~/tree\$ nano lim

user@user:~/tree\$ cat lim

ghdv

s

s

user@user:~/tree\$ cat lim tr 's' 'q'

ghdv

q

q

38 .to set permission on file

syntax:chmod {a,u,g,o}{+,-}{r,w,x}file name

o/p:user@user:~\$ ls -l door

-rw-rw-r-- 2 user user 8 Fe 12 18:24 door

user@user:~\$ chmod +x door

user@user:~\$ ls -l door

-rwxrwxr-x 2 user user 8 Fe 12 18:24 door

39 .to count words ,lines ,characters

syntax:wc {-l,-c,-w}file name

o/p:user@user:~\$ wc -l door

5 door

user@user:~\$ wc -c door

8 door

user@user:~\$ wc -w door

3 door

40 .to perform editing fn in stream(sed)

syntax:sed<expression>

o/p:user@user:~\$ echo ashwathyvinod sed 's/ashwathy/hello/'

hellovinod

41 .to do ackground jobs

syntax:jobs

o/p:user@user:~\$ jobs

[1]+ Stopped

nano dok

42.to change the group owner of a file

syntax:chgrp <grpname><filename>

o/p:user@user:~\$ ls -l door

-rwxrwxr-x 2 user user 8 Fe 12 18:24 door

43 .to perform editing fn in stream(sed)

syntax:sed<expression>

o/p:user@user:~\$ echo ashwathyvinod sed 's/ashwathy/hello/'

hellovinod

44.to change the group owner of a file

syntax:chgrp <grpname><filename>

o/p:user@user:~\$ ls -l door

-rwxrwxr-x 2 user user 8 Fe 12 18:24 door

user@user:~\$ chgrp test file

chgrp: invalid group: 'test'

45 .to change user owner of a file

syntax:chown <owner>:<grpowner><filename>o/p:user@user:~\$ chown door fle

chown: invalid user: 'door'

46.to locate fle

synatx:locate<filename>

eg:user@user:~/ert\$ locate door

/usr/share/doc/kino/help/en/media/FX/fx_video/fx_video_transitions/

fx_ arndoor

/usr/share/doc/kino/help/en/media/FX/fx_video/fx_video_transitions/

fx_ arndoor/fx-vtran- arn-horz-eg.png

/usr/share/doc/kino/help/en/media/FX/fx_video/fx_video_transitions/

fx_arndoor/fx-vtran- arn-horz.png

/usr/share/doc/kino/help/en/media/FX/fx_video/fx_video_transitions/

fx_arndoor/fx-vtran- arn-vert-eg.png

47.to kill a specifc ackground jo

synatx:kill %jo num er

eg:user@user:~\$ kill %2

user@user:~\$ jo s

[1]+ Stopped

[2]- Terminated

nano dok

nano dok

48.to open an ftp connection to a remote system

syntax:ftp <ip name>

eg:user@user:~\$ ftp 198.168.99.5

ftp: connect: Connection timed out

ftp> ^Z

[2]+ Stopped

ftp 198.168.99.5

49.to login to remote machine

syntax:ssh <hostname>

eg:ssh s1728@192.68.99.5

RESULT:-

Familiarised with the following linux command

- 1.Linux basic commands for directory operations,displaying directory structure in tree format.
- 2.Linux commands for operations such as redirection,pipes,filters,job control,changing ownership/permissions of files/links/directory
- 3.Advanced linux commands curl,weget,ftp,ssh and grep