

ASSIGNMENT 1

1. Getting started with 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, wget, ssh and grep

SONU P
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S4_CSE
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1. mkdir <dir_name>
purpose of command : To make a directory
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ mkdir s469
user@user-Veriton-Series:~/Desktop$ ls
s469
```

2. cd <dirname>
purpose of command : To goto direcoty
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ cd s469
```

3. cd ..
purpose of command : Move to parent dir
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cd ..
user@user-Veriton-Series:~/Desktop$
```

4. ls <filename(optional)>
purpose of command : To list
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ ls s469
```

5. history
purpose of command : To display commands that previously done
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ history 1
mkdir s469
```

```
2 ls
3 cd s469
4 cd ..
5 ls
6 history
```

6. touch <filename>
purpose of command : To create file without entering to it

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ touch file1
```

```
user@user-Veriton-Series:~/Desktop/s469$ ls  
file1
```

7. nano <filename>

purpose of command : To create file by saving it

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ nano file1
```

8. cat <filename>

purpose of command : To display contents in a file

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cat file1 arun
```

```
sinu thanu
```

```
surya arya
```

```
ananya Anuja
```

```
appu
```

9. pwd <name(opt)>

purpose of command : To display path

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ pwd
```

```
/home/user/Desktop/s469
```

10. copy <file1> <new file>

purpose of command : To copy

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ touch file2
```

```
user@user-Veriton-Series:~/Desktop/s469$ ls
```

```
file1 file2
```

```
user@user-Veriton-Series:~/Desktop/s469$ cp file1 file2
```

```
user@user-Veriton-Series:~/Desktop/s469$ cat file2
```

```
arun
```

sinu thanu
surya arya
ananya Anuja
appu

11. sort <filename>
purpose of command : To sort
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ sort file1 ananya
Anuja appu
arun arya sinu
surya thanu
```

12. cd ~
purpose of command : Move to users home dir
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cd ~
user@user-Veriton-Series:~$ pwd
/home/user
```

13. cp -i <file><file to be overwrite>
purpose of command : To overwrite
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ touch file3
user@user-Veriton-Series:~/Desktop/s469$ nano file3
user@user-Veriton-Series:~/Desktop/s469$ cat file3 its from
file3...,going to overwritten file2
user@user-Veriton-Series:~/Desktop/s469$ cp -i file3 file2 cp:
overwrite 'file2'? yes
user@user-Veriton-Series:~/Desktop/s469$ cat file2 its
from file3...,going to overwritten file2
```

14. locate string
purpose of command : To list whose name contain the string

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ locate whereis  
/usr/bin/whereis  
/usr/share/man/man1/whereis.1.gz
```

15. mv <myfile> <your file>

purpose of command : To move

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ ls c dir  
java Let s469 SA  
user@user-Veriton-Series:~/Desktop$ mv SA c  
user@user-Veriton-Series:~/Desktop$ ls  
c dir java Let s469
```

16. rm <directory>

purpose of command : To remove directory

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop$ rmdir dir  
user@user-Veriton-Series:~/Desktop$ ls  
c java Let s469
```

17. rm <filename>

purpose of command : To remove file

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ ls file1  
file2 file3  
user@user-Veriton-Series:~/Desktop/s469$ rm file3  
user@user-Veriton-Series:~/Desktop/s469$ ls  
file1 file2
```

18. head <filename> -n m

purpose of command : To display first m lines

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ head file1 -n 3 arun  
sinu thanu
```

19. head <filename> -n -m

purpose of command : To display all lines except last m lines

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ head file1 -n -3 arun  
sinu thanu  
surya arya
```

20. tail <filename> -n m
purpose of command : To display last m lines
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ tail file1 -n 2 Anuja  
appu
```

21. man <search>
purpose of command : To get manual
Sample i/p and o/p

NANO(1) General Commands Manual NANO(1)

NAME

nano - Nano's ANOther editor, an enhanced free Pico clone

SYNOPSIS

nano [OPTIONS] [[+LINE,COLUMN] FILE]...

DESCRIPTION

This manual page briefly documents the nano command.

nano is a small, free and friendly editor which aims to replace Pico, the default editor included in the non-free Pine package. Rather than just copying Pico's look and feel, nano also implements some missing (or disabled by default) features in Pico, such as "search and replace" and "go to line and column number".

OPTIONS

+LINE,COLUMN

Places cursor at line number LINE and column number COLUMN (at least one of which must be specified) on startup, instead of the default of line 1, column 1.

-? Same as -h (--help).

-A (--smarthome)

Make the Home key smarter. When Home is pressed anywhere but at the very beginning of non-whitespace characters on a line, the cursor will jump to that beginning (either forwards or backwards). If the cursor is already at that position, it will jump to the true beginning of the line.

-B (--backup)

When saving a file, back up the previous version of it to the current filename suffixed with a ~.

etc

22. `uname`

purpose of command : To display system info

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ uname
Linux
```

23. `ls -la`

purpose of command : To display system info

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ ls -la
total 16
drwxrwxr-x 2 user user 4096 Feb  8 22:59 .
drwxr-xr-x 7 user user 4096 Feb  8 22:51 ..
-rw-rw-r-- 1 user user  45 Feb  8 19:32 file1
-rw-rw-r-- 1 user user  45 Feb  8 19:52 file2.c
```

24. `echo string`

purpose of command : To display string

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ echo hello
hello
```

25. `ln -s <file><dir name>`

purpose of command : To create symbolic link

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ mkdir sym
user@user-Veriton-Series:~/Desktop/s469$ ln -s test
sym user@user-Veriton-Series:~/Desktop/s469$ ls -i test
sym sym:
1592828 test
```

26. `ls>file2`

purpose of command : To overwrite the listed things into files

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ ls file1
file2.c sym
user@user-Veriton-Series:~/Desktop/s469$ cat file2.c its from
file3...,going to overwritten file2
user@user-Veriton-Series:~/Desktop/s469$ ls>file2.c
user@user-Veriton-Series:~/Desktop/s469$ cat file2.c file1
file2.c sym
```

27. `command>>file2`

purpose of command : To append the date into files

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ date>>file2.c
user@user-Veriton-Series:~/Desktop/s469$ cat file2.c file1
file2.c sym
Sat Feb 9 00:06:16 IST 2019
```

28. `sort -r <file>`

purpose of command : To show in reverse order

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ sort -r file2.c sym
Sat Feb 9 00:06:16 IST 2019
file2.c file1
```

29. `sort < <filename> | unique > <newfile>`

purpose of command : To sort then only unique copied to newfile

Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ sort < file2.c | uniq > u_sname
user@user-Veriton-Series:~/Desktop/s469$ cat<file2.c
file1 file2.c sym
Sat Feb 9 00:06:16 IST 2019
```



```
user@user-Veriton-Series:~/Desktop/s469$ cat u_sname file1
file2.c
Sat Feb 9 00:06:16 IST 2019
sym
```

30. `chmod {a,u,g,o} {+,-} {r,w,x} <file>`
purpose of command : To set permission
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ ls -l file2.c
-rw-rw-r-- 1 user user 56 Feb 9 00:14 file2.c
user@user-Veriton-Series:~/Desktop/s469$ chmod +x file2.c
user@user-Veriton-Series:~/Desktop/s469$ ls -l file2.c
-rwxrwxr-x 1 user user 56 Feb 9 00:14 file2.c
```

31. `tr <char> <new char>`
purpose of command : To translate
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cat file1 arun
sinu thanu
surya arya
user@user-Veriton-Series:~/Desktop/s469$ cat file1 | tr 'a' 'z' zrun
sinu thznu
suryz zryz
```

32. `wc {-l,-c,-w}`
purpose of command : To count
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ wc -l file1
8 file1
```

33. `well`
purpose of command : To find all files
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ touch ee user@user-Veriton-Series:~/Desktop/s469$ touch well user@user-Veriton-Series:~/Desktop/s469$ find . -newer ee
```

```
.  
./well
```

34. jobs
purpose of command : To find all jobs bg
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ jobs [1]+  
Stopped man nano
```

35. kill %job
purpose of command : To kill specific job
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ kill %1 [1]+  
Terminated man nano  
user@user-Veriton-Series:~/Desktop/s469$ jobs
```

36. grep {-i,-w} <string> <filename>
purpose of command : search
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ grep sinu file1 sinu  
user@user-Veriton-Series:~/Desktop/s469$ grep -i SINU file1 sinu
```

37. grep
purpose of command : To count no.of words starting with some letter
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cat file1 | grep ^a |wc -l 4
```

38. grep letter <filename>
purpose of command : To find words containing the letter 'letter'
Sample i/p and o/p

```
user@user-Veriton-Series:~/Desktop/s469$ cat file1
```

```
arun  
sinu
```

thanu
surya
arya
ananya
Anuja
appu
user@user-Veriton-Series:~/Desktop/s469\$ grep a file1
arun
thanu
surya
arya
ananya
Anuja
appu

39. grep letter\$
purpose of command : To find words containing the last letter is 'letter'
Sample i/p and o/p

user@user-Veriton-Series:~/Desktop/s469\$ cat file1|grep u\$ sinu
thanu appu

40. grep ^letter
purpose of command : To find words containing the first letter is 'letter'
Sample i/p and o/p

user@user-Veriton-Series:~/Desktop/s469\$ cat file1|grep ^a arun
arya ananya
appu

41. grep -i
purpose of command : To search for a word
Sample i/p and o/p

user@user-Veriton-Series:~/Desktop/s469\$ grep -i "in" file1 sinu
you are in a trouble

42. grep -iw
purpose of command : To search for a word, and avoid matching substrings

Sample i/p and o/p

user@user-Veriton-Series:~/Desktop/s469\$ grep -iw "in" file1 you are in a trouble

43. wget site
purpose of command:getwebsite
Sample i/p and o/p

```
guest-qudMMj@HP-406-G1-6:~$ wget www.google.com
--2019-02-14 15:12:21-- http://www.google.com/
Resolving www.google.com (www.google.com)... 216.58.197.68,
2404:6800:4007:80b::2004
Connecting to www.google.com (www.google.com)|216.58.197.68|:80...
connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/html]
Saving to: 'index.html.1'
```

```
[ <=> ] 14,603
--.-K/s in 0.01s
```

2019-02-14 15:12:21 (1.01 MB/s) - 'index.html.1' saved [14603]

44. ssh
purpose of command:logon
Sample i/p and o/p

```
guest-qudMMj@HP-406-G1-6:~$ ssh s1769@192.168.99.5
s1769@192.168.99.5's password:
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-32-generic x86_64)
```

* Documentation: <https://help.ubuntu.com/>

System information as of Thu Feb 14 22:10:43 IST 2019

```
System load:  1.01      Processes:    382
Usage of /home: 2.1% of 366.56GB  Users logged in:  24
Memory usage:  2%      IP address for em1: 192.168.99.5
Swap usage:    0%
```

=> There is 1 zombie process.

Graph this data and manage this system at:
<https://landscape.canonical.com/>

Last login: Thu Feb 14 20:27:17 2019 from 192.168.99.114

45. ftp
purpose of command: file transfer
Sample i/p and o/p

```
guest-qudMMj@HP-406-G1-6:~$ ftp 192.168.99.5
ftp: connect: Connection timed out
ftp>
```

46. curl site
purpose of command : details
Sample i/p and o/p

```
guest-qudMMj@HP-406-G1-6:~$ curl www.google.com
<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage"
lang="en-IN"><head><meta content="text/html; charset=UTF-8" http-
equiv="Content-Type"><meta content="/logos/doodles/2019/madhubalas-86th-
birthday-5205536088784896-l.png" itemprop="image"><meta
content="Madhubala's 86th Birthday" property="twitter:title"><meta
content="Madhubala's 86th Birthday! #GoogleDoodle"
property="twitter:description"><meta content="Madhubala's 86th Birthday!
#GoogleDoodle" property="og:description"><meta
content="summary_large_image" property="twitter:card"><meta
content="@GoogleDoodles" property="twitter:site"><meta
content="https://www.google.com/logos/doodles/2019/madhubalas-86th-
birthday-5205536088784896-2x.jpg" property="twitter:image"><meta
content="https://www.google.com/logos/doodles/2019/madhubalas-86th-
birthday-5205536088784896-2x.jpg" property="og:image"><meta
content="1000" property="og:image:width"><meta content="400"
property="og:image:height"><title>Google</title><script
nonce="SC2OgqkUhCKYJg/bHISd3A==">(function()
{window.google={kEI:'UTZIXNS8N5a-9QOJxZdQ',kEXPI:'0,1353747
...etc
```

RESULT

:

Run the commands and verified the output.