



NETWORKING AND SYSTEM ADMINISTRATION LAB

BASIC LINUX COMMANDS

**SUBMITTED TO
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BASIC LINUX COMMANDS

1. echo

The echo command is used to move some data into a file.

```
swathy@swathy-VirtualBox:~/Desktop$ touch song1.txt
swathy@swathy-VirtualBox:~/Desktop$ ls
network  song1.txt
swathy@swathy-VirtualBox:~/Desktop$ echo swathy >> song1.txt
swathy@swathy-VirtualBox:~/Desktop$ cat song1.txt
swathy
```

2. head

The head command is used to view the first lines of any text file. By default, it will show the first ten lines, but you can change this number to your liking.

```
swathy@swathy-VirtualBox:~/Desktop$ head -n 3 /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
```

3. tail

The tail command will display the last ten lines of a text file.

```
swathy@swathy-VirtualBox:~/Desktop$ tail /etc/passwd
sssd:x:119:124:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
saned:x:120:126:./var/lib/saned:/usr/sbin/nologin
colord:x:121:127:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:128:./var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:129:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
hplip:x:124:7:HPLIP system user,,,:/run/hplip:/bin/false
gnome-initial-setup:x:125:65534:./run/gnome-initial-setup:/bin/false
gdm:x:126:131:Gnome Display Manager:/var/lib/gdm3:/bin/false
swathy:x:1000:1000:Swathy Krishna P R,,,:/home/swathy:/bin/bash
```

4. read

The read the contents of a line into a variable. The read command can be used with and without arguments.

```
swathy@swathy-VirtualBox:~/Desktop$ read v1 v2 v3
Amal Jyothi College
swathy@swathy-VirtualBox:~/Desktop$ echo ["$v1"] ["$v2"] ["$v3"]
[Amal] [Jyothi] [College]
```

5. more

The more command is used to view the text files in the command prompt, displaying one screen at a time in case the file is large. The more command also allows the user to scroll up and down through the page.

```
swathy@swathy-VirtualBox: ~/Desktop$ more /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin)/var/lib/gnats:/usr/sbin/nolog
in
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/
nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/lb
```

6. less

Less command is linux utility which can be used to read contents of text file one page(one screen) per time.

```
swathy@swathy-VirtualBox: ~/Desktop$ less /etc/passwd
swathy@swathy-VirtualBox: ~/Desktop$ ls
network  song1.txt
```

7. cut

The cut command is used for cutting out the sections from each line of files and writing the result to standard output. It can be used to cut parts of a line by byte position, character and field

```

swathy@swathy-VirtualBox:~/Desktop$ cat song1.txt
swathy
swathy@swathy-VirtualBox:~/Desktop$ echo cat >> song1.txt
swathy@swathy-VirtualBox:~/Desktop$ echo flower >> song1.txt
swathy@swathy-VirtualBox:~/Desktop$ cat song1.txt
swathy
cat
flower
swathy@swathy-VirtualBox:~/Desktop$ cut -b 1,2,3 song1.txt
swa
cat
flo

```

8. paste

It is used to join files horizontally (parallel merging) by outputting lines consisting of lines from each file specified, separated by tab as delimiter, to the standard output.

```

swathy@swathy-VirtualBox:~/Desktop$ paste number.txt song1.txt
1      swathy
2      cat
3      flower

```

9. uname

The uname command, short for Unix Name, will print detailed information about your Linux system like the machine name, operating system, kernel, and so on.

```

swathy@swathy-VirtualBox:~/Desktop$ uname
Linux
swathy@swathy-VirtualBox:~/Desktop$ uname -r
5.11.0-16-generic
swathy@swathy-VirtualBox:~/Desktop$ uname -v
#17-Ubuntu SMP Wed Apr 14 20:12:43 UTC 2021
swathy@swathy-VirtualBox:~/Desktop$ man uname
swathy@swathy-VirtualBox:~/Desktop$ uname -p
x86_64
swathy@swathy-VirtualBox:~/Desktop$ touch v1.txt v2.txt

```

10. cp

The cp command is used to copy files from the current directory to a different directory.

```

swathy@swathy-VirtualBox:~/Desktop$ touch v1.txt v2.txt
swathy@swathy-VirtualBox:~/Desktop$ ls
network number.txt song1.txt v1.txt v2.txt
swathy@swathy-VirtualBox:~/Desktop$ mkdir ajce
swathy@swathy-VirtualBox:~/Desktop$ ls
ajce network number.txt song1.txt v1.txt v2.txt
swathy@swathy-VirtualBox:~/Desktop$ cp v1.txt ajce/
swathy@swathy-VirtualBox:~/Desktop$ ls ajce
v1.txt
swathy@swathy-VirtualBox:~/Desktop$ cp v2.txt ajce/
swathy@swathy-VirtualBox:~/Desktop$ ls ajce
v1.txt v2.txt

```

11. mv

The primary use of the mv command is to move files, it can also be used to rename files. The arguments in mv are similar to the cp command. You need to type mv, the file's name, and the destination's directory.

```

v1.txt v2.txt
swathy@swathy-VirtualBox:~/Desktop$ mv v1.txt ajce/
swathy@swathy-VirtualBox:~/Desktop$ ls ajce
v1.txt v2.txt

```

12. locate

To locate a file, just like the search command in Windows.

```

swathy@swathy-VirtualBox:~/Desktop$ locate number*song
Command 'locate' not found, but can be installed with:
sudo apt install mlocate
swathy@swathy-VirtualBox:~/Desktop$ find /home/ -name song1.txt

```

13. find

Similar to the locate command, using find also searches for files and directories. The difference is, you use the find command to locate files within a given directory.

```

swathy@swathy-VirtualBox:~/Desktop$ find /home/ -name song1.txt
/home/swathy/.local/share/Trash/files/song1.txt
/home/swathy/Desktop/song1.txt
swathy@swathy-VirtualBox:~/Desktop$ ls
ajce network number.txt song1.txt v2.txt
swathy@swathy-VirtualBox:~/Desktop$ find /home/ -name v2.txt
/home/swathy/Desktop/ajce/v2.txt
/home/swathy/Desktop/v2.txt

```


14. grep

Another basic Linux command that is undoubtedly helpful for everyday use is grep. It helps to search through all the text in a given file.

```
swathy@swathy-VirtualBox:~/Desktop$ cat song1.txt
swathy
cat
flower
swathy@swathy-VirtualBox:~/Desktop$ grep cat song1.txt
cat
```

15. df

Use df command to get a report on the system's disk space usage, shown in percentage and KBs. If you want to see the report in megabytes, type df -m.

16. du

The du (Disk Usage) command is used to check how much space a file or a directory takes. However, the disk usage summary will show disk block numbers instead of the usual size format. If you want to see it in bytes, kilobytes, and megabytes, add the -h argument to the command line.

- \$du -h

```
swathy@swathy-VirtualBox:~/Desktop$ du -h
4.0K    ./ajce
4.0K    ./network
20K     .
```

17. useradd

The useradd is used to create a new user, while passwd is adding a password to that user's account. To add a new person named John type, useradd John and then to add his password type, passwd 123456789.

```
Firefox Web Browser
swathy@swathy-VirtualBox:~/Desktop$ sudo useradd soja
[sudo] password for swathy:
Sorry, try again.
[sudo] password for swathy:
Sorry, try again.
[sudo] password for swathy:
```

18. userdel

Remove a user is very similar to adding a new user. To delete the users account type, userdel UserName.

```
swathy@swathy-VirtualBox:~/Desktop$ sudo passwd soja
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
passwd: password updated successfully
swathy@swathy-VirtualBox:~/Desktop$ sudo userdel soja
swathy@swathy-VirtualBox:~/Desktop$
```

19. sudo

SuperUser Do(sudo) command enables you to perform tasks that require administrative or root permissions.

20. passwd

Changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account.

```
swathy@swathy-VirtualBox:~/Desktop$ sudo passwd soja
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
passwd: password updated successfully
```