ASSIGNMENT

SUBJECT: NETWORKING AND SYSTEM ADMINISTRATION LAB

TOPIC: BASIC LINUX COMMANDS PART 2

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1.echo

echo command is used to move some data into a file

```
labex:~/ $ echo hello,I am asha,how are you???.. >>msg.text
labex:~/ $ cat msg.text
hello,I am asha,how are you???..
labex:~/ $
```

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.(using –n option)

```
labex:~/ $ head headtrial.text
line 1.
line 2.
line 3.
line 4.
line 5.
line 6.line 7.
line 8.
line 9.
line 10.
labex:~/ $ head -n 2 headtrial.text
line 1.
line 2.
labex:~/ $
```

3. tail

This one has a similar function to the head command, but instead of showing the first lines, the tail command will display the last ten lines of a text file.

```
labex:~/ $ tail  headtrial.text
line 1.
line 2.
line 3.
line 4.
line 5.
line 6.line 7.
line 8.
line 9.
line 10.
labex:~/ $ tail -n 3 headtrial.text
line 8.
line 9.
line 10.
labex:~/ $
```

4. read

• read the contents of a line into a variable.

• The read command can be used with and without arguments

• read command is used to read [options] [name...]

• $read • $read var1 var2 var3 • $echo "[$var1] [$var2] [$var3]“

```
labex:~/ $ read var1 var2 var3
hello good morning
labex:~/ $ echo "[$var1] [$var2] [$var3]"
[hello] [good] [morning]
labex:~/ $
```

5. more

• Like cat command, more command displays the content of a file. Only difference is that, in case of larger files, 'cat' command output will scroll off your screen while 'more' command displays output one screenful at a time.

• Enter key: To scroll down page line by line.

• Space bar: To go to next page.

• b key: To go to the backward page

. • / key: Lets you search the string. • Syntax: more

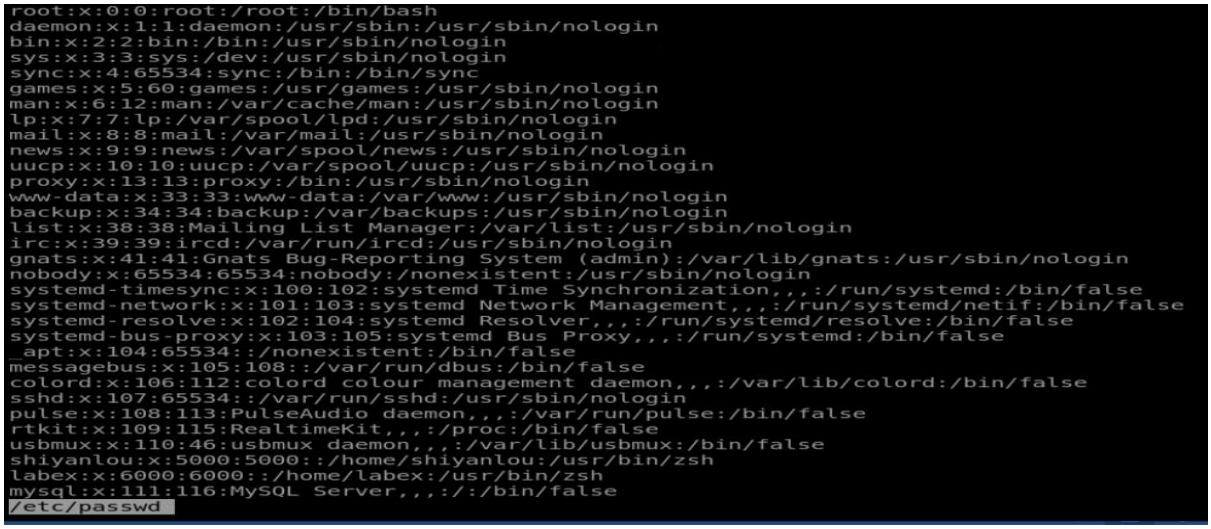
```
labex:~/ $ more /etc/passwd
```

```
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:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-timesync:x:100:102:systemd Time Synchronization,,,:/run/systemd:/bin/false
systemd-network:x:101:103:systemd Network Management,,,:/run/systemd/netif:/bin/false
systemd-resolve:x:102:104:systemd Resolver,,,:/run/systemd/resolve:/bin/false
systemd-bus-proxy:x:103:105:systemd Bus Proxy,,,:/run/systemd:/bin/false
_apt:x:104:65534::/nonexistent:/bin/false
messagebus:x:105:108::/var/run/dbus:/bin/false
colord:x:106:112:colord colour management daemon,,,:/var/lib/colord:/bin/false
sshd:x:107:65534::/var/run/sshd:/usr/sbin/nologin
pulse:x:108:113:PulseAudio daemon,,,:/var/run/pulse:/bin/false
rtkit:x:109:115:RealtimeKit,,,:/proc:/bin/false
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/bin/false
shiyanlou:x:5000:5000::/home/shiyanlou:/usr/bin/zsh
labex:x:6000:6000::/home/labex:/usr/bin/zsh
mysql:x:111:116:MySQL Server,,,:/:/bin/false
--More--(95%)
```

6. less

• The 'less' command is same as 'more' command but include some more features.

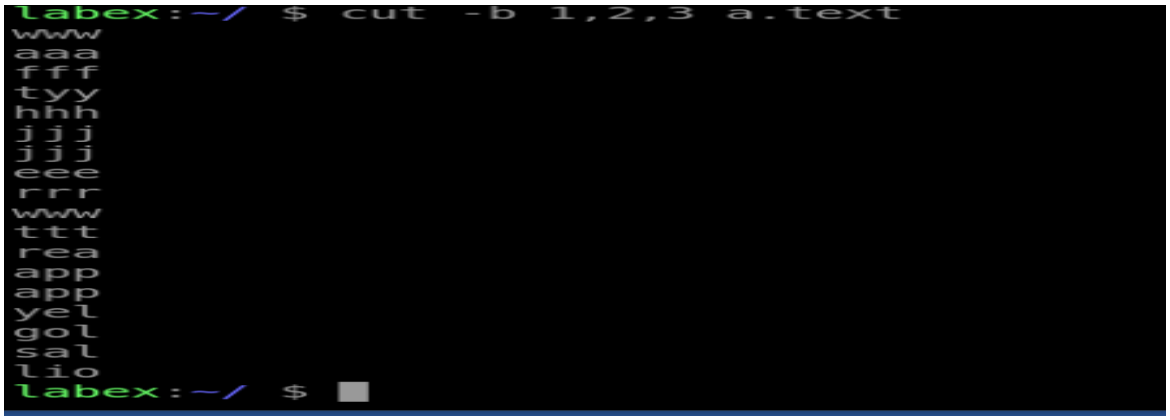
• It automatically adjust with the width and height of the teminal window, while 'more' command cuts the content as the width of the terminal window get shorter.



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

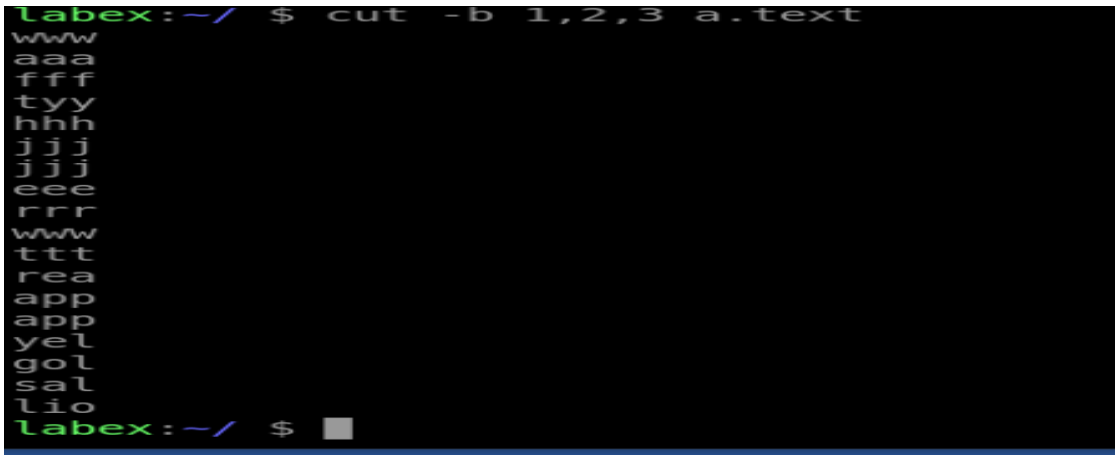
• cut OPTION... [FILE]...



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.

• paste [OPTION]... [FILES]...



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.

10. cp

• cp command is used to copy files from the current directory to a different directory. For instance, the command cp scenery.jpg /home/username/Pictures would create a copy of scenery.jpg (from your current directory) into the Pictures directory.

• cp -i will ask for user's consent in case of a potential file overwrite.

• cp -p will preserve source files' mode, ownership and timestamp.

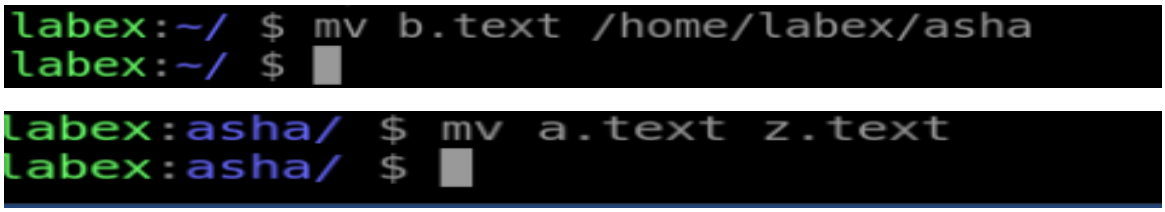
• cp -r will copy directories recursively

. • cp -u copies files only if the destination file is not existing or the source file is newer than the destination file.

11. mv

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

To rename files, the Linux is mv oldname.ext newname.ext/



12. locate

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

• What's more, using the -i argument along with this command will make it caseinsensitive, so you can search for a file even if you don't remember its exact name.

• To search for a file that contains two or more words, use an asterisk (*)

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

. • As an example, find /home/ -name notes.txt command will search for a file called notes.txt within the home directory and its subdirectories.

• Other variations when using the find are:

• To find files in the current directory use, find . -name notes.txt • To look for directories use, / -type d -name notes. Txt

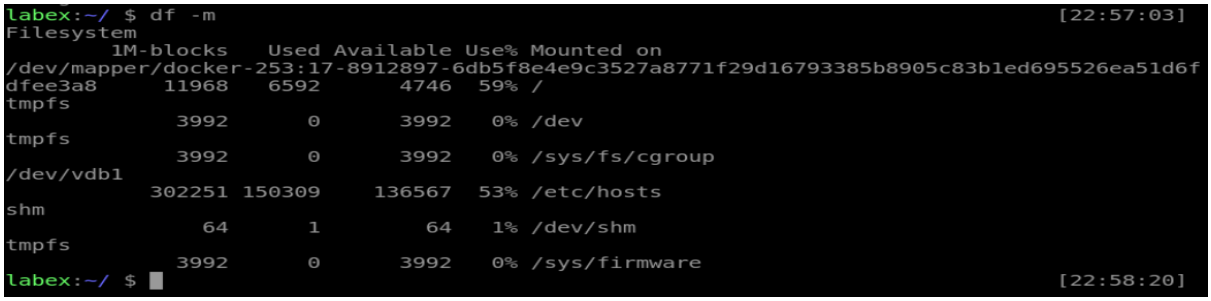
14. grep

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

. • To illustrate, grep blue notepad.txt will search for the word blue in the notepad file. Lines that contain the searched word will be displayed fully. Usually output of a previous command is piped into the grep command. For example ls -l | grep "kernel"

15. df

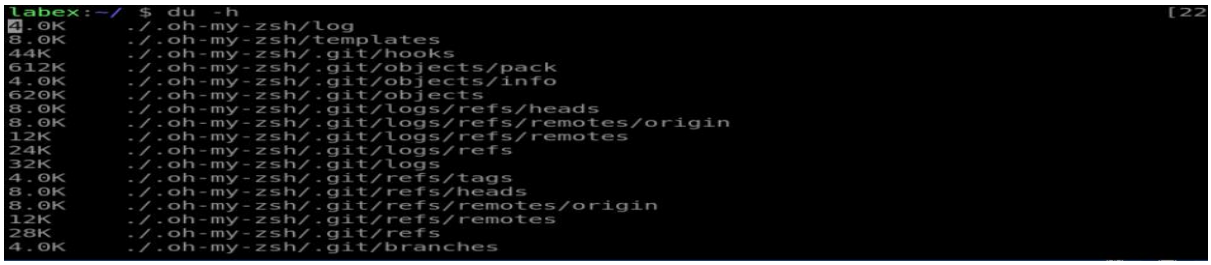
• Use df command to get a report on the system's disk space usage, shown in percentage and KBs. If you want to see the report in megabytes, type df –m



. 16. du

• If you want to check how much space a file or a directory takes, the du (Disk Usage) command is the answer. 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.

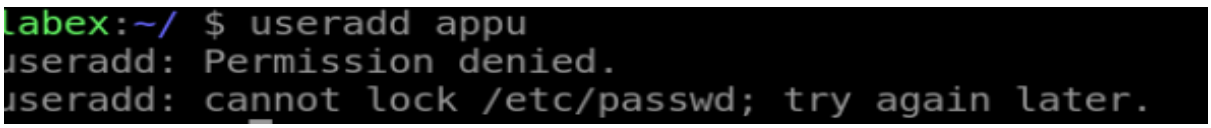


17. useradd

• This is available only to system admins

• Since Linux is a multi-user system, this means more than one person can interact with the same system at the same time.

• 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



18. userdel

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

```
labex:~/ $ userdel ammu
userdel: Permission denied.
userdel: cannot lock /etc/passwd; try again later.
labex:~/ $
```

19. sudo

• Short for “SuperUser Do”, this command enables you to perform tasks that require administrative or root permissions. You must have sufficient permissions to use this command

```
$ sudo useradd appu
$ sudo passwd appu
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
$
```

```
$ sudo userdel appu
$ sudo passwd appu
passwd: user 'appu' does not exist
$
```

. 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.

• passwd[option] [username]

• passwd

• passwd user1

```
$ passwd
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
$
```