

Networking and System Administration-Lab

Topic: Basic linux commands part-2

Submitted By:

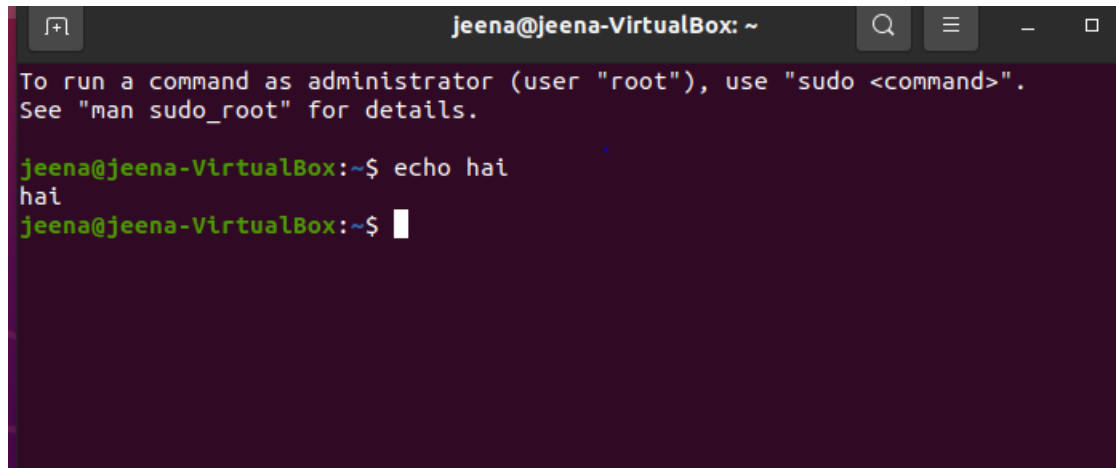
Jeena Mathew

S2RMCA -A Batch

Roll no:42

1) echo

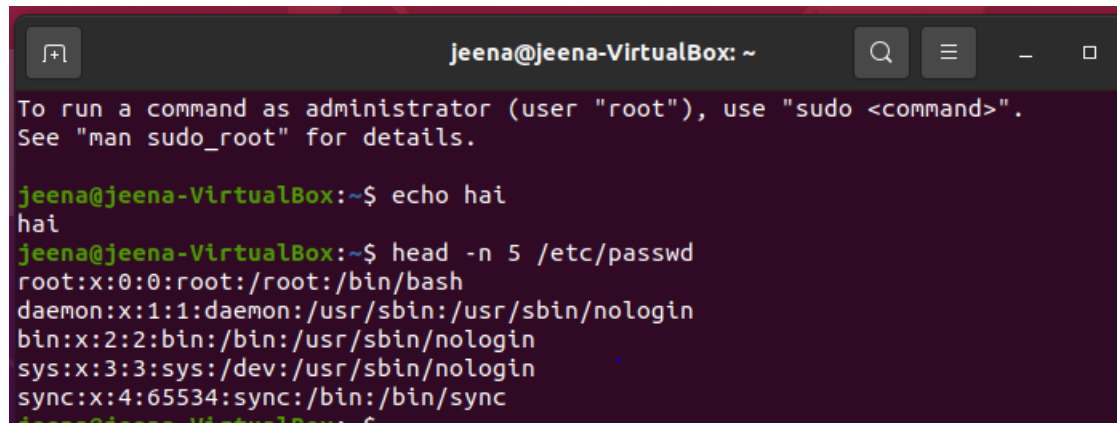
- to move some data into a file
- to add a text



```
jeena@jeena-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
jeena@jeena-VirtualBox:~$ echo hai  
hai  
jeena@jeena-VirtualBox:~$
```

1) head

- used to view the first lines of any text file
- default it shows 10 lines



```
jeena@jeena-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
jeena@jeena-VirtualBox:~$ echo hai  
hai  
jeena@jeena-VirtualBox:~$ head -n 5 /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  
jeena@jeena-VirtualBox:~$
```

2) tail

- will display the last ten lines of a text files

```

sync:x:4:65534:sync:/bin:/bin/sync
jeena@jeena-VirtualBox:~$ tail /etc/passwd
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125:/:nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534:/:/run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
jeena:x:1000:1000:Jeena Mathew,,,:/home/jeena:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin

```

3) read

- read the contents of a line into a variable

```

jeena@jeena-VirtualBox:~$ read v2.txt
bash: read: `v2.txt': not a valid identifier
jeena@jeena-VirtualBox:~$ read v2
poi
jeena@jeena-VirtualBox:~$ read v2
h
jeena@jeena-VirtualBox:~$

```

4) more

- displays content of the 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 : to search string

```

jeena@jeena-VirtualBox:~$ more /etc/
*** /etc/: directory ***
jeena@jeena-VirtualBox:~$

```

5) less

- Automatically adjust with the width and height of terminal window

```

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:/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-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/sbin/nologin
/etc/passwd

```

6) cut

- used for cutting out the section from each line of files and writing the standard output.
- It can be used to cut parts of a line by byte position character and field

```

jeena@jeena-VirtualBox:~$ cut -b 1 2 v2.txt
cut: 2: No such file or directory
h
h
i
h
t
jeena@jeena-VirtualBox:~$

```

7) paste

- used to join files horizontally by outputting lines consisting of lines from each file specified, separated by tab as delimiter, to the standard output.

```
jeena@jeena-VirtualBox:~$ paste v2.txt v3.txt
hai      kerala
hello    karnadaka
i am     delhi
here     telugana
there    tamilnadu
jeena@jeena-VirtualBox:~$
```

8) uname

- will print detailed information about your linux system like machine name, operating system, kernel etc..

```

i am     delhi
here     telugana
there    tamilnadu
jeena@jeena-VirtualBox:~$ uname -r
5.8.0-43-generic
jeena@jeena-VirtualBox:~$
jeena@jeena-VirtualBox:~$ uname
Linux
jeena@jeena-VirtualBox:~$
```

9) cp

- used to copy files from the current directory to a different directory
- cp -i (will ask for user's consent in case of a potential file overwrite.)
- cp -p (will preserve source file mode, ownership and time stamp)
- 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)

```
jeena@jeena-VirtualBox:~$ cp v2.txt v3.txt
jeena@jeena-VirtualBox:~$
```

10) mv

- to move files
- rename files

```
jeena@jeena-VirtualBox:~$ mv v2.txt v3.txt
jeena@jeena-VirtualBox:~$
```

11) locate

- to find a file

- locate -i filename (make it case insensitive you can search file if you don't remember its exact name)
- * (to search for a file that contains two or more words)

```
jeena@jeena-VirtualBox:~$ locate -i jeena1
```

12) find

- To search for files or directories
- Find. -name filename (to find files in the current directory)

```
jeena@jeena-VirtualBox:~$ find v2.txt
find: 'v2.txt': No such file or directory
jeena@jeena-VirtualBox:~$ find jeena
jeena
jeena@jeena-VirtualBox:~$
```

13) grep

- Search through all the text in a given file

```
jeena@jeena-VirtualBox:~$ grep hai v2.txt
grep: v2.txt: No such file or directory
jeena@jeena-VirtualBox:~$ grep delhi v3.txt
jeena@jeena-VirtualBox:~$
```

14) df

- To get report on the system's disk space usage shows in percentage and kbs.

```
jeena@jeena-VirtualBox:~$ df -h
Filesystem      1M-blocks    Used Available Use% Mounted on
udev              966         0         966    0% /dev
tmpfs             199         2         198    1% /run
/dev/sda5        9509      5639       3368   63% /
tmpfs             994         0         994    0% /dev/shm
tmpfs              5          1          5    1% /run/lock
tmpfs            994         0         994    0% /sys/fs/cgroup
/dev/loop0        56         56          0 100% /snap/core18/1988
/dev/loop1       219        219          0 100% /snap/gnome-3-34-1804/66
/dev/loop2        65         65          0 100% /snap/gtk-common-themes/1514
/dev/loop3        52         52          0 100% /snap/snap-store/518
/dev/loop4        32         32          0 100% /snap/snapd/11036
/dev/sda1         511         1         511    1% /boot/efi
tmpfs             199         1         199    1% /run/user/1000
jeena@jeena-VirtualBox:~$
```

15) du

- to check how many space a file or directory takes.

```
0K  ./cache/mesa_shader_cache/02
0K  ./cache/mesa_shader_cache/d6
K   ./cache/mesa_shader_cache/79
0K  ./cache/mesa_shader_cache/2c
K   ./cache/mesa_shader_cache/11
K   ./cache/mesa_shader_cache/86
0K  ./cache/mesa_shader_cache/d8
0K  ./cache/mesa_shader_cache/5c
0K  ./cache/mesa_shader_cache/84
K   ./cache/mesa_shader_cache/1b
K   ./cache/mesa_shader_cache/24
0K  ./cache/mesa_shader_cache/4e
0K  ./cache/mesa_shader_cache/10
0K  ./cache/mesa_shader_cache/b6
0K  ./cache/mesa_shader_cache/5a
0K  ./cache/mesa_shader_cache/40
0K  ./cache/mesa_shader_cache/6e
0K  ./cache/mesa_shader_cache/01
K   ./cache/mesa_shader_cache/9b
0K  ./cache/mesa_shader_cache/22
0K  ./cache/mesa_shader_cache/45
0K  ./cache/mesa_shader_cache/ce
0K  ./cache/mesa_shader_cache/ca
K   ./cache/mesa_shader_cache/9d
K   ./cache/mesa_shader_cache/c1
0K  ./cache/mesa_shader_cache/30
K   ./cache/mesa_shader_cache/ff
K   ./cache/mesa_shader_cache/9f
1M  ./cache/mesa_shader_cache
0K  ./cache/ubuntu-report
8M  ./cache
0K  ./ssh
M   .
jeena@jeena-VirtualBox:~$
```

16) useradd

- available only for system admins.
- To create new user

```
10M  .
jeena@jeena-VirtualBox:~$ useradd jeena
useradd: user 'jeena' already exists
jeena@jeena-VirtualBox:~$ useradd me
useradd: Permission denied.
useradd: cannot lock /etc/passwd; try again later.
jeena@jeena-VirtualBox:~$
```

17) userdel

- remove user or delete user account

```
jeena@jeena-VirtualBox:~$ userdel
Usage: userdel [options] LOGIN
Options:
```

18) sudo

- SuperUserDo ,enables you to perform tasks that require administrative or root permissions.

```
jeena@jeena-VirtualBox:~$ sudo useradd jj
[sudo] password for jeena: █
```

19) passwd

- to change passwords for user account.

```
jeena@jeena-VirtualBox:~$ sudo useradd jj
[sudo] password for jeena:
jeena@jeena-VirtualBox:~$ passwd
Changing password for jeena.
Current password: █
```