ASSIGNMENT

Basic Linux Commands

Submitted by:

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S2RMCA:A batch

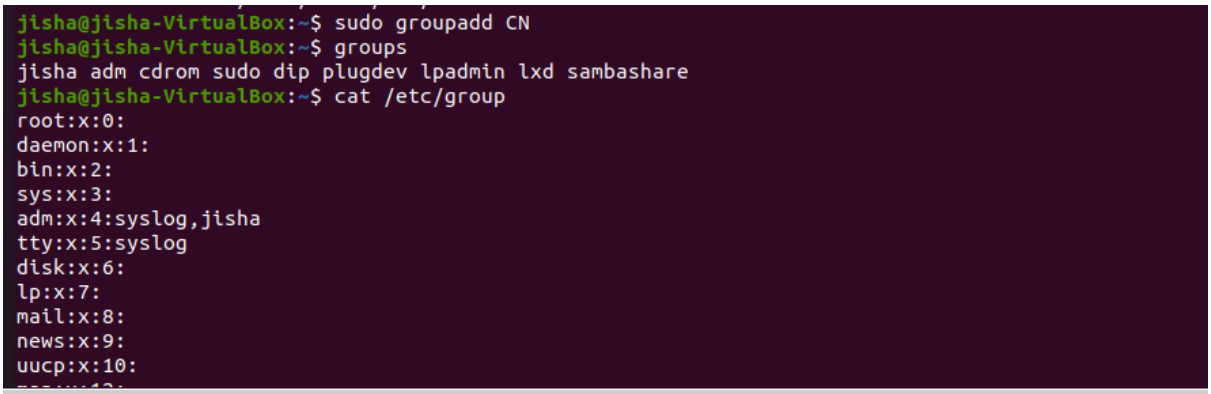
Roll no:44

1.usermod

- usermod command is used to change the properties of a user in Linux through the command line

2.groupadd

- groupadd command creates a new group account using the values specified on the command line and the default values from the system.



3.groups –
print the groups a user is in

4..groupdel

- groupdel command modifies the system account files, deleting all entries that refer to group. The named group must exist

```
jisha@jisha-VirtualBox:~$ sudo groupdel CN
jisha@jisha-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,jisha
tty:x:5:syslog
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:jisha
floppy:x:25:
tape:x:26:
sudo:x:27:jisha
audio:x:29:pulse
dip:x:30:jisha
www-data:x:33:
```

5.groupmod

• The groupmod command modifies the definition of the specified group by modifying the appropriate entry in the group database.

```
jisha@jisha-VirtualBox:~$ sudo groupmod -n CN  flowers
jisha@jisha-VirtualBox:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,jisha
tty:x:5:syslog
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:jisha
floppy:x:25:
tape:x:26:
sudo:x:27:jisha
```

6.chmod

• To change directory permissions of file/ Directory in Linux.

```
jisha@jisha-VirtualBox:~$ chmod u+x hi.txt
jisha@jisha-VirtualBox:~$
```

7.chown

• The chown command allows you to change the user and/or group ownership of a given file, directory.

```
jisha@jisha-VirtualBox:~$ chown jisha  hi.txt
jisha@jisha-VirtualBox:~$ ls -l hi.txt
-rwxrw-r-- 1 jisha jisha 34 Jun 20 09:45 hi.txt
jisha@jisha-VirtualBox:~$
```

8.id

• id command in Linux is used to find out user and group names and numeric ID's (UID or group ID) of the current user.

```
jisha@jisha-VirtualBox:~$ id
uid=1000(jisha) gid=1000(jisha) groups=1000(jisha),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),120(lpadmin),131(lxd),132(sambashare)
jisha@jisha-VirtualBox:~$
```

9.ps

• The ps command, short for Process Status, is a command line utility that is used to display or view information related to the processes running in a Linux system.

```
jisha@jisha-VirtualBox:~$ ps -u
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
jisha       1109  0.0  0.4 172652  6028 tty2     Ssl+ 11:31   0:00 /usr/lib/gdm3/gdm-x-session --run-script env GNOME_SHELL_SESSION_MODE=ubuntu /usr/bin/gnome-session --systemd --session=ubuntu
jisha       1115  0.5  7.0 565248 87304 tty2     Sl+  11:31   0:16 /usr/lib/xorg/Xorg vt2 -displayfd 3 -auth /run/user/1000/gdm/Xauthority -background none -noreset -keeptty -verbose 3
jisha       2031  0.0  1.2 199560 14896 tty2     Sl+  11:31   0:00 /usr/libexec/gnome-session-binary --systemd --systemd --session=ubuntu
jisha       6377  0.0  0.3  19248  4516 pts/0    Ss   11:32   0:00 bash
jisha      15774  1.0  0.2  20132  3248 pts/0    R+   12:21   0:00 ps -u
jisha@jisha-VirtualBox:~$
```

10.top

• top command is used to show the Linux processes. It provides a dynamic real-time view of the running system

```
jisha@jisha-VirtualBox:~$ top

top - 12:22:12 up 51 min,  1 user,  load average: 0.00, 0.03, 0.04
Tasks: 160 total,   1 running, 159 sleeping,   0 stopped,   0 zombie
%Cpu(s):  2.7 us,  0.3 sy,  0.0 ni, 96.9 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :   1204.4 total,     79.9 free,    630.8 used,    493.7 buff/cache
MiB Swap:    448.5 total,    442.7 free,      5.8 used.    407.6 avail Mem

    PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   2629 jisha     20   0 3719400 333104 132092 S   2.3  27.0   0:34.16 gnome-shell
   1115 jisha     20   0  565248  87304  53816 S   0.7   7.1   0:17.16 Xorg
   6204 jisha     20   0  823660  50464  37528 S   0.3   4.1   0:08.58 gnome-terminal-
  15775 jisha     20   0   20512   3916   3344 R   0.3   0.3   0:00.04 top
      1 root      20   0  102000  11232   8472 S   0.0   0.9   0:02.04 systemd
      2 root      20   0       0      0      0 S   0.0   0.0   0:00.00 kthreadd
      3 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 rcu_gp
      4 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 rcu_par_gp
      6 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-kblockd
      9 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
     10 root      20   0       0      0      0 S   0.0   0.0   0:00.17 ksoftirqd/0
     11 root      20   0       0      0      0 I   0.0   0.0   0:00.86 rcu_sched
     12 root      rt   0       0      0      0 S   0.0   0.0   0:00.03 migration/0
     13 root     -51   0       0      0      0 S   0.0   0.0   0:00.00 idle_inject/0
     14 root      20   0       0      0      0 S   0.0   0.0   0:00.00 cpuhp/0
     15 root      20   0       0      0      0 S   0.0   0.0   0:00.00 kdevtmpfs
     16 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 netns
     17 root      20   0       0      0      0 S   0.0   0.0   0:00.00 rcu_tasks_kthre
     18 root      20   0       0      0      0 S   0.0   0.0   0:00.00 rcu_tasks_rude_
     19 root      20   0       0      0      0 S   0.0   0.0   0:00.00 rcu_tasks_trace
```

11.wc

wc stands for word count.

• Used for counting purpose.

• It is used to find out number of lines,

word count, byte and characters count in the files specified in the file arguments.

```
    153 root        0 -20        0      0      0
jisha@jisha-VirtualBox:~$ wc -c hi.txt
34 hi.txt
jisha@jisha-VirtualBox:~$
```

12.tar

- The Linux 'tar'stands for tape archive, is used to create Archive and extract the Archive files
- Linux tar command to create compressed or uncompressed Archive files

```
jisha@jisha-VirtualBox:~$ tar cf archieve.tar hi.txt class.txt
jisha@jisha-VirtualBox:~$ ls archieve.tar
archieve.tar
jisha@jisha-VirtualBox:~$
```

13.expr

- The expr command evaluates a given expression and displays its corresponding output. It is used for:

- Basic operations like addition, subtraction, multiplication, division, and modulus on integers.

- Evaluating regular expressions, string operations like substring, length of strings etc.

```
jisha@jisha-VirtualBox:~$ expr 10 + 2
12
jisha@jisha-VirtualBox:~$
```

14. Redirections & Piping 7

- A pipe is a form of redirection to send the output of one command/program/process to another command/program/process for further processing.

- Pipe is used to combine two or more commands, the output of one command acts as input to another command, and this command's output may act as input to the next command and so on.

```
jisha@jisha-VirtualBox:~$ ls -l | wc -l
25
jisha@jisha-VirtualBox:~$
```

15.ssh-keygen

Ssh-keygen command to generate a public/private authentication.


jisha@jisha-VirtualBox:~$ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/jisha/.ssh/id_rsa): ha
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in ha
Your public key has been saved in ha.pub
The key fingerprint is:
SHA256:mr12evASR9/0S2JIiYDPvlJvZ+h8b4ARWsweRbfrwqM jisha@jisha-VirtualBox
The key's randomart image is:
+---[RSA 3072]----+
| . o oo . |
| . . * . . |
| o = + .. |
| + +.o o |
| . S.+..+ . |
| *o.oooo...|
| + +=.+o.o .|
| . .+==+o. . |
| ..=E+ o. |
+----[SHA256]-----+
jisha@jisha-VirtualBox:~$