

**NETWORKING & SYSTEM ADMINISTRATION LAB****Name: Manya Madhu****Roll No: 17****Batch: S2 RMCA B****Date: 25-04-2022****Experiment No: 7****Aim**

Familiarization of linux commands.

**Procedure**

1. \$ sudo useradd <username>

This command is used to adding/creating user accounts in linux.

Output:

```
mca@S17:~$ sudo useradd manya
[sudo] password for mca:
```

2. \$ sudo passwd <username>

This command sets password for the users

Output:

```
mca@S17:~$ sudo passwd manya
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
```

3. \$ sudo groupadd -g <identifier><groupname>

It creates a new group account using the values specified.

Output:

```
mca@S17:~$ sudo groupadd -g 707 gp
```

4. \$ sudo usermod -G <groupname><username>

This command adds the users to the specified groups

Output:

```
ca@S17:~$ sudo usermod -G gp manya
```

5. \$ id <username>

It is used to find out user and group names and numeric id

Output:

```
mca@S17:~$ id manya
uid=1004(manya) gid=1005(manya) groups=1005(manya),707(gp)
```

6. \$ compgen -g

To display the names of groups

Output:

```
mca@S17:~$ compgen -g
root
daemon
bin
sys
adm
tty
disk
lp
mail
news
uucp
man
proxy
kmem
dialout
fax
voice
cdrom
```

7. userdel

It is used to delete a user account and related files.

\$ sudo userdel <username>

Output:

```
mca@S17:~$ sudo userdel manya
```

8. groupdel

It is used to delete a existing group.

Output:

```
mca@S17:~$ sudo groupdel gp1
```

9. \$ compgen -g <groupname>

List the specific group which is specified in the command.

Output:

```
mca@S17:~$ compgen -g gp
gp
```

10. chmod

This chmod command is used to change the access permissions of files and directories.

It stands for change mode.

The file permissions-read(r), write(w), execute(x).

\$ chmod <options><permissions><filename>

a) To give read, write and execute permissions.

```
mca@S17:~$ chmod +rwx empty.txt
```

b) To denied the write and execute permissions to the file.

```
mca@S17:~$ chmod -wx empty.txt
mca@S17:~$ cat >> empty.txt
bash: empty.txt: Permission denied
```

## 11. chown command

It is used to change a file ownership, directory or symbolic link for a user or group. The Chown stands for change owner.

Chown[option]....[owner][:[group]]file

Output:

```
mca@S17:~$ sudo chown new1 empty.txt
mca@S17:~$ ls -l empty.txt
-r--r--r-- 1 new1 mca 20 Apr 25 14:51 empty.txt
```

## 12. ifconfig

Interface configurator, we can view ip address, MAC address and MTU(maximum transmission unit)with ifconfig command.

Output:

```
mca@S17:~$ ifconfig -a
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.6.17 netmask 255.255.255.0 broadcast 192.168.6.255
    inet6 fe80::26b9:fa94:9908:43e1 prefixlen 64 scopeid 0x20<link>
    ether 78:24:af:ba:c3:58 txqueuelen 1000 (Ethernet)
    RX packets 94439 bytes 34085794 (34.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 25729 bytes 7099896 (7.0 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 5460 bytes 449844 (449.8 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 5460 bytes 449844 (449.8 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

### 13. ssh command

It stands for secure shell or secure socket shell.

ssh user-name @ host(ip/Domain-name)

ssh command: It instructs the machine to create a secure encrypted connection with the host system.

Username: name of user which is being accessed by the host.

Host: It is a machine that is being accessed by the user.

Output:

```
mca@S17:~$ sudo ssh mca@192.168.6.46
The authenticity of host '192.168.6.46 (192.168.6.46)' can't be established.
ECDSA key fingerprint is SHA256:hQC0bgw7WBI7zuABHq2AKWIpGnXDeBBGWGvJqDHDPNY.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.6.46' (ECDSA) to the list of known hosts.
mca@192.168.6.46's password:
Welcome to Ubuntu 18.04 LTS (GNU/Linux 4.15.0-23-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage
```