

## Experiment No.: 8

Date: 21-03-2023

AIM: Familiarization of linux commands.

CO2: Perform system administration task.

1. Ip addr :

```
mca@t2:~/Philip$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp3s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 78:24:af:ba:c2:fc brd ff:ff:ff:ff:ff:ff
    inet 192.168.6.21/24 brd 192.168.6.255 scope global noprefixroute enp3s0
        valid_lft forever preferred_lft forever
    inet6 fe80::9be4:ddc5:fffd:1746/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
mca@t2:~/Philip$
```

```
mca@t2:~/Philip$ ssh mca@192.168.6.20
ssh: connect to host 192.168.6.20 port 22: Connection refused
mca@t2:~/Philip$ sudo apt-get update
[sudo] password for mca:
Get:1 https://dl.google.com/linux/chrome/deb stable InRelease [1,811 B]
Get:2 http://ppa.launchpad.net/maarten-fonville/android-studio/ubuntu focal InRelease [17.6 kB]
Get:3 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:4 http://in.archive.ubuntu.com/ubuntu focal InRelease
Get:5 https://dl.google.com/linux/chrome/deb stable/main amd64 Packages [1,079 B]
```

```
mca@t2:~/Philip$ sudo apt-get install openssh-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ncurses-term openssh-client openssh-sftp-server ssh-import-id
Suggested packages:
  keychain libpam-ssh monkeysphere ssh-askpass molly-guard
The following NEW packages will be installed:
  ncurses-term openssh-server openssh-sftp-server ssh-import-id
The following packages will be upgraded:
  openssh-client
```

```
mca@t2:~/Philip$ sudo ufw allow 22
Rules updated
Rules updated (v6)
mca@t2:~/Philip$
```

```
mca@t2:~/Philip$ ssh mca@192.168.6.20
mca@192.168.6.20's password:
Welcome to Ubuntu 20.04 LTS (GNU/Linux 5.4.0-26-generic x86_64)

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

```

mca@t2:~$ ls
Desktop  Documents  Downloads  Music  NithinR  Pictures  Public  Templates  Videos
mca@t2:~$ cd NithinR
mca@t2:~/NithinR$ cat >> newfile.txt
hi Nithin
^Z
[1]+  Stopped                  cat >> newfile.txt
mca@t2:~/NithinR$

```

Ssh stands for secure shell

Ssh-keygen : generate a key for ssh

```

mca@t2:~/Philip$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/mca/.ssh/id_rsa): key.txt
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in key.txt
Your public key has been saved in key.txt.pub
The key fingerprint is:
SHA256:Cxr3avLVllreA44nVu211yejKWch+bthyub7oiC6SrE mca@t2
The key's randomart image is:
+---[RSA 3072]-----+
|
|
|
|
|  . . o S . o .
| o + o oo..+..
| E . . =+=oo.*..
| . . .++*oo=*+o+
| ..o=o..oo+B*+=.
+-----[SHA256]-----+

```

Ps : currently running program

```

mca@t2:~/Philip$ ps
  PID TTY          TIME CMD
  6260 pts/3        00:00:00 bash
  6274 pts/3        00:00:00 ssh-keygen
  6282 pts/3        00:00:00 ssh-keygen
  6330 pts/3        00:00:00 ps
mca@t2:~/Philip$

```

```
mca@t2:~/Philip$ ps u mca
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
mca       1371  0.0  0.0 164020  6500 tty2      -   14:54    0:00 gdm-x-session
mca        -  0.0  -    -    -    -    -   Ssl+  14:54    0:00 -
mca        -  0.0  -    -    -    -    -   Ssl+  14:54    0:00 -
mca        -  0.0  -    -    -    -    -   Ssl+  14:54    0:00 -
mca       1373  1.5  0.6 317904 55296 tty2      -   14:54    0:57 Xorg
mca        -  1.4  -    -    -    -    -   Sl+   14:54    0:53 -
mca        -  0.0  -    -    -    -    -   SNl+  14:54    0:00 -
mca        -  0.0  -    -    -    -    -   SNl+  14:54    0:00 -
mca        -  0.1  -    -    -    -    -   Sl+   14:54    0:03 -
mca       1387  0.0  0.1 188204 13728 tty2      -   14:54    0:00 gnome-session-b
```

```
mca@t2:~/Philip$ ps -C firefox
  PID TTY          TIME CMD
 1865 ?           00:02:15 firefox
mca@t2:~/Philip$
```

```
mca@t2:~/Philip$ ps -f -p 1865
UID      PID  PPID  C  STIME TTY          TIME CMD
mca      1865   1278  3  14:55 ?           00:02:18 /usr/lib/firefox/firefox -new-window
mca@t2:~/Philip$
```

## Result

The program was executed and the result was successfully obtained. Thus CO2 was obtained