ASSIGNMENT – 1

TEAM MEMBERS:

MEMBER 1: VENNAPUSA SARATHENDRA VENKATA SAI REDDY (20FE1A03B1).

MEMBER 2: YARRAMSETTY VENKATA RAVI KIRAN (20FE1A03B3).

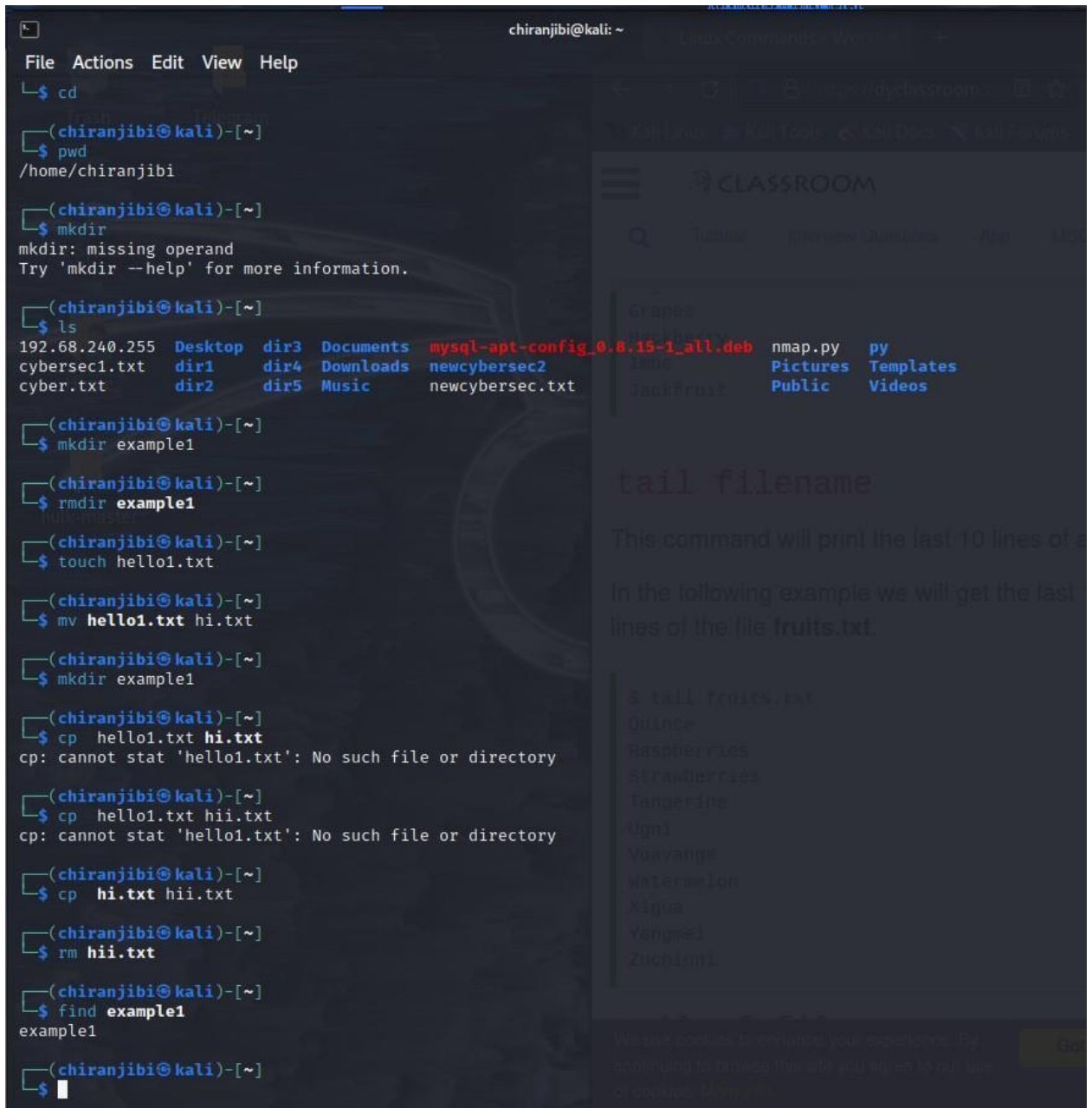**MEMBER 3:** YERRABOTHULA NAGA VEERA VENKATESWAR REDDY (20FE5A03B6).

 PROJRCT REG NO: SBAP0007919.

TITLE: LINUX COMMAND LIST ASSESSMENT

File and Directory Operations:

1. ls: List files and directories
2. cd: Change directory
3. pwd: Print working directory
4. mkdir: Make directory
5. touch: Create an empty file
6. cp: Copy files and directories
7. mv: Move or rename files and directories
8. rm: Remove files and directories
9. find: Search for files and directories

COMMANDS :

```
        $ cd

┌──(chiranjibi㉿kali)-[~]
└─$ pwd
/home/chiranjibi

┌──(chiranjibi㉿kali)-[~]
└─$ mkdir
mkdir: missing operand
Try 'mkdir --help' for more information.

┌──(chiranjibi㉿kali)-[~]
└─$ ls
192.68.240.255   Desktop   dir3   Documents   mysql-apt-config_0.8.15-1_all.deb   nmap.py    py
cybersec1.txt    dir1      dir4   Downloads   newcybersec2                        Pictures   Templates
cyber.txt        dir2      dir5   Music       newcybersec.txt                     Public     Videos

┌──(chiranjibi㉿kali)-[~]
└─$ mkdir example1

┌──(chiranjibi㉿kali)-[~]
└─$ rmdir example1

┌──(chiranjibi㉿kali)-[~]
└─$ touch hello1.txt

┌──(chiranjibi㉿kali)-[~]
└─$ mv hello1.txt hi.txt

┌──(chiranjibi㉿kali)-[~]
└─$ mkdir example1

┌──(chiranjibi㉿kali)-[~]
└─$ cp  hello1.txt hi.txt
cp: cannot stat 'hello1.txt': No such file or directory

┌──(chiranjibi㉿kali)-[~]
└─$ cp  hello1.txt hii.txt
cp: cannot stat 'hello1.txt': No such file or directory

┌──(chiranjibi㉿kali)-[~]
└─$ cp  hi.txt hii.txt

┌──(chiranjibi㉿kali)-[~]
└─$ rm hii.txt

┌──(chiranjibi㉿kali)-[~]
└─$ find example1
example1

┌──(chiranjibi㉿kali)-[~]
└─$
```

File Viewing and Editing:

cat: Concatenate and display file content less: View file

content with pagination head: Display

the beginning of a file tail: Display the end of a

file nano: Text editor for creating and editing files

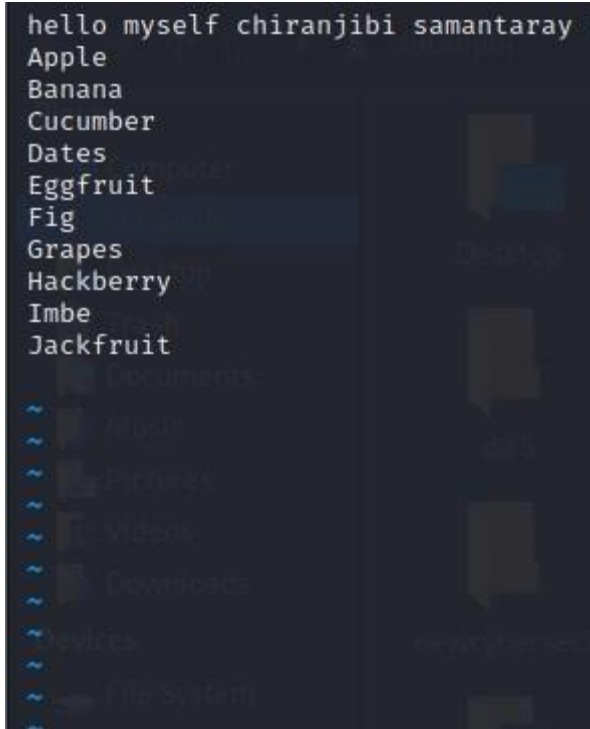vi/vim: Powerful text editor for experienced users

COMMANDS :

```
┌──(chiranjibi㊀kali)-[~]
└─$ cat hello2.txt
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit

┌──(chiranjibi㊀kali)-[~]
└─$ head hello2.txt
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe

┌──(chiranjibi㊀kali)-[~]
└─$ tail hello2.txt
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit

┌──(chiranjibi㊀kali)-[~]
└─$ ▯
```

```
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit
```

```
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit
```

```
  GNU nano 6.3
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit




^G Help      ^O Write Out   ^W
^X Exit      ^R Read File    ^\
```

File Permissions:

chmod: Change file permissions chown:

Change file owner chgrp:

Change file group **COMMANDS**

:

File Compression and Archiving:

tar: Archive files gzip: Compress files unzip:

Extract files from a ZIP archive

COMMANDS :
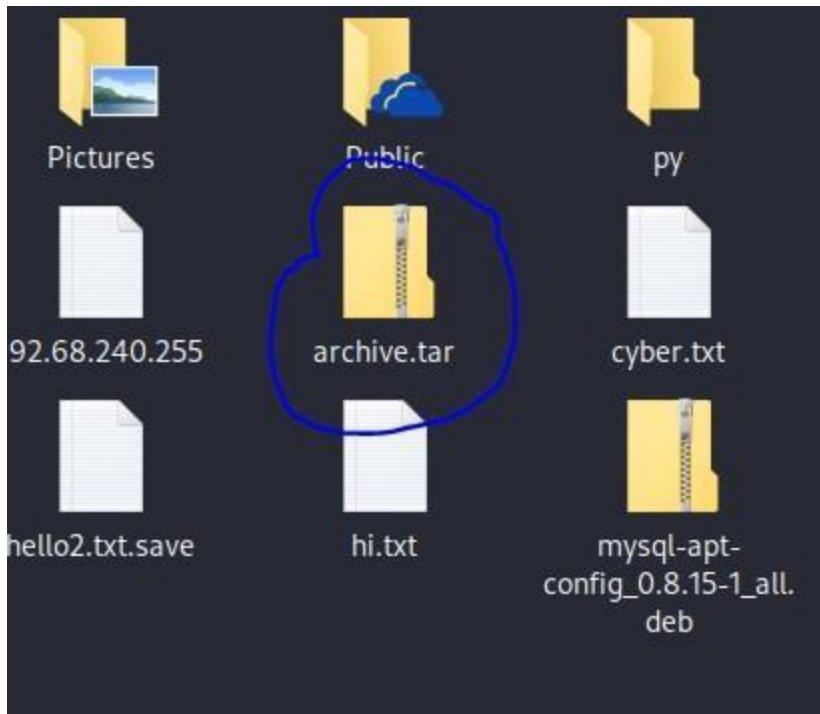
Process Management:

ps: List running processes top: Display real-time system

information and processes kill: Terminate processes bg:

Run processes in the background fg: Bring background

processes to the foreground

COMMANDS :

```
top - 05:59:52 up  1:12,  1 user,  load average: 0.70, 1.43, 1.10
Tasks: 158 total,   1 running, 157 sleeping,   0 stopped,   0 zombie
%Cpu(s):  2.8 us,  1.4 sy,  0.0 ni, 95.9 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem :   4797.8 total,   2592.2 free,   1276.2 used,    929.3 buff/cache
MiB Swap:    975.0 total,    975.0 free,      0.0 used.   3261.2 avail Mem

   PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM     TIME+ COMMAND
   965 chiranj+  20   0  201516  30736  19212 S   1.0   0.6   0:57.21 panel-13-cpugra
   534 root      20   0  462500 143376  74664 S   0.7   2.9   2:22.02 Xorg
   794 chiranj+   9 -11 1176132  36060  24228 S   0.7   0.7   0:25.76 pulseaudio
 11092 chiranj+  20   0  435732 106348  85760 S   0.7   2.2   0:04.33 qterminal
   873 chiranj+  20   0  153052   2712   2232 S   0.3   0.1   0:08.57 VBoxClient
   923 chiranj+  20   0  637120 102396  76044 S   0.3   2.1   0:28.31 xfwm4
   967 chiranj+  20   0  358696  30484  20676 S   0.3   0.6   0:14.30 panel-15-genmon
 20347 chiranj+  20   0   10364   3720   3076 R   0.3   0.1   0:00.06 top
     1 root      20   0  102104  12164   8972 S   0.0   0.2   0:01.01 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
     5 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 netns
     7 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kworker/0:0H-events_highpri
     9 root       0 -20       0      0      0 I   0.0   0.0   0:00.41 kworker/0:1H-events_highpri
    10 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mm_percpu_wq
    11 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_kthread
    12 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_rude_kthread
    13 root      20   0       0      0      0 I   0.0   0.0   0:00.00 rcu_tasks_trace_kthread
    14 root      20   0       0      0      0 S   0.0   0.0   0:00.32 ksoftirqd/0
    15 root      20   0       0      0      0 I   0.0   0.0   0:01.68 rcu_preempt
    16 root      rt   0       0      0      0 S   0.0   0.0   0:00.04 migration/0
    18 root      20   0       0      0      0 S   0.0   0.0   0:00.00 cpuhp/0
    20 root      20   0       0      0      0 S   0.0   0.0   0:00.00 kdevtmpfs
    21 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 inet_frag_wq
    22 root      20   0       0      0      0 S   0.0   0.0   0:00.00 kauditd
    23 root      20   0       0      0      0 S   0.0   0.0   0:00.00 khungtaskd
    24 root      20   0       0      0      0 S   0.0   0.0   0:00.00 oom_reaper
    25 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 writeback
    26 root      20   0       0      0      0 S   0.0   0.0   0:00.28 kcompactd0
    27 root      25   5       0      0      0 S   0.0   0.0   0:00.00 ksmd
    28 root      39  19       0      0      0 S   0.0   0.0   0:00.32 khugepaged
    29 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kintegrityd
    30 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kblockd
    31 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 blkcg_punt_bio
    32 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 tpm_dev_wq
    33 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 edac-poller
    34 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 devfreq_wq
    36 root      20   0       0      0      0 S   0.0   0.0   0:00.00 kswapd0
    43 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 kthrotld
    45 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 acpi_thermal_pm
    46 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 mld
    47 root       0 -20       0      0      0 I   0.0   0.0   0:00.00 ipv6_addrconf
```

```
┌──(chiranjibi㉿kali)-[~]
└─$ ps
   PID TTY          TIME CMD
 20539 pts/3    00:00:00 zsh
 20556 pts/3    00:00:00 ps

┌──(chiranjibi㉿kali)-[~]
└─$
```

System Information:

uname: Print system information df: Display

disk space usage free: Display memory usage

uptime: Show system uptime who: Display

logged-in users w: Display logged-in users

and their activities

COMMANDS :

```
┌──(chiranjibi㊉kali)-[~]
└─$ uname
Linux

┌──(chiranjibi㊉kali)-[~]
└─$ df
Filesystem     1K-blocks      Used Available Use% Mounted
 on
udev            2420420          0   2420420   0% /dev
tmpfs            491292        944    490348   1% /run
/dev/sda1    128256204   13020980 108673996  11% /
tmpfs           2456448          0   2456448   0% /dev/sh
m
tmpfs              5120          0      5120   0% /run/lo
ck
tmpfs            491288         96    491192   1% /run/us
er/1000

┌──(chiranjibi㊉kali)-[~]
└─$ free
               total       used        free        shared
  buff/cache    available
Mem:         4912900    1274920     2693820        29124
     944160    3380456
Swap:         998396          0      998396

┌──(chiranjibi㊉kali)-[~]
└─$ uptime
 06:06:03 up  1:18,  1 user,  load average: 0.18, 0.53,
0.78

┌──(chiranjibi㊉kali)-[~]
└─$ who
chiranjibi tty7          2023-05-28 04:47 (:0)

┌──(chiranjibi㊉kali)-[~]
└─$ w
 06:06:14 up  1:18,  1 user,  load average: 0.15, 0.51,
0.77
USER     TTY      FROM              LOGIN@   IDLE   JCPU
  PCPU WHAT
chiranji tty7     :0                04:47    1:18m  2:28
  0.89s xfce4-s

┌──(chiranjibi㊉kali)-[~]
└─$ █
```

Networking: ifconfig: Configure network interfaces ping: Send ICMP echo requests

to a network host ssh: Securely connect to a remote system scp: Securely copy files

between systems wget: Download files from the web

COMMANDS :

```
┌──(chiranjibi㉿kali)-[~]
└─$ ssh
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface
]
           [-b bind_address] [-c cipher_spec] [-D [bind_
address:]port]
           [-E log_file] [-e escape_char] [-F configfile
] [-I pkcs11]
           [-i identity_file] [-J [user@]host[:port]] [-
L address]
           [-l login_name] [-m mac_spec] [-O ctl_cmd] [-
o option] [-p port]
           [-Q query_option] [-R address] [-S ctl_path]
[-W host:port]
           [-w local_tun[:remote_tun]] destination [comm
and [argument  ...]]

┌──(chiranjibi㉿kali)-[~]
└─$ ssh 172.18.114.59
ssh: connect to host 172.18.114.59 port 22: Connection r
efused

┌──(chiranjibi㉿kali)-[~]
└─$ ssh chiranjibi@172.18.114.59
ssh: connect to host 172.18.114.59 port 22: Connection r
efused

┌──(chiranjibi㉿kali)-[~]
└─$ ssh chiranjibi@172.18.112.10
```

```
            ether 08:00:27:ed:2e:92  txqueuelen 1000  (Ether
net)
        RX packets 89363  bytes 99063895 (94.4 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 36540  bytes 6392359 (6.0 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  co
llisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0×10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 86  bytes 7436 (7.2 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 86  bytes 7436 (7.2 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  co
llisions 0


  ┌──(chiranjibi㊉kali)-[~]
  └─$ ping 173.18.114.59
PING 173.18.114.59 (173.18.114.59) 56(84) bytes of data.
```

System Administration:

sudo: Execute commands with superuser privileges apt-get:

Package management for Debian-based distributions yum:

Package management for Red Hat-based distributions

systemctl: Manage system services crontab: Schedule

recurring tasks useradd: Add a new user passwd: Change user

password

COMMANDS :

```
┌──(chiranjibi㉿kali)-[~]
└─$ passwd
Changing password for chiranjibi.
Current password:
New password: ▮
```