

# **ASSIGNMENT – 1**

## **TEAM MEMBERS:**

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

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

**MEMBER 3:** YERRABOTHULA NAGA VEERA VENKATESWAR REDDY (20FE1A03B6).

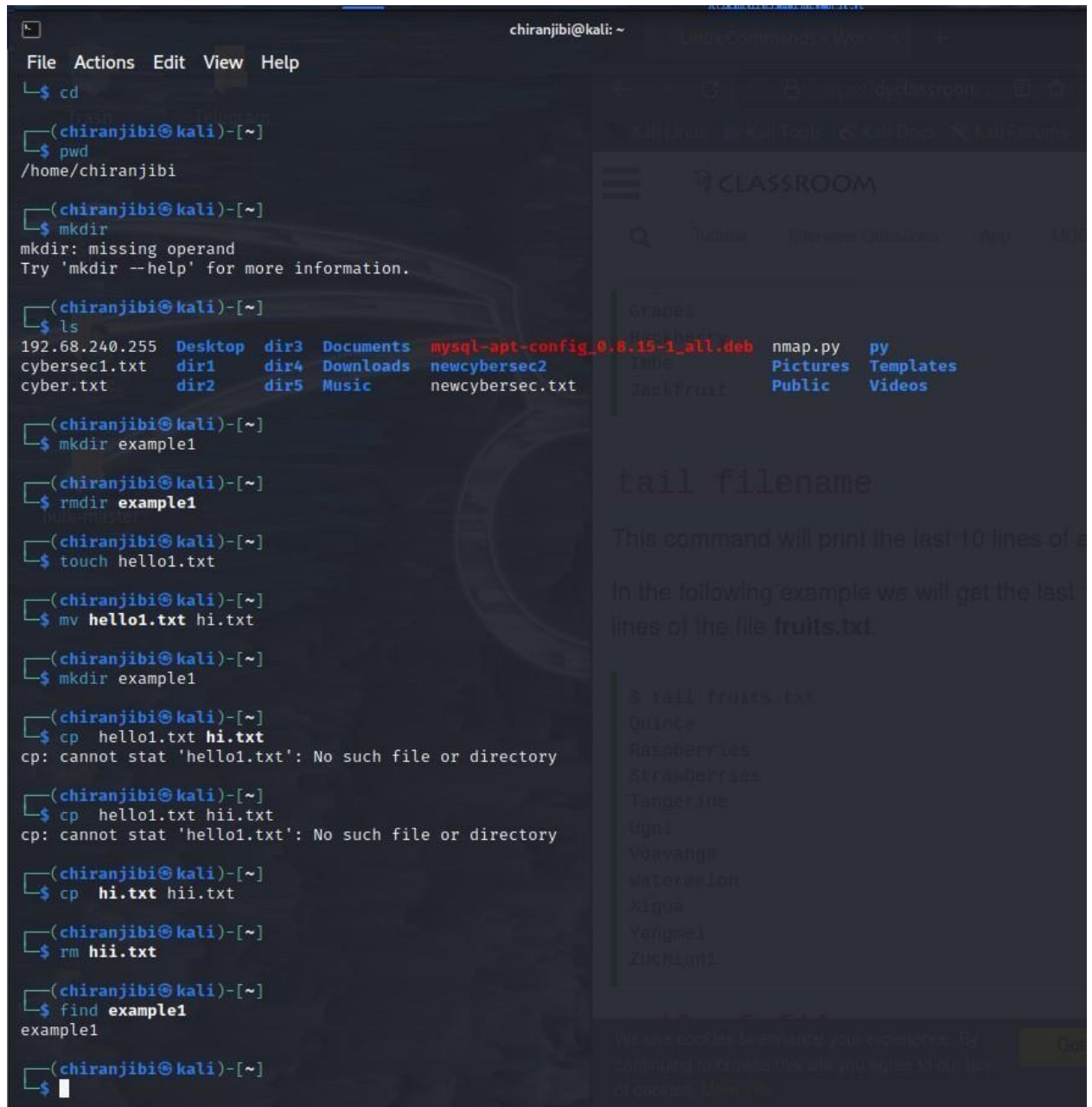
**PROJCT REG NO:** SBAP0007919.

## **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 :**



## 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 :**

```
(chiranjibi@kali)-[~]  
$ cat hello2.txt  
hello myself chiranjibi samantaray  
Apple  
Banana  
Cucumber  
Dates  
Eggfruit  
Fig  
Grapes  
Hackberry  
Imbe  
Jackfruit  
  
(chiranjibi@kali)-[~]  
$ head hello2.txt  
hello myself chiranjibi samantaray  
Apple  
Banana  
Cucumber  
Dates  
Eggfruit  
Fig  
Grapes  
Hackberry  
Imbe  
  
(chiranjibi@kali)-[~]  
$ tail hello2.txt  
Banana  
Cucumber  
Dates  
Eggfruit  
Fig  
Grapes  
Hackberry  
Imbe  
Jackfruit  
  
(chiranjibi@kali)-[~]  
$
```

hello myself chiranjibi samantaray

- Apple
- Banana
- Cucumber
- Dates
- Eggfruit
- Fig
- Grapes
- Hackberry
- Imbe
- Jackfruit

Documents

Music

Pictures

Videos

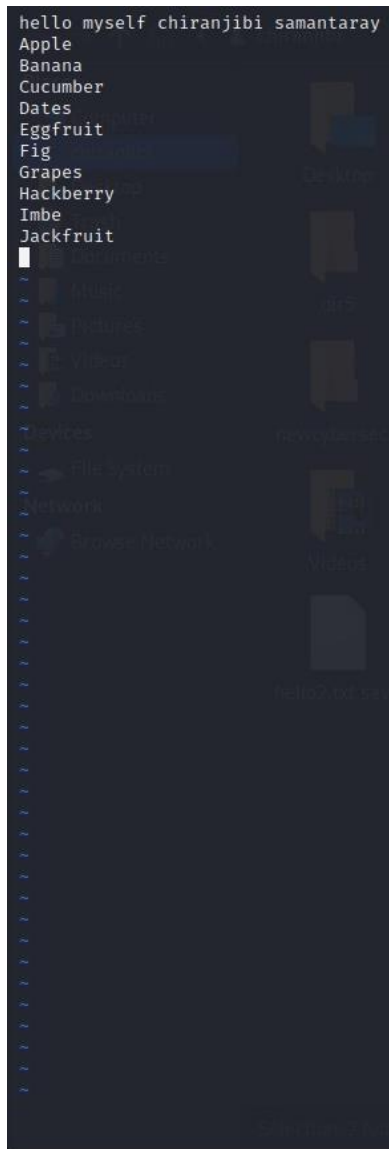
Downloads

Desktop

Library

Applications

System



```
GNU nano 6.3
hello myself chiranjibi samantaray
Apple
Banana
Cucumber
Dates
Eggfruit
Fig
Grapes
Hackberry
Imbe
Jackfruit
Pictures
Videos
Downloads
Devices
File System
Network
Browse Network
Videos
hello@chiranjibi:~$
```

GNU nano 6.3

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

**File Permissions:** chmod: Change file

permissions chown:

Change file owner chgrp:

Change file group **COMMANDS**

:

```
(chiranjibi@kali)~$  
$ ls -l hello2.txt  
-rw-r--r-- 1 chiranjibi  
  
(chiranjibi@kali)~$  
$ chmod 644 hello2.txt  
  
(chiranjibi@kali)~$  
$ chmod hello2.txt  
chmod: missing operand after 'hello2.txt'  
Try 'chmod --help' for more information.  
  
(chiranjibi@kali)~$  
$ chmod u=rwx,g=rwx,o=rwx hello2.txt  
  
(chiranjibi@kali)~$  
$ chown chiranjibi hello2.txt  
  
(chiranjibi@kali)~$  
$ chmod ug+rwx hello2.txt  
  
(chiranjibi@kali)~$  
$ chmod ug+ hello2.txt  
  
(chiranjibi@kali)~$  
$
```

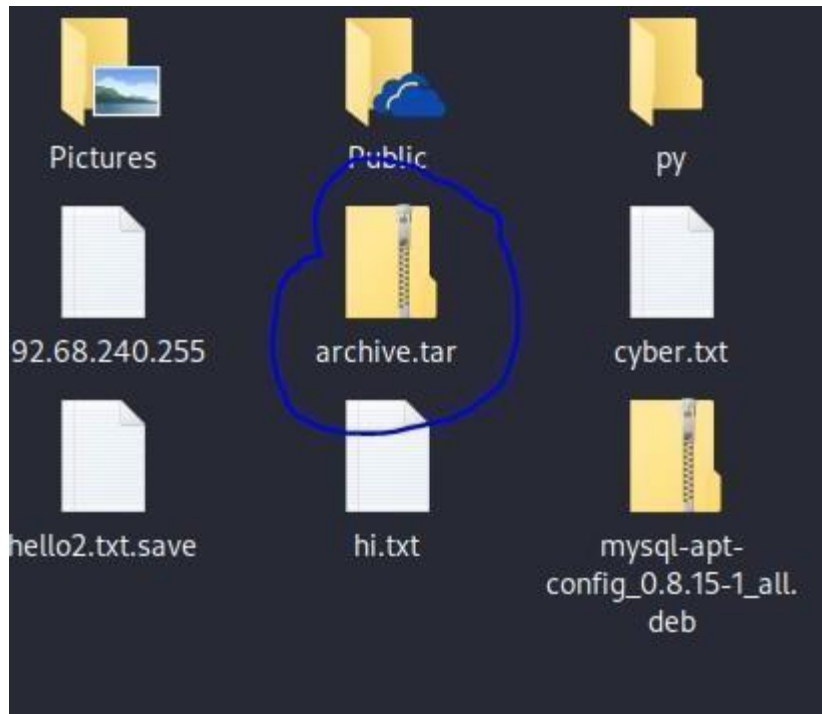
## File Compression and Archiving:

tar: Archive files gzip: Compress files unzip:

Extract files from a ZIP archive

## COMMANDS :





```
(chiranjibi@kali)-[~]
$ tar -cvf archive.tar directory/
tar: directory: Cannot stat: No such file or directory
tar: Exiting with failure status due to previous errors

(chiranjibi@kali)-[~]
$ tar -cvf archive.tar
tar: Cowardly refusing to create an empty archive
Try 'tar --help' or 'tar --usage' for more information.

(chiranjibi@kali)-[~]
$ tar -xvf archive.tar

(chiranjibi@kali)-[~]
$ tar -tvf archive.tar

(chiranjibi@kali)-[~]
$ gzip hello2.txt

(chiranjibi@kali)-[~]
$ gzip -d hello2.txt.gz

(chiranjibi@kali)-[~]
$ unzip archive.zip hello2.txt
```

**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	kdevtmpfsd
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)-[~]
$
```

```
(chiranjibi@kali)-[~]
$ kill -l
HUP INT QUIT ILL TRAP IOT BUS FPE KILL USR1 SEGV USR2 PIPE
ALRM TERM STKFLT CHLD CONT STOP TSTP TTIN TTOU URG XCPU
XFSZ VTALRM PROF WINCH POLL PWR SYS

(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 :

```

(chiranjibi@kali)-[~]
$ uname
Linux System

(chiranjibi@kali)-[~]
$ 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

(chiranjibi@kali)-[~]
$ free
              total        used        free      shared
buff/cache    available
Mem:          4912900    1274920    2693820        29124
           944160      3380456
Swap:          998396         0         998396

(chiranjibi@kali)-[~]
$ uptime
06:06:03 up 1:18, 1 user, load average: 0.18, 0.53,
0.78

(chiranjibi@kali)-[~]
$ who
chiranjibi tty7          2023-05-28 04:47 (:0)

(chiranjibi@kali)-[~]
$ 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

```



**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 0x10<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
(chiranjibi@kali)-[~]
$ 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: █
```