

Name: Muhammed Irfan Kuzhylangattil

Title: Linux Command List Assessment 1

Instructions:-

The following assessment aims to test your understanding and practical knowledge of various Linux commands. Perform the tasks given below using the appropriate commands. Write down the command(s) used to complete each task. You can use any Linux distribution or command-line interface of your choice. Ensure that you provide the correct output or results for each task.

Note: It is recommended to perform this assessment on a Linux machine or virtual environment.

File and Directory Operations:

ls: List files and directories

```
(kali㉿kali)-[~]  
$ ls  
Desktop  Downloads  passlist  portspoo  Public  Templates  Videos  
Documents Music      Pictures  private.key public.key thc-hydra
```

cd: Change directory

```
(kali㉿kali)-[~]  
$ cd Desktop  
  
(kali㉿kali)-[~/Desktop]  
$
```

pwd: Print working directory

```
(kali㉿kali)-[~/Desktop]
$ pwd
/home/kali/Desktop
```

mkdir: Make directory

```
(kali㉿kali)-[~/Desktop]
$ mkdir hi
```

touch: Create an empty file

```
javatpoint@javatpoint-Inspiron-3542:~/Newfolder$ touch Demo.txt
javatpoint@javatpoint-Inspiron-3542:~/Newfolder$ touch Demo1.txt Demo2.txt
javatpoint@javatpoint-Inspiron-3542:~/Newfolder$ ls
Demo1.txt  Demo2.txt  Demo.txt
```

cp: Copy files and directories

```
javatpoint@javatpoint-Inspiron-3542:~$ cp demo.txt demo1.txt
javatpoint@javatpoint-Inspiron-3542:~$ cp demo.txt Documents
```

mv: Move or rename files and directories

```
javatpoint@javatpoint-Inspiron-3542:~$ mv demo.txt Directory
```

rm: Remove files and directories

```
javatpoint@javatpoint-Inspiron-3542:~/Newfolder$ rm Demo.txt
javatpoint@javatpoint-Inspiron-3542:~/Newfolder$ rm Demo1.txt Demo2.txt
```

find: Search for files and directories

```
javatpoint@javatpoint-Inspiron-3542:~$ find . -name "*.pdf"
./Test.pdf
./Python-3.8.0/Doc/library/turtle-star.pdf
./Akash/Joomla/Original Copy/Brochure-Joomla-2019.pdf
./Akash/Joomla/Original Copy/Joomla-Guide-Final.pdf
./local/share/Trash/files/2400966-250544e72f817db3bcef-1587140240830.pdf
./local/share/Trash/files/2400966-3ad982eaa58c5d43fb53-1585763620407.pdf
find: './.anydesk/incoming': Permission denied
./Downloads/ConfirmationPage_20030070774.pdf
./demo1.pdf
find: './.dbus': Permission denied
find: './.cache/dconf': Permission denied
./Directory/demo.pdf
./Directory/demo2.pdf
./Directory/demo1.pdf
```

File Viewing and Editing:

cat: Concatenate and display file content

```
javatpoint@javatpoint-Inspiron-3542:~$ cat Demo.txt | tac | cat | cat | tac
1
2
3
4
5
6
7
8
9
10
11
```

less: View file content with pagination

```
;;; gyp.el - font-lock-mode support for gyp files.

;; Copyright (c) 2012 Google Inc. All rights reserved.
;; Use of this source code is governed by a BSD-style license that can be
;; found in the LICENSE file.

;; Put this somewhere in your load-path and
;; (require 'gyp)

(require 'python)
(require 'cl)

(when (string-match "python-mode.el" (symbol-file 'python-mode 'defun))
  (error (concat "python-mode must be loaded from python.el (bundled with "
                 "recent emacs), not from the older and less maintained "
                 "python-mode.el")))

(defadvice python-indent-calculate-levels (after gyp-outdent-closing-parens
                                              activate)
```

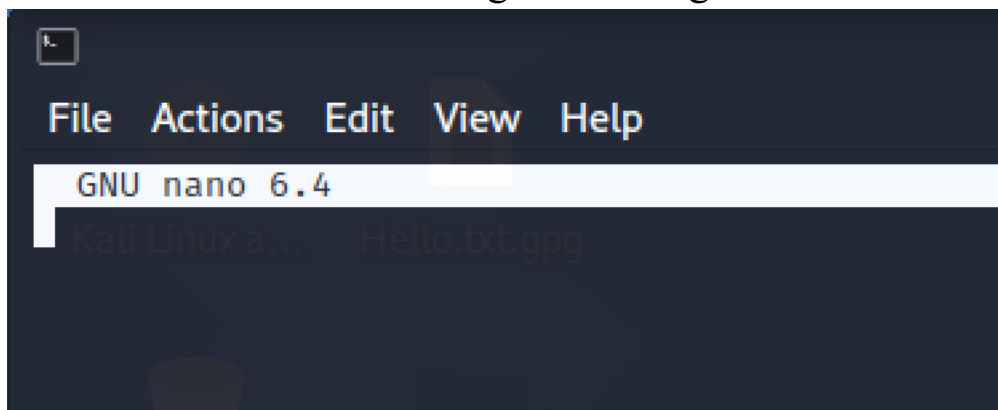
head: Display the beginning of a file

```
javatpoint@javatpoint-Inspiron-3542:~$ head Demo.txt
1
2
3
4
5
6
7
8
9
10
```

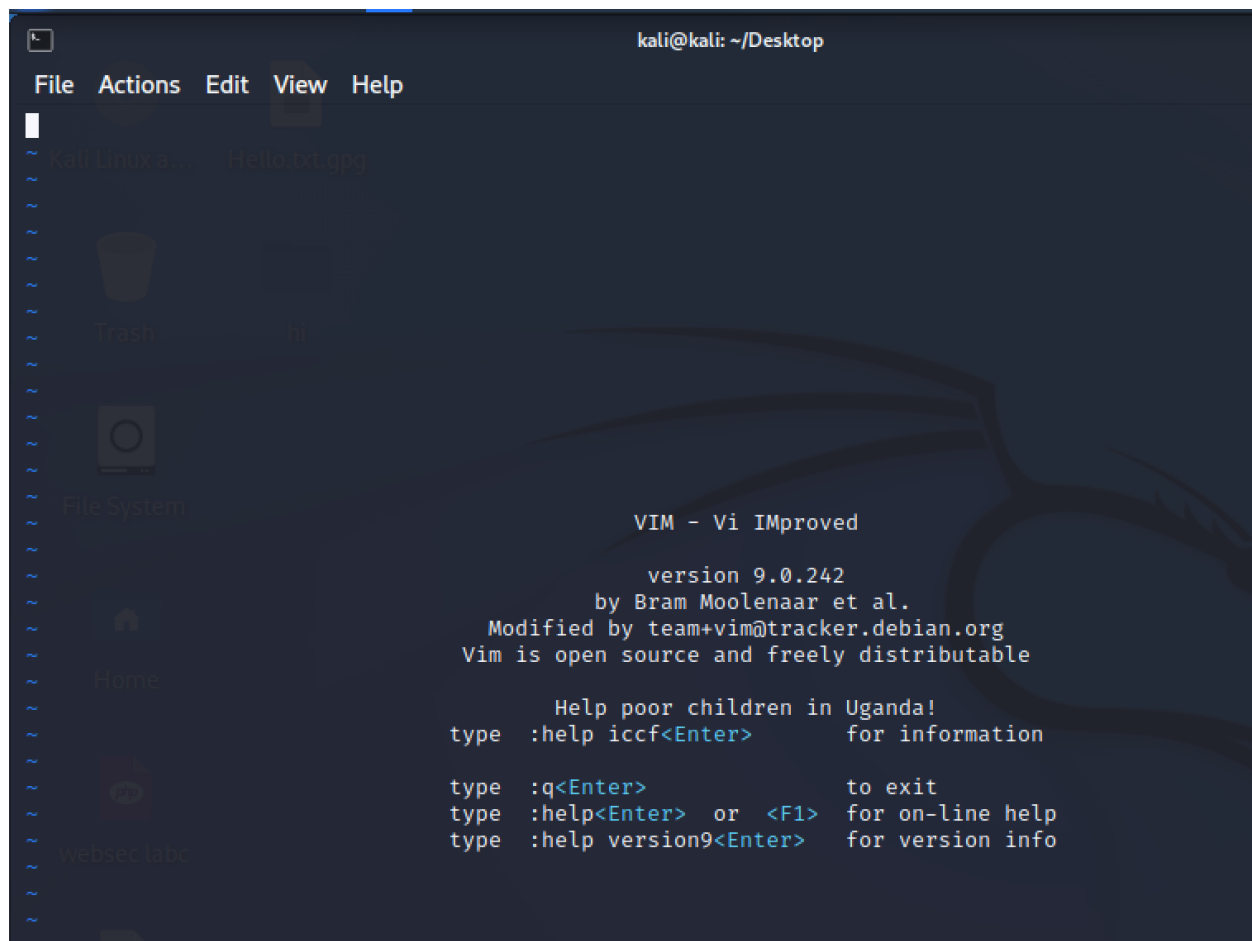
tail: Display the end of a file

```
javatpoint@javatpoint-Inspiron-3542:~$ tail Demo.txt
2
3
4
5
6
7
8
9
10
11
```

nano: Text editor for creating and editing files



vi/vim: Powerful text editor for experienced users



File Permissions:

chmod: Change file permissions

```
ubuntu@ubuntu-VirtualBox: ~
File Edit View Search Terminal Help
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ubuntu-VirtualBox:~$ sudo chmod -R 755 /My/Folder
```

chown: Change file owner

```
test@test-VirtualBox: ~/Desktop/Dir1
File Edit View Search Terminal Help
test@test-VirtualBox:~/Desktop/Dir1$ chown --version
chown (GNU coreutils) 8.28
Copyright (C) 2017 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Written by David MacKenzie and Jim Meyering.
test@test-VirtualBox:~/Desktop/Dir1$
```

chgrp: Change file group

```
bosko@bosko-vm:~/phoenixNAP$ ls -l
total 288404
-rw----- 1 bosko phoenixnap 295280640 Feb 26 12:25 atom_273.snap
drwxrwxr-x 2 bosko bosko 4096 Jul 30 13:27 example
-rw-rw-r-- 1 bosko bosko 36864 Mar 25 11:43 screenshot
-rw-rw-r-- 1 bosko phoenixnap 15 Apr 6 10:29 test
bosko@bosko-vm:~/phoenixNAP$ sudo chgrp phoenixnap example
bosko@bosko-vm:~/phoenixNAP$ ls -l
total 288404
-rw----- 1 bosko phoenixnap 295280640 Feb 26 12:25 atom_273.snap
drwxrwxr-x 2 bosko phoenixnap 4096 Jul 30 13:27 example
-rw-rw-r-- 1 bosko bosko 36864 Mar 25 11:43 screenshot
-rw-rw-r-- 1 bosko phoenixnap 15 Apr 6 10:29 test
```

File Compression and Archiving:

tar: Archive files

gzip: Compress files

```
javatpoint@javatpoint-Inspiron-3542:~$ gzip Demo.txt Demo1.txt
javatpoint@javatpoint-Inspiron-3542:~$ ls
a          Demo.txt.gz      examples.desktop  Music       Python-3.8.0
Akash     Desktop          hello.c           Newfolder   sample
a.out     Directory        hello.i           new.txt     snap
composer.phar Documents        hello.o           pico        Templates
demo1.pdf Downloads        hello.s           Pictures     Test.pdf
Demo1.txt.gz eclipse          index.html        project     Videos
Demo.sh   eclipse-installer mail              Public
Demo.txt~ eclipse-workspace marks.txt         Python
```

unzip: Extract files from a ZIP archive

```
javatpoint@javatpoint-Inspiron-3542:~$ gunzip Demo.txt Demo1.txt
javatpoint@javatpoint-Inspiron-3542:~$ ls
a          Demo.txt~        examples.desktop  Music       Python-3.8.0
Akash     Desktop          hello.c           Newfolder   sample
a.out     Directory        hello.i           new.txt     snap
composer.phar Documents        hello.o           pico        Templates
demo1.pdf Downloads        hello.s           Pictures     Test.pdf
Demo1.txt  eclipse          index.html        project     Videos
Demo.sh   eclipse-installer mail              Public
Demo.txt  eclipse-workspace marks.txt         Python
```

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

System Information:

uname: Print system information

df: Display disk space usage

```

javatpoint@javatpoint-Inspiron-3542:~$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
udev            1931652         0    1931652   0% /dev
tmpfs           393260         1756    391504   1% /run
/dev/sda1       479668904 26471148 428762148   6% /
tmpfs           1966284      243536    1722748  13% /dev/shm
tmpfs           5120           4        5116   1% /run/lock
tmpfs           1966284         0    1966284   0% /sys/fs/cgroup
/dev/loop1      231936      231936         0 100% /snap/wine-platform-runtime/136
/dev/loop2      144128      144128         0 100% /snap/gnome-3-26-1604/98
/dev/loop4        384         384         0 100% /snap/gnome-characters/539
/dev/loop6      220160      220160         0 100% /snap/wine-platform-5-stable/4
/dev/loop5      164096      164096         0 100% /snap/gnome-3-28-1804/116

```

free: Display memory usage

uptime: Show system uptime

who: Display logged-in users

w: Display logged-in users and their activities

Networking:

ifconfig: Configure network interfaces

```

(kali@kali)-[~/Desktop]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.64.2 netmask 255.255.255.0 broadcast 192.168.64.255
    inet6 fda8:f874:f546:fe83:4777:c413:df7c:e580 prefixlen 64 scopeid 0x0<global>
    inet6 fda8:f874:f546:fe83:dc95:78ff:fe38:29fd prefixlen 64 scopeid 0x0<global>
    inet6 fe80::dc95:78ff:fe38:29fd prefixlen 64 scopeid 0x20<link>
    ether de:95:78:38:29:fd txqueuelen 1000 (Ethernet)
    RX packets 54 bytes 21322 (20.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 53 bytes 7184 (7.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

```

ping: Send ICMP echo requests to a network host

```

(kali@kali)-[~/Desktop]
$ ping www.google.com
PING forcesafesearch.google.com (216.239.38.120) 56(84) bytes of data.
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=1 ttl=117 time=12.3 ms
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=2 ttl=117 time=10.2 ms
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=3 ttl=117 time=10.7 ms
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=4 ttl=117 time=6.41 ms
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=5 ttl=117 time=7.54 ms
 64 bytes from any-in-2678.1e100.net (216.239.38.120): icmp_seq=6 ttl=117 time=13.5 ms

```

ssh: Securely connect to a remote system

ssh user_name@host(IP/Domain_name)

scp: Securely copy files between systems

wget: Download files from the web

System Administration:

sudo: Execute commands with superuser privileges

```
(kali㉿kali)-[~/Desktop]
$ sudo su
[sudo] password for kali: 
```

apt-get: Package management for Debian-based distributions

```
(kali㉿kali)-[~/Desktop]
$ apt-get install update
```

yum: Package management for Red Hat-based distributions

systemctl: Manage system services

crontab: Schedule recurring tasks

useradd: Add a new user

```
javatpoint@javatpoint-Inspiron-3542:~$ sudo useradd JTP
[sudo] password for javatpoint:
javatpoint@javatpoint-Inspiron-3542:~$ 
```

passwd: Change user password

```
javatpoint@javatpoint-Inspiron-3542:~$ sudo passwd JTP
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
```

Ensure that you provide the correct command(s) used to accomplish each task. Write your answers below each task.

Once you have completed the assessment, review your answers and verify that the output or results are correct.

Make this in document format and send them with images