Title: Linux Command List Assessment

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

```
user@parrot - -
          DownLoads
                    Pictures
                              sherlock
                                         Videos
Documents Music
                    Public
                              Templates
  user@parrot -
    $ls -a
              dbeaver4
                         .kde
                                   .profile
                                                  .vimrc
              Desktop
                         local
                                                  .Xauthority
bash history Documents
                         .mozilla sherlock
                                                 .xsession-errors
BurpSuite
              Downloads
                         .msf4
                                   .su-to-rootrc .zshrc
              .emacs
cache
                         Music
                                   Templates
              .gtkrc-2.0 Pictures Videos
config
  user@parrot
```

cd: Change directory

```
[|user@parrot]=[-/Downloads]
| scd |
```

pwd: Print working directory

mkdir: Make directory

touch: Create an empty file

cp: Copy files and directories

mv: Move or rename files and directories

```
| Second Description | Second
```

rm: Remove files and directories

```
Type:- || - 章日

[user@parrot]—[~/Downloads]

$rm File1

[user@parrot]—[~/Downloads]

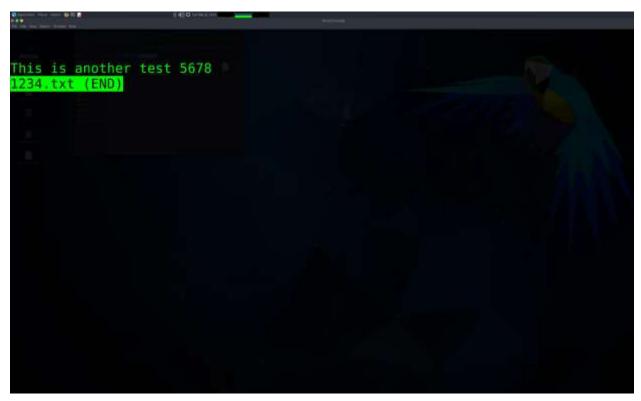
$$
$$
```

find: Search for files and directories

File Viewing and Editing:

cat: Concatenate and display file content

less: View file content with pagination



head: Display the beginning of a file

```
[user@parrot]-[~]
$cd Downloads
[user@parrot]-[~/Downloads]
$head 1234.txt
This is another test 5678
[user@parrot]-[~/Downloads]
$
$
```

tail: Display the end of a file

```
[user@parrot]=[~/Downloads]

shead 1234.txt

This is another test 5678

[user@parrot]=[~/Downloads]

stail 1234.txt

This is another test 5678

[user@parrot]=[~/Downloads]

stail 1234.txt

This is another test 5678

[user@parrot]=[~/Downloads]

$

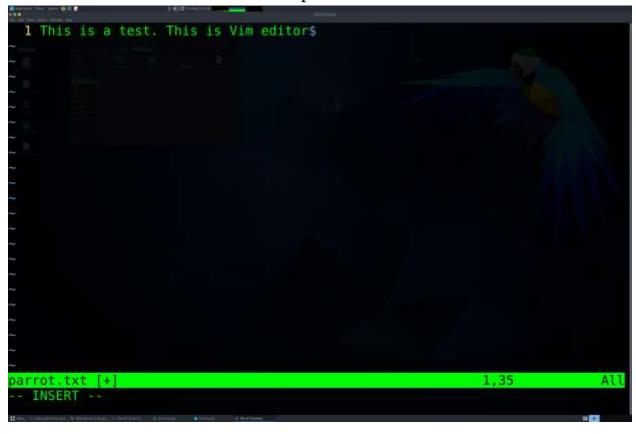
[user@parrot]=[~/Downloads]

$
```

nano: Text editor for creating and editing files



vi/vim: Powerful text editor for experienced users



File Permissions:

chmod: Change file permissions

```
| user@parrot]=[-]
$cs Downloads
bash: cs: command not found
| x]-| user@parrot]=[-]
$cd Downloads
| user@parrot]=[-/Downloads]
$ls - l 1234.txt
| rwxr-xr-x l user user 29 May 21 13:07 1234.txt
| user@parrot]=[-/Downloads]
$ls - l *.txt
| rwxr-xr-x l user user 29 May 21 13:07 1234.txt
| rwxr-xr-x l user user 29 May 21 13:06 Abc.txt
| user@parrot]=[-/Downloads]
$chmod u=rw,go=rw 1234.txt
| user@parrot]=[-/Downloads]
$ $
```

chown: Change file owner

```
user@parrot - [~]
    Scs Downloads
bash: cs: command not found
  x - user@parrot - -
    Scd Downloads
  user@parrot - [-/Downloads]
    $ls -l 1234.txt
 rwxr-xr-x 1 user user 29 May 21 13:07 1234.txt
  user@parrot |- [~/Downloads]
    $ls -l *.txt
rwxr-xr-x 1 user user 29 May 21 13:07 1234.txt
rwxr-xr-x 1 user user 23 May 21 13:06 Abc.txt
  user@parrot - ~/Downloads
    $chmod u=rw, go=rw 1234.txt
  user@parrot |- | -/Downloads |
    Schown 1234.txt
chown: missing operand after '1234.txt'
Try 'chown --help' for more information.
  x]-[user@parrot]-[~/Downloads]
    Schown ElonMusk 1234.txt
chown: invalid user: 'ElonMusk'
  x]-[user@parrot]-[~/Downloads]
    $chown parrot 1234.txt
chown: invalid user: 'parrot'
  x]-[user@parrot]-[~/Downloads]
    $chown user 1234.txt
  user@parrot]-[~/Downloads]
    $
```

chgrp: Change file group

File Compression and Archiving:

tar: Archive files

```
[root@parrot]-[/home/user/Downloads]
    #tar cvf file.tar *.txt

1234.txt
Abc.txt
    [root@parrot]-[/home/user/Downloads]
    #
```

gzip: Compress files

```
[root@parrot]-[/home/user/Downloads]
    #gzip 1234.txt
    [root@parrot]-[/home/user/Downloads]
    #
```

unzip: Extract files from a ZIP archive

```
#ls

1234.txt.gz Abc.txt Assement Assignment file.tar

[root@parrot]=[/home/user/Downloads]

#unzip 1234.txt.gz

Archive: 1234.txt.gz

End-of-central-directory signature not found. Either this file is not a zipfile, or it constitutes one disk of a multi-part archive. In the latter case the central directory and zipfile comment will be found on the last disk(s) of this archive.

unzip: cannot find zipfile directory in one of 1234.txt.gz or 1234.txt.gz.zip, and cannot find 1234.txt.gz.ZIP, period.

[*]-[root@parrot]-[/home/user/Downloads]

#unzip: cannot find or open 1234.txt.gz.zip, 1234.txt.gz.zip.zip or 1234.txt.gz.zip.ZIP.

[*]-[root@parrot]-[/home/user/Downloads]

#unzip: cannot find or open 1234.txt.gz.zip, 1234.txt.gz.zip.zip or 1234.txt.gz.zip.ZIP.
```

Process Management:

ps: List running processes

top: Display real-time system information and processes

op - 1	3:41.6	93 up 1:	41.	2 users,	load i	verage:	0.15,	θ.28,		
Cpu(s):	: 5.6	us, 11.	1 sy	, 0.0 n	i, 83.3	id, 0.0	wa, t	0.0 hi,		, 0.0 st
									.2 avail	
	USER		NI	VIRT	RES	SHR S		%MEM		COMMAND
	root		0		12336	8976 5	0.0	0.2		systemd
	root	20	0	θ		0 5	0.0	0.0		kthreadd
	root		-20		0	0 I	0.0	0.0	0:00.00	
	root		-20				0.0	0.0		rcu_par_gp
	root		-20	0	0		0.0	0.0		slub_flushwq
	root		-20	0	0	0 I	0.0	0.0	0:00.00	
8	root		-20	0	0	0 I	0.0	0.0		kworker/0:0H-events_hig
10	root		-20		0	0 I	0.0	0.0		mm percpu wq
	root						0.0	0.0		rcu_tasks_kthread
12	root	20			0	0 I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root		0	6	0	0 I	0.0	0.0		rcu tasks trace kthread
14	root	20	0	0	0	0 5	0.0	0.0	8:17.85	ksoftirqd/0
15	root	20	0			OI	0.0	0.0		rcu preempt
16	root	rt				0 5	0.0	0.0	0:00.26	migration/0
18	root	20				0 5	0.0	0.0	0:00.00	cpuhp/0
20	root	20				0 5	0.0	0.0		kdevtmpfs
21	root		-20	0		0 I	0.0	0.0	8:00.00	inet frag wq
22	root	20	0				0.0	0.0		kauditd
23	root	20					0.0	0.0	0:00.01	khungtaskd
25	root	20	0				0.0	0.0	0:00.00	oom reaper
26	root	0	-20	0	Θ	0 I	0.0	0.0		writeback
	root		0	0	8	0 5	0.0	0.0	0:01.04	kcompactd0
29	root	25					0.0	0.0	0:00.00	ksmd
					d to bridge					10 C

kill: Terminate processes

bg: Run processes in the background

```
root@parrot]-[/home/user]
    #jobs
 root@parrot]-[/home/user]
    #sleep 500
1]+ Stopped
                             sleep 500
  []-[root@parrot]-[/home/user
   #jobs
1]+ Stopped
                             sleep 500
  root@parrot [ /home/user]
    #bg %1
1]+ sleep 500 &
 root@parrot]-[/home/user]
   #jobs
1]+ Running
                             sleep 500 &
[root@parrot]-[/home/user]
```

fg: Bring background processes to the foreground

```
#fg %1
sleep 500
```

System Information:

uname: Print system information

```
[x]-[root@parrot]-[/home/user]
    #uname
Linux
    [root@parrot]-[/home/user]
    #
```

df: Display disk space usage

```
root@parrot]-[/home/user]
-- #df
ilesystem
           1K-blocks
                      Used Available Use% Mounted on
             4001440
                      0 4001440 0% /dev
udev
                           809808
             811092
tmpfs
            /dev/sr0
/dev/loop0
tmpfs
overlay
             4055440 0
5120 4
                           4055440 0% /dev/shm
tmpfs
tmpfs
             4055440
                       504
                           4054936
mpfs
                                    1% /tmp
                            811000
              811088
                                    1% /run/user/1000
-[root@parrot]-[/home/user]
   #
```

free: Display memory usage

```
#free total used free shared buff/cache available

Mem: 8110884 1856012 3954296 694184 2300576 5264980

Swap: 0 0 0

| root@parrot|=[/home/user] #
```

uptime: Show system uptime

```
#uptime
13:48:31 up 1:49, 2 users, load average: 0.10, 0.11, 0.22
[root@parrot]-[/home/user]
#
```

who: Display logged-in users

```
[root@parrot]=[/home/user]
    #who
user tty1 2023-04-12 08:44
user tty7 2023-04-12 08:44 (:0)
    [root@parrot]=[/home/user]
    #
```

w: Display logged-in users and their activities

Networking:

ifconfig: Configure network interfaces

```
| From Operation | Character | From Operation | From Oper
```

ping: Send ICMP echo requests to a network host

```
root@parrot |-[/home/user]
     #ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp seq=1 ttl=128 time=8.37 ms
64 bytes from 8.8.8.8: icmp seq=2 ttl=128 time=8.17 ms
64 bytes from 8.8.8.8: icmp seq=3 ttl=128 time=7.09 ms
64 bytes from 8.8.8.8: icmp seq=4 ttl=128 time=12.3 ms
64 bytes from 8.8.8.8: icmp seq=5 ttl=128 time=78.7 ms
64 bytes from 8.8.8.8: icmp seq=6 ttl=128 time=8.31 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=128 time=8.34 ms
64 bytes from 8.8.8.8: icmp seq=8 ttl=128 time=6.89 ms
64 bytes from 8.8.8.8: icmp seq=9 ttl=128 time=12.8 ms
64 bytes from 8.8.8.8: icmp seq=10 ttl=128 time=8.45 ms
64 bytes from 8.8.8.8: icmp seq=11 ttl=128 time=7.82 ms
64 bytes from 8.8.8.8: icmp_seq=12 ttl=128 time=10.4 ms
64 bytes from 8.8.8.8: icmp seg=13 ttl=128 time=8.01 ms
64 bytes from 8.8.8.8: icmp seq=14 ttl=128 time=7.43 ms
64 bytes from 8.8.8.8: icmp seq=15 ttl=128 time=10.1 ms
64 bytes from 8.8.8.8: icmp seq=16 ttl=128 time=14.9 ms
64 bytes from 8.8.8.8: icmp_seq=17 ttl=128 time=11.9 ms
64 bytes from 8.8.8.8: icmp seq=18 ttl=128 time=7.55 ms
64 bytes from 8.8.8.8: icmp_seq=19 ttl=128 time=7.25 ms
64 bytes from 8.8.8.8: icmp seq=20 ttl=128 time=9.66 ms
--- 8.8.8.8 ping statistics ---
20 packets transmitted, 20 received, 0% packet loss, time 19041ms
rtt min/avg/max/mdev = 6.892/12.721/78.716/15.290 ms
```

ssh: Securely connect to a remote system

scp: Securely copy files between systems

```
#scp Abc.txt user@192.168.50.255;/home/user
bash: /home/user: Is a directory

[x]-[root@parrot]-[/home/user/Downloads]

#
```

wget: Download files from the web

System Administration:

sudo: Execute commands with superuser privileges

apt-get: Package management for Debian-based distributions

```
]-[root@parrot]-[/home/user/Downloads]
      #sudo apt-get
apt 2.2.4 (amd64)
Usage: apt-get [options] command
        apt-get [options] install[remove pkgl [pkg2 ...]
        apt-get [options] source pkg1 [pkg2 ...]
apt-get is a command line interface for retrieval of packages
and information about them from authenticated sources and
for installation, upgrade and removal of packages together
with their dependencies.
Most used commands:
  update - Retrieve new lists of packages
  upgrade - Perform an upgrade
  install - Install new packages (pkg is libc6 not libc6.deb)
  reinstall - Reinstall packages (pkg is libc6 not libc6.deb)
  remove - Remove packages
  purge - Remove packages and config files
  autoremove - Remove automatically all unused packages
 dist-upgrade - Distribution upgrade, see apt-get(8)
dselect-upgrade - Follow dselect selections
build-dep - Configure build-dependencies for source packages
satisfy - Satisfy dependency strings
clean - Erase downloaded archive files
autoclean - Erase old downloaded archive files
  check - Verify that there are no broken dependencies source - Download source archives
  download - Download the binary package into the current directory
  changelog - Download and display the changelog for the given package
See apt-get(8) for more information about the available commands.
```

yum: Package management for Red Hat-based distributions systemetl: Manage system services

crontab: Schedule recurring tasks

```
File East New Smallh Terminal Help

[root@parrot]—[/home/user/Downloads]

#crontab
```

useradd: Add a new user

passwd: Change user password

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 doucement format and send them with images