Linux Directory Commands

```
s4@s4:~/Desktop/MhdRayan$ pwd
/home/s4/Desktop/MhdRayan
s4@s4:~/Desktop/MhdRayan$ mkdir test1
s4@s4:~/Desktop/MhdRayan$ ls
test1
s4@s4:~/Desktop/MhdRayan$ rmdir test1
s4@s4:~/Desktop/MhdRayan$ ls
s4@s4:~/Desktop/MhdRayan$ mkdir test1 ls
s4@s4:~/Desktop/MhdRayan$ ls
ls  test1
s4@s4:~/Desktop/MhdRayan$ cd test1
s4@s4:~/Desktop/MhdRayan/test1$ cd..
cd..: command not found
s4@s4:~/Desktop/MhdRayan/test1$ cd .
s4@s4:~/Desktop/MhdRayan/test1$ cd ..
s4@s4:~/Desktop/MhdRayan$
```

Linux File Commands

```
s4@s4:~/Desktop/MhdRayan$ touch demo.txt
s4@s4:~/Desktop/MhdRayan$ ls
demo.txt  ls  test1
s4@s4:~/Desktop/MhdRayan$ cat demo.txt
demo text
s4@s4:~/Desktop/MhdRayan$ cat demo2.txt
cat: demo2.txt: No such file or directory
s4@s4:~/Desktop/MhdRayan$ rm demo.txt
s4@s4:~/Desktop/MhdRayan$ ls
ls  test1
s4@s4:~/Desktop/MhdRayan$
s4@s4:~/Desktop/MhdRayan$ touch demo.txt
s4@s4:~/Desktop/MhdRayan$ touch demo2.txt
s4@s4:~/Desktop/MhdRayan$ cp demo.txt demo2.txt
s4@s4:~/Desktop/MhdRayan$ cat demo2.txt
Hi conntent from demo to copy demo1

s4@s4:~/Desktop/MhdRayan$ mv demo.txt /home/S4/Desktop
mv: cannot move 'demo.txt' to '/home/S4/Desktop': No such file or directory
s4@s4:~/Desktop/MhdRayan$ pwd
/home/s4/Desktop/MhdRayan
s4@s4:~/Desktop/MhdRayan$ mv demo.txt /home/s4/Desktop
s4@s4:~/Desktop/MhdRayan$ ls
demo2.txt  demo.txt  ls  test1
s4@s4:~/Desktop/MhdRayan$ rename 's/\.txt$/\.pdf/' *.txt
Command 'rename' not found, but can be installed with:
sudo apt install rename
s4@s4:~/Desktop/MhdRayan$ ^C
s4@s4:~/Desktop/MhdRayan$ rename 's/\.txt$/\.pdf/' *.txt
s4@s4:~/Desktop/MhdRayan$ ls
demo2.pdf  demo.pdf  ls  test1
s4@s4:~/Desktop/MhdRayan$
```

Linux File Content Commands

```
s4@s4:~/Desktop/MhdRayan$ head demo1.txt
1
2
3
4
5
6
7
8
9
10
s4@s4:~/Desktop/MhdRayan$ tail demo2.txt
s4@s4:~/Desktop/MhdRayan$ tail demo1.txt
6
7
8
9
10
11
12
13
14
15
s4@s4:~/Desktop/MhdRayan$ tac demo1.txt
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
s4@s4:~/Desktop/MhdRayan$
```

```
s4@s4:~/Desktop/MhdRayan$ more demo1.txt
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
s4@s4:~/Desktop/MhdRayan$ less demo1.txt
```

Linux User Command

```
s4@s4:~/Desktop/MhdRayan$ su s4
Password:
s4@s4:~/Desktop/MhdRayan$ id
uid=1000(s4) gid=1000(s4) groups=1000(s4),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),122(lpadmin),135(lxd),136(sambashare)
s4@s4:~/Desktop/MhdRayan$
```

Linux Filter Commands

```
s4@s4:~/Desktop/MhdRayan$ cat demo1.txt | tac | cat | cat | tac
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
s4@s4:~/Desktop/MhdRayan$ cut -d- -f2 demo1.txt
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
s4@s4:~/Desktop/MhdRayan$ cat demo1.txt | grep 1
1
10
11
12
13
14
15
s4@s4:~/Desktop/MhdRayan$
```

```
s4@s4:~/Desktop/MhdRayan$ sed 's/a/A/'
Rayan
RAyan
bad
bAd
^C
s4@s4:~/Desktop/MhdRayan$ tee demoo2.txt
jjkl
jjkl
k
k
k
k
^C
s4@s4:~/Desktop/MhdRayan$ tr 'Welcome' 'Hi'
Welcome Rayan
Hiiiiii Rayan
^C
s4@s4:~/Desktop/MhdRayan$ sort demo2.txt | uniq
Good Morning
s4@s4:~/Desktop/MhdRayan$ sort demo2.txt | uniq
Midhun -5
nijin -70
Rayan - 50
s4@s4:~/Desktop/MhdRayan$ wc demo2.txt
 3  7 31 demo2.txt
s4@s4:~/Desktop/MhdRayan$ od -b demo1.txt
0000000 061 012 062 012 063 012 064 012 065 012 066 012 067 012 070 012
0000020 071 012 061 060 012 061 061 012 061 062 012 061 063 012 061 064
0000040 012 061 065 012
0000044
s4@s4:~/Desktop/MhdRayan$ od -t x1 demo1.txt
0000000 31 0a 32 0a 33 0a 34 0a 35 0a 36 0a 37 0a 38 0a
0000020 39 0a 31 30 0a 31 31 0a 31 32 0a 31 33 0a 31 34
0000040 0a 31 35 0a
0000044
s4@s4:~/Desktop/MhdRayan$ od -c demo1.txt
0000000   1  \n   2  \n   3  \n   4  \n   5  \n   6  \n   7  \n   8  \n
0000020   9  \n   1   0  \n   1   1  \n   1   2  \n   1   3  \n   1   4
0000040  \n   1   5  \n
```

```
s4@s4:~/Desktop/MhdRayan$ sort demo2.txt
Midhun -5
nijin -70
Rayan - 50
s4@s4:~/Desktop/MhdRayan$ gzip demo1.txt
s4@s4:~/Desktop/MhdRayan$ gunzip demo1.txt
s4@s4:~/Desktop/MhdRayan$
```

Linux Utility Commands

```
s4@s4:~/Desktop/MhdRayan$ find . -name  "*.txt"
./demoo2.txt
./demo2.txt
./demo1.txt
s4@s4:~/Desktop/MhdRayan$ date
Thursday 21 March 2024 05:19:21 AM IST
s4@s4:~/Desktop/MhdRayan$ cal
     March 2024
Su Mo Tu We Th Fr Sa
                1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31
s4@s4:~/Desktop/MhdRayan$ sleep 1
s4@s4:~/Desktop/MhdRayan$ d
d: command not found
s4@s4:~/Desktop/MhdRayan$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
s4@s4:~/Desktop/MhdRayan$ gzip demo1.txt
s4@s4:~/Desktop/MhdRayan$ ls
demo1.txt.gz  demo2.txt  demoo2.txt  test1
s4@s4:~/Desktop/MhdRayan$ zcat demo1.txt.gz
1
2
3
4
5
6
7
8
```

```
s4@s4:~/Desktop/MhdRayan$ df
Filesystem       1K-blocks      Used Available Use% Mounted on
tmpfs               930272      2048    928224   1% /run
/dev/sda3        514416928  11645756 476566808   3% /
tmpfs              4651348         0   4651348   0% /dev/shm
tmpfs                 5120         4      5116   1% /run/lock
/dev/sda2           524252      6220    518032   2% /boot/efi
tmpfs               930268      1700    928568   1% /run/user/1000
/dev/sr0            155588    155588         0 100% /media/s4/CDROM
/dev/sr1           4899762   4899762         0 100% /media/s4/Ubuntu 22.04.4 LTS amd64
s4@s4:~/Desktop/MhdRayan$ mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,nosuid,relatime,size=4613072k,nr_inodes=1153268,mode=755,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,noexec,relatime,size=930272k,mode=755,inode64)
/dev/sda3 on / type ext4 (rw,relatime,errors=remount-ro)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,inode64)
tmpfs on /run/lock type tmpfs (rw,nosuid,nodev,noexec,relatime,size=5120k,inode64)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate,memory_recursiveprot)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=29,pgrp=1,timeout=0,minproto=5,maxproto=5,direct,pipe_ino=25259)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime,pagesize=2M)
mqueue on /dev/mqueue type mqueue (rw,nosuid,nodev,noexec,relatime)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime)
tracefs on /sys/kernel/tracing type tracefs (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
vmware-vmblock on /run/vmblock-fuse type fuse.vmware-vmblock (rw,relatime,user_id=0,group_id=0,default_permissions,allow_other)
ramfs on /run/credentials/systemd-sysusers.service type ramfs (ro,nosuid,nodev,noexec,relatime,mode=700)
/var/lib/snapd/snaps/bare_5.snap on /snap/bare/5 type squashfs (ro,nodev,relatime,errors=continue,threads=single,x-gdu.hide)
/var/lib/snapd/snaps/core22_1122.snap on /snap/core22/1122 type squashfs (ro,nodev,relatime,errors=continue,threads=single,x-gdu.hide)
/var/lib/snapd/snaps/firefox_3836.snap on /snap/firefox/3836 type squashfs (ro,nodev,relatime,errors=continue,threads=single,x-gdu.hide)
```

Linux Networking Commands

```
s4@s4:~/Desktop/MhdRayan$ ip a
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: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:6a:1a:1d brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.239.130/24 brd 192.168.239.255 scope global dynamic noprefixroute ens33
       valid_lft 1332sec preferred_lft 1332sec
    inet6 fe80::4f4e:6e2e:4db1:8eaa/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
s4@s4:~/Desktop/MhdRayan$ mail -s "Hello world" rayan6203@gmail.com
Cc: hello
Hope you are fing
jk


(Interrupt -- one more to kill letter)

s4@s4:~/Desktop/MhdRayan$ ping google.com
PING google.com (142.250.195.174) 56(84) bytes of data.
64 bytes from maa03s41-in-f14.1e100.net (142.250.195.174): icmp_seq=1 ttl=128 time=19.3 ms
64 bytes from maa03s41-in-f14.1e100.net (142.250.195.174): icmp_seq=2 ttl=128 time=19.9 ms
64 bytes from maa03s41-in-f14.1e100.net (142.250.195.174): icmp_seq=3 ttl=128 time=20.0 ms

64 bytes from maa03s41-in-f14.1e100.net (142.250.195.174): icmp_seq=4 ttl=128 time=31.6 ms
^C
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3008ms
rtt min/avg/max/mdev = 19.293/22.693/31.562/5.127 ms
s4@s4:~/Desktop/MhdRayan$ host google.com
google.com has address 142.250.195.174
google.com has IPv6 address 2404:6800:4007:826::200e
google.com mail is handled by 10 smtp.google.com.
s4@s4:~/Desktop/MhdRayan$
```