

NAME - ROSHAN ARYAN

ROLL-2105570

ASSINGMENT 1

1.

```
kiit@BT-2105570:~$ pwd
/home/kiit
```

2.

```
kiit@BT-2105570:~$ ls
Desktop  Downloads  Pictures  Templates  hello  hello.c.save  hello.c.save.2  hello.c.save.4  oslab  prgrm1.c
Documents  Music      Public    Videos    hello.c  hello.c.save.1  hello.c.save.3  lab530aug2022  prgrm1  thinclient_drives
```

3.

```
kiit@BT-2105570:~$ who
```

4.

```
kiit@BT-2105570:~$ cd Desktop
```

5.

```
kiit@BT-2105570:~/Desktop$ mkdir oslab
```

6.

```
kiit@BT-2105570:~/Desktop$ date
Thu Jan 12 21:16:27 IST 2023
```

7.

```
kiit@BT-2105570:~/Desktop$ touch OS1.txt
```

8.

```
kiit@BT-2105570:~/Desktop$ echo I am roshan aryan. >>OS1.txt
kiit@BT-2105570:~/Desktop$ echo I live in jharkhand. >>OS1.txt
```

9.

```
kiit@BT-2105570:~/Desktop$ cat OS1_1.txt
I am roshan aryan.
I live in jharkhand.
```

10.

```
kiit@BT-2105570:~/Desktop$ touch OS1_1.txt
kiit@BT-2105570:~/Desktop$ cp OS1.txt OS1_1.txt
kiit@BT-2105570:~/Desktop$ cat OS1_1.txt
I am roshan aryan.
I live in jharkhand.
```

11.

```
kiit@BT-2105570:~/Desktop$ echo I like football. >>OS1_1.txt
kiit@BT-2105570:~/Desktop$ cat OS1_1.txt
I am roshan aryan.
I live in jharkhand.
I like football.
```

12.

```
kiit@BT-2105570:~/Desktop$ wc -l OS1_1.txt
3 OS1_1.txt
```

13.

```
kiit@BT-2105570:~/Desktop$ wc -w OS1_1.txt
11 OS1_1.txt
```

14.

```
kiit@BT-2105570:~/Desktop$ wc -c OS1_1.txt
57 OS1_1.txt
```

15.

```
kiit@BT-2105570:~/Desktop$ head -1 OS1_1.txt
I am roshan aryan.
```

16.

```
kiit@BT-2105570:~/Desktop$ tail -2 OS1_1.txt
I live in jharkhand.
I like football.
```

17.

```
kiit@BT-2105570:~/Desktop$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
```

18.

```
kiit@BT-2105570:~/Desktop$ times
0m0.089s 0m0.071s
0m0.017s 0m0.002s
```

19.

```
kiit@BT-2105570:~/Desktop$ mv OS1_1.txt Documents
```

20.

```
kiit@BT-2105570:~/Desktop$ rename 's/OS1_1/OS1c/' .txt

Command 'rename' not found, but can be installed with:

sudo apt install rename
```

21.

```
kiit@BT-2105570:~/Desktop$ tac OS1.txt
I live in jharkhand.
I am roshan aryan.
```

22.

```
kiit@BT-2105570:~/Desktop$ cat OS1.txt | cat | tac | tac | cat
I am roshan aryan.
I live in jharkhand.
```

23.

```
kiit@BT-2105570:~/Desktop$ cut -dI -f2 OS1.txt
am roshan aryan.
live in jharkhand.
```

24.

```
kiit@BT-2105570:~/Desktop$ cat OS1.txt | grep rosh
```

25.

```
kiit@BT-2105570:~/Desktop$ touch OS1_2.txt
kiit@BT-2105570:~/Desktop$ cp OS1.txt OS1_2.txt
kiit@BT-2105570:~/Desktop$ echo I like football. >>OS1_2.txt
kiit@BT-2105570:~/Desktop$ comm OS1.txt OS1_2.txt
      I am roshan aryan.
      I live in jharkhand.
      I like football.
comm: file 2 is not in sorted order
```

26.

```
kiit@BT-2105570:~/Desktop$ echo 4thyear | sed 's/4th/2nd/'
2ndyear
```

27.

```
kiit@BT-2105570:~/Desktop$ cat OS1.txt | tee OS1_2.txt | tac
I live in jharkhand.
I am roshan aryan.
kiit@BT-2105570:~/Desktop$ cat OS1_2.txt
I am roshan aryan.
I live in jharkhand.
```

28.

```
kiit@BT-2105570:~/Desktop$ cat OS1_2.txt | tr 'akhv' 'AKHV'
I Am roSHAn AryAn.
I liVe in jHArKHAnd.
```

29.

```
kiit@BT-2105570:~/Desktop$ echo Puppy is cute. >>OS1_2.txt
kiit@BT-2105570:~/Desktop$ sort OS1_2.txt | uniq
I am roshan aryan.
I live in jharkhand.
Puppy is cute.
```

30.

```
kiit@BT-2105570:~/Desktop$ od -t x1 OS1_2.txt
00000000 49 20 61 6d 20 72 6f 73 68 61 6e 20 61 72 79 61
00000020 6e 2e 0a 49 20 6c 69 76 65 20 69 6e 20 6a 68 61
00000040 72 6b 68 61 6e 64 2e 0a 50 75 70 70 79 20 69 73
00000060 20 63 75 74 65 2e 0a
00000067
```

31.

```
kiit@BT-2105570:~/Desktop$ od -c OS1_2.txt
00000000 I   a   m   r   o   s   h   a   n   a   r   y   a
00000020 n   .   \n I       l   i   v   e   i   n   j   h   a
00000040 r   k   h   a   n   d   .   \n P   u   p   p   y       i   s
00000060 c   u   t   e   .   \n
00000067
```

32.

```
kiit@BT-2105570:~/Desktop$ sort OS1_2.txt
I am roshan aryan.
I live in jharkhand.
Puppy is cute.
```

33.

```
kiit@BT-2105570:~/Desktop$ gzip OS1.txt
kiit@BT-2105570:~/Desktop$ ls
Documents  OS1.txt.gz  OS1_2.txt  OSLAB  Roshan  os1.txt  osl.txt  osl_copy.txt  oslab
kiit@BT-2105570:~/Desktop$ gunzip OS1.txt
kiit@BT-2105570:~/Desktop$ ls
Documents  OS1.txt  OS1_2.txt  OSLAB  Roshan  os1.txt  osl.txt  osl_copy.txt  oslab
```

34.

35.

```
kiit@BT-2105570:~/Desktop$ find . -name "*.txt"
./osl.txt
./OS1.txt
./OS1_2.txt
./osl_copy.txt
./os1.txt
```

36.

```
kiit@BT-2105570:~/Desktop$ locate OS1.txt

Command 'locate' not found, but can be installed with:

sudo apt install mlocate
```

37.

```
kiit@BT-2105570:~/Desktop$ cal
      January 2023
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
```

38.

```
kiit@BT-2105570:~/Desktop$ gzip OS1.txt
kiit@BT-2105570:~/Desktop$ ls
Documents  OS1.txt.gz  OS1_2.txt  OSLAB  Roshan  os1.txt  osl.txt  osl_copy.txt  oslab
kiit@BT-2105570:~/Desktop$ zcat OS1.txt
I am roshan aryan.
I live in jharkhand.
```

39.


```

kiit@BT-2105570:~/Desktop$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
/dev/sdb        263174212    2718988 247017068   2% /
none           3908024         4   3908020   1% /mnt/wsl
tools          183407612 127200352  56207260  70% /init
none           3905940         0   3905940   0% /dev
none           3908024         0   3908024   0% /run
none           3908024         0   3908024   0% /run/lock
none           3908024         0   3908024   0% /run/shm
none           3908024         0   3908024   0% /run/user
tmpfs          3908024         0   3908024   0% /sys/fs/cgroup
drivers        183407612 127200352  56207260  70% /usr/lib/wsl/drivers
lib            183407612 127200352  56207260  70% /usr/lib/wsl/lib
drvfs          183407612 127200352  56207260  70% /mnt/c
drvfs          315390972   106800 315284172   1% /mnt/d
drvfs          183407612 130010716  53396896  71% /mnt/g

```

40.

```

kiit@BT-2105570:~/Desktop$ mount
/dev/sdb on / type ext4 (rw,relatime,discard,errors=remount-ro,data=ordered)
none on /mnt/wsl type tmpfs (rw,relatime)
tools on /init type 9p (ro,relatime,dirsync,aname=tools;fmask=022,loose,access=client,msize=65536,trans=fd,rfd=7,wfd=7)
none on /dev type devtmpfs (rw,nosuid,relatime,size=3905940k,nr_inodes=976485,mode=755)
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,noatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,noatime)
devpts on /dev/pts type devpts (rw,nosuid,noexec,noatime,gid=5,mode=620,ptmxmode=000)
none on /run type tmpfs (rw,nosuid,noexec,noatime,mode=755)
none on /run/lock type tmpfs (rw,nosuid,nodev,noexec,noatime)
none on /run/shm type tmpfs (rw,nosuid,nodev,noatime)
none on /run/user type tmpfs (rw,nosuid,nodev,noexec,noatime,mode=755)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
tmpfs on /sys/fs/cgroup type tmpfs (rw,nosuid,nodev,noexec,relatime,mode=755)
cgroup2 on /sys/fs/cgroup/unified type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate)
cgroup on /sys/fs/cgroup/cpuset type cgroup (rw,nosuid,nodev,noexec,relatime,cpuset)
cgroup on /sys/fs/cgroup/cpu type cgroup (rw,nosuid,nodev,noexec,relatime,cpu)
cgroup on /sys/fs/cgroup/cpuacct type cgroup (rw,nosuid,nodev,noexec,relatime,cpuacct)
cgroup on /sys/fs/cgroup/blkio type cgroup (rw,nosuid,nodev,noexec,relatime,blkio)
cgroup on /sys/fs/cgroup/memory type cgroup (rw,nosuid,nodev,noexec,relatime,memory)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
cgroup on /sys/fs/cgroup/freezer type cgroup (rw,nosuid,nodev,noexec,relatime,freezer)
cgroup on /sys/fs/cgroup/net_cls type cgroup (rw,nosuid,nodev,noexec,relatime,net_cls)
cgroup on /sys/fs/cgroup/perf_event type cgroup (rw,nosuid,nodev,noexec,relatime,perf_event)
cgroup on /sys/fs/cgroup/net_prio type cgroup (rw,nosuid,nodev,noexec,relatime,net_prio)
cgroup on /sys/fs/cgroup/hugetlb type cgroup (rw,nosuid,nodev,noexec,relatime,hugetlb)
cgroup on /sys/fs/cgroup/pids type cgroup (rw,nosuid,nodev,noexec,relatime,pids)
cgroup on /sys/fs/cgroup/rdma type cgroup (rw,nosuid,nodev,noexec,relatime,rdma)
drivers on /usr/lib/wsl/drivers type 9p (ro,nosuid,nodev,noatime,dirsync,aname=drivers;fmask=222;dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
lib on /usr/lib/wsl/lib type 9p (ro,nosuid,nodev,noatime,dirsync,aname=lib;fmask=222;dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
drvfs on /mnt/c type 9p (rw,noatime,dirsync,aname=drvfs;path=C:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
drvfs on /mnt/d type 9p (rw,noatime,dirsync,aname=drvfs;path=D:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
drvfs on /mnt/g type 9p (rw,noatime,dirsync,aname=drvfs;path=G\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)

```

41.

```

kiit@BT-2105570:~/Desktop$ 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: bond0: <BROADCAST,MULTICAST,MASTER> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 7a:44:b4:60:e4:24 brd ff:ff:ff:ff:ff:ff
3: dummy0: <BROADCAST,NOARP> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 96:dc:c6:6b:f4:04 brd ff:ff:ff:ff:ff:ff
4: tunl0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000
    link/ipip 0.0.0.0 brd 0.0.0.0
5: sit0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000
    link/sit 0.0.0.0 brd 0.0.0.0
6: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:c6:4b:e1 brd ff:ff:ff:ff:ff:ff
    inet 172.19.220.130/20 brd 172.19.223.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fec6:4be1/64 scope link
        valid_lft forever preferred_lft forever

```

42.

```
kiit@BT-2105570:~/Desktop$ mail -s "Hello Sir" roshanaryan2003@gmail.com  
Command 'mail' not found, but can be installed with:  
sudo apt install mailutils
```

43.

```
kiit@BT-2105570:~/Desktop$ ping flipkart.com  
PING flipkart.com (163.53.76.86) 56(84) bytes of data.  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=1 ttl=53 time=67.5 ms  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=2 ttl=53 time=51.0 ms  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=3 ttl=53 time=66.3 ms  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=4 ttl=53 time=60.9 ms  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=6 ttl=53 time=99.9 ms  
64 bytes from 163.53.76.86 (163.53.76.86): icmp_seq=7 ttl=53 time=73.6 ms  
^C  
--- flipkart.com ping statistics ---  
7 packets transmitted, 6 received, 14.2857% packet loss, time 6370ms  
rtt min/avg/max/mdev = 50.995/69.879/99.905/15.111 ms
```

44.

```
kiit@BT-2105570:~/Desktop$ host flipkart.com  
flipkart.com has address 163.53.78.110  
flipkart.com mail is handled by 10 aspmx2.googlemail.com.  
flipkart.com mail is handled by 10 aspmx3.googlemail.com.  
flipkart.com mail is handled by 5 alt1.aspmx.l.google.com.  
flipkart.com mail is handled by 5 alt2.aspmx.l.google.com.  
flipkart.com mail is handled by 5 aspmx.l.google.com.  
flipkart.com mail is handled by 1 eu-smtp-inbound-2.mimecast.com.  
flipkart.com mail is handled by 1 eu-smtp-inbound-1.mimecast.com.
```

45.

```
kiit@BT-2105570:~/Desktop$ more OS1_2.txt  
I am roshan aryan.  
I live in jharkhand.  
Puppy is cute.
```

```
kiit@BT-2105570:~/Desktop$ less OS1_2.txt
```

```
kiit@BT-2105570: ~/Desktop
```

I am roshan aryan.
I live in jharkhand.
Puppy is cute.
OS1_2.txt (END)

46.

```
kiit@BT-2105570:~/Desktop$ rmdir oslab7  
kiit@BT-2105570:~/Desktop$ cd oslab7  
-bash: cd: oslab7: No such file or directory
```

47.

```
kiit@BT-2105570:~/Desktop$ nano
```

```
kiit@BT-2105570: ~/Desktop  X  +  v
Main nano help text
The nano editor is designed to emulate the functionality and ease-of-use
of the UW Pico text editor. There are four main sections of the editor.
The top line shows the program version, the current filename being
edited, and whether or not the file has been modified. Next is the main
editor window showing the file being edited. The status line is the
third line from the bottom and shows important messages. The bottom two
lines show the most commonly used shortcuts in the editor.

Shortcuts are written as follows: Control-key sequences are notated with
a '^' and can be entered either by using the Ctrl key or pressing the Esc
key twice. Meta-key sequences are notated with 'M-' and can be entered
using either the Alt, Cmd, or Esc key, depending on your keyboard setup.
Also, pressing Esc twice and then typing a three-digit decimal number
from 000 to 255 will enter the character with the corresponding value.
The following keystrokes are available in the main editor window.
Alternative keys are shown in parentheses:

^G      (F1)      Display this help text
^X      (F2)      Close the current buffer / Exit from nano
^O      (F3)      Write the current buffer (or the marked region) to disk
^R      (Ins)     Insert another file into current buffer (or into new buffer)

^W      (F6)      Search forward for a string or a regular expression
^_      (M-R)     Replace a string or a regular expression
^K      (F9)      Cut current line (or marked region) and store it in cutbuffer
^U      (F10)     Paste the contents of cutbuffer at current cursor position

^J      (F4)      Justify the current paragraph
```

48.

```
kiit@BT-2105570: ~/Desktop  X  +  v
MKDIR(1)                                     User Commands
NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

    Mandatory arguments to long options are mandatory for short options too.

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed

    -v, --verbose
        print a message for each created directory

    -Z
        set SELinux security context of each created directory to the default type

    --context[=CTX]
        like -Z, or if CTX is specified then set the SELinux or SMACK security context to CTX

    --help display this help and exit

    --version
        output version information and exit
Manual page mkdir(1) line 1 (press h for help or q to quit)
```

49.


```
kiit@BT-2105570:~/Desktop$ time
```

```
real    0m0.000s
```

```
user    0m0.000s
```

```
sys     0m0.000s
```

```
kiit@BT-2105570:~/Desktop$ cal
```

```
    January 2023
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
```

```
kiit@BT-2105570:~/Desktop$ clear
```

```
kiit@BT-2105570:~/Desktop$
```

50.

```
kiit@BT-2105570:~/Desktop$ exit
```