

```
rvu@rvu-OptiPlex-SFF-7020:~$ ls
7.c
abc
admin_lab
anaconda3
Ankush_SectionA
bashscript.txt
calculator.c
chetana
chinmay
chiru_DS
cie3
cleaned_bashscript.txt
cleaned_log.txt
Desktop
documents
Documents
Downloads
draft_1.txt
draft_2.txt
error.c
fibbo2.c
fibbo.c
fibonacci.c
fibonacci.c.save
fibonaci.c
filename.txt
file.sh
file.txt.save
fish
frog
'include stdio.h.c'
jatin_secA
Jishnav
Kenoo
lab8.txt
log.sh
log.txt
mdir
mkdir_
mkdir
mkdir_RVUN25CSE293
Music
out1
p1.sh
p2.sh
Pictures
pr1.sh
prog1.a.c
prog1.c
prog2.c
prog3.c
prog.c
Program3.c
Public
pyramid.c
pyramid.c.save
secc
sectionA
snap
str.txt
sushanth.save
swap.c
system_admin_task.sh
Templates
test
titanic.ipynb
vaibhav
Videos
rvu@rvu-OptiPlex-SFF-7020:~$ cd Desktop
rvu@rvu-OptiPlex-SFF-7020:~/Desktop$ cd vaibhav
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ pwd
/home/rvu/Desktop/vaibhav
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ls -l
total 24
-rw-rw-r-- 1 rvu rvu    79 Feb 10 14:21 a1
-rw-rw-r-- 1 rvu rvu     61 Feb 10 14:29 a1.c
-rwxrwxr-x 1 rvu rvu 15960 Feb 10 14:30 a.out
```

```
rw-rw-r-- 1 rvu rvu 61 Feb 10 14:29 a1.c
-rwxrwxr-x 1 rvu rvu 15960 Feb 10 14:30 a.out
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ls -a
. . . a1 a1.c a.out
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ nano a1.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ nano a1.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ gcc a1.c -o pro
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ./pro
Hello rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ sleep 30
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ sleep 1
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ sleep &
[1] 7998
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ sleep: missing operand
Try 'sleep --help' for more information.
^C
[1]+ Exit 1                  sleep
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ sleep 30 &
[1] 8001
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ jobs
[1]+ Running                 sleep 30 &
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ notepad.exe
notepad.exe: command not found
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ jobs
[1]+ Done                   sleep 30
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ls
a1 a1.c a.out hello.c pro
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ jobs
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ fg|bg
bash: bg: no job control
bash: fg: no job control
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill -l [sigspec]
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ps
 PID TTY      TIME CMD
```

```
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ps
 PID TTY      TIME CMD
 7944 pts/0    00:00:00 bash
 8041 pts/0    00:00:00 ps
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ pstree
systemd─ModemManager─3*[{ModemManager}]
 └─NetworkManager─3*[{NetworkManager}]
 └─accounts-daemon─3*[{accounts-daemon}]
 └─avahi-daemon─avahi-daemon
 └─bluetoothd
 └─colord─3*[{colord}]
 └─cron
 └─cups-browsed─3*[{cups-browsed}]
 └─cupsd
 └─dbus-daemon
 └─fwupd─5*[{fwupd}]
 └─gdm3─gdm-session-wor─gdm-wayland-ses─gnome-session-b─3*[{gnome-session-b}]
   └─3*[{gdm-wayland-ses}]
   └─3*[{gdm-session-wor}]
   └─3*[{gdm3}]
 └─gnome-remote-de─3*[{gnome-remote-de}]
 └─2*[kerneloops]
 └─polkitd─3*[{polkitd}]
 └─power-profiles─3*[{power-profiles-}]
 └─rsyslogd─3*[{rsyslogd}]
 └─rtkit-daemon─2*[{rtkit-daemon}]
 └─snapd─26*[{snapd}]
 └─switcheroo-cont─3*[{switcheroo-cont}]
 └─systemd─(sd-pam)
   └─at-spi2-registr─3*[{at-spi2-registr}]
   └─dbus-daemon
   └─dconf-service─3*[{dconf-service}]
   └─evolution-addre─6*[{evolution-addre}]
   └─evolution-calen─9*[{evolution-calen}]
```

rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/vaibhav

```
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ps -o pid
    PID
 7944
 8070
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ps -o ppid
  PPID
 7937
 7944
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ps -o cmd
CMD
bash
ps -o cmd
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ nano a1.sh
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ chmod +a1.sh
chmod: missing operand after '+a1.sh'
Try 'chmod --help' for more information.
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ chmod
chmod: missing operand
Try 'chmod --help' for more information.
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ 
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ chmod +x a1.sh
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ ./a1.sh
parent PID:8227
    PID      PPID  CMD
 7944      7937  bash
 8227      7944 /bin/bash ./a1.sh
 8228      8227 sleep 20
 8229      8227 ps -o pid,ppid,cmd
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ 
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/vaibhav$ 
```

rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/vaibhav



GNU nano 7.2
#!/bin/bash
echo "parent PID:\$\$"
sleep 20 &
ps -o pid,ppid,cmd

a1.sh

[Read 4 lines]
[Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^G Help ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^O Write Out ^\ Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark
^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was

rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/vaibhav



GNU nano 7.2
a1.c

```
#include <stdio.h>
int main()
{
printf("Hello");
return 0;
}
```

[Read 6 lines]

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location	M-U Undo	M-A Set Mark	M-] To Bracket
^X Exit	^R Read File	^\\ Replace	^U Paste	^J Justify	^/ Go To Line	M-E Redo	M-6 Copy	^Q Where Was