



rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/Manu.R



```
rvu@rvu-OptiPlex-SFF-7020:~$ ls
Desktop Documents Downloads hari home linux Manu.R Music out3 Pictures Public snap study Templates testuser Videos
rvu@rvu-OptiPlex-SFF-7020:~$ cd Desktop
rvu@rvu-OptiPlex-SFF-7020:~/Desktop$ cd Manu.R
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ pwd
/home/rvu/Desktop/Manu.R
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ ls -l
total 28
-rw-rw-r-- 1 rvu rvu 79 Feb 10 14:21 a1
-rw-rw-r-- 1 rvu rvu 60 Feb 10 14:26 a1.c
-rwxrwxr-x 1 rvu rvu 15960 Feb 10 14:31 a.out
-rw-rw-r-- 1 rvu rvu 60 Feb 10 14:31 prog.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ ls -a
. .. a1 a1.c a.out prog.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ nano prog.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ gcc prog.c prog
/usr/bin/ld: cannot find prog: No such file or directory
collect2: error: ld returned 1 exit status
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ gcc prog.c -o pro
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ ./pro
Hello
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep 30
^C
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep 1
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep &
[1] 8682
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep: missing operand
Try 'sleep --help' for more information.
^C
[1]+ Exit 1                  sleep
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep 30 &
[1] 8683
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ jobs
[1]+ Running                 sleep 30 &
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ notepad.exe
notepad.exe: command not found
[1]+ Done                   sleep 30
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ jobs
```



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```
[1]+ Exit 1                      sleep
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ sleep 30 &
[1] 8683
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ jobs
[1]+ Running                  sleep 30 &
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ notepad.exe
notepad.exe: command not found
[1]+ Done                      sleep 30
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ jobs
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ ls
a1 a1.c pro prog.c
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ fg|bg
bash: bg: no job control
bash: fg: no job control
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill -l [sigspec]
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ ps
```

PID	TTY	TIME	CMD
8596	pts/0	00:00:00	bash
8710	pts/0	00:00:00	ps

```
rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ 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─gdm-session-b─3*[{gdm-session-b}]
└─3*[{gdm-wayland-ses}]
└─3*[{gdm-session-wor}]
└─3*[{gdm3}]
```

rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/Manu.R

Q E - D X

```
└─upowerd—3*[{upowerd}]\n  └─wpa_supplicant\n\nrvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R$ pstree -p\nsystemd(1) └─ModemManager(1394) └─{ModemManager}(1418)\n          └─{ModemManager}(1419)\n          └─{ModemManager}(1421)\n\n          └─NetworkManager(1362) └─{NetworkManager}(1426)\n              └─{NetworkManager}(1427)\n              └─{NetworkManager}(1428)\n\n          └─accounts-daemon(1270) └─{accounts-daemon}(1295)\n              └─{accounts-daemon}(1298)\n              └─{accounts-daemon}(1351)\n\n          └─avahi-daemon(1243) └─avahi-daemon(1283)\n\n          └─bluetoothd(1244)\n\n          └─colord(1536) └─{colord}(1545)\n              └─{colord}(1546)\n              └─{colord}(1548)\n\n          └─cron(1271)\n\n          └─cups-browsed(2208) └─{cups-browsed}(2216)\n              └─{cups-browsed}(2217)\n              └─{cups-browsed}(2218)\n\n          └─cupsd(1520)\n\n          └─dbus-daemon(1245)\n\n          └─fwupd(5707) └─{fwupd}(5708)\n              └─{fwupd}(5710)\n              └─{fwupd}(5711)\n              └─{fwupd}(5712)\n              └─{fwupd}(5714)\n\n          └─gdm3(1538) └─gdm-session-wor(2140) └─gdm-wayland-ses(2364) └─gnome-session-b(2375) └─{gnome-session-b}(2423)\n              └─{gnome-session-b}(2424)\n              └─{gnome-session-b}(2425)\n\n              └─{gdm-wayland-ses}(2371)\n              └─{gdm-wayland-ses}(2372)\n              └─{gdm-wayland-ses}(2373)\n\n              └─{gdm-session-wor}(2141)\n              └─{gdm-session-wor}(2142)\n              └─{gdm-session-wor}(2143)
```

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Q E - D X

```
└── thermald(1275) └── {thermald}(1338)
    ├── {thermald}(1339)
    ├── {thermald}(1352)
    └── {thermald}(1513)
└── udisksd(1276) └── {udisksd}(1321)
    ├── {udisksd}(1323)
    ├── {udisksd}(1355)
    ├── {udisksd}(1417)
    └── {udisksd}(1424)
└── unattended-upgr(1523) └── {unattended-upgr}(1552)
└── upowerd(1507) └── {upowerd}(1509)
    ├── {upowerd}(1510)
    └── {upowerd}(1511)
└── wpa_supplicant(1365)
```

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ ps -o pid

PID

8596

8722

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ ps -o ppid

PPID

8589

8596

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ ps -o cmd

CMD

bash

ps -o cmd

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ nano a1.sh

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ chmod +x a1.sh

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$./a1.sh

Parent PID:8932

PID PPID CMD

8596 8589 bash

8932 8596 /bin/bash ./a1.sh

8933 8932 sleep 20

8934 8932 ps -o pid,ppid,cmd

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$ nano a1.sh

rvu@rvu-OptiPlex-SFF-7020:~/Desktop/Manu.R\$



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GNU nano 7.2

a1.sh

```
#!/bin/bash
echo "Parent PID:$$"
sleep 20 &
ps -o pid,ppid,cmd
```

^G Help
^X Exit

^O Write Out
^R Read File

^W Where Is
^V Replace

^K Cut
^U Paste

[Read 7 lines]
^T Execute
^J Justify

^C Location
^/ Go To Line

M-U Undo
M-E Redo

M-A Set Mark
M-6 Copy
M-J To Bracket
^Q Where Was

rvu@rvu-OptiPlex-SFF-7020: ~/Desktop/Manu.R

Q E - D X

GNU nano 7.2

prog.c

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

[Read 5 lines]

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