

LAB EXERCISE 1

10.2.26

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USN: 1RUA25BCA0075

1. To implement cd,ls,ls-l,ls-a in linux

```
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ls
0075
1RUA24CSE0142_LAB03_DAA.pdf
1RUA24CSE0142_LAB06_DAA.pdf
7p.c
a
anaconda3
Anaconda3-2024.10-1-Linux-x86_64.sh
archive
'archive (2) '
'archive (3) '
archive.zip
arithmetic.sh
array.c
bias+correction+of+numerical+prediction+model+temperature+forecast
'bias+correction+of+numerical+prediction+model+temperature+forecast (2) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (3) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (4) '
bias+correction+of+numerical+prediction+model+temperature+forecast.zip
dairy.txt
(base) rvu@rvu-OptiPlex-SFF-7020:~$ cd 0075
(base) rvu@rvu-OptiPlex-SFF-7020:~/0075$ ls
(base) rvu@rvu-OptiPlex-SFF-7020:~/0075$ cd ~
(base) rvu@rvu-OptiPlex-SFF-7020:~$ pwd
/home/rvu
(base) rvu@rvu-OptiPlex-SFF-7020:~$ cd 0075
(base) rvu@rvu-OptiPlex-SFF-7020:~/0075$ pwd
/home/rvu/0075
(base) rvu@rvu-OptiPlex-SFF-7020:~/0075$ cd ~
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ls -l
total 1078880
drwxrwxr-x 2 rvu rvu      4096 Feb 10 19:27 0075
-rw-rw-r-- 1 rvu rvu    132608 Sep  9 09:53 1RUA24CSE0142_LAB03_DAA.pdf
-rw-rw-r-- 1 rvu rvu    121413 Sep 30 10:16 1RUA24CSE0142_LAB06_DAA.pdf
-rw-rw-r-- 1 rvu rvu         10 Nov 19 11:27 7p.c
drwxrwxr-x 2 rvu rvu      4096 Oct 29 11:35 a
drwxrwxr-x 31 rvu rvu     4096 May 14 2025 anaconda3
dataset_see.
diabetes.csv
diary
diary.txt
file1
file1.c
hash.c
lab
likitha
ML_Lab_Experiment_03.ipynb
mult.sh
nano.29300.save
'New Folder'
pc
pg1.c
power.c
program2.c
program5.c
program7.c
program.c
Projects
prpject.txt
raghu
rvu
RVUN25CSE125
Screenshots
sec
sec_a
secA
see
see_tasks.sh
single.c
snap
test
Titanic
Titanic.csv
USN
USN286
```

```

-rw-rw-r-- 1 rvu rvu      60081 Sep  8 15:03 Titanic.csv
drwxrwxr-x 6 rvu rvu      4096 Oct 16 19:54  USN
drwxrwxr-x 3 rvu rvu      4096 Oct 29 09:27  USN286
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ls -la
.
..
0075
1RUA24CSE0142_LAB03_DAA.pdf
1RUA24CSE0142_LAB06_DAA.pdf
7p.c
a
anaconda3
Anaconda3-2024.10-1-Linux-x86_64.sh
archive
'archive (2) '
'archive (3) '
archive.zip
arithmetic.sh
array.c
.bash_history
.bash_history-03304.tmp
.bash_history-05703.tmp
.bash_history-11908.tmp
.bash_history-28991.tmp
.bash_logout
.bashrc
bias+correction+of+numerical+prediction+model+temperature+forecast
'bias+correction+of+numerical+prediction+model+temperature+forecast (2) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (3) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (4) '
bias+correction+of+numerical+prediction+model+temperature+forecast.zip
.c
.cache
.codeium
.conda
.config
.CP1.c.swp
dairy.txt
dataset_see.
diabetes.csv
diary
diary.txt
.dotnet
file1
file1.c
.file.txt.swp
.git
.gitconfig
.gnupg
.gphoto
.hash.c
.ipython
lab
.lessshst
likitha
.local
ML_Lab_Experiment_03.ipynb
mult.sh
nano.29300.save
'New Folder'
.p1.c.swp
pc
pg1.c
.pki
power.c
.profile
program2.c
program5.c
program7.c
program.c
Projects
prpject.txt
.python_history
raghu
rvu
RVUN25CSE125
Screenshots
sec
sec_a
secA
see
see_tasks.sh
single.c
snap
.ssh
.sudo_as_admin_successful
.swp
.tar
.test
test
Titanic
Titanic.csv
.txt
USN
USN286
.V.C.SWP
.viminfo
.vscode

```

2. To implement sleep,jobs,fg,bg,ps,pstree,pstree -p in linux

```
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep 30
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep 1
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep &
[1] 7222
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep: missing operand
Try 'sleep --help' for more information.

[1]+  Exit 1                  sleep
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep 30 &
[1] 7230
(base) rvu@rvu-OptiPlex-SFF-7020:~$ sleep 40 &
[2] 7234
(base) rvu@rvu-OptiPlex-SFF-7020:~$ jobs
[1]-  Done                  sleep 30
[2]+  Done                  sleep 40
(base) rvu@rvu-OptiPlex-SFF-7020:~$ notepad.exe
notepad.exe: command not found
(base) rvu@rvu-OptiPlex-SFF-7020:~$ jobs
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ls
0075
1RUA24CSE0142_LAB03_DAA.pdf
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a
anaconda3
Anaconda3-2024.10-1-Linux-x86_64.sh
archive
'archive (2) '
'archive (3) '
archive.zip
arithmetic.sh
array.c
bias+correction+of+numerical+prediction+model+temperature+forecast
'bias+correction+of+numerical+prediction+model+temperature+forecast (2) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (3) '
'bias+correction+of+numerical+prediction+model+temperature+forecast (4) '
'bias+correction+of+numerical+prediction+model+temperature+forecast.zip
diabetes.csv
diary
diary.txt
file1
file1.c
hash.c
hello
lab
likitha
ML_Lab_Experiment_03.ipynb
mult.sh
nano.29300.save
'New Folder'
ninada.c
pc
pg1.c
power.c
program2.c
program.c
Projects
prpjct.txt
raghu
rvu
RVUN25CSE125
Screenshots
sec
sec_a
secA
see
see_tasks.sh
single.c
snap
test
Titanic
Titanic.csv
USN
```

```
1,93,70,31,0,30,4,0.315,23,0(base) rvu@rvu-OptiPlex-SFF-7020:~$ jobs
(base) rvu@rvu-OptiPlex-SFF-7020:~$ fg
bash: fg: current: no such job
(base) rvu@rvu-OptiPlex-SFF-7020:~$ bg
bash: bg: current: no such job
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ps
  PID TTY          TIME CMD
 6597 pts/0    00:00:00 bash
 7512 pts/0    00:00:00 ps
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ps
  PID TTY          TIME CMD
 6597 pts/0    00:00:00 bash
 7517 pts/0    00:00:00 ps
(base) rvu@rvu-OptiPlex-SFF-7020:~$ pstree
systemd─ModemManager─3*[{ModemManager}]
        │NetworkManager─3*[{NetworkManager}]
        │accounts-daemon─3*[{accounts-daemon}]
        │atd
        │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-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─21*[{snapd}]
```

```

└─wpa_supplicant
(base) rvu@rvu-OptiPlex-SFF-7020:~$ pstree -p
systemd(1)─ModemManager(1247)─┬─{ModemManager}(1272)
│   └─{ModemManager}(1279)
│     └─{ModemManager}(1281)
│   └─NetworkManager(1219)─┬─{NetworkManager}(1286)
│   │   └─{NetworkManager}(1287)
│   │     └─{NetworkManager}(1288)
│   └─accounts-daemon(1030)─┬─{accounts-daemon}(1096)
│   │   └─{accounts-daemon}(1098)
│   │     └─{accounts-daemon}(1210)
│   └─atd(1058)
│   └─avahi-daemon(946)─avahi-daemon(1066)
│   └─bluetoothd(948)
│   └─colord(1417)─┬─{colord}(1430)
│   │   └─{colord}(1431)
│   │     └─{colord}(1433)
│   └─cron(1036)
│   └─cups-browsed(2062)─┬─{cups-browsed}(2071)
│   │   └─{cups-browsed}(2072)
│   │     └─{cups-browsed}(2073)
│   └─cupsd(1401)
│   └─dbus-daemon(950)
│   └─fwupd(6244)─┬─{fwupd}(6248)
│   │   └─{fwupd}(6320)
│   │     └─{fwupd}(6321)
│   │       └─{fwupd}(6322)
│   │         └─{fwupd}(6324)
│   └─gdm3(1422)─gdm-session-wor(2900)─gdm-wayland-ses(3062)─gnome-session-b(3071)─┬─{gnome-session-b}(3127)
│   │   │   │   │   │   │   │   └─{gnome-session-b}(3128)
│   │   │   │   │   │   │   │     └─{gnome-session-b}(3129)
│   │   │   │   │   │   └─{gdm-wayland-ses}(3068)
│   │   │   │   │   └─{gdm-wayland-ses}(3069)
│   │   │   │   └─{gdm-wayland-ses}(3070)
│   │   │   └─{gdm-session-wor}(2901)
│   │   └─{gdm-session-wor}(2902)
│   └─{gdm-session-wor}(2903)

```

3. To perform basic c and nano shell script programs

1)code:

```

#include<stdio.h>
int main()
{
printf("hello\n");
return 0;
}

```

Output:

```

hello(rv) rvu@rvu-OptiPlex-SFF-7020:~$ nano ninada.c
(base) rvu@rvu-OptiPlex-SFF-7020:~$ gcc ninada.c -o hello
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ./hello
hello

```

2)code:

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

Output:

```
(base) rvu@rvu-OptiPlex-SFF-7020:~$ nano exp.sh
(base) rvu@rvu-OptiPlex-SFF-7020:~$ nano exp.sh
(base) rvu@rvu-OptiPlex-SFF-7020:~$ chmod +x exp.sh
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ./exp.sh
parent PID:8215
  PID    PPID  CMD
  6597    6590  bash
  8215    6597  /bin/bash ./exp.sh
  8216    8215  sleep 20
  8217    8215  ps -o pid,ppid,cmd
(base) rvu@rvu-OptiPlex-SFF-7020:~$
```

4. To perform pid,ppid,cmd with ps

```
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ps -o pid,ppid,cmd
  PID    PPID  CMD
  10581   10573  bash
  10598   10581  ps -o pid,ppid,cmd
(base) rvu@rvu-OptiPlex-SFF-7020:~$
```