

LAB EXERCISE 1

10.2.26

NAME: Ninada S A

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
arithmatic.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
prject.txt
raghu
rvu
RVUN25CSE125
Screenshots
sec
sec_a
secA
see
see_tasks.sh
single.c
snap
test
Titanic
Titanic.csv
USN
USN286
```

```

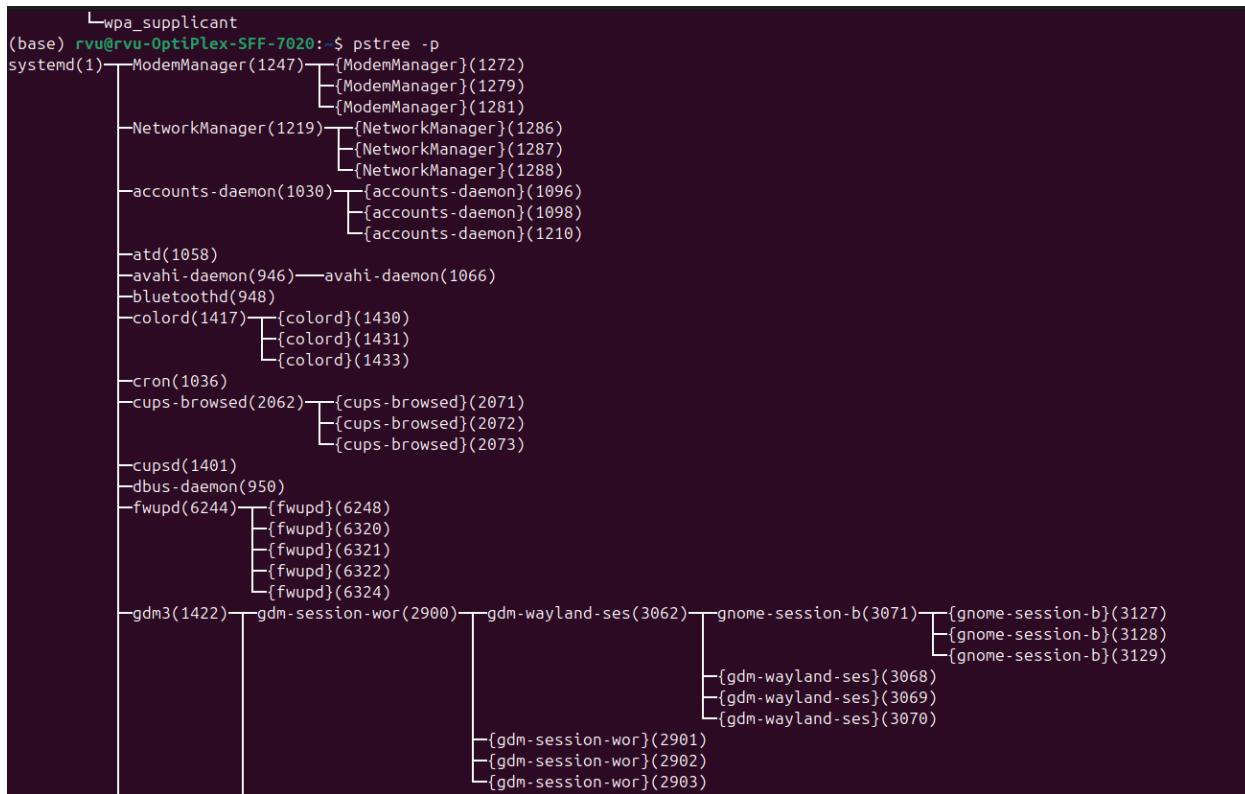
-rw-rw-r-- 1 rvu rvu      60081 Sep  8 15:03 Titanic.csv
drwxrwxr-x  6 rvu rvu        4096 Oct 16 19:54 USN
drwxrwxr-x  3 rvu rvu        4096 Oct 29 09:27 USN286
(base) rvu@rvu-OptiPlex-SFF-7020:~$ ls -a
.
..
0075
1RUA24CSE0142_LAB03_DAA.pdf
1RUA24CSE0142_LAB06_DAA.pdf
7p.c
a
anaconda3
Anaconda3-2024.10-1-Linux-x86_64.sh
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
.gitupg
.gphoto
hash.c
.ipython
lab
.lesshst
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
prject.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
(base) rvu@rvu-OptiPlex-SFF-7020:~$ 
```

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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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
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ninada.c
pc
pg1.c
power.c
program2.c
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Projects
prject.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—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—21*[{snapd}]
```



3. To perform basic c and nano shell script programs

1)code:

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

Output:

```
hello(base) 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:~$ 
```