

Homework:2

Name: Pravin Arjun Shankhapal

Roll no: 12041130

**Part A:**

```
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partA.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# ps
  PID TTY          TIME CMD
 33232 pts/0    00:00:00 bash
 33422 pts/0    00:00:00 a.out
 33427 pts/0    00:00:00 ps
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt
Pravin_Arjun_Shankhapal@12041130# netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 pravin12.iitbhila:56374 ec2-54-244-16-100:https ESTABLISHED
tcp        0      0 pravin12.iitbhila:59194 239.237.117.34.bc:https ESTABLISHED
udp        0      0 pravin12.iitbhil:bootpc 10.1.72.7:bootps       ESTABLISHED
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node  Path
unix    2        [ ]         DGRAM      -
unix    5        [ ]         DGRAM      -
unix    2        [ ]         DGRAM      -
unix   17        [ ]         DGRAM      -
unix    8        [ ]         DGRAM      -
unix    2        [ ]         DGRAM      -
unix    3        [ ]         STREAM     CONNECTED    398771
unix    3        [ ]         STREAM     CONNECTED    388130
unix    3        [ ]         STREAM     CONNECTED    41926
unix    3        [ ]         STREAM     CONNECTED    52881      @/tmp/.X11-unix/X0
```

```
Activities Terminal Mar 12 20:44
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal

unix 3 [ ] STREAM CONNECTED 38950
unix 3 [ ] STREAM CONNECTED 257912
unix 3 [ ] STREAM CONNECTED 46888
unix 3 [ ] STREAM CONNECTED 54371 /run/user/1000/bus
unix 3 [ ] STREAM CONNECTED 50776
unix 3 [ ] STREAM CONNECTED 46822
unix 3 [ ] SEQPACKET CONNECTED 424605
unix 3 [ ] STREAM CONNECTED 356747
unix 3 [ ] STREAM CONNECTED 46990 /run/user/1000/bus
unix 3 [ ] STREAM CONNECTED 42698
unix 3 [ ] STREAM CONNECTED 49618
Pravin_Arjun_Shankhapal@12041130# mkdir test
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt test
Pravin_Arjun_Shankhapal@12041130# cd test
Pravin_Arjun_Shankhapal@12041130# touch temp.txt
Pravin_Arjun_Shankhapal@12041130# ls
temp.txt
Pravin_Arjun_Shankhapal@12041130# pwd
/home/pravin/Desktop/12041130_Pravin_Arjun_Shankhapal/test
Pravin_Arjun_Shankhapal@12041130# rm temp.txt
Pravin_Arjun_Shankhapal@12041130# cd ..
Pravin_Arjun_Shankhapal@12041130# rmdir test
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt
Pravin_Arjun_Shankhapal@12041130# exit
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$
```

## **Part B:**

```
Activities Terminal Mar 12 20:50
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal

pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partB.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep bash
pravin 34857 0.0 0.0 10884 5232 pts/0 Ss 20:48 0:00 bash
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep sh | grep bash
pravin 34857 0.0 0.0 10884 5232 pts/0 Ss 20:48 0:00 bash
Pravin_Arjun_Shankhapal@12041130#
```

```
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partB.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep bash
pravin      34857  0.0  0.0 10884  5232 pts/0    Ss   20:48   0:00 bash
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep sh | grep bash
pravin      34857  0.0  0.0 10884  5232 pts/0    Ss   20:48   0:00 bash
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt
Pravin_Arjun_Shankhapal@12041130# mkdir test
Pravin_Arjun_Shankhapal@12041130# cd test
Pravin_Arjun_Shankhapal@12041130# touch Fruits.txt
Pravin_Arjun_Shankhapal@12041130#
```

```
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partB.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep bash
pravin      34857  0.0  0.0 10884  5232 pts/0    Ss   20:48   0:00 bash
Pravin_Arjun_Shankhapal@12041130# ps -aux | grep sh | grep bash
pravin      34857  0.0  0.0 10884  5232 pts/0    Ss   20:48   0:00 bash
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt
Pravin_Arjun_Shankhapal@12041130# mkdir test
Pravin_Arjun_Shankhapal@12041130# cd test
Pravin_Arjun_Shankhapal@12041130# touch Fruits.txt
Pravin_Arjun_Shankhapal@12041130# vim Fruits.txt
Pravin_Arjun_Shankhapal@12041130# cat Fruits.txt
Apple
Orange
Grapes
Papaya
Peach
Lime
Kiwi
Coconut
Avocado
Mango
Strawberry
Pravin_Arjun_Shankhapal@12041130# Cat Fruits.txt | sort
invalid input : No such file or directory
Pravin_Arjun_Shankhapal@12041130# cat Fruits.txt | sort
Apple
Avocado
Coconut
Grapes
Kiwi
```

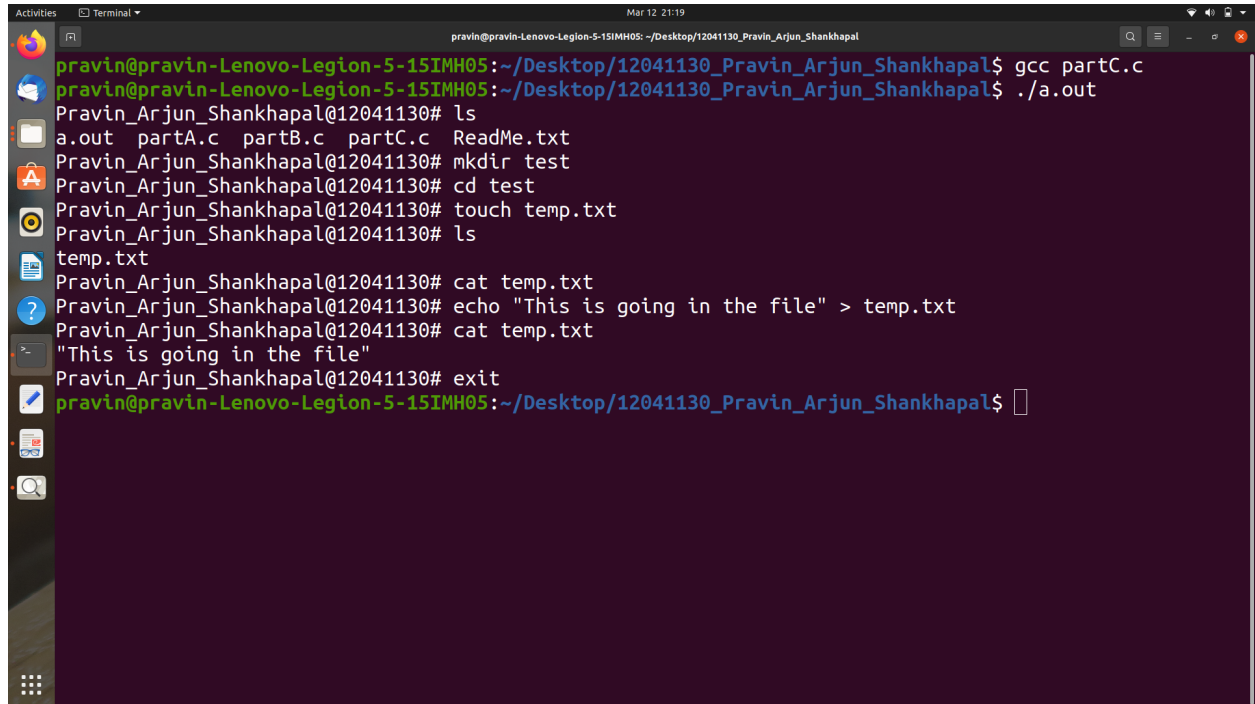
```
Activities Terminal Mar 12 21:05
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal

Peach
Lime
Kiwi
Coconut
Avocado
Mango
Strawberry
Pravin_Arjun_Shankhapal@12041130# Cat Fruits.txt | sort
invalid input : No such file or directory
Pravin_Arjun_Shankhapal@12041130# cat Fruits.txt | sort
Apple
Avocado
Coconut
Grapes
Kiwi
Lime
Mango
Orange
Papaya
Peach
Strawberry
Pravin_Arjun_Shankhapal@12041130# cat Fruits.txt | head -4
Apple
Orange
Grapes
Papaya
Pravin_Arjun_Shankhapal@12041130# cat Fruits.txt | head -4 | tail -2
Grapes
Papaya
Pravin_Arjun_Shankhapal@12041130# ls | wc -l
1
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$
```

```
Activities Terminal Mar 12 21:08
pravin@pravin-Lenovo-Legion-5-15IMH05: ~/Desktop/12041130_Pravin_Arjun_Shankhapal

pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partB.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# sudo apt-get update && sudo apt-get upgrade
[sudo] password for pravin:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
The following packages were automatically installed and are no longer required:
 alembic finalrd libisns0 libjs-sphinxdoc libjs-underscore libpq5 linux-headers-5.11.0-41-generic
 linux-hwe-5.11-headers-5.11.0-41 linux-image-5.11.0-41-generic linux-modules-5.11.0-41-generic
 linux-modules-extra-5.11.0-41-generic open-iscsi os-brick-common pycadf-common python-pastedeploy-tpl python3-alembic
 python3-anyjson python3-attr python3-automaton python3-barbicanclient python3-cachetools python3-castellan
 python3-cffi python3-cinderclient python3-cliff python3-cmd2 python3-cursive python3-ddt python3-decorator
 python3-defusedxml python3-dnspython python3-dogpile.cache python3-eventlet python3-extras python3-fixtures
 python3-futurist python3-glance-store python3-greenlet python3-importlib-metadata python3-jinja2 python3-json-pointer
 python3-jsonpatch python3-jsonschema python3-kazoo python3-keystonemiddleware python3-linecache2 python3-memcache
 python3-mimeparse python3-more-itertools python3-os-brick python3-os-win python3-oslo.cache python3-oslo.concurrency
 python3-oslo.privsep python3-oslo.rootwrap python3-oslo.service python3-oslo.vmware python3-paste python3-pastedeploy
 python3-pyramid python3-pycadf python3-pycparser python3-pyperclip python3-pyrsistent python3-repoze.lru
 python3-retrying python3-routes python3-sqlalchemy python3-suds python3-tempita python3-testtools python3-traceback2
 python3-unittest2 python3-vine python3-wcwidth python3-webob python3-zipp
Use 'sudo apt autoremove' to remove them.
The following packages have been kept back:
 fwupd
The following packages will be upgraded:
 alsa-ucm-conf firefox firefox-locale-en fwupd-signed gir1.2-gtk-3.0 gtk-update-icon-cache language-pack-gnome-en
 language-pack-gnome-en-base libdrm-amdgpu1 libdrm-common libdrm-intel1 libdrm-nouveau2 libdrm-radeon1 libdrm2
 libegl-mesa0 libxpat1 libxpat1-dev libfwupd2 libgbm1 libgl1-mesa-dri libglapi-mesa libglx-mesa0 libgtk-3-0
 libgtk-3-bin libgtk-3-common libjcat1 libllvm12 libssl1.1 libxatracker2 linux-firmware mesa-vulkan-drivers openssl
 rsync
33 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
```

## **Part C:**



```
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ gcc partC.c
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$ ./a.out
Pravin_Arjun_Shankhapal@12041130# ls
a.out partA.c partB.c partC.c ReadMe.txt
Pravin_Arjun_Shankhapal@12041130# mkdir test
Pravin_Arjun_Shankhapal@12041130# cd test
Pravin_Arjun_Shankhapal@12041130# touch temp.txt
Pravin_Arjun_Shankhapal@12041130# ls
temp.txt
Pravin_Arjun_Shankhapal@12041130# cat temp.txt
Pravin_Arjun_Shankhapal@12041130# echo "This is going in the file" > temp.txt
Pravin_Arjun_Shankhapal@12041130# cat temp.txt
"This is going in the file"
Pravin_Arjun_Shankhapal@12041130# exit
pravin@pravin-Lenovo-Legion-5-15IMH05:~/Desktop/12041130_Pravin_Arjun_Shankhapal$
```