Question 01 - A:

```
Select Ubuntu 20.04 LTS
kumarraj@kumarraj:~/MCS_172/LabTest3$ ls
2047120_MCS172.docx  2047120_MCS172.pdf  client.c  clnt  execution.c  fdBhv.c  q1.sh  reader.c  server.c  sr  writer.c
kumarraj@kumarraj:~/MCS_172/LabTest3$ bash q1.sh
Enter the name of dir to create:CAT03
Listing all current open files:COMMAND PID USER   FD   TYPE DEVICE   SIZE              NODE NAME
init      1 root  cwd    DIR    0,2    512 23925373020436272 /
init      1 root  rtd    DIR    0,2    512 23925373020436272 /
init      1 root  txt    REG    0,2 631968 97108866965206885 /init
init      1 root  mem    REG    0,0              30565 /init (path dev=0,2, inode=97108866965206885)
init      1 root NOFD                                 /proc/1/fd (opendir: Permission denied)
init      7 root  cwd    DIR    0,2    512 23925373020436272 /
init      7 root  rtd    DIR    0,2    512 23925373020436272 /
init      7 root  txt    REG    0,2 631968 97108866965206885 /init
init      7 root  mem    REG    0,0              30565 /init (path dev=0,2, inode=97108866965206885)
init      7 root NOFD                                 /proc/7/fd (opendir: Permission denied)
init    203 root  cwd    DIR    0,2    512 23925373020436272 /
init    203 root  rtd    DIR    0,2    512 23925373020436272 /
init    203 root  txt    REG    0,2 631968 97108866965206885 /init
init    203 root  mem    REG    0,0              30565 /init (path dev=0,2, inode=97108866965206885)
init    203 root NOFD                                 /proc/203/fd (opendir: Permission denied)
kumarraj@kumarraj:~/MCS_172/LabTest3$ ls
2047120_MCS172.docx  2047120_MCS172.pdf  CAT03  client.c  clnt  execution.c  fdBhv.c  q1.sh  reader.c  server.c  sr  writer.c
kumarraj@kumarraj:~/MCS_172/LabTest3$
```
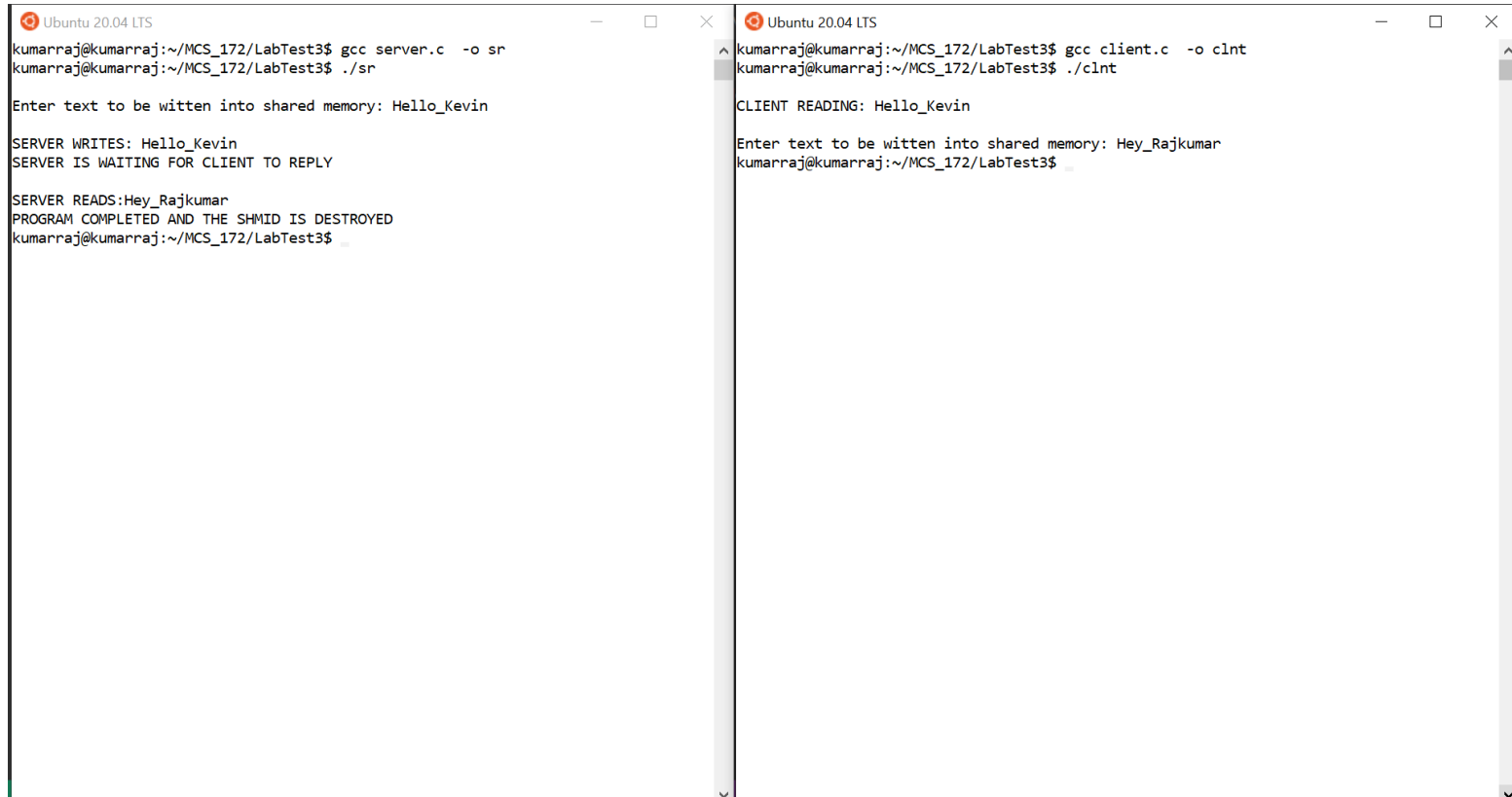
Question 01 - B:

```
Ubuntu 20.04 LTS
kumarraj@kumarraj:~/MCS_172/LabTest3$ gcc execution.c -o excute
kumarraj@kumarraj:~/MCS_172/LabTest3$ gcc fdBhv.c  -o fdbh
fdBhv.c: In function 'fd_exec':
fdBhv.c:84:5: warning: null argument where non-null required (argument 2) [-Wnonnull]
   84 |     execv("./excute", NULL);
      |     ^~~~~
kumarraj@kumarraj:~/MCS_172/LabTest3$ ./fdbh
=========================
        Menu
=========================
1.Fork
2.Exec
3.Exit
=========================
Enter your choice:1
File opened succesfully...
This is child writing to the file with fd = 3
This is parent writing to the file with fd = 3

Enter your choice:2
File opened succesfully...
FD of current fdBhv is = 4
Hey raj, you are currently executing execution.c program
PID ofexecution.c = 470
FD of new prg execution.c is = 4
kumarraj@kumarraj:~/MCS_172/LabTest3$ cat File.txt
cat: File.txt: Permission denied
kumarraj@kumarraj:~/MCS_172/LabTest3$ chmod 744 *
kumarraj@kumarraj:~/MCS_172/LabTest3$ cat File.txt
Raj Kumar
kumarraj@kumarraj:~/MCS_172/LabTest3$ cat File2.txt
EXEC
This is from exec
kumarraj@kumarraj:~/MCS_172/LabTest3$
```

Question 02:

Left terminal (Ubuntu 20.04 LTS):

```
kumarraj@kumarraj:~/MCS_172/LabTest3$ gcc server.c  -o sr
kumarraj@kumarraj:~/MCS_172/LabTest3$ ./sr

Enter text to be witten into shared memory: Hello_Kevin

SERVER WRITES: Hello_Kevin
SERVER IS WAITING FOR CLIENT TO REPLY

SERVER READS:Hey_Rajkumar
PROGRAM COMPLETED AND THE SHMID IS DESTROYED
kumarraj@kumarraj:~/MCS_172/LabTest3$
```

Right terminal (Ubuntu 20.04 LTS):

```
kumarraj@kumarraj:~/MCS_172/LabTest3$ gcc client.c  -o clnt
kumarraj@kumarraj:~/MCS_172/LabTest3$ ./clnt

CLIENT READING: Hello_Kevin

Enter text to be witten into shared memory: Hey_Rajkumar
kumarraj@kumarraj:~/MCS_172/LabTest3$
```