OS LAB MANUAL

(CS23431)

Roll No:230701234

EX.NO:7

IPC USING SHARED MEMORY

Aim: To write a C program to do Inter Process Communication (IPC) using shared memory between sender process and receiver process

Program:

Sender.c:

```
#include <stdio.h>
#include <sys/ipc.h>
#include <sys/shm.h>
#include <string.h>
#include <unistd.h>

#define SHM_SIZE 1024

int main() {
    key_t key = ftok("shmfile", 65);
    int shmid = shmget(key, SHM_SIZE, 0666 | IPC_CREAT);
    if (shmid == -1) return 1;

    char *str = (char *)shmat(shmid, NULL, 0);
    if (str == (char *)-1) return 1;
```

```
    sprintf(str, "Hello, what is your name?");

    sleep(5);


    shmdt(str);

    return 0;

}
```

Input:

```
pranav@Pranav:~$ vi sevensender.c
pranav@Pranav:~$ gcc sevensender.c
pranav@Pranav:~$ ./a.out
Writing to shared memory...
Message sent successfully!
pranav@Pranav:~$
```

Output:

```
pranav@Pranav:~$ gcc sevenreceiver.c
pranav@Pranav:~$ ./a.out
Message Received: hello,whatis your name
pranav@Pranav:~$
```