

**Ex. No.: 7**

**Date: 02.04.2025**

## **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>
int main(){
    key_t key=1234;
    int shmid=shmget(key,1024,0666|IPC_CREAT);
    char *str=(char*)shmat(shmid,(void*)0,0);
    printf(str,"Welcome to Shared Memory");
    sleep(5);
    shmdt(str);
    return 0;
}
```

receiver.c

```
#include <stdio.h>
#include <sys/ipc.h>
#include <sys/shm.h>
int main(){
    key_t key=1234;
    int shmid=shmget(key,1024,0666);
    char *str=(char*)shmat(shmid,(void*)0,0);
    printf("Message Received: %s\n",str);
    shmdt(str);
    return 0;
}
```

### **Output:**

#### **Terminal 1:**

```
[root@localhost student]# gcc sender.c -o sender
```

```
[root@localhost student]# ./sender
```

#### **Terminal 2:**

```
[root@localhost student]# gcc receiver.c -o receiver
```

```
[root@localhost student]# ./receiver
```

```
Message Received: Welcome to Shared Memory
```

```
[root@localhost student]#
```

### **Result:**

The program for Inter Process Communication using shared memory was executed successfully.