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**Objective:** The program to implement interprocess communication using shared memory and message queue concept.

**Program:1.** Shared memory implementation using readers writers

problem.

**Writer.c**

**#include <sys/ipc.h>**

**#include <sys/shm.h>**

**#include <stdio.h>**

**int main()**

**{**

**key\_t key = ftok("shmfile",65);**

**int shmid = shmget(key,1024,0666|IPC\_CREAT);**

**char \*str = (char\*) shmat(shmid,(void\*)0,0);**

**printf("Write Data : ");**

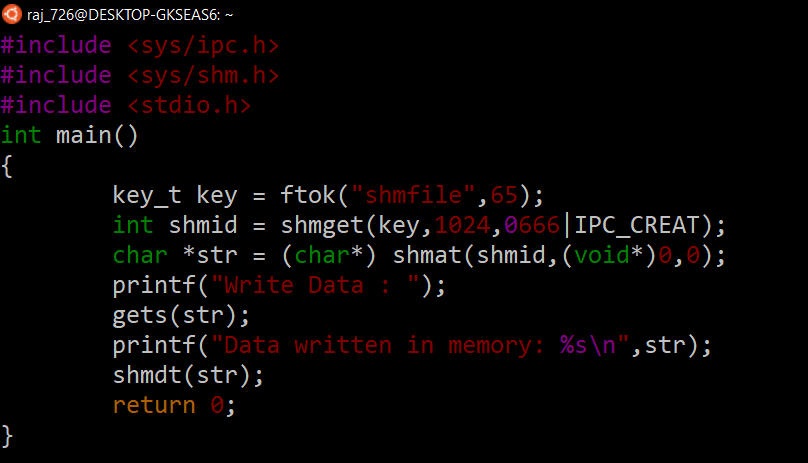
**gets(str);**

**printf("Data written in memory: %s\n",str);**

**shmdt(str);**

**return 0;**

**}**

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Reader.c

**#include <sys/ipc.h>**

**#include <sys/shm.h>**

**#include <stdio.h>**

**int main()**

**{**

**key\_t key = ftok("shmfile",65);**

**int shmid = shmget(key,1024,0666|IPC\_CREAT);**

**char \*str = (char\*) shmat(shmid,(void\*)0,0);**

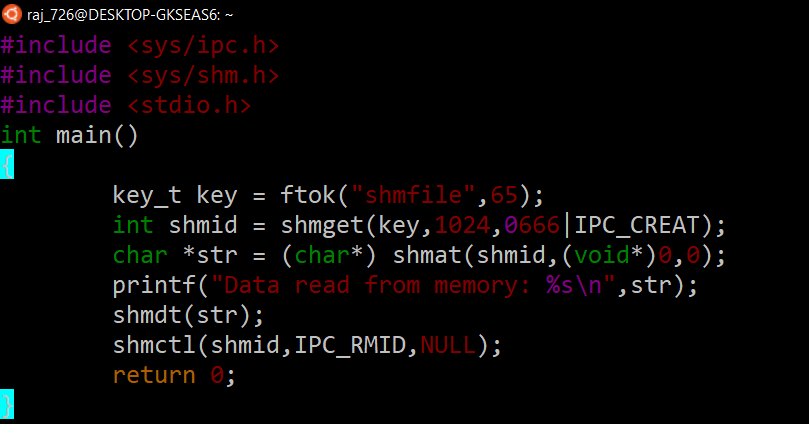
**printf("Data read from memory: %s\n",str);**

**shmdt(str);**

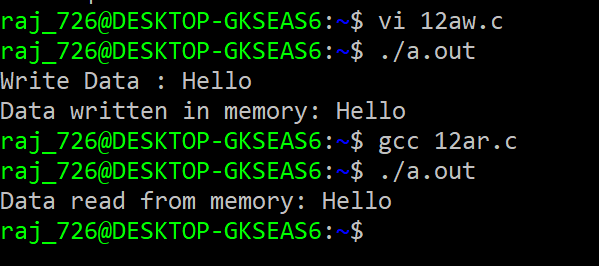
**shmctl(shmid,IPC\_RMID,NULL);**

**return 0;**

**}**



**OUTPUT:**

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**Outcome:** Interprocess communication using shared memory concept learned and implemented.

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**Objective:** The program to implement Inter process communication using message queue concept.

**Program:** To perform communication using message queues

**Writer.c**

**#include <stdio.h>**

**#include <sys/ipc.h>**

**#include <sys/msg.h>**

**#define MAX 10**

**struct mesg\_buffer {**

**long mesg\_type;**

**char mesg\_text[100];**

**} message;**

**int main()**

**{**

**key\_t key;**

**int msgid;**

**key = ftok("progfile", 65);**

**msgid = msgget(key, 0666 | IPC\_CREAT);**

**message.mesg\_type = 1;**

**printf("Write Data : ");**

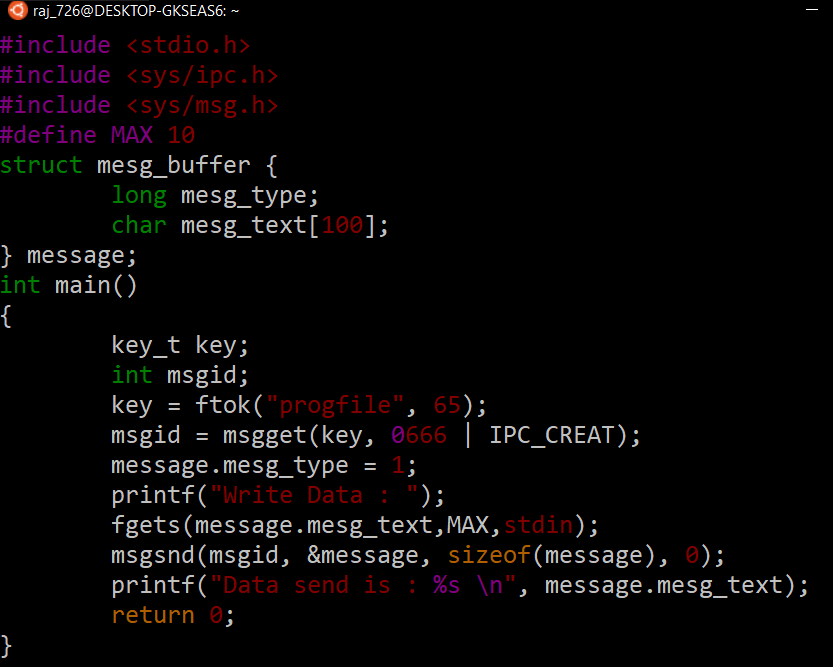
**fgets(message.mesg\_text,MAX,stdin);**

**msgsnd(msgid, &message, sizeof(message), 0);**

**printf("Data send is : %s \n", message.mesg\_text);**

**return 0;**

**}**

****

**Reader.c**

**#include <stdio.h>#include <sys/ipc.h>**

**#include <sys/msg.h>**

**struct mesg\_buffer {**

**long mesg\_type;**

**char mesg\_text[100];**

**} message;**

**int main()**

**{**

**key\_t key;**

**int msgid;**

**key = ftok("progfile", 65);**

**msgid = msgget(key, 0666 | IPC\_CREAT);**

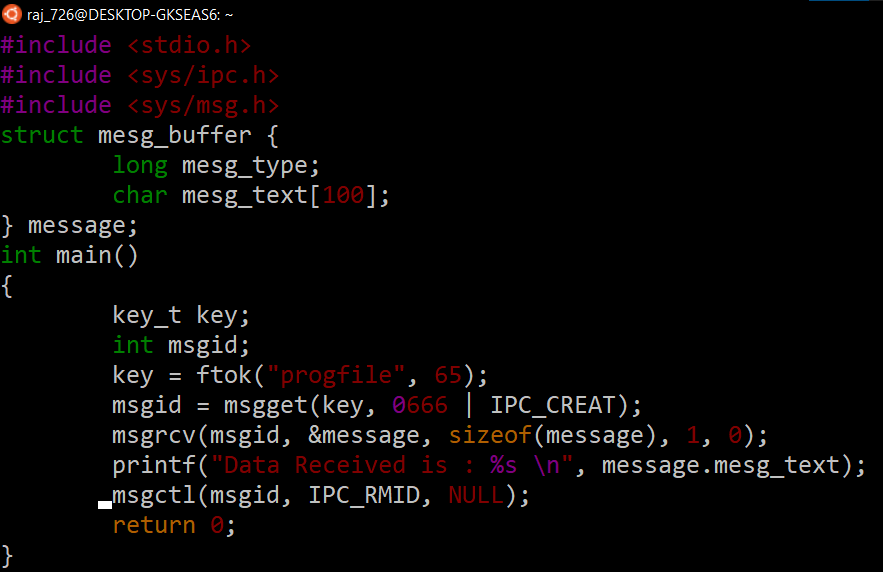
**msgrcv(msgid, &message, sizeof(message), 1, 0);**

**printf("Data Received is : %s \n", message.mesg\_text);**

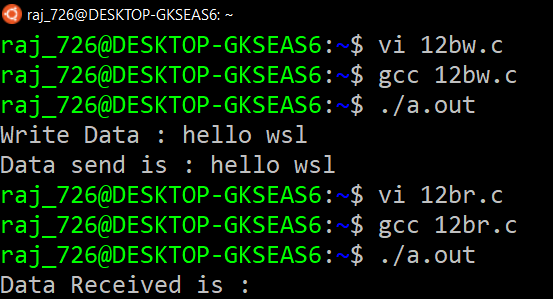
**msgctl(msgid, IPC\_RMID, NULL);**

**return 0;**

**}**

****

**OUTPUT:**

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**Outcome:** Thus the concept of Interprocess Communication using message Queue has been implemented using readers writers problem