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Linux-IPC-Shared-memory

Ex06-Linux IPC-Shared-memory

AIM:

To Write a C program that illustrates two processes communicating using shared memory.

DESIGN STEPS:

Step 1:

Navigate to any Linux environment installed on the system or installed inside a virtual environment like virtual box/vmware or online linux JSLinux (https://bellard.org/jslinux/vm.html?url=alpine-x86.cfg&mem=192) or docker.

Step 2:

Write the C Program using Linux Process API - Shared Memory

Step 3:

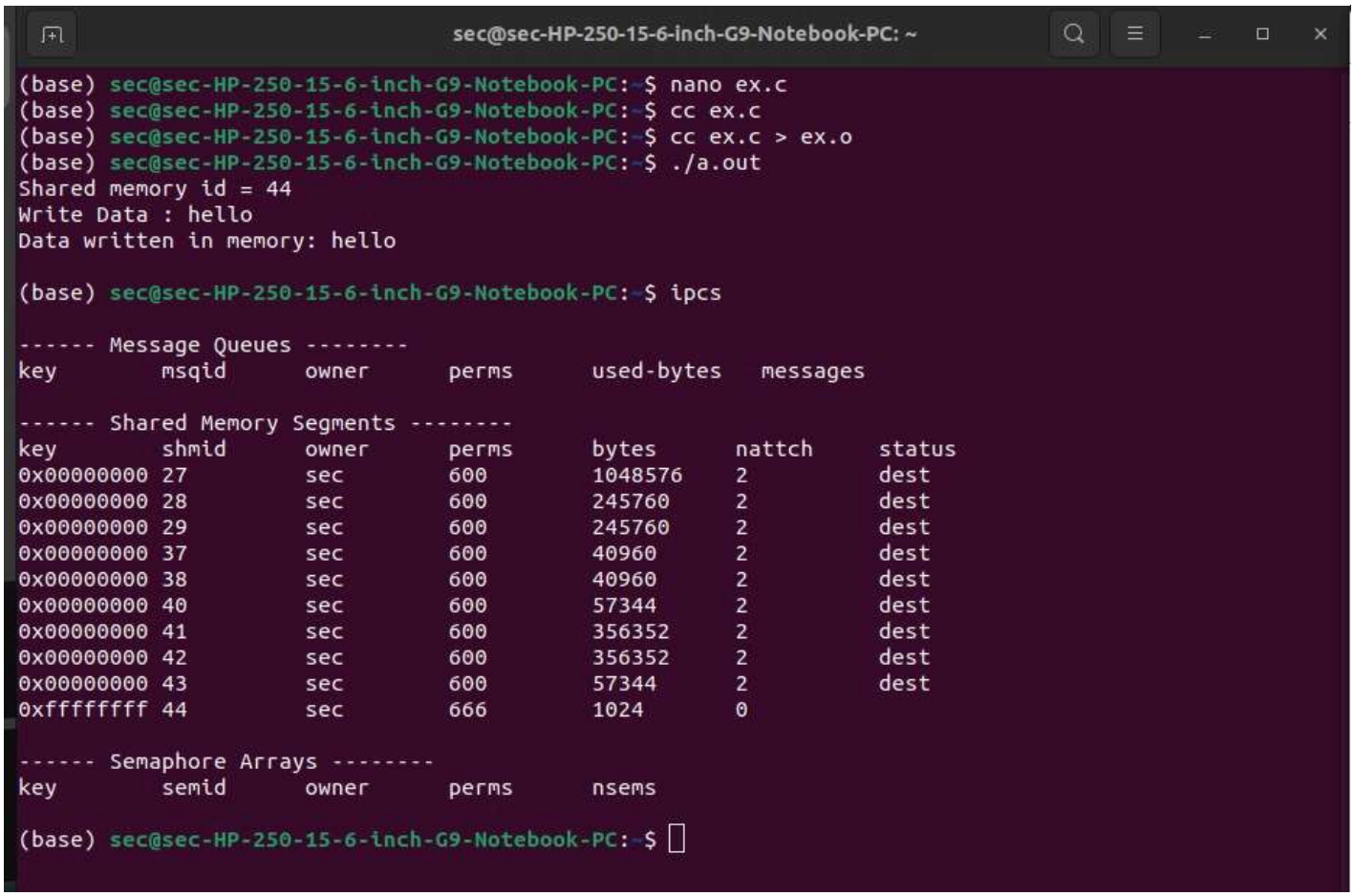
Execute the C Program for the desired output.

PROGRAM:

Write a C program that illustrates two processes communicating using shared memory.

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

int main()
{
        // Generate a unique key using ftok
        key_t key = ftok("shmfile", 65);

        // Get an identifier for the shared memory segment using shmget
        int shmid = shmget(key, 1024, 0666 | IPC_CREAT);
      printf("Shared memory id = %d \n",shmid);
// Attach to the shared memory segment using shmat
        char* str = (char*)shmat(shmid, (void*)0, 0);

    printf("Write Data : ");
        fgets(str, 1024, stdin);

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

        // Detach from the shared memory segment using shmdt
        shmdt(str);

        return 0;
}
```

OUTPUT



RESULT:

The program is executed successfully.