Akilesh Prasad I K

230701020 CSE A

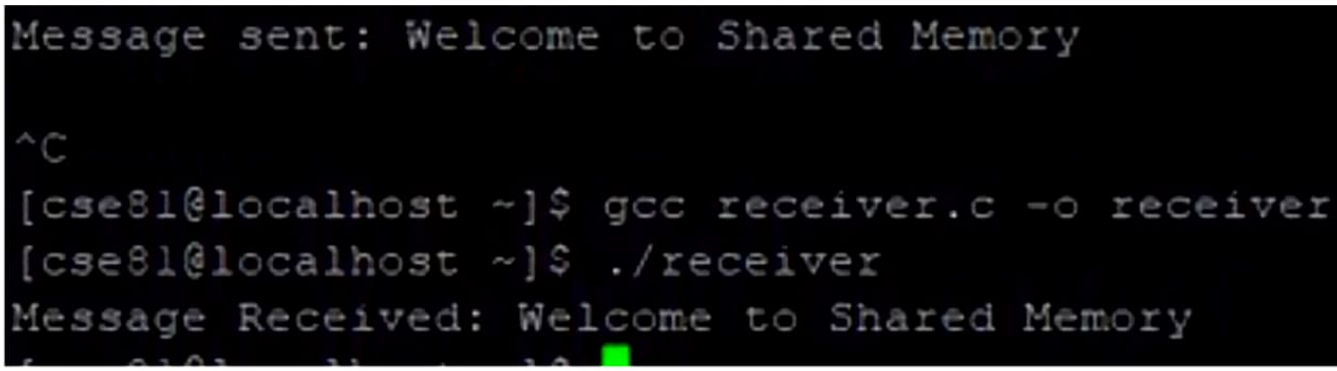
EXP NO:7 IPC USING SHARED MEMORY

PROGRAM

```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); // Generate unique key
    int shmid = shmget(key, SHM_SIZE, 0666 | IPC_CREAT); // Allocate shared memory
    char *shm_ptr = (char *)shmat(shmid, NULL, 0); // Attach shared memory

    sprintf(shm_ptr, "Welcome to Shared Memory"); // Write string to shared memory
    printf("Message sent: %s\n", shm_ptr);

    sleep(10); // Delay to allow receiver to read the message

    shmdt(shm_ptr); // Detach shared memory
    return 0;
}
```

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

#define SHM_SIZE 1024

int main() {
    key_t key = ftok("shmfile", 65); // Generate unique key
    int shmid = shmget(key, SHM_SIZE, 0666); // Locate shared memory
    char *shm_ptr = (char *)shmat(shmid, NULL, 0); // Attach shared memory

    printf("Message Received: %s\n", shm_ptr); // Print received message

    shmdt(shm_ptr); // Detach shared memory
    shmctl(shmid, IPC_RMID, NULL); // Destroy shared memory segment

    return 0;
}
```

OUTPUT


Message sent: Welcome to Shared Memory
^C
[cse81@localhost ~]$ gcc receiver.c -o receiver
[cse81@localhost ~]$ ./receiver
Message Received: Welcome to Shared Memory