#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <sys/ipc.h>

#include <sys/shm.h>

#include <unistd.h>

#define SHM\_SIZE 1024 // size of shared memory

int main() {

key\_t key = ftok("shmfile",65); // generate unique key

int shmid = shmget(key, SHM\_SIZE, 0666|IPC\_CREAT); // create shared memory

char \*str;

if (fork() == 0) {

// Child process -> Writer

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

printf("Writer: Enter a message: ");

fgets(str, SHM\_SIZE, stdin);

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

shmdt(str); // detach

} else {

// Parent process -> Reader

sleep(2); // wait for writer

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

printf("Reader: Data read from memory: %s", str);

shmdt(str); // detach

shmctl(shmid, IPC\_RMID, NULL); // destroy shared memory

}

return 0;

}

