**Write a prgram that demostrats shared memory.**

#include <stdio.h>

#include <stdlib.h>

#include <sys/ipc.h>

#include <sys/shm.h>

#include <unistd.h>

#define SHMSIZE 1024

int main() {

int shmid;

key\_t key;

char \*shm, \*s;

key = ftok(".", 'a');

if ((shmid = shmget(key, SHMSIZE, IPC\_CREAT | 0666)) < 0) {

perror("shmget");

exit(1);

}

if ((shm = shmat(shmid, NULL, 0)) == (char \*) -1) {

perror("shmat");

exit(1);

}

s = shm;

for (char \*msg = "Hello, This is the shared memory!"; \*msg != '\0'; msg++) {

\*s++ = \*msg;

}

\*s = '\0';

if (shmdt(shm) == -1) {

perror("shmdt");

exit(1);

}

sleep(3);

if ((shm = shmat(shmid, NULL, 0)) == (char \*) -1) {

perror("shmat");

exit(1);

}

printf("Message from shared memory: %s\n", shm);

if (shmdt(shm) == -1) {

perror("shmdt");

exit(1);

}

if (shmctl(shmid, IPC\_RMID, NULL) == -1) {

perror("shmctl");

exit(1);

}

return 0;

}

