# Topic 19: 19. Design a C program to implement process synchronization using mutex locks.

#include <stdio.h>  
#include <pthread.h>  
  
pthread\_mutex\_t lock;  
int counter = 0;  
  
void\* thread\_func(void\* arg) {  
 pthread\_mutex\_lock(&lock);  
 counter++;  
 pthread\_mutex\_unlock(&lock);  
 return NULL;  
}  
  
int main() {  
 pthread\_t t1, t2;  
 pthread\_mutex\_init(&lock, NULL);  
 pthread\_create(&t1, NULL, thread\_func, NULL);  
 pthread\_create(&t2, NULL, thread\_func, NULL);  
 pthread\_join(t1, NULL);  
 pthread\_join(t2, NULL);  
 pthread\_mutex\_destroy(&lock);  
 return 0;  
}