

```
#include <pthread.h>
#include <stdio.h>

int total;

void f();

pthread_mutex_t mutex = PTHREAD_MUTEX_INITIALIZER;

void main()
{
    pthread_t t1, t2;
    total = 0;

    pthread_create(&t1, NULL, (void *)f, (void *)NULL );
    pthread_create(&t2, NULL, (void *)f, (void *)NULL );

    pthread_join(t1, NULL);
    pthread_join(t2, NULL);

    printf("total=%d\n", total);
}

void f()
{
    int i,tmp;

    for( i=0; i<10000000; i++ )
    {
        // Typically, non-critical section code here
        pthread_mutex_lock(&mutex);
        tmp = total;
        tmp = tmp + 1;
        total = tmp;
        pthread_mutex_unlock(&mutex);
        // Typically, non-critical section code here
    }
}
```