**EXPERIMENT 11**

**Illustrate the concept of multithreading using a C program AIM :**

To implement the concept of multithreading using C program

## ALGORITHM :

* 1. Include Necessary Libraries:
  + Include the necessary header files for multithreading. For POSIX threads in C, include pthread.h.
  1. Define Thread Function:
  + Define a function that will be executed by the threads. This function should have a void\* return type and a void\* parameter, which can be used to pass data to the thread.
  1. Create Threads:
  + In the main function or any other function, create thread objects using pthread\_t.
  + Use pthread\_create() to create threads and specify the thread function as well as any parameters to pass.
  1. Thread Execution:
  + Threads execute concurrently and perform the tasks defined in the thread function.
  1. Synchronization and Coordination (Optional):
  + Use synchronization mechanisms such as mutexes, semaphores, or condition variables to coordinate the execution of threads and ensure data consistency.
  1. Wait for Threads to Complete (Optional):
  + Use pthread\_join() to wait for threads to finish their execution if the main thread needs to synchronize with the created threads.

Thread Termination (Optional):

* + Threads can exit by returning from the thread function or by calling pthread\_exit(). The main thread can also call pthread\_exit() to terminate the entire process.

## A screen shot of a computer Description automatically generatedOUTPUT :