System Programming
8th Laboratory (24 and 27 of April 2018)

The objective of this laboratory is to exercise the creation of threads.

I

Implement a program that is composed of a various numbers of threads that verify is a series of numbers are prime.
The main function will get from the argv (argv[1])the number of threads to create. After creating the threads the main will write a series of random integers into a pipe previously created. The amount of integers to generate is obtained from argv[2].
Each thread will read continuously integers from the pipe and verify if those numbers are prime.
When the program terminates it will print the total amount of prime numbers generated (the sum of the count on each thread).

II

in this laboratory students will modify the code developed in the previous laboratories by adding multi-threading capabilities to the code.

The main thread will be responsible for accepting connections. Immediately after accepting a connection a new thread is created.
The new thread should receive as parameter the socket returned by the connect function. When the app disconnects the corresponding thread should also terminate.
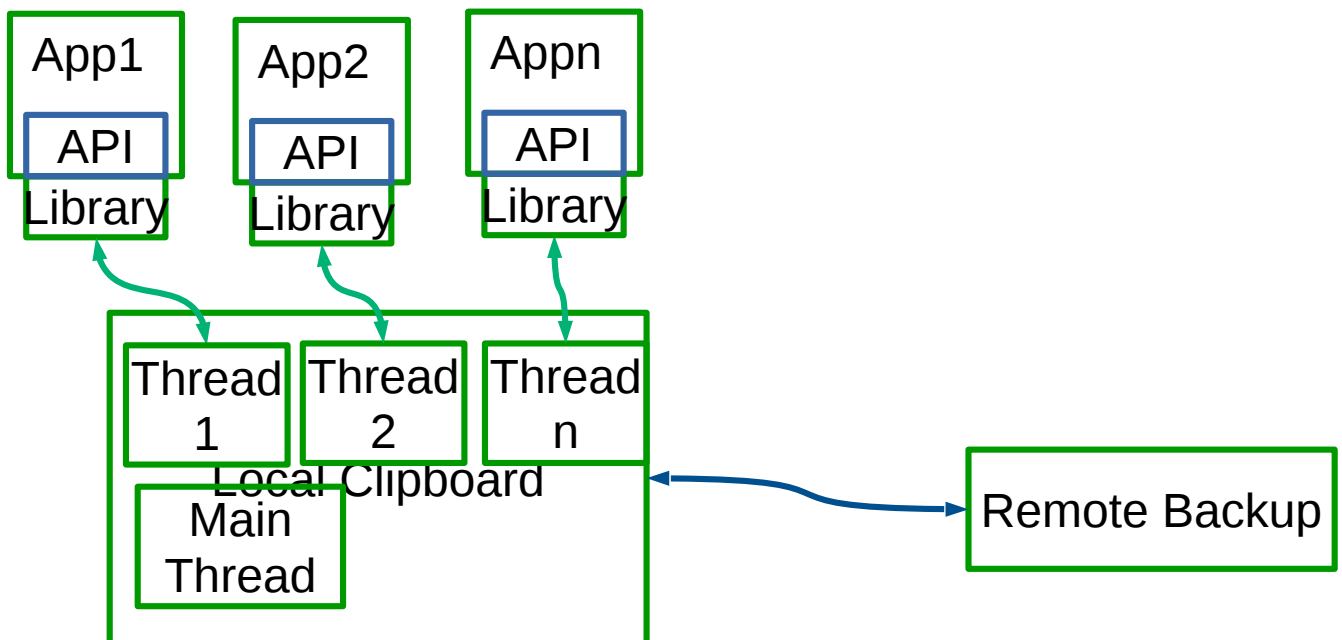
Each thread will receive the various commands from the corresponding Application and modify the global array that contains the 10 regions.

References

https://computing.llnl.gov/tutorials/pthreads/
https://www.cs.cmu.edu/afs/cs/academic/class/15492-f07/www/pthreads.html