CSCI 375 Project #1

Due date: Oct 9th, 2018

How to submit? : Submit the hardcopy of your source code and sample result

In this lab you will simulate simple multithreading application with "producer and consumer" problem.

Modify "Producer and Consumer Problem" from lecture note so that it can use all buffer space, not "*buffersize* – 1" as in the lecture note. This program should work as follows:

1. The user will run the program and will enter two numbers on the command line. Those numbers will be used for buffersize and counter limit.
2. The main program will then create ***separate threads, producer and consumer thread.***
3. ***Producer thread*** generates a random number through random number generator function and inserts this into buffer and prints the number. Increment counter.
4. ***Consumer thread*** goes to the buffer and takes a number in the proper order and prints it out. Increment counter.
5. After counter reaches its limit, both threads should be terminated and return to main.
6. Main program terminates.

You can implement this project in any OS environment of your choice, windows, linux, etc. Also you can use any programming languages you want but your program and sample run should clear show that you implemented subtasks using separate threads.

You should not copy from others or let other students use your code. Violation to this policy will result in automatic fail. (I might ask you to explain your code.)