CS 460 Pthreads Lab

Questions.txt DUE: March 18, 4:45pm

Download and import CS460_PthreadsLab_Student. Read the code in CS460_PthreadsSimple.c

Problem 1

The provided code launches a large number of threads which all access some shared memory. There is no synchronization in the existing code. Read the code and determine what the output should be if there was correct synchronization (what value should be in **global** at the end of the execution?)

Run the code 10 times and record the final result in global each time.

Fix the code by adding synchronization.

Run the code 10 times and record the final result in global each time.

Show the instructor your code and the output.

Problem 2

Replace **pThreadId** in the call to **pthread_create** with **&i**. Run the code ten times and examine the differences in the output.

Replace the &i with pThreadId.

Problem 3

Currently, the program has a memory leak. Fix it.

Optional Bonus

Can you write code to determine how much slower a process is to create than a thread?