CSC 4760/6750, Fall 2015

Programming Assignment 2

Assign date: September 23, 2015, Due: October 2, 2015

For this assignment you need to write a pthread version of a matrix - matrix multiplication in C. You can assume matrices are square matrix. The size of the matrix and no of threads should be command line arguments to your program. The main thread should create the matrices and generate random numbers (use double) to populate the matrices. The thread function should perform the matrix-matrix multiplication. Run your code for problem sizes 5000, 10000, 20000, 40,000. Measure the execution time of your code for 1, 2, 4, 8 and 16 threads. Compute speed up and efficiency of your code for different problem size and number of thread. Write a report presenting and explaining your (provide graph) results. The report should also contain what was your work partitioning strategy and why you have made that choice.

Submission:

Submit a copy of your code, a readme file (how to compile and run your code), and the report on ilearn. Also submit a printed of your report.

Grading:

Total:

Report: 30 Points Program: 70 Points 100 Points