CSC 6220: Parallel Computing I: Programming
ECE 5610: Introduction to Parallel and Distributed Systems
Homework 6
Fall 2016

Assigned on: Monday October 31, 2016

Due on: Wednesday November 9, 2016, 5:00pm

Description: Write an MPI program to add two 128x128 matrices. The program should use 8 processes, and 1-D data partitioning. Process i is responsible for adding 1-D blocks composed of rows $16 * i$ to $16 * i + 15$. Each process should print the statement "*Process i: Done*" when it completes the local summation (i is the process id).
The input matrices should have on each row integers from 1 to 128 in incresing order. Process 0 is responsible for generating the initial matrices and distributing the corresponding blocks of 16 rows to the other processes. At the end of the computation Process 0 collects the partial results from the other processes and displays the resulting matrix.
The program should terminate normally after all the processes finished printing their statements.

Submission: Use the Blackboard drop box. You should submit a zip file containing the source of the program, a short readme file, the makefile, a text file showing the output, and the job submission script.