Northern Michigan University (Marquette Co, MI)
CS 444-01-25F: Parallel And Distributed Processing

Program 1
Due: Wednesday 10 September 2025 9:00 A.M. EDT

Parallel Matrix Multiplication

Create a folder called “PG1” in the top level of your CS444-01-21F folder. Place all files pertaining to this assignment into the top level of your PG1 folder. Place a (possibly empty) file called “DONE” into this folder when you are ready to have your programs graded. The only files you need to turn in are the .cc and .h files. Please don't turn in any files other than these!!

Write a C++ program using pthreads that performs matrix multiplication in parallel. Read in integers *m*, *n*, and *p* from standard input; they will each be on their own line. Then read in floating point numbers for an *m* x *n* matrix and an *n* x *p* matrix. Each number will be on its own line. And you should fill the matrices horizontally left-to-right, top row first, bottom row last. After reading in the numbers, perform the multiplication in parallel, and print out the resulting matrix.