COSC 1420.S01
SEMESTER PROJECT

ASSIGNMENT:

Create a program which will ask the user for the name of a file from which to read the input into your program.

The first line of input will consist of three while numbers representing the sizes of three two dimensional arrays (matrices). The first value is the number of rows in array A. Second is the number of columns in array A. The third is the number of columns in array B. The number of rows in array B will be the same as the number of columns in array A. The number of rows in array C will be the same as the number of rows in array A. The number of columns in array C will be the same as the number of columns in array B.

Your program will use dynamic memory to create the functional equivalent of the three arrays A, B, and C which will be composed of complex numbers. Then your program will read in the values of the arrays A and B which will be in the form:

(1.1 4.4.) (3.3 2.2) …

Where each line corresponds to a row of the array (the number of pairs of numbers on a row is the same as the number of columns in that array). Your program will then do a matrix multiplication of A times B and place the result into array C. Then display the results by displaying C on the screen.

An example of matrix multiplication will be provided in class notes.

Due: 8 May 2019

1) Email an electronic copy of the .c and .h files you create to the instructor with the subject line "COSC 1420.S01 – Project".
2) If you wish any feedback on your work, turn in a printed listing of the .c and .h files that you created.