ECE 330 Software Design

Homework 2

The objective of this homework is to give you practice using make files to compose an executable file from a set of source files and adding additional functions to an existing set of code. This assignment will give you an appreciation for the ease with which well designed software can be extended.

 For this assignment, you will use both the static and dynamic assignment versions of the matrix software.   Using each version, do the following:

1. Develop a module which calculates the transpose of a matrix. Your module should return a matrix with the elements interchanged so that A_out[i][j] = A_in[j][i]. (You should be able to use the same module for both the static and dynamic versions.) While developing and testing the software that implements the transpose function, you may wish to use the Netbeans IDE to do so.
2. Generate a makefile that you can use to compile the set of modules to generate the executable file.
3. Modify the set of software so that the matrix elements are now integers, rather than a double precision float value.
4. Execute your transpose file with both the static and dynamic implementation and the version with integer elements. Copy the outputs to a text file to demonstrate proper execution.

What to submit:

Please submit a copy of the modified source files, makefiles, and a text file(s) that includes execution output that demonstrates proper operation for all cases.

Submit your files through UNM Learn. On UNM Learn please submit the link of your GitHub folder that contains your answer to this Homework. I will execute your code to make sure it is working as it should.