CSC 306 Fortran

Group FORTRAN Program 4

Program due October 3, 2013

The Matrix Add Program

This is a group program.

Write a FORTRAN program to:

- Prompt for, test existence of, and open an input file.
- If the file does not exist, re-prompt the user and accept another file name or 'QUIT' to quit.
- Prompt for, test existence of, and open an output file.
- If the file exists, prompt the user to enter a new file name, overwrite the existing file, or 'QUIT'.
- Once the files are open, read an integer, the only data on the line, which identifies the number of matrices included in the file. The maximum number of matrices in the file is 10.
- The next line contains two integers, the first is the number of rows in each matrix and the second is the number of columns in each matrix. The maximum size for rows and columns is 10.
- Read the next matrix completely into the program.
- Add the matrix to the sum matrix.
- Print the current matrix to the output file with a heading MATRIX x.
- Process the next matrix until all matrices have been processed.
- After all matrices have been processed, print the heading SUM OF ALL n MATRICES to the output file.
- Then print the sum matrix to the output file.
- Include the program name (not gxp3.for), program number, and group member names at the top of the program.
- Name the program GxP3.FOR where x is the group number.
- Comment your program.
- Include your names, group number, the class, and program name and number on the device used to submit the program.
- Do not use exit’s, goto’s etc.

Test your program with the data file and other data files that you will create.

TO READ DATA FROM ONE LINE INCLUDE ALL PARAMETERS IN THE READ OR USE AN IMPLIED DO FOR THE READ THAT READS ONE ELEMENT. USE A DEFAULT ,*, FORMAT FOR THE DATA THAT IS READ FROM ONE LINE.