



2 D MATRIX OPERATIONS

P R O J E C T

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I. It is required to write a header file containing the following 2-D matrix operations:

- Addition two matrices.
- Multiplication two matrices.
- Check whether a given matrix is symmetric or not.
- Transpose 1 matrix.
- Check whether a given matrix is “magic square” or not. (It is a magic square if the sum of rows, columns and diagonals are equal).

II. Write a complete C program that accepts from the user two 2-D matrices to test the header file functions.

Note that:

- The functions should receive the dimensions of the matrices as input parameters.
- The functions should return a flag that **connotes on the validity of the operation**.
- A menu should be displayed to the user to choose the appropriate operation at the start of the program and after each operation execution **until the user chooses to exit from the program**.

Bonus:

- The user should input the dimensions of the 2-D matrices and checks if they are valid or not.
 - If the dimensions are not valid, the program should give the user 3 other chances to re-input the 2-D dimensions.

Items to be delivered:

- Source codes.**
- A report containing :**
 - A full description of the code.
 - Screen Shots of the program running, covering all the program requirements.