

ICT 107 1.0

Practical 11

Write a C program that performs the following operations on two matrices:

1. **Matrix Addition:** The program should add two matrices and output the resulting matrix.
2. **Matrix Subtraction:** The program should subtract the second matrix from the first matrix and output the resulting matrix.
3. **Matrix Multiplication:** The program should multiply two matrices and output the resulting matrix.

Requirements:

1. Input:

- The program should first prompt the user to enter the dimensions of the matrices (rows and columns).
- It should then prompt the user to input the elements of both matrices.

2. Output:

- The program should display the results of the addition, subtraction, and multiplication operations.
- Proper formatting of the output matrices is required (each matrix should be displayed in a grid format).

3. Error Handling:

- The program should check if the dimensions entered by the user are valid for the operations.
- Appropriate error messages should be displayed if the matrices cannot be added, subtracted, or multiplied due to incompatible dimensions.

4. Comments and Code Readability:

- Include comments in the code to explain the logic and flow of the program.
- Ensure the code is neatly formatted and readable.