1. Write a C program to perform Matrix Multiplication

Program:

#include <stdio.h>

#define ROW1 2

#define COL1 2

#define ROW2 2

#define COL2 2

int main() {

int matrix1[ROW1][COL1] = {{1, 2}, {3, 4}};

int matrix2[ROW2][COL2] = {{1, 0}, {0, 1}};

int result[ROW1][COL2];

for (int i = 0; i < ROW1; i++) {

for (int j = 0; j < COL2; j++) {

result[i][j] = 0;

for (int k = 0; k < COL1; k++) {

result[i][j] += matrix1[i][k] \* matrix2[k][j];

}

}

}

printf("Result of Matrix Multiplication:\n");

for (int i = 0; i < ROW1; i++) {

for (int j = 0; j < COL2; j++) {

printf("%d ", result[i][j]);

}

printf("\n");

}

return 0;

}

INPUT:

A screenshot of a computer

Description automatically generated

Output:

