**1. Write a C program to perform Matrix Multiplication**

#include <stdio.h>

#define ROW1 3

#define COL1 2

#define ROW2 2

#define COL2 3

int main() {

int mat1[ROW1][COL1] = {{1, 2}, {3, 4}, {5, 6}};

int mat2[ROW2][COL2] = {{7, 8, 9}, {10, 11, 12}};

int result[ROW1][COL2];

// Matrix multiplication

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] += mat1[i][k] \* mat2[k][j];

}

}

}

// Display result

printf("Result matrix:\n");

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

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

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

}

printf("\n");

}

return 0;

}