**Matrix Multiplication\**

#include <stdio.h>

int main() {

int a[10][10], b[10][10], c[10][10], r1, c1, r2, c2, i, j, k;

printf("Enter rows & cols of first matrix: ");

scanf("%d%d", &r1, &c1);

printf("Enter rows & cols of second matrix: ");

scanf("%d%d", &r2, &c2);

if (c1 != r2) {

printf("Matrix multiplication not possible!");

return 0;

}

printf("Enter first matrix:\n");

for (i = 0; i < r1; i++)

for (j = 0; j < c1; j++)

scanf("%d", &a[i][j]);

printf("Enter second matrix:\n");

for (i = 0; i < r2; i++)

for (j = 0; j < c2; j++)

scanf("%d", &b[i][j]);

for (i = 0; i < r1; i++)

for (j = 0; j < c2; j++) {

c[i][j] = 0;

for (k = 0; k < c1; k++)

c[i][j] += a[i][k] \* b[k][j];

}

printf("Resultant Matrix:\n");

for (i = 0; i < r1; i++) {

for (j = 0; j < c2; j++)

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

printf("\n");

}

return 0;

}

