**MATRIX MULTIPLICATION**

#include <stdio.h>

#include<conio.h>

void main()

{

int m, n, p, q, c, d, k, sum = 0;

int first[10][10], second[10][10], multiply[10][10];

clrscr();

printf("Enter number of rows and columns of first matrix\n");

scanf("%d%d", &m, &n);

printf("Enter elements of first matrix\n");

for (c = 0; c < m; c++)

for (d = 0; d < n; d++)

scanf("%d", &first[c][d]);

printf("Enter number of rows and columns of second matrix\n");

scanf("%d%d", &p, &q);

if (n != p)

printf("The matrices can't be multiplied with each other.\n");

else

{

printf("Enter elements of second matrix\n");

for (c = 0; c < p; c++)

for (d = 0; d < q; d++)

scanf("%d", &second[c][d]);

for (c = 0; c < m; c++) {

for (d = 0; d < q; d++) {

for (k = 0; k < p; k++) {

sum = sum + first[c][k]\*second[k][d];

}

multiply[c][d] = sum;

sum = 0;

}

}

printf("Product of the matrices:\n");

for (c = 0; c < m; c++) {

for (d = 0; d < q; d++)

printf("%d\t", multiply[c][d]);

printf("\n");

}

}

getch();

}