**Downloaded from** [**StudentSuvidha.in**](http://studentsuvidha.in/)

**PROGRAM FOR *MULTIPLICATION OF TWO MATRICES***

#include<stdio.h>

#include<conio.h>

void main()

{

int a[10][10],b[10][10],c[10][10];

int i,j,k,r1,r2,c1,c2;

clrscr();

printf("input the order of matrix A\n");

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

printf("input the order of matrix B\n");

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

if(c1!=r2)

{

printf("multiplication not possible");

getch();

}

printf("enter elements of matrix A\n");

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

{

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

{

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

}

}

printf("enter elements of matrix B\n");

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

{

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

{

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

}

}

printf("elements of matrix A are\n");

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

{

printf("\n");

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

{

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

printf("\t");

}

}

printf("elements of matrix B are\n");

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

{

printf("\n");

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

{

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

printf("\t");

}

}

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

}

}

}

printf("multiplication of matrix is\n");

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

{

printf("\n");

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

{

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

printf("\t");

}

}

getch();

}