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#include <stdio.h>

void main()
{
    int arr1[50][50],brr1[50][50],crr1[50][50],i,j,k,r1,c1,r2,c2,sum=0;

    printf("\n\nMultiplication of two Matrices :\n");
    printf("-----\n");
    printf("\nInput the rows and columns of first matrix : ");
    scanf("%d %d",&r1,&c1);
    printf("\nInput the rows and columns of second matrix : ");
    scanf("%d %d",&r2,&c2);
    if(c1!=r2)
    {
        printf("Mutiplication of Matrix is not possible.");
        printf("\nColumn of first matrix and row of second matrix must be same.");
    }
    else
    {
        printf("Input elements in the first matrix :\n");
        for(i=0;i<r1;i++)
        {
            for(j=0;j<c1;j++)
            {
                printf("element - [%d],[%d] : ",i,j);
                scanf("%d",&arr1[i][j]);
            }
        }
        printf("Input elements in the second matrix :\n");
        for(i=0;i<r2;i++)
        {
            for(j=0;j<c2;j++)
            {

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        printf("element - [%d],[%d] : ",i,j);
        scanf("%d",&brr1[i][j]);
    }
}

printf("\nThe First matrix is :\n");
    for(i=0;i<r1;i++)
    {
        printf("\n");
        for(j=0;j<c1;j++)
        printf("%d\t",arr1[i][j]);
    }

printf("\nThe Second matrix is :\n");
    for(i=0;i<r2;i++)
    {
        printf("\n");
        for(j=0;j<c2;j++)
        printf("%d\t",brr1[i][j]);
    }

for(i=0;i<r1;i++)
for(j=0;j<c2;j++)
crr1[i][j]=0;
for(i=0;i<r1;i++)
{
    for(j=0;j<c2;j++)
    {
        sum=0;
        for(k=0;k<c1;k++)
            sum=sum+arr1[i][k]*brr1[k][j];
        crr1[i][j]=sum;
    }
}
}

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printf("\nThe multiplication of two matrices is : \n");
for(i=0;i<r1;i++)
{
    printf("\n");
    for(j=0;j<c2;j++)
    {
        printf("%d\t",crr1[i][j]);
    }
}
printf("\n\n");
}

```

