```c
1: #include<stdio.h>
2: int main()
3: {
4:     int r1,r2,c1,c2;
5:     printf("enter the row1:");
6:     scanf("%d",&r1);
7:     printf("enter the colomn1:");
8:     scanf("%d",&c1);
9:     printf("enter the row2:");
10:    scanf("%d",&r2);
11:    printf("enter the colomn2:");
12:    scanf("%d",&c2);
13:    if(c1!=r2)
14:    {
15:        printf("matrix multiplication is not possible");
16:    }
17:    else{
18:    int a[10][10],b[10][10],c[10][10],i,j,k;
19:
20:    printf("enter the matrix of A:\n");
21:    for(i=0;i<r1;i++)
22:    {
23:        for(j=0;j<c1;j++)
24:        {
25:            scanf("%d",&a[i][j]);
26:        }
27:    }
28:    printf("enter the matrix of B:\n");
29:    for(i=0;i<r2;i++)
30:    {
31:        for(j=0;j<c2;j++)
32:        {
33:            scanf("%d",&b[i][j]);
34:        }
35:    }
36:    for(i=0;i<r1;i++)
37:    {
38:        for(j=0;j<c2;j++)
39:        {
40:            c[i][j]=0;
41:            for(k=0;k<r2;k++)
42:            {
43:                c[i][j]=c[i][j]+a[i][k]*b[k][j];
44:            }
45:        }
46:    }
47:    printf("matrix multiplication:\n");
48:    for(i=0;i<r1;i++)
49:    {
50:        for(j=0;j<c2;j++)
51:        {
52:                printf("%d\t",c[i][j]);
53:        }
54:        printf("\n");
55:    }
```

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56: }
57: return 0;
58: }
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