

Create a C program to multiply two matrices.

Code-

```
#include <stdio.h>
int main()
{
    int i,j,m,n,p,q;
    printf("Write no. of rows and columns for 1st matrix");
    scanf("%d%d",&m,&n);
    printf("Write no. of rows and columns for 2nd matrix");
    scanf("%d%d",&p,&q);
    int a[m][n],b[p][q],c[m][q],k;
    printf("Write elements of 1st matrix");
    for(i=0;i<m;i++)
    {
        for(j=0;j<n;j++)
            scanf("%d",&a[i][j]);
    }
    printf("Write elements of 2nd matrix");
    for(i=0;i<p;i++)
    {
        for(j=0;j<q;j++)
            scanf("%d",&b[i][j]);
    }
    if(n==p)
    {
        printf("New matrix-");
        for(i=0;i<m;i++)
        {
            for(j=0;j<q;j++)
            {
                c[i][j]=0;
                for(k=0;k<m;k++)
                    c[i][j]=c[i][j]+a[i][k]*b[k][j];
                printf("%d ",c[i][j]);
            }
            printf("\n");
        }
    }
    else printf("Matrix can't be multiplied");
    return 0;
}
```

Input-

Write no. of rows and columns for 1st matrix2

2

Write no. of rows and columns for 2nd matrix2

2

Write elements of 1st matrix1

2

3

4

Write elements of 2nd matrix5

6

7

8

Output-

New matrix-

19 22

43 50