```c
/*

Program to multiply two matrices. The order and the elements of the

two matrices will be entered by the user as input to the program

and if multiplication is not possible then it should be reported to

the user

*/


#include <stdio.h>

main()
{
    int a[10][10], b[10][10], c[10][10], i, j, k, r1, r2, c1, c2;

  back:
    printf("\nEnter no. of rows and columns of Matrix A: ");
    scanf("%d %d", &r1, &c1);
    printf("\nEnter no. of rows and columns of Matrix B: ");
    scanf("%d %d", &r2, &c2);

    if (c1 != r2)
    {
        printf("\n\nMultiplication is not possible\n");
        goto back;
    }

    printf("\n\nEnter elements of Matrix A:\n");
    for (i=0; i<r1; i++)
        for (j=0; j<c1; j++)
            scanf("%d", &a[i][j]);

    printf("\nEnter elements of Matrix B:\n");
    for (i=0; i<r2; i++)
        for (j=0; j<c2; j++)
            scanf("%d", &b[i][j]);
```

```c
        printf("\n\nElements of Matrix A:\n\n");
    for (i=0; i<r1; i++)
    {
        for (j=0; j<c1; j++)
          printf("\t%d", a[i][j]);
        printf("\n\n");
    }

    printf("\n\nElements of Matrix B:\n");
    for (i=0; i<r2; i++)
    {
        for (j=0; j<c2; j++)
          printf("\t%d", b[i][j]);
        printf("\n\n");
    }

    for (i=0; i<r1; i++)
        for (j=0; j<c2; j++)
        {
          c[i][j] = 0;
            for (k=0; k<r2; k++)
              c[i][j] = c[i][j] + a[i][k] * b[k][j];
        }

    printf("\n\nMultiplication of Matrices:\n\n");
    for (i=0; i<r1; i++)
    {
        for (j=0; j<c2; j++)
          printf("\t%d", c[i][j]);
        printf("\n\n");
    }

    getch();
}
```