

1.

```
#include <stdio.h>
```

```
int main() {
```

```
    int a[10][10], b[10][10], mul[10][10], r, c, i, j, k;
```

```
    printf("Enter the number of rows and columns: ");
```

```
    scanf("%d%d", &r, &c);
```

```
    printf("Enter elements of first matrix:\n");
```

```
    for(i=0; i<r; i++)
```

```
        for(j=0; j<c; j++)
```

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

```
    printf("Enter elements of second matrix:\n");
```

```
    for(i=0; i<r; i++)
```

```
        for(j=0; j<c; j++)
```

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

```
    printf("Multiplying matrices...\n");
```

```
    for(i=0; i<r; i++) {
```

```
        for(j=0; j<c; j++) {
```

```
            mul[i][j] = 0;
```

```
            for(k=0; k<c; k++) {
```

```
                mul[i][j] += a[i][k] * b[k][j];
```

```
            }
```

```
        }
```

```
    }
```

```
    printf("Resultant Matrix:\n");
```

```
    for(i=0; i<r; i++) {
```

```
        for(j=0; j<c; j++) {
```

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

```
        }
```

```
        printf("\n");
```

```
    } return 0;
```

```
}
```

```
Output
Enter the number of rows and columns: 3 3
Enter elements of first matrix:
1 2 3
1 1 1
3 4 5
Enter elements of second matrix:
1 1 1
2 2 2
3 3 3
Multiplying matrices...
Resultant Matrix:
14 14 14
6 6 6
26 26 26

=== Code Execution Successful ===
```