

PROGRAM NO:1

```
#include<stdio.h>

#include<stdlib.h>

int main(){

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

system("cls");

printf("enter the number of row=");

scanf("%d",&r);

printf("enter the number of column=");

scanf("%d",&c);

printf("enter the first matrix element=\n");

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

{

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

{

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

}

}

printf("enter the second matrix element=\n");

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

{

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

{

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

}

}

printf("multiply of the matrix=\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];
}
}
}

for(i=0;i<r;i++)
{
for(j=0;j<c;j++)
{
printf("%d\t",mul[i][j]);
}
printf("\n");
}

return 0;
}

```

OUTPUT:

The screenshot shows a C++ IDE with the following components:

- Console Window:** Displays the program's execution. It prompts for the number of rows (2) and columns (2), then for the first matrix element (4, 6, 7) and the second matrix element (3, 5, 4). The output shows the multiplication of the two matrices:


```

multiply of the matrix=
31  46
14  19
      
```
- Compilation Results Window:** Shows the compilation status:


```

Compilation results...
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- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\USER\Documents\program1.exe
- Output Size: 130.11328125 KiB
- Compilation Time: 0.47s
      
```
- Source Code Editor:** Shows the C++ code with line numbers 46, 47, and 48 visible, including the `return 0;` statement.