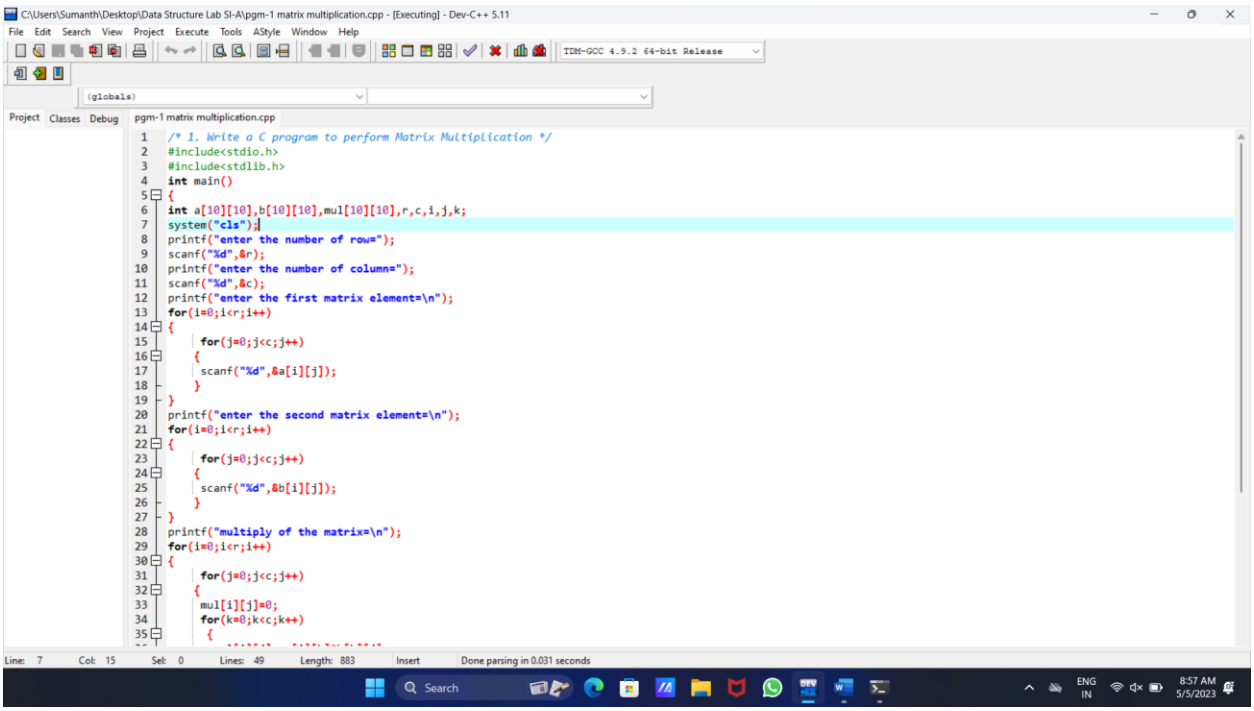
```
/* 1. Write a C program to perform Matrix Multiplication */
#include<stdio.h>
#include<stdlib.h>
int main()
{
int a[10][10],b[10][10],mul[10][10],r,c,i,j,k;
system("cls");
printf("enter the number of row=");
scanf("%d",&r);
printf("enter the number of column=");
scanf("%d",&c);
printf("enter the 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;
}
```



```
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```

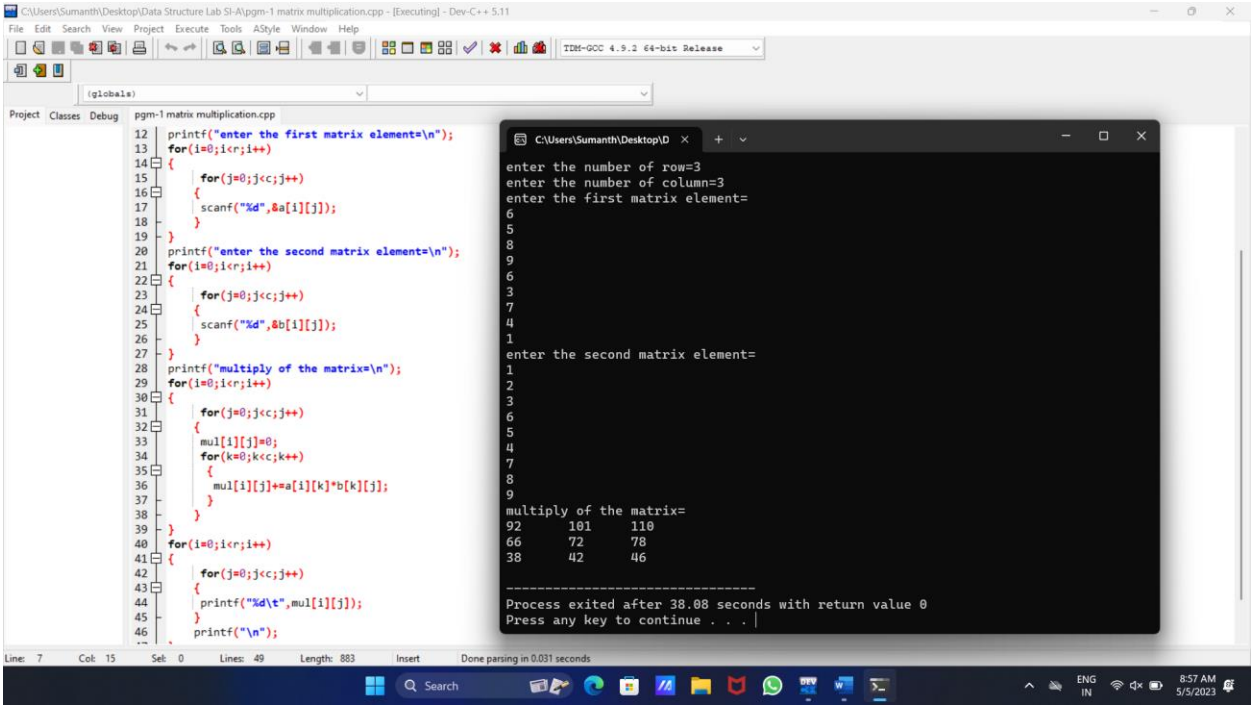

```
printf("enter the first matrix element=\n");
for(i=0;i<r;i++)
{
    for(j=0;j<c;j++)
    {
     scanf("%d",&a[i][j]);
    }
}
printf("enter the second matrix element=\n");
for(i=0;i<r;i++)
{
    for(j=0;j<c;j++)
    {
     scanf("%d",&b[i][j]);
    }
}
printf("multiply of the matrix=\n");
for(i=0;i<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");
```

```
C:\Users\Sumanth\Desktop\D
enter the number of row=3
enter the number of column=3
enter the first matrix element=
6
5
8
9
6
3
7
4
1
enter the second matrix element=
1
2
3
6
5
4
7
8
9
multiply of the matrix=
92      101     110
66      72      78
38      42      46

--------------------------------
Process exited after 38.08 seconds with return value 0
Press any key to continue . . .
```