HAMMAD MURTAZA

SID: 11146

OS LAB 1

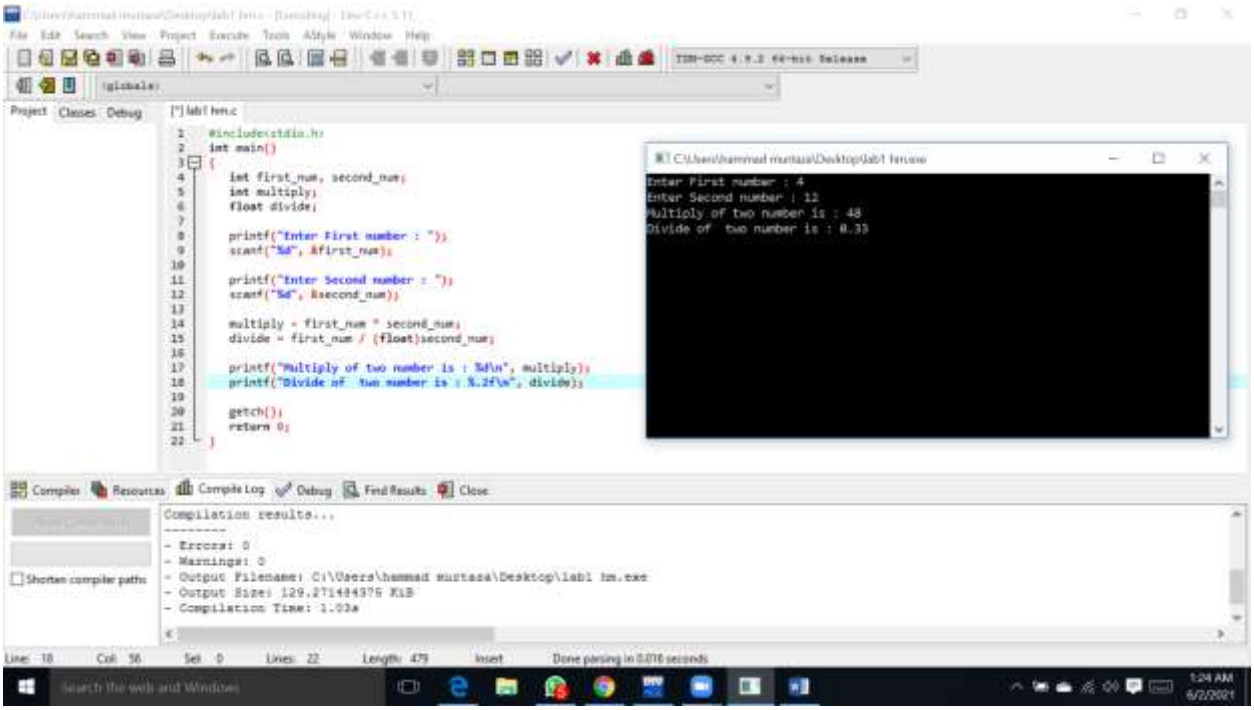
Q1:

CODE:

```
#include<stdio.h>
int main()
{
  int first_num, second_num;
  int multiply;
  float divide;

  printf("Enter First number : ");
  scanf("%d", &first_num);

  printf("Enter Second number : ");
  scanf("%d", &second_num);

  multiply = first_num * second_num;
  divide = first_num / (float)second_num;
```

```
  printf("Multiply of two number is : %d\n", multiply);
  printf("Divide of  two number is : %.2f\n", divide);

  getch();
  return 0;
}
```

SCREENSHOT:



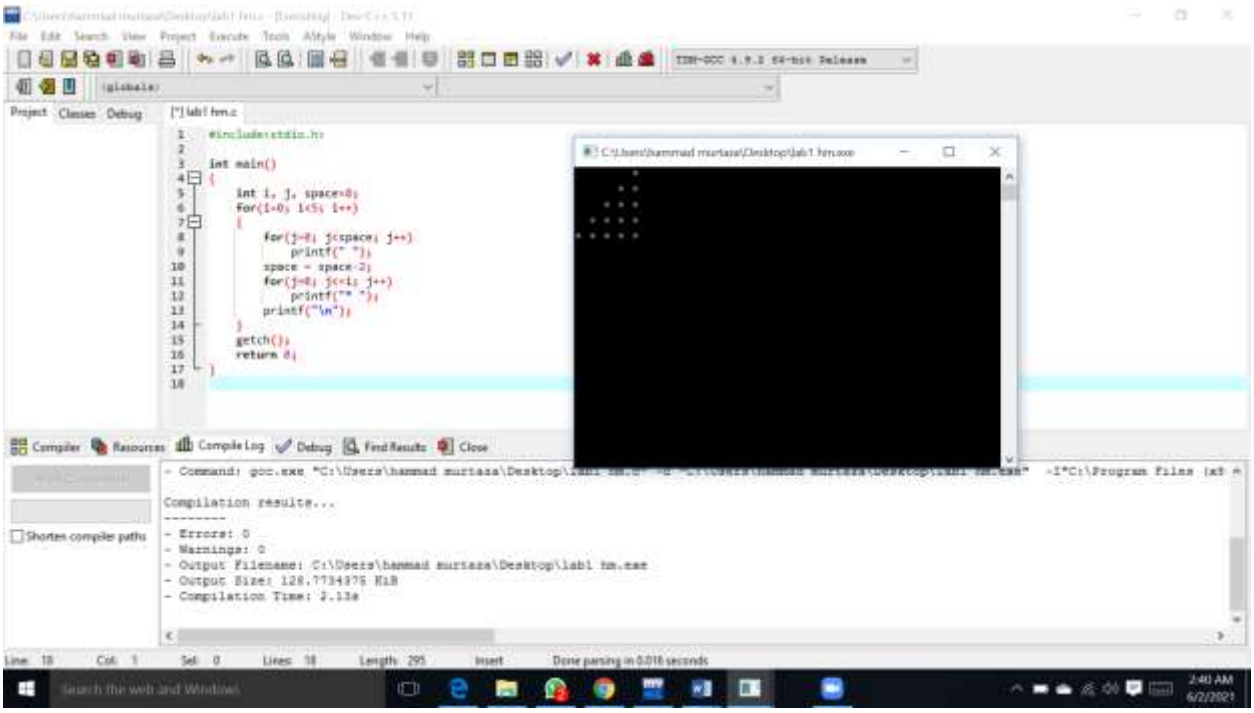
Q2:

CODE:

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

```
int main()
{
   int i, j, space=8;
   for(i=0; i<5; i++)
   {
      for(j=0; j<space; j++)
         printf(" ");
      space = space-2;
      for(j=0; j<=i; j++)
         printf("* ");
      printf("\n");
   }
   getch();
   return 0;
}
```

SCREENSHOT:



Q3:

CODE:

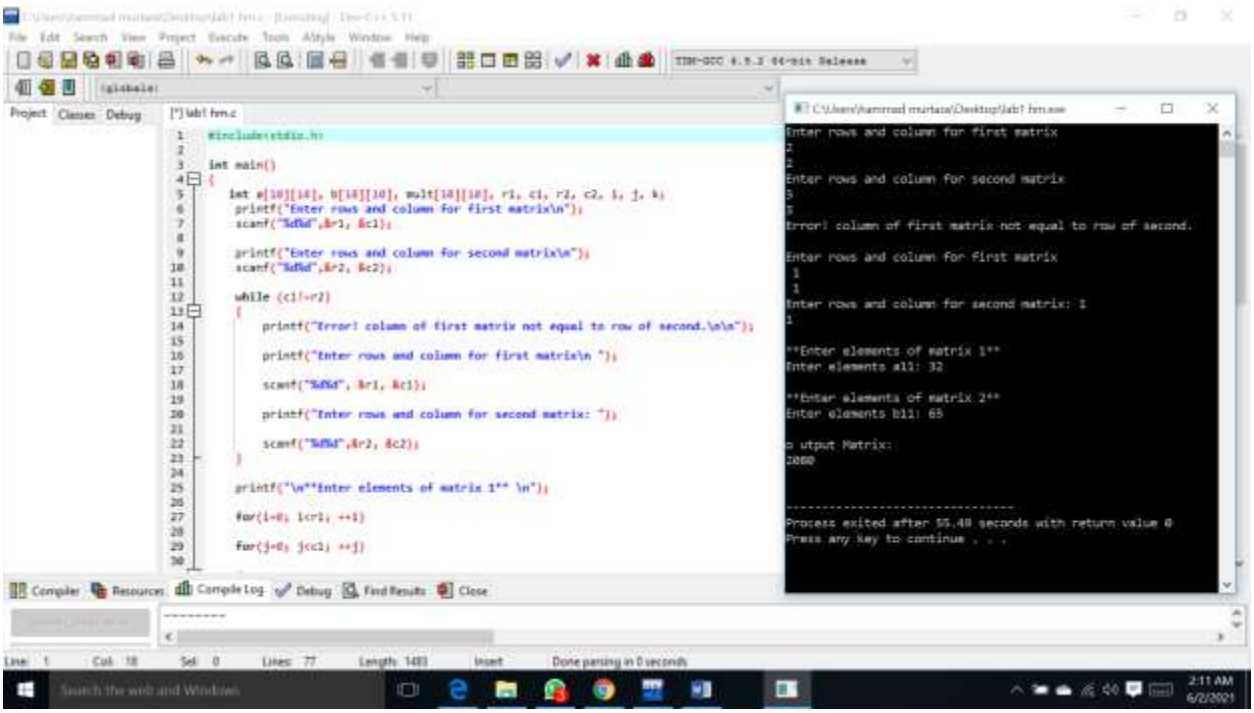
```
#include<stdio.h>

int main()
{
   int a[10][10], b[10][10], mult[10][10], r1, c1, r2, c2, i, j, k;
    printf("Enter rows and column for first matrix\n");
    scanf("%d%d",&r1, &c1);

    printf("Enter rows and column for second matrix\n");
    scanf("%d%d",&r2, &c2);
```

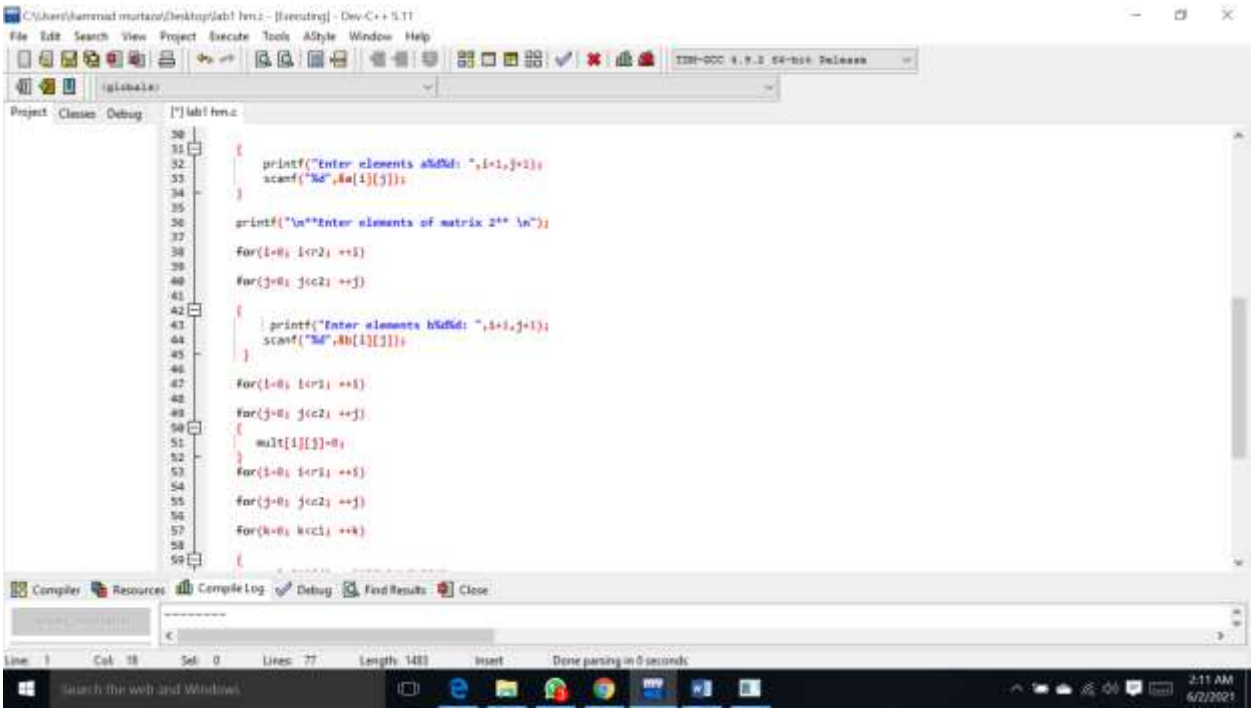
```
while (c1!=r2)
{
   printf("Error! column of first matrix not equal to row of second.\n\n");

   printf("Enter rows and column for first matrix\n ");

   scanf("%d%d", &r1, &c1);

   printf("Enter rows and column for second matrix: ");

   scanf("%d%d",&r2, &c2);
}

printf("\n**Enter elements of matrix 1** \n");

for(i=0; i<r1; ++i)

for(j=0; j<c1; ++j)

{
   printf("Enter elements a%d%d: ",i+1,j+1);
   scanf("%d",&a[i][j]);
}

printf("\n**Enter elements of matrix 2** \n");

for(i=0; i<r2; ++i)
```

```
for(j=0; j<c2; ++j)

{
    printf("Enter elements b%d%d: ",i+1,j+1);
   scanf("%d",&b[i][j]);
 }

for(i=0; i<r1; ++i)

for(j=0; j<c2; ++j)
{
  mult[i][j]=0;
}
for(i=0; i<r1; ++i)

for(j=0; j<c2; ++j)

for(k=0; k<c1; ++k)

{
   mult[i][j]+=a[i][k]*b[k][j];
}

printf("\no utput Matrix:\n");

for(i=0; i<r1; ++i)
```

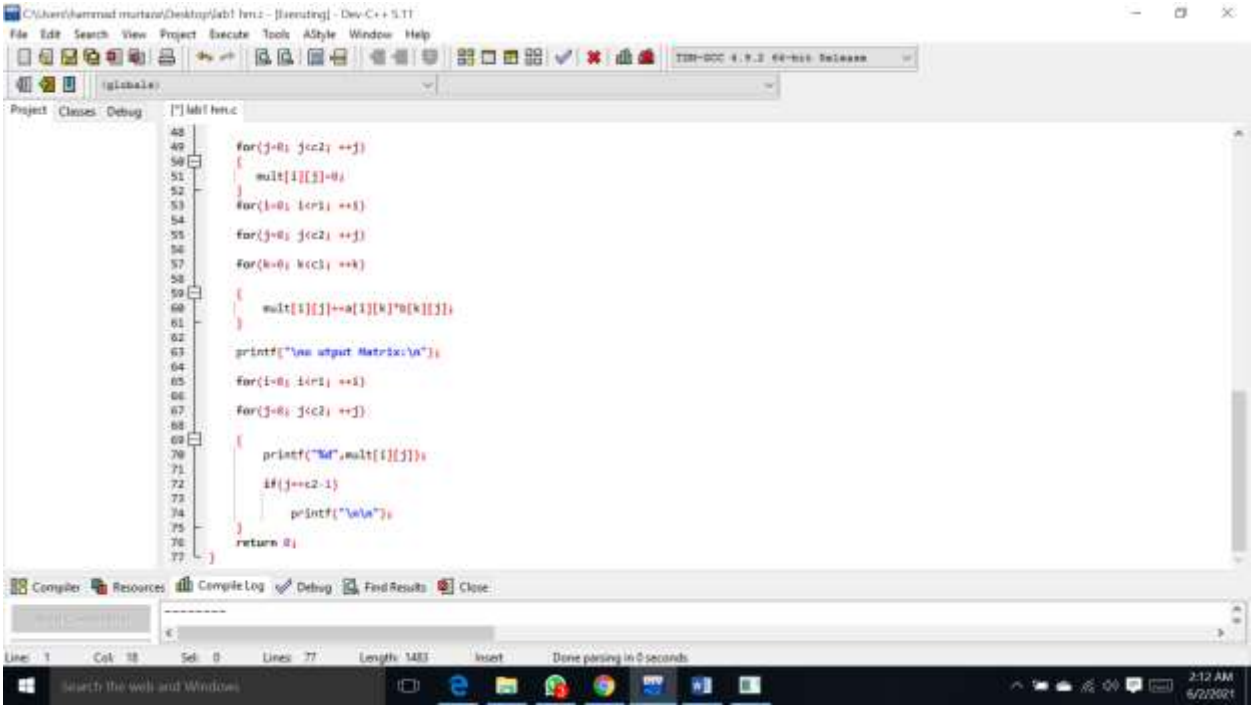
```
    for(j=0; j<c2; ++j)

    {
        printf("%d",mult[i][j]);

        if(j==c2-1)

            printf("\n\n");
    }
    return 0;
}
```

SCREENSHOT:





```
    {
        printf("Enter elements a%d%d: ",i+1,j+1);
        scanf("%d",&a[i][j]);
    }

    printf("\n**Enter elements of matrix 2** \n");

    for(i=0; i<r2; ++i)

    for(j=0; j<c2; ++j)

    {
        printf("Enter elements b%d%d: ",i+1,j+1);
        scanf("%d",&b[i][j]);
    }

    for(i=0; i<r1; ++i)

    for(j=0; j<c2; ++j)
    {
       mult[i][j]=0;
    }
    for(i=0; i<r1; ++i)

    for(j=0; j<c2; ++j)

    for(k=0; k<c1; ++k)

    {
```



```
    for(j=0; j<c2; ++j)
    {
       mult[i][j]=0;
    }
    for(i=0; i<r1; ++i)

    for(j=0; j<c2; ++j)

    for(k=0; k<c1; ++k)

    {
        mult[i][j]+=a[i][k]*b[k][j];
    }

    printf("\nm atput Matrix:\n");

    for(i=0; i<r1; ++i)

    for(j=0; j<c2; ++j)

    {
        printf("%d",mult[i][j]);

        if(j==c2-1)

            printf("\n\n");
    }
    return 0;
}
```