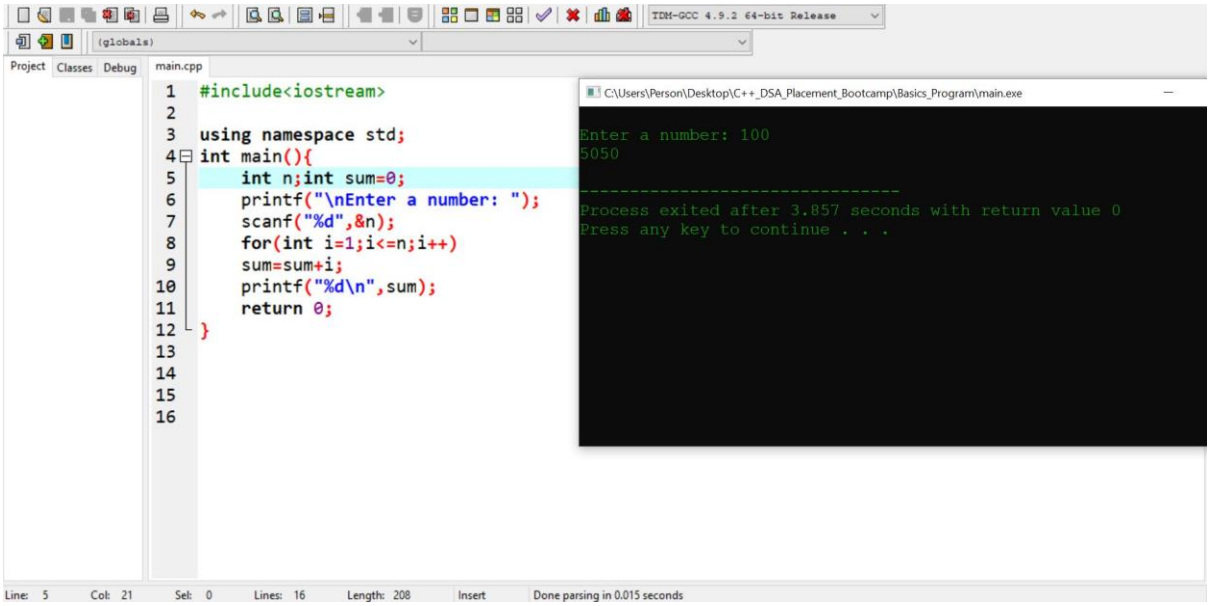
Assignment-06

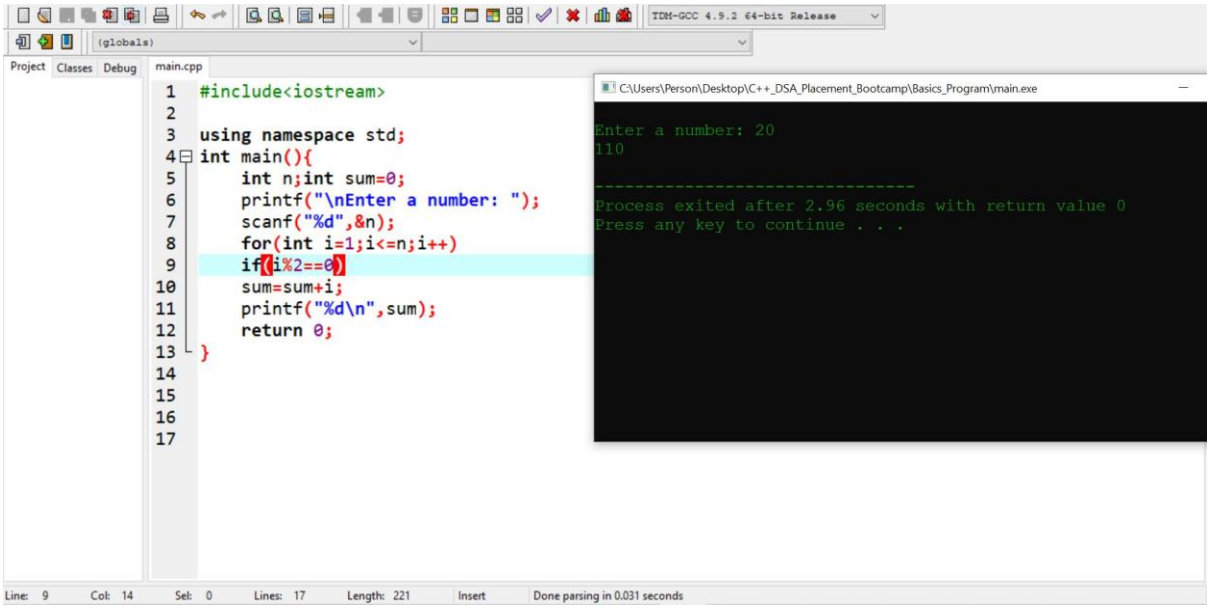
1. Write a program to calculate sum of first N natural numbers



```
#include<iostream>

using namespace std;
int main(){
    int n;int sum=0;
    printf("\nEnter a number: ");
    scanf("%d",&n);
    for(int i=1;i<=n;i++)
    sum=sum+i;
    printf("%d\n",sum);
    return 0;
}
```

```
C:\Users\Person\Desktop\C++_DSA_Placement_Bootcamp\Basics_Program\main.exe

Enter a number: 100
5050

--------------------------------
Process exited after 3.857 seconds with return value 0
Press any key to continue . . .
```

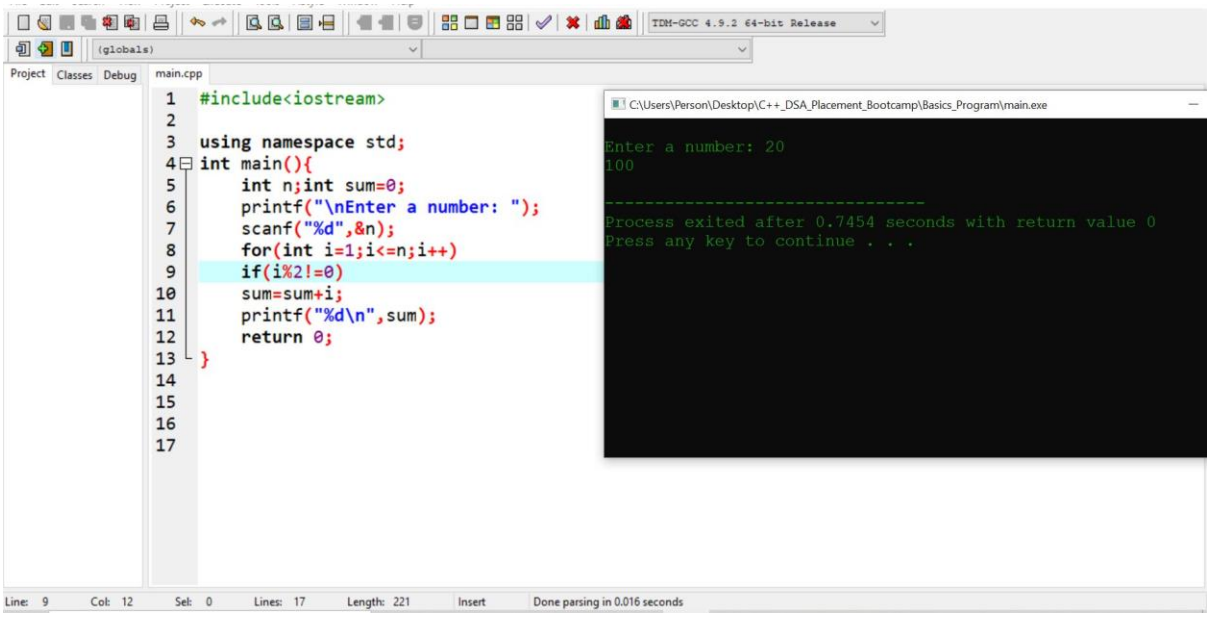
2. Write a program to calculate sum of first N even natural numbers



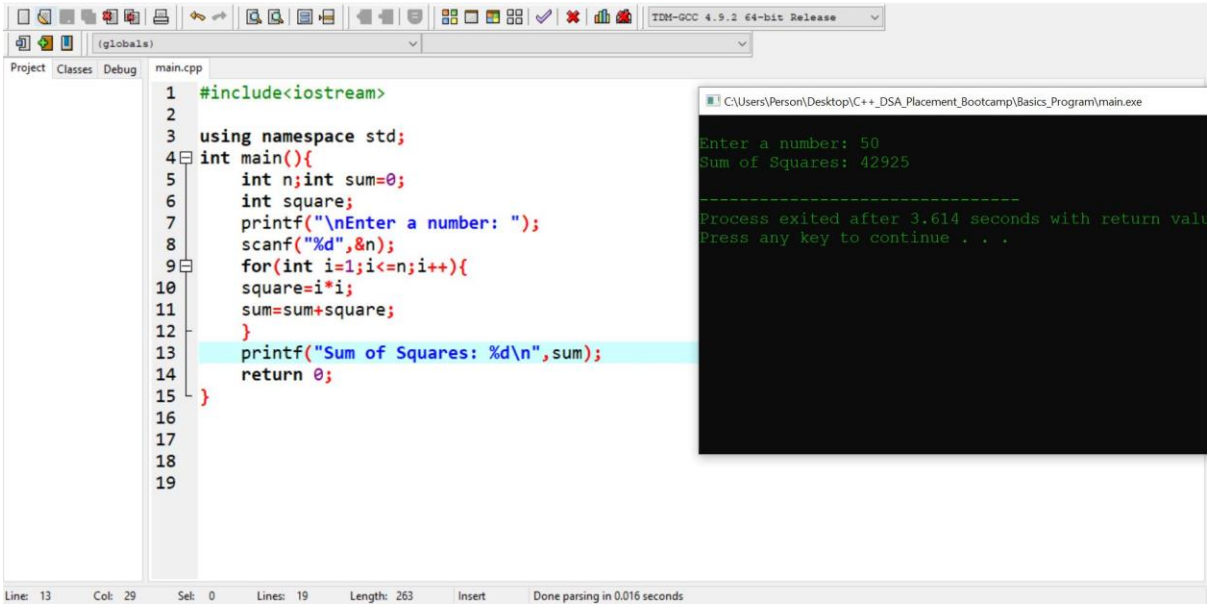
```
#include<iostream>

using namespace std;
int main(){
    int n;int sum=0;
    printf("\nEnter a number: ");
    scanf("%d",&n);
    for(int i=1;i<=n;i++)
    if(i%2==0)
    sum=sum+i;
    printf("%d\n",sum);
    return 0;
}
```

```
C:\Users\Person\Desktop\C++_DSA_Placement_Bootcamp\Basics_Program\main.exe

Enter a number: 20
110

--------------------------------
Process exited after 2.96 seconds with return value 0
Press any key to continue . . .
```

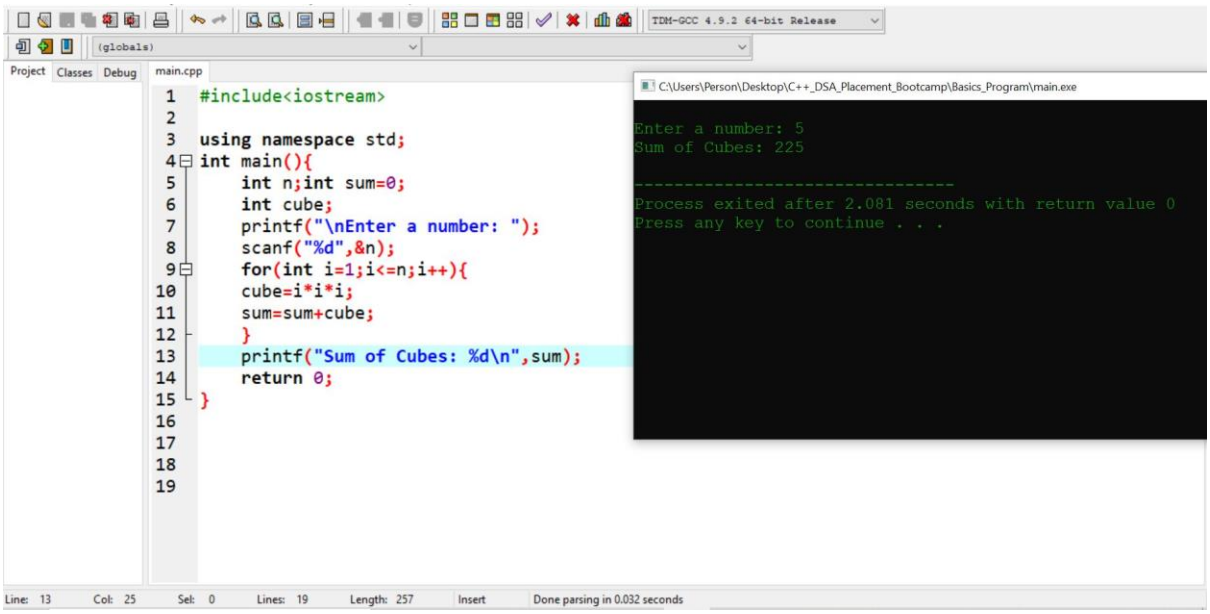
3. Write a program to calculate sum of first N odd natural numbers



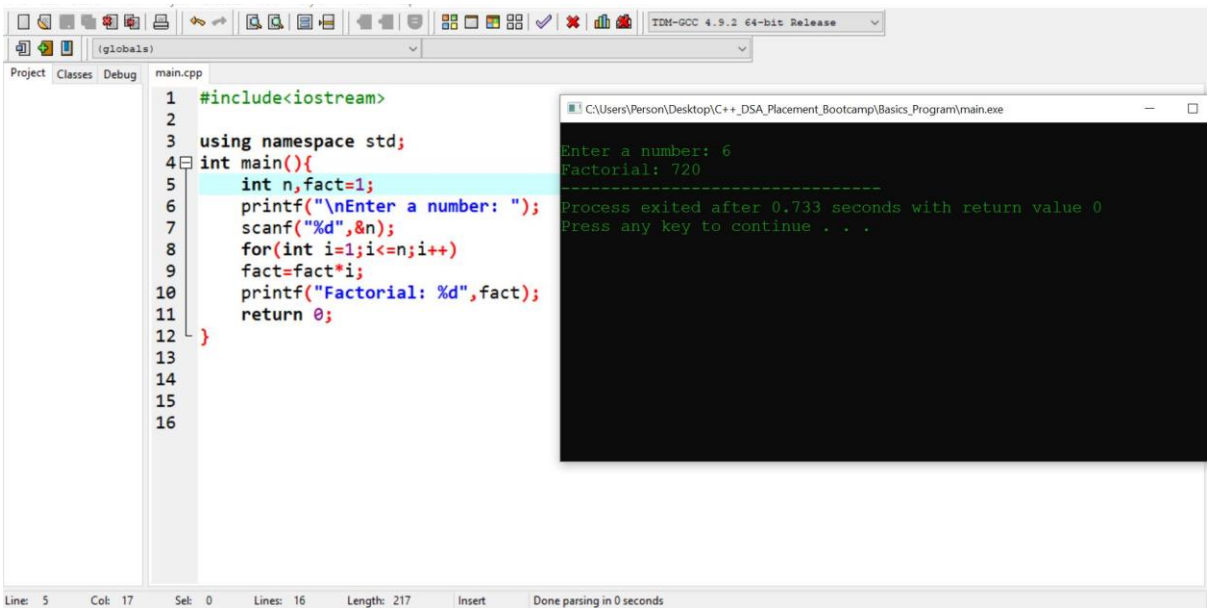
4. Write a program to calculate sum of squares of first N natural numbers



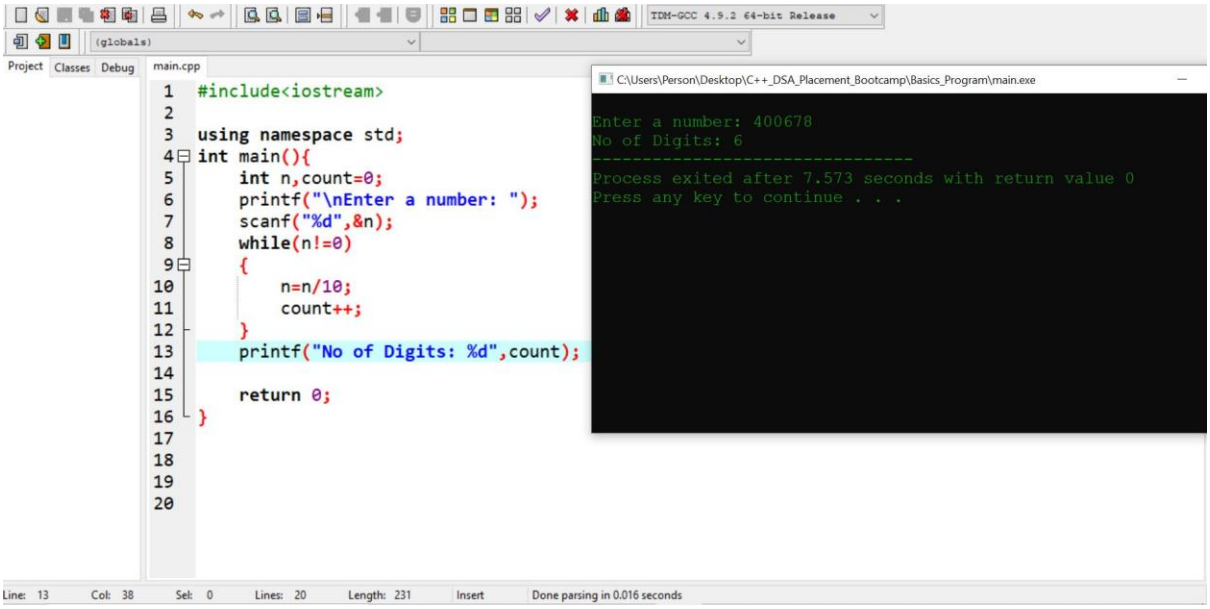
5. Write a program to calculate sum of cubes of first N natural numbers



6. Write a program to calculate factorial of a number



7. Write a program to count digits in a given number


TDM-GCC 4.9.2 64-bit Release
(globals)
Project
Classes
Debug
main.cpp
#include<iostream>
using namespace std;
int main(){
int n,count=0;
printf("\nEnter a number: ");
scanf("%d",&n);
while(n!=0)
{
n=n/10;
count++;
}
printf("No of Digits: %d",count);
return 0;
}
C:\Users\Person\Desktop\C++_DSA_Placement_Bootcamp\Basics_Program\main.exe
Enter a number: 400678
No of Digits: 6
Process exited after 7.573 seconds with return value 0
Press any key to continue . . .
Line: 13
Col: 38
Sel: 0
Lines: 20
Length: 231
Insert
Done parsing in 0.016 seconds