ASSIGNMENT-4

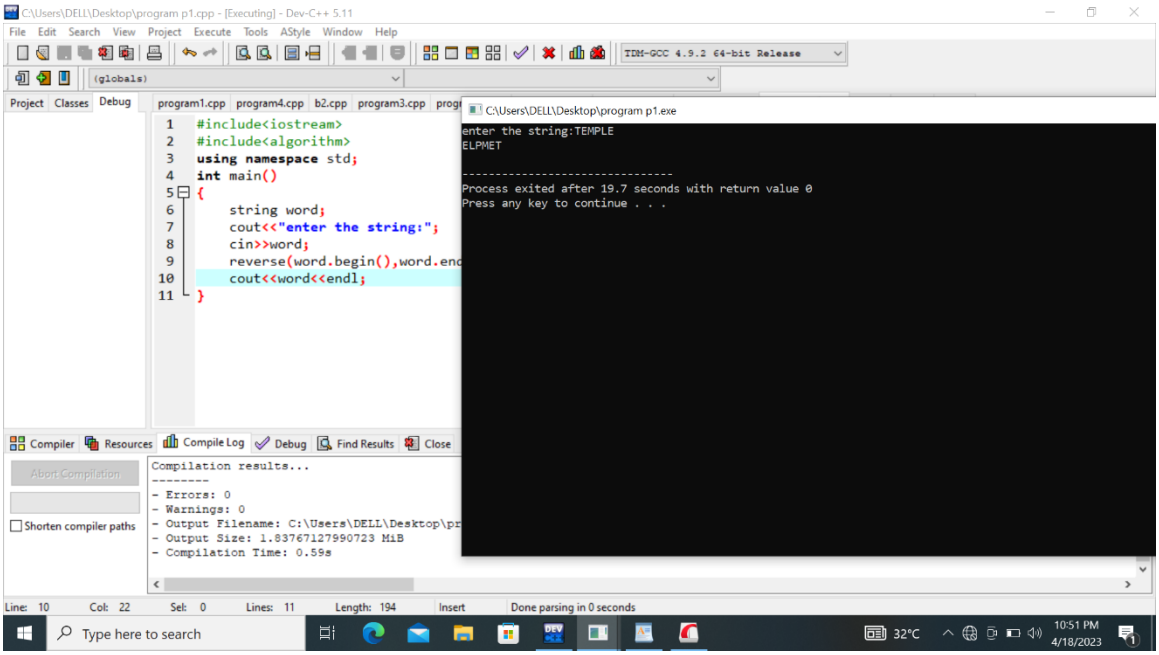
1. Write a program to reverse a word using loop?
   Sample Input:
   String: TEMPLE
   Sample Output:
   Reverse String: ELPMET

   Test cases:
   1. SIGN UP
   2. AT-LEAST
   3. 1245
   4. !@#$%
   5. 145*999=144855

   Souce sode:

```
#include<iostream>
#include<algorithm>
using namespace std;
int main()
{
        string word;
        cout<<"enter the string:";
        cin>>word;
        reverse(word.begin(),word.end());
        cout<<word<<endl;
}
```

   Output:



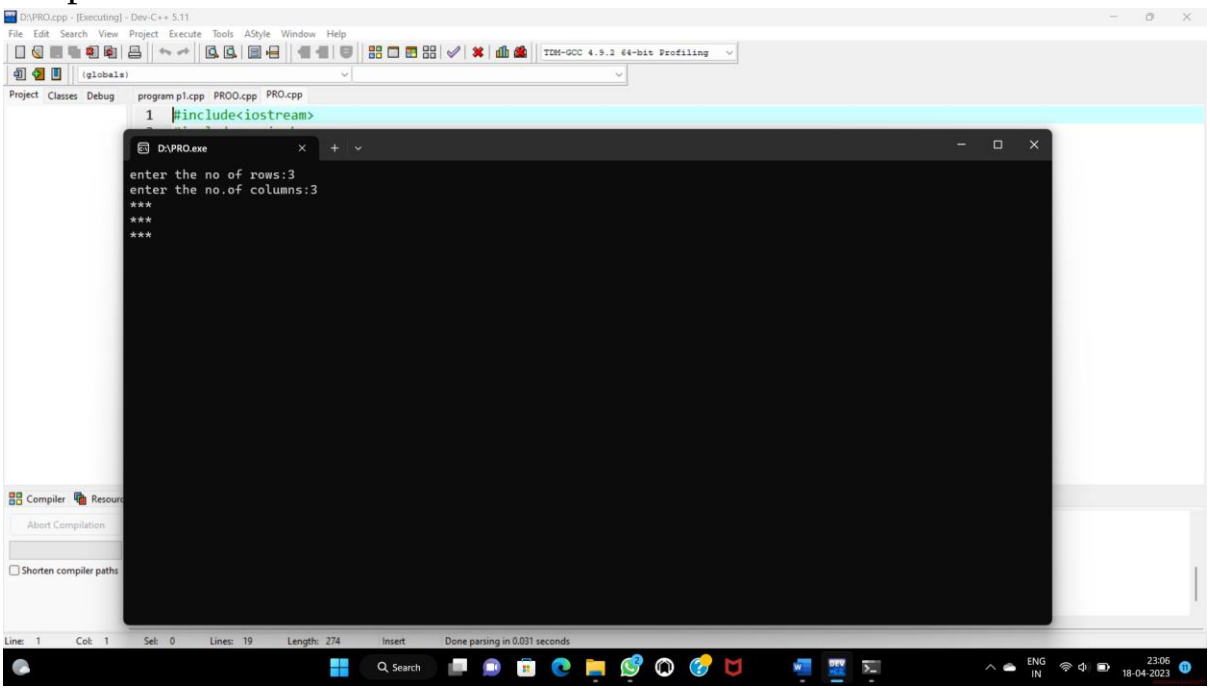
2. Write a program to print square star and rectangle dollar pattern?

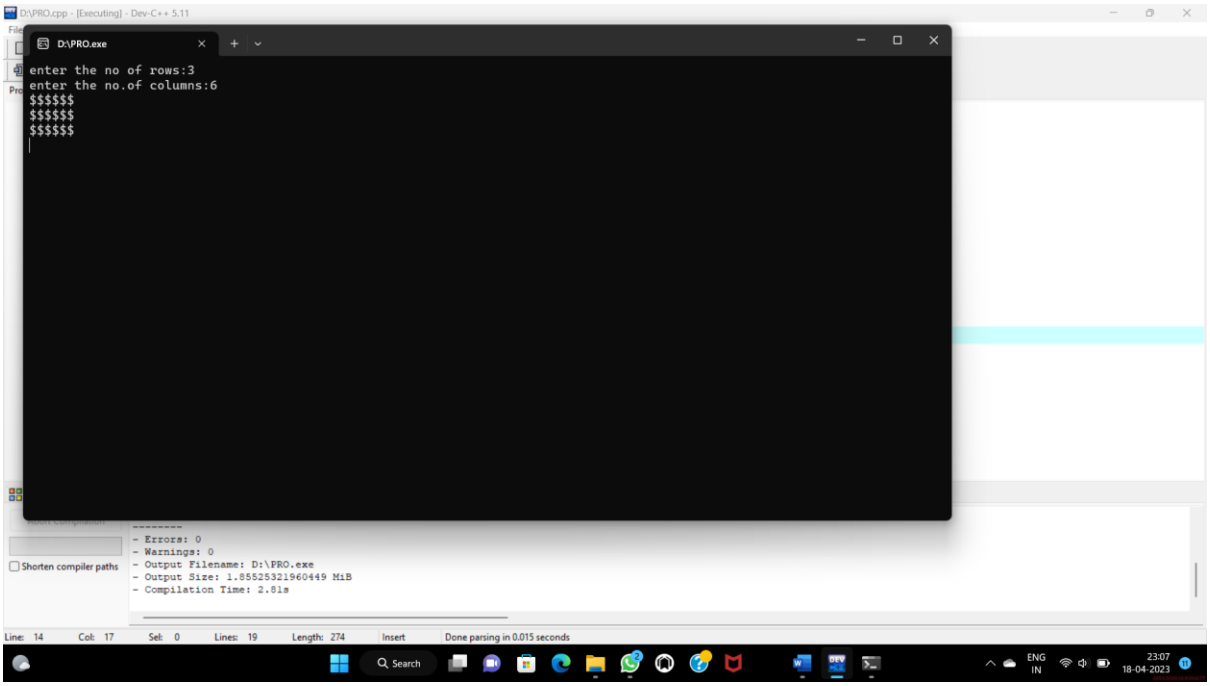
Source code:

```
#include<iostream>
#include<conio.h>
using namespace std;
int main()
{
    int r,c,i,j,b;
    cout<<"enter the no of rows:";
    cin>>r;
    cout<<"enter the no.of columns:";
    cin>>c;
    for(i=0;i<r;i++)
    {
```

```
            for(j=0;j<c;j++){
            cout<<"*";
    }
    cout<<"\n";
}
getch();
}
```

Output:





3. Write a program to count all the prime and composite numbers entered by the user.

Sample Input:

Enter the numbers

4

54

29

71

7

59

98

23

Sample Output:

Composite number:3

Prime number:5

Test cases:

1. 33, 41, 52, 61,73,90
2. TEN, FIFTY, SIXTY-ONE, SEVENTY-SEVEN, NINE
3. 45, 87, 09, 5.0 ,2.3, 0.4

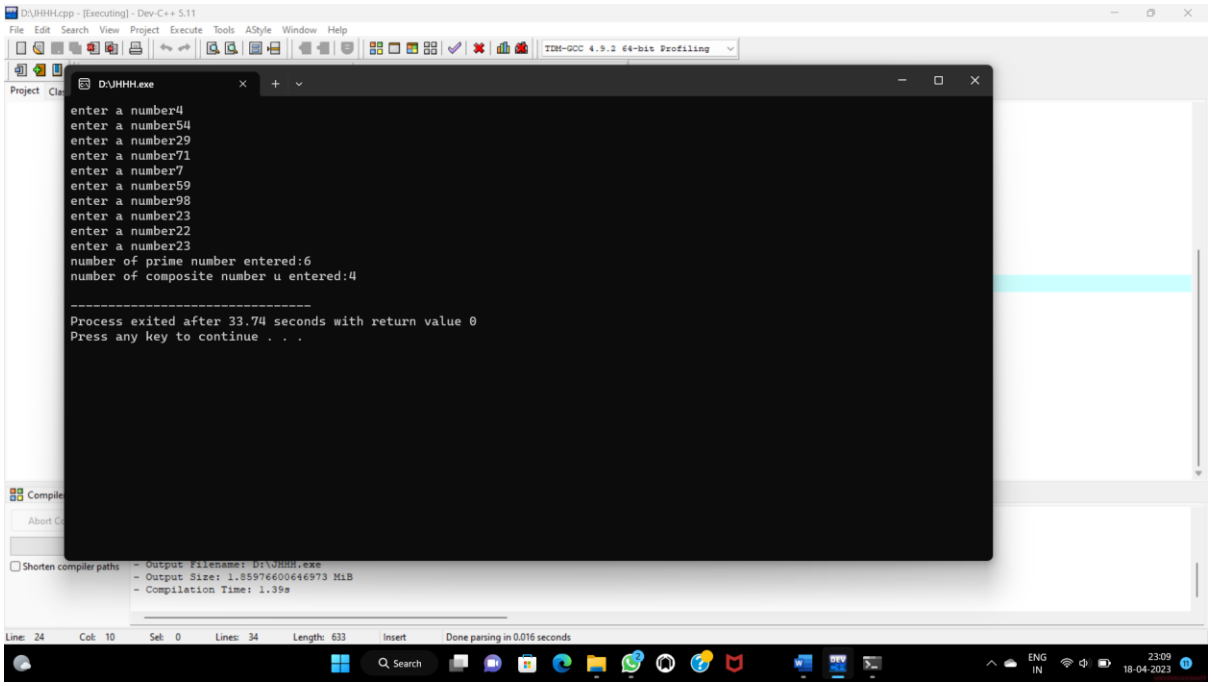
4. -54, -76, -97, -23, -33, -98
5. 45, 73, 00, 50, 67, 44

Source code:

```
#include<iostream>
#include<cmath>
using namespace std;
bool isprime(int num){
    if(num<=1){
        return false;
    }
    int sqrtnum=sqrt(num);
    for(int i=2;i<=sqrtnum;i++){
        if(num%i==0){
                return false;
        }
    }
    return true;
}
int main(){
    int num,primecount=0,compositecount=0,count=0;
    const int maxcount=10;
    while(count<maxcount){
        cout<<"enter a number";
        cin>>num;
        if(isprime(num)){
                primecount++;
        }
        else{
                compositecount++;
        }
        count++;
```

```
    }
    cout<<"number of prime number entered:"<<primecount<<endl;
    cout<<"number of composite number u entered:"<<compositecount<<endl;
    return 0;
}
```

Output:



4 Write a program to check the entered user name is valid or not. Get both the inputs from the user.

Sample Input:

Enter the user name: Saveetha@789

Reenter the user name: Saveetha@123

Sample Output:

User name is Invalid

Source code:

```
#include<iostream>
using namespace std;
int main()
```

```
{
        string a,b;
        cout<<"enter the string:";
        cin>>a;
        cout<<"reenter the string:";
        cin>>b;
        if(a==b){
                cout<<"user name is valid";
        }
        else{
                cout<<"username is invalid";
        }
}
```

Output: