SAVEETHA SCHOOL OF ENGINEERING

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES

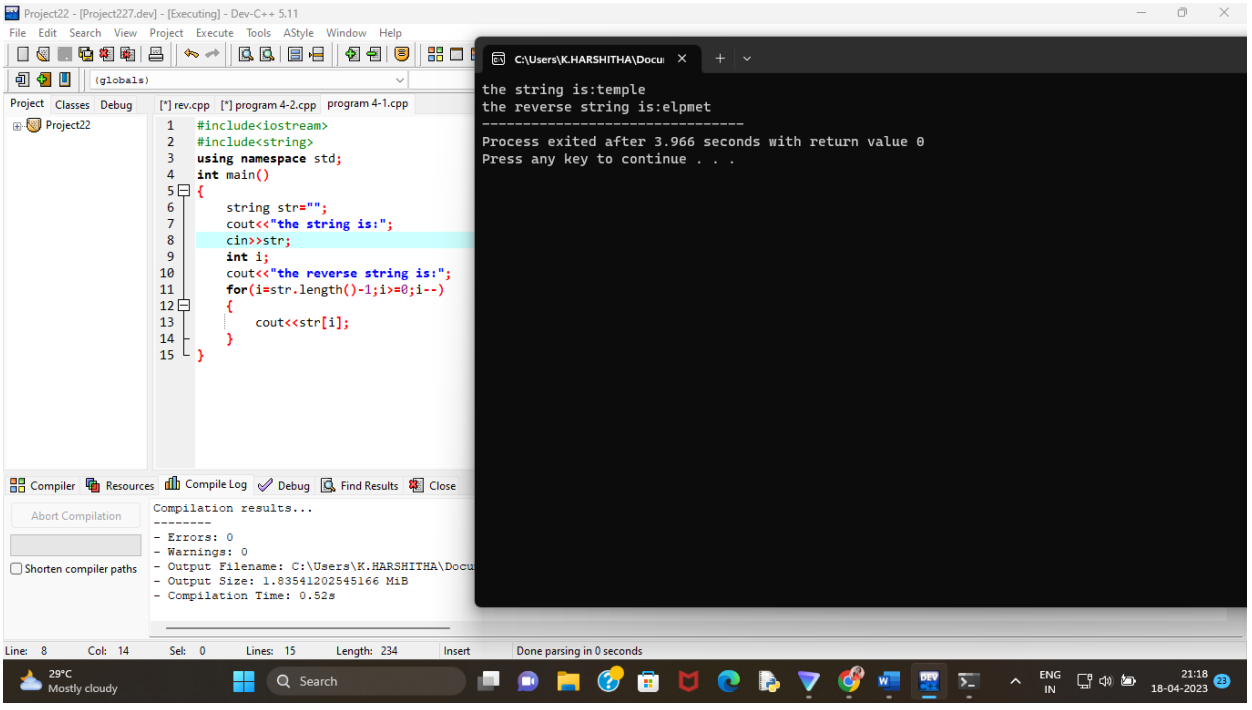
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERINNG

Engineer to Excel

DAY 4 Assignment QUESTIONS.

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

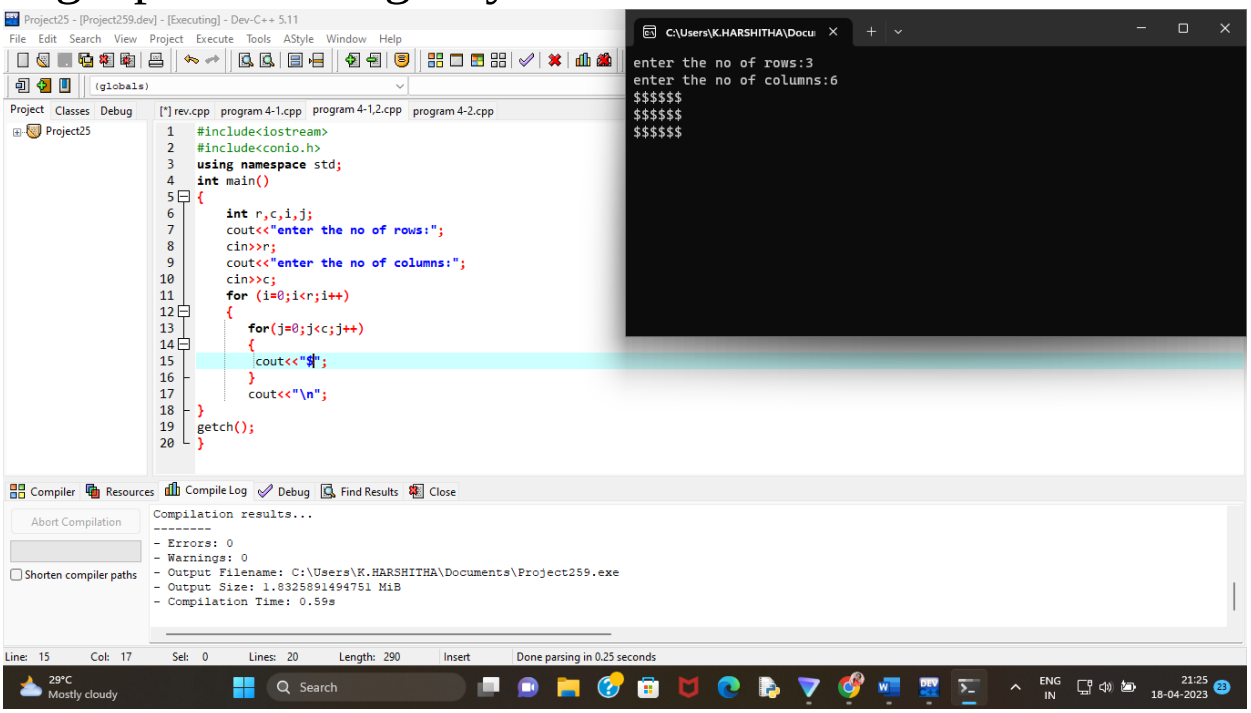
Output of the given program with source code:



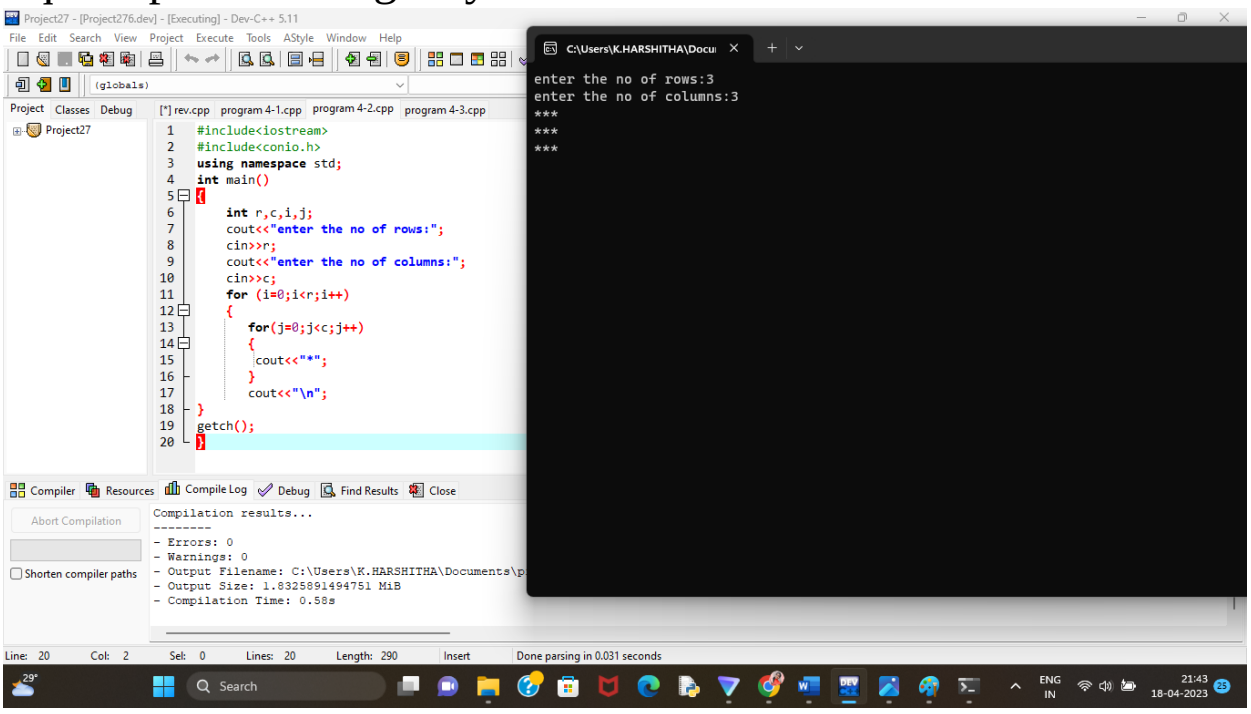
2. Write a program to print square star and rectangle dollar pattern?

Output of the given program with source code:

Rectangle pattern using $ symbol:



Square pattern using * symbol:



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

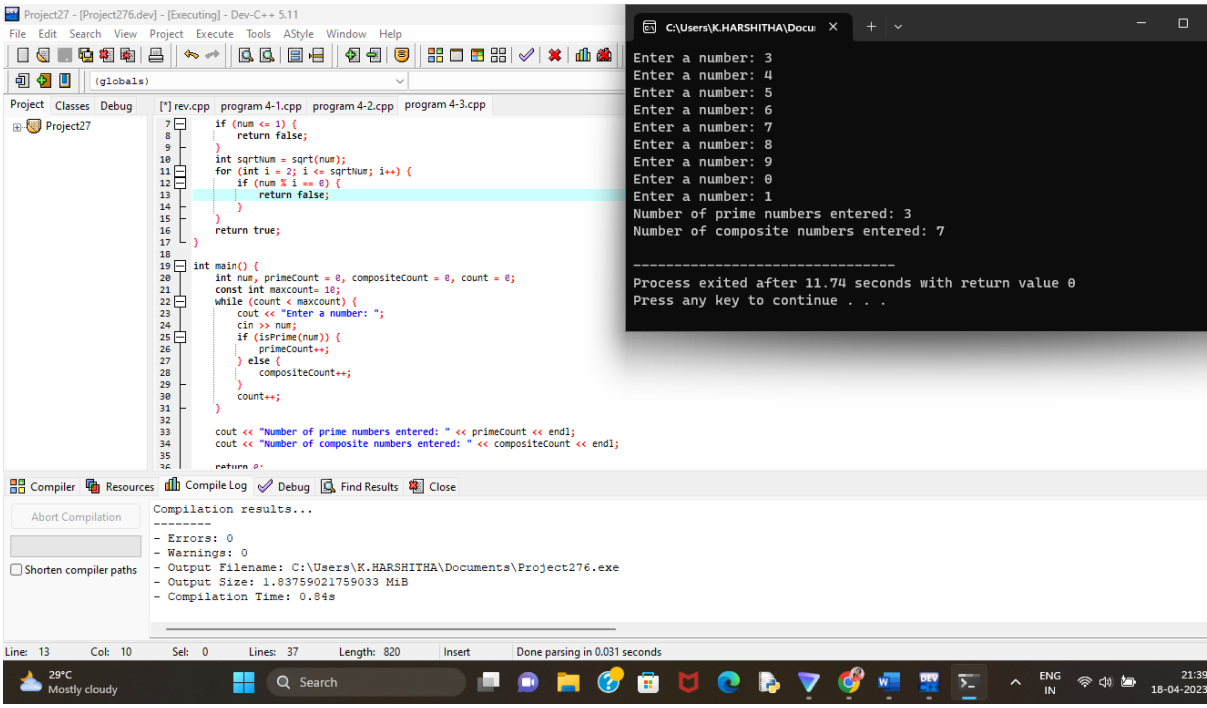
Test cases:

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

Output for the given program with 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 numbers entered: " << primeCount << endl;
    cout << "Number of composite numbers entered: " << compositeCount <<
endl;

    return 0;
}
```



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

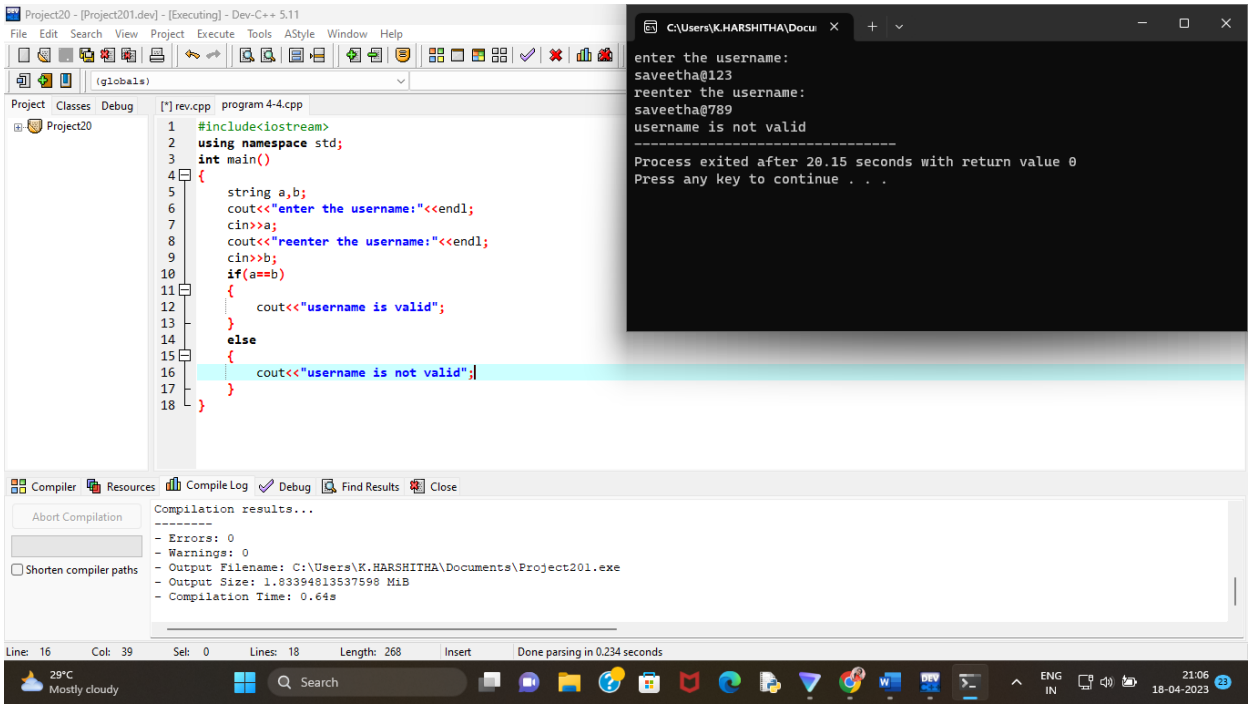
Reenter the user name: Saveetha@123

Sample Output:

User name is Invalid

Output for given program with source code:

```
#include<iostream>
using namespace std;
int main()
{
	string a,b;
	cout<<"enter the username:"<<endl;
	cin>>a;
	cout<<"reenter the username:"<<endl;
	cin>>b;
	if(a==b)
	{
		cout<<"username is valid";
	}
	else
	{
		cout<<"username is not valid";
	}
}
```


Project20 - [Project201.dev] - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes Debug
Project20
[*] rev.cpp
program 4-4.cpp
#include<iostream>
using namespace std;
int main()
{
string a,b;
cout<<"enter the username:"<<endl;
cin>>a;
cout<<"reenter the username:"<<endl;
cin>>b;
if(a==b)
{
cout<<"username is valid";
}
else
{
cout<<"username is not valid";
}
}
C:\Users\K.HARSHITHA\Docu
enter the username:
saveetha@123
reenter the username:
saveetha@789
username is not valid
Process exited after 20.15 seconds with return value 0
Press any key to continue . . .
Compiler Resources Compile Log Debug Find Results Close
Abort Compilation
Shorten compiler paths
Compilation results...
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\K.HARSHITHA\Documents\Project201.exe
- Output Size: 1.83394813537598 MiB
- Compilation Time: 0.64s
Line: 16 Col: 39 Sel: 0 Lines: 18 Length: 268 Insert Done parsing in 0.234 seconds
29°C
Mostly cloudy
Search
ENG
IN
21:06
18-04-2023