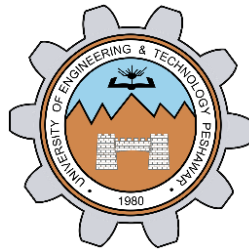


INTRODUCTION TO

C++

LAB # 1



Spring 2022

CSE102L Computer Programming Lab

Submitted by: **Ali Asghar**

Registration No. : **21PWCSE2059**

Class Section: **C**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: _____

Submitted to:

Engr. Abdullah Hamid

July 4, 2022

Department of Computer Systems Engineering
University of Engineering and Technology, Peshawar

Lab Objective(s)

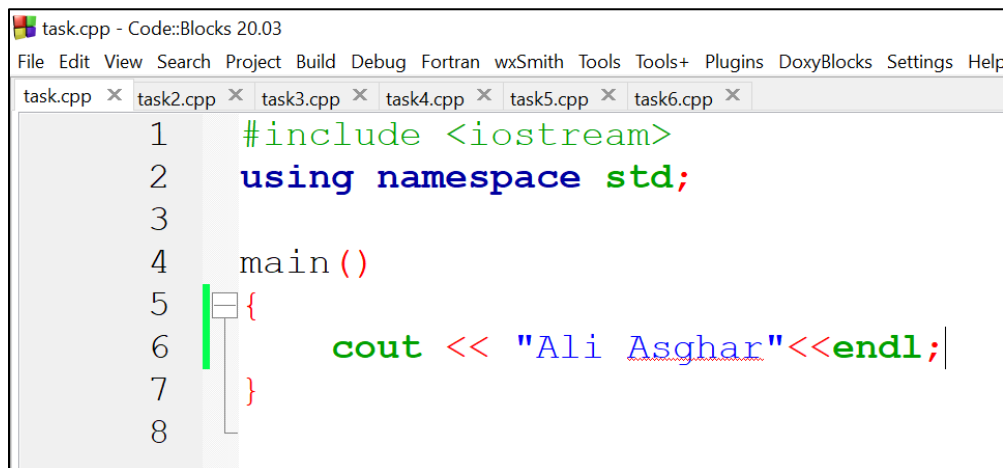
- To be able to install and use Dev C++ IDE for compiling C++ programs
- To be familiar with syntax and structure of C++ programming

TASK #1:**Title:**

Write a program to display your name on console.

CODE SCREENSHOTS:

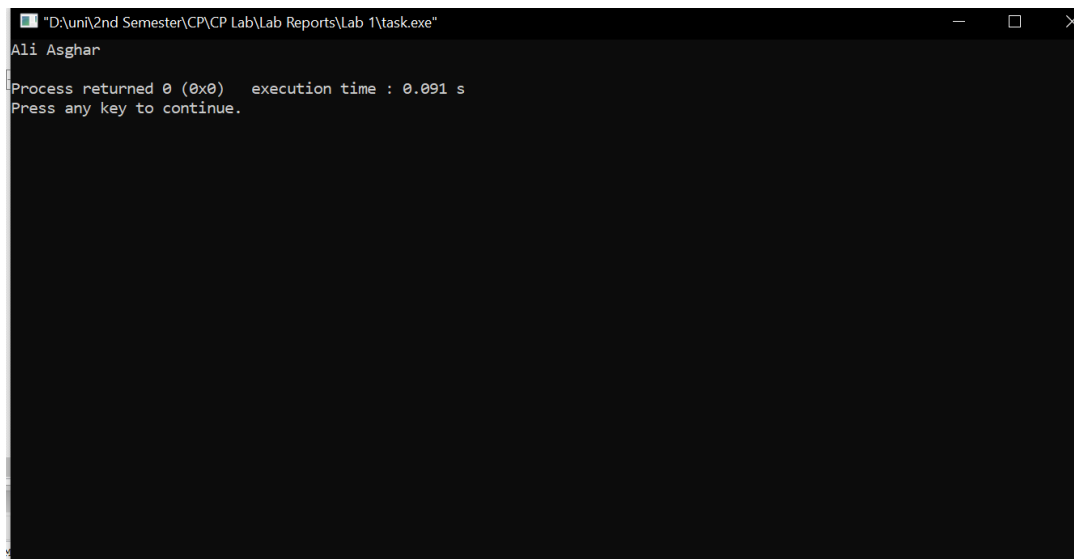
Here is the screenshot of the code.



```
task.cpp - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task.cpp x task2.cpp x task3.cpp x task4.cpp x task5.cpp x task6.cpp x
1  #include <iostream>
2  using namespace std;
3
4  main()
5  {
6      cout << "Ali Asghar"<<endl;
7  }
8
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



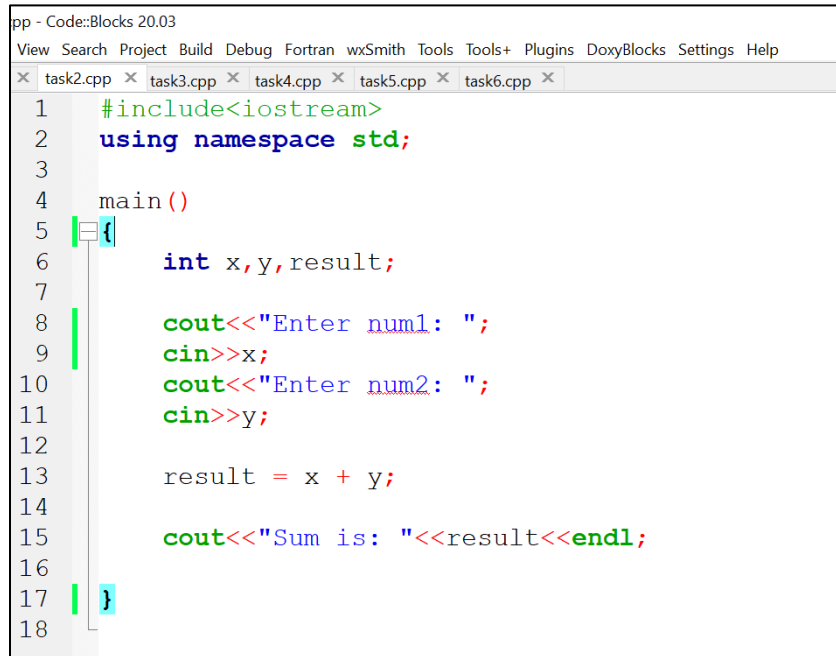
```
"D:\uni\2nd Semester\CP\Lab\Lab Reports\Lab 1\task.exe"
Ali Asghar
Process returned 0 (0x0)   execution time : 0.091 s
Press any key to continue.
```

TASK # 2:**Title:**

Write a program to add two numbers (6+3=) and display its sum.

CODE SCREENSHOTS:

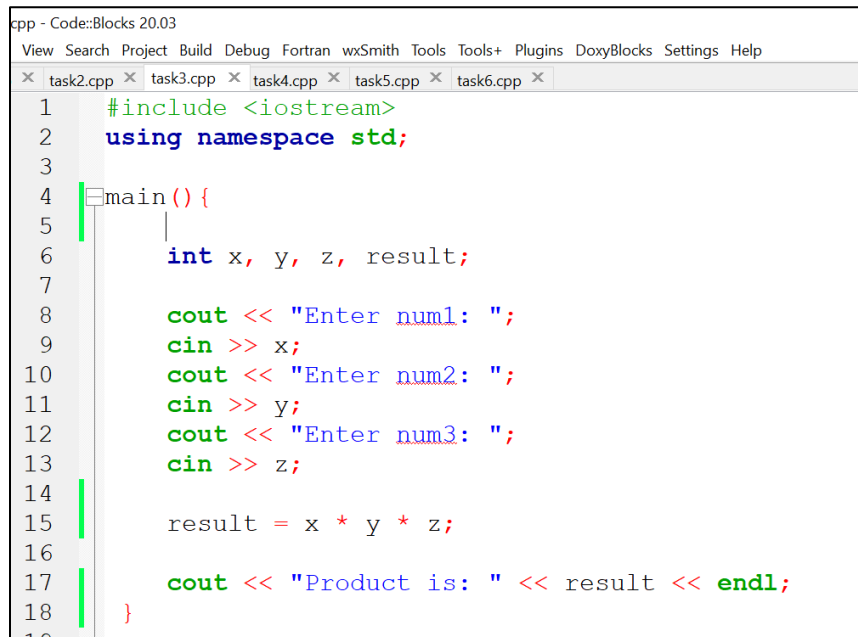
Here is the screenshot of the code.



```
cpp - Code::Blocks 20.03
View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task2.cpp task3.cpp task4.cpp task5.cpp task6.cpp
1  #include<iostream>
2  using namespace std;
3
4  main()
5  {
6      int x,y,result;
7
8      cout<<"Enter num1: ";
9      cin>>x;
10     cout<<"Enter num2: ";
11     cin>>y;
12
13     result = x + y;
14
15     cout<<"Sum is: "<<result<<endl;
16
17 }
18
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



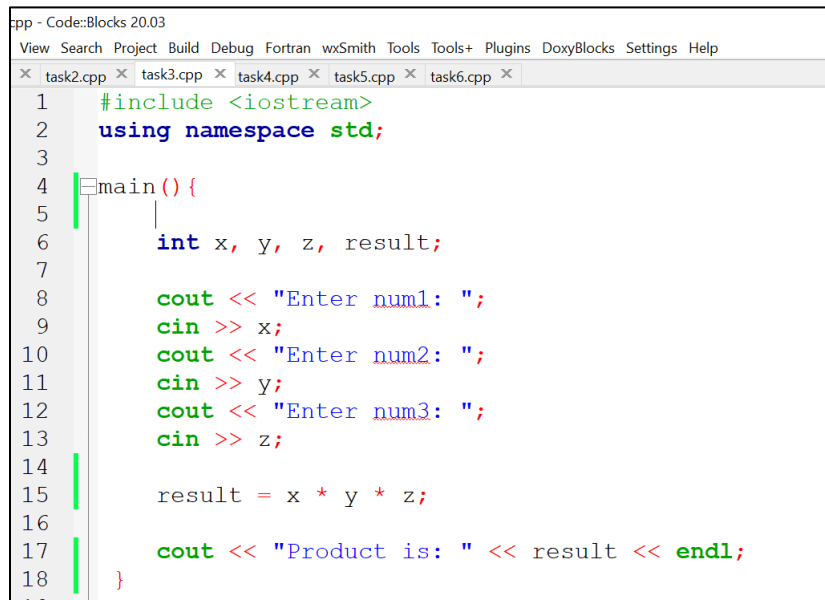
```
cpp - Code::Blocks 20.03
View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task2.cpp task3.cpp task4.cpp task5.cpp task6.cpp
1  #include <iostream>
2  using namespace std;
3
4  main(){
5      |
6      int x, y, z, result;
7
8      cout << "Enter num1: ";
9      cin >> x;
10     cout << "Enter num2: ";
11     cin >> y;
12     cout << "Enter num3: ";
13     cin >> z;
14
15     result = x * y * z;
16
17     cout << "Product is: " << result << endl;
18 }
19
```

TASK # 3:**Title:**

Write a program to multiply three numbers (5x5x5=) and display its product.

CODE SCREENSHOTS:

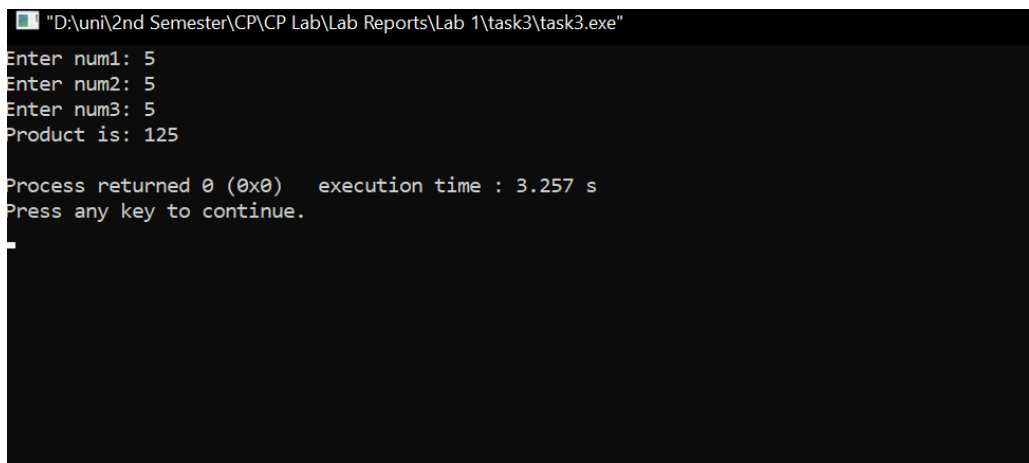
Here is the screenshot of the code.



```
cpp - Code::Blocks 20.03
View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task2.cpp task3.cpp task4.cpp task5.cpp task6.cpp
1  #include <iostream>
2  using namespace std;
3
4  main() {
5      |
6      int x, y, z, result;
7
8      cout << "Enter num1: ";
9      cin >> x;
10     cout << "Enter num2: ";
11     cin >> y;
12     cout << "Enter num3: ";
13     cin >> z;
14
15     result = x * y * z;
16
17     cout << "Product is: " << result << endl;
18 }
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



```
"D:\uni\2nd Semester\CP\CP Lab\Lab Reports\Lab 1\task3\task3.exe"
Enter num1: 5
Enter num2: 5
Enter num3: 5
Product is: 125

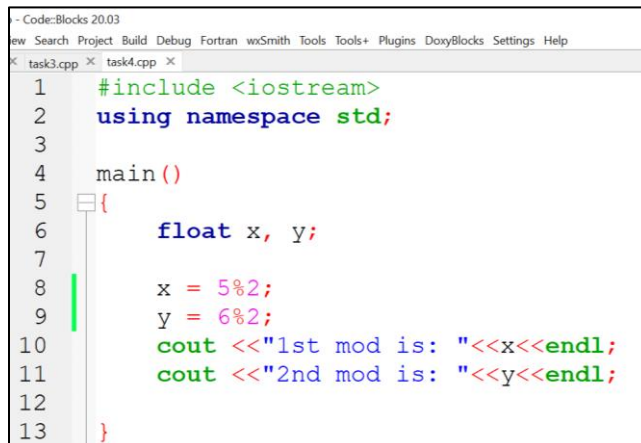
Process returned 0 (0x0)   execution time : 3.257 s
Press any key to continue.
```

TASK # 4:**Title:**

Write a program to find the mod of (5%2=) and (6%2=)

CODE SCREENSHOTS:

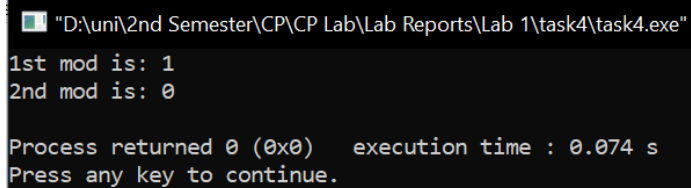
Here is the screenshot of the code.



```
- Code::Blocks 20.03
ew Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task3.cpp task4.cpp
1  #include <iostream>
2  using namespace std;
3
4  main()
5  {
6      float x, y;
7
8      x = 5%2;
9      y = 6%2;
10     cout <<"1st mod is: "<<x<<endl;
11     cout <<"2nd mod is: "<<y<<endl;
12
13 }
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



```
"D:\uni\2nd Semester\CP\CP Lab\Lab Reports\Lab 1\task4\task4.exe"
1st mod is: 1
2nd mod is: 0

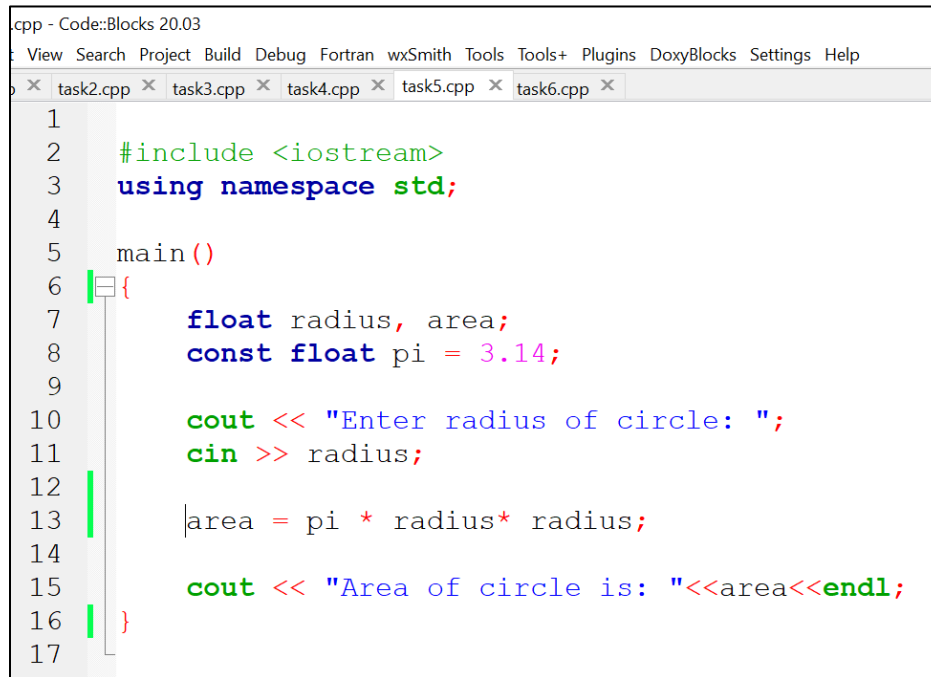
Process returned 0 (0x0)   execution time : 0.074 s
Press any key to continue.
```

TASK # 5:**Title:**

Write a program to calculate area of a circle having its radius (ask user to input radius).

CODE SCREENSHOTS:

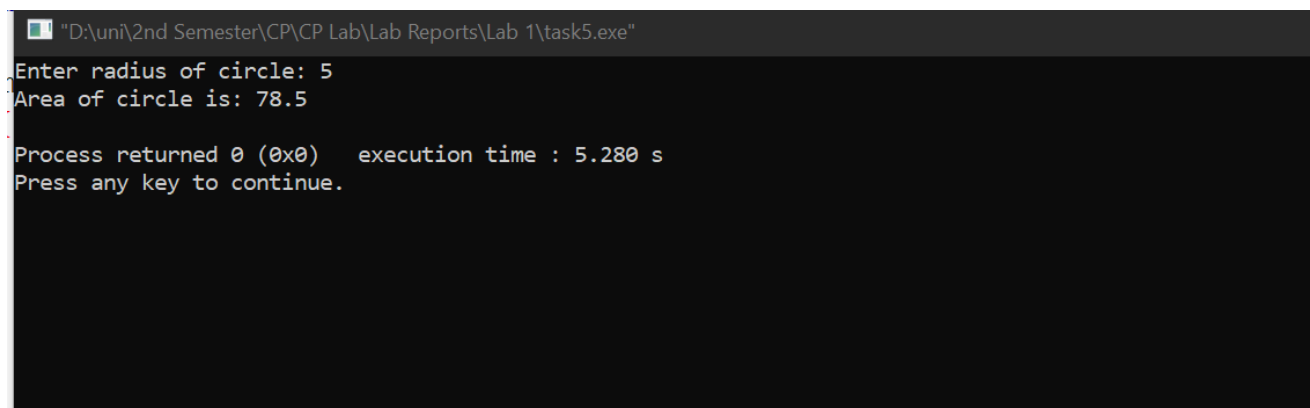
Here is the screenshot of the code.



```
cpp - Code::Blocks 20.03
View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task2.cpp task3.cpp task4.cpp task5.cpp task6.cpp
1
2  #include <iostream>
3  using namespace std;
4
5  main()
6  {
7      float radius, area;
8      const float pi = 3.14;
9
10     cout << "Enter radius of circle: ";
11     cin >> radius;
12
13     area = pi * radius * radius;
14
15     cout << "Area of circle is: "<<area<<endl;
16 }
17
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



```
"D:\uni\2nd Semester\CP\CP Lab\Lab Reports\Lab 1\task5.exe"
Enter radius of circle: 5
Area of circle is: 78.5

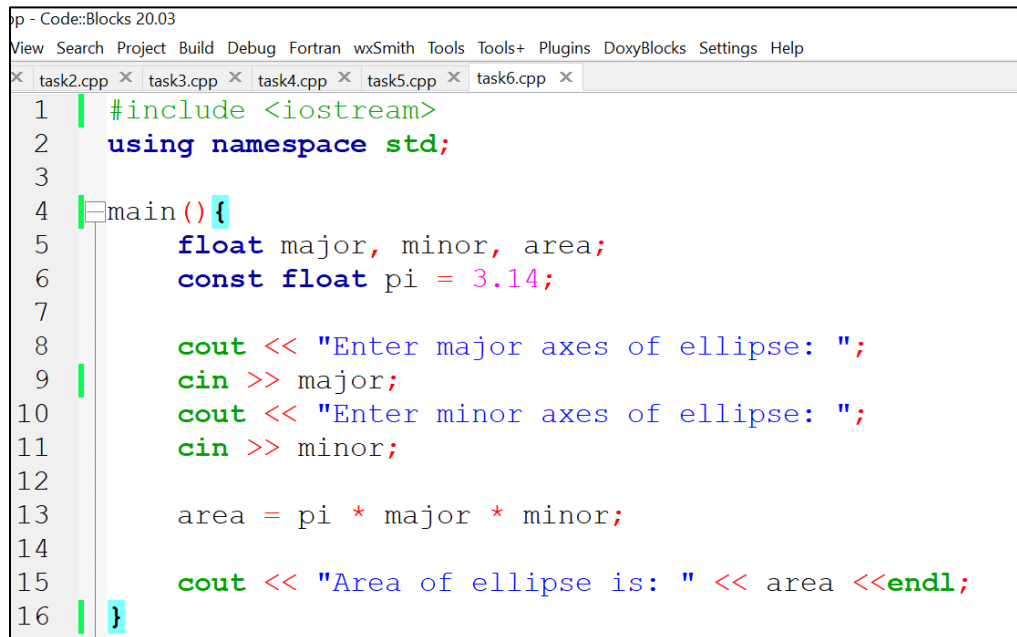
Process returned 0 (0x0)   execution time : 5.280 s
Press any key to continue.
```

TASK # 6:**Title:**

Write a program to calculate area of an ellipse having its axes (ask user to input values of major, minor)

CODE SCREENSHOTS:

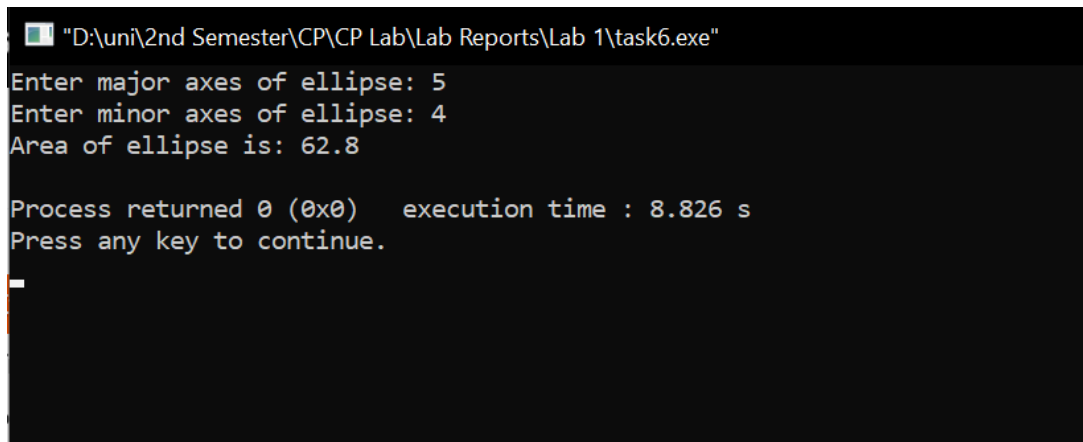
Here is the screenshot of the code.



```
pp - Code::Blocks 20.03
View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
task2.cpp task3.cpp task4.cpp task5.cpp task6.cpp
1 | #include <iostream>
2 | using namespace std;
3 |
4 | main(){
5 |     float major, minor, area;
6 |     const float pi = 3.14;
7 |
8 |     cout << "Enter major axes of ellipse: ";
9 |     cin >> major;
10 |    cout << "Enter minor axes of ellipse: ";
11 |    cin >> minor;
12 |
13 |    area = pi * major * minor;
14 |
15 |    cout << "Area of ellipse is: " << area << endl;
16 | }
```

OUTPUT (COMPILATION, DEBUGGING & TESTING):

Here is the screenshot of the output of above code.



```
"D:\uni\2nd Semester\CP\CP Lab\Lab Reports\Lab 1\task6.exe"
Enter major axes of ellipse: 5
Enter minor axes of ellipse: 4
Area of ellipse is: 62.8

Process returned 0 (0x0)   execution time : 8.826 s
Press any key to continue.
```