



National University of Sciences and Technology (NUST)
School of Electrical Engineering and Computer Science

Department of Computer
Science

CS 212: Object Oriented Programming

Class: BEE-14D

Fall 2023

Lab01: Fundamentals of C++

Name: Irfa Farooq

CMS: 412564

Date: 11th September, 2023

Time: 10:00 a.m. - 12:50 p.m. & 2:00 – 4:00 pm

Instructor: Mehreen

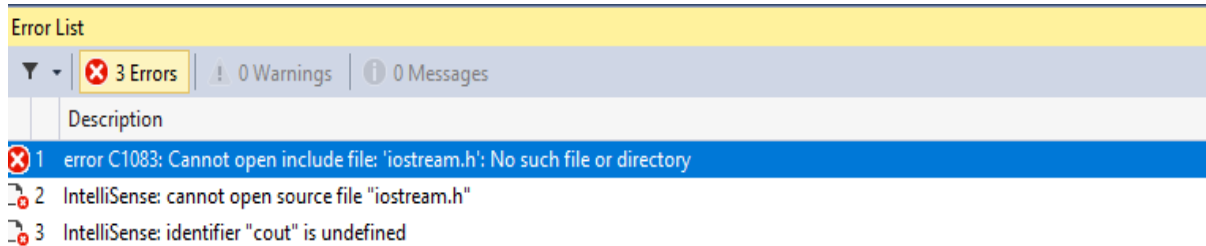
Tahir

Lab Engineer: Mehwish Kiran

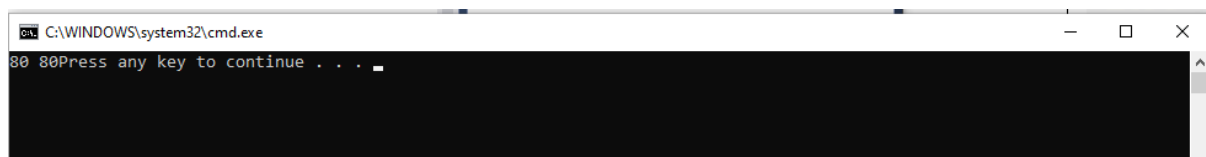


Task 1: Run the program and attach screen shot of output.

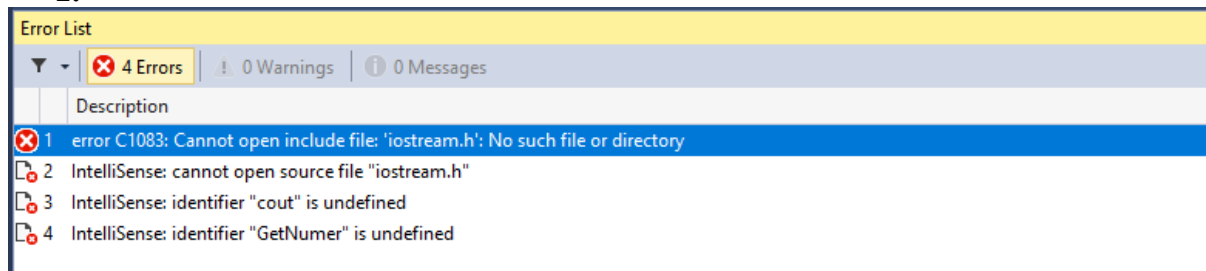
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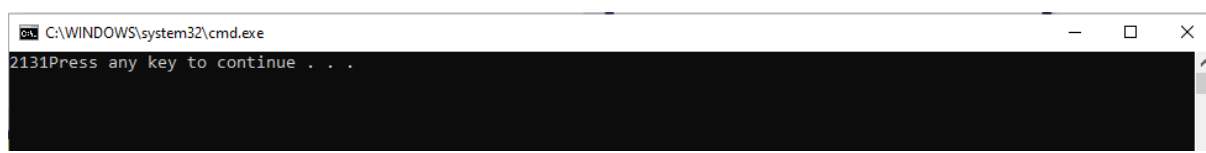
After debugging the Errors:



2.



After debugging the Errors:



Reason for Errors:

1. The included library is not iostream.h but iostream. Hence forth, the compiler is unable to open the file.
2. “Using namespace std” is not included in the code which makes the compiler difficult to understand the syntax of C++ that includes cout and marks it as unidentified.
3. In the second code, there is a double declaration of function “GetNumber” that makes it difficult for the compiler to understand whether the demanded variable “y” is a long or a float.



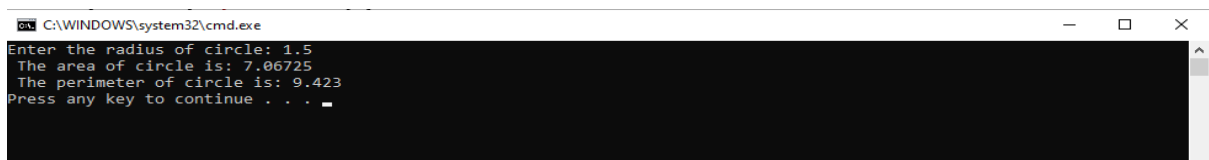
Task 2: Write a C++ program to print the area and perimeter of a circle.

Code:

```
#include <iostream>
using namespace std;

int main()
{
    float radius, pi = 3.141;
    cout << "Enter the radius of circle: ";
    cin >> radius;
    cout << " The area of circle is: " << pi*radius*radius << endl;
    cout << " The perimeter of circle is: " << pi*2*radius << endl;
    system("pause");
    return 0;
}
```

Output Screenshots



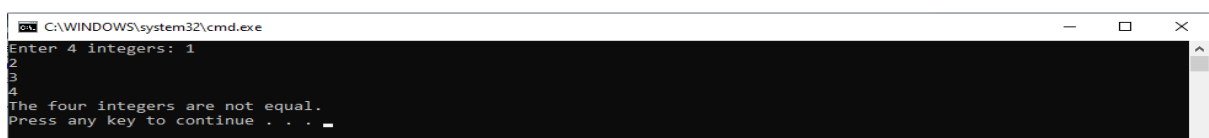
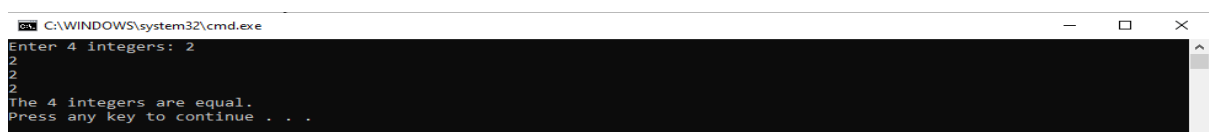
Task 3: Write a C++ program that accepts four integers from the user and prints equal if all four are equal, and not equal otherwise.

Code:

```
#include <iostream>
using namespace std;

int main()
{
    int Int_1, Int_2, Int_3, Int_4;
    cout << "Enter 4 integers: ";
    cin >> Int_1 >> Int_2 >> Int_3 >> Int_4;
    if (Int_1 == Int_2 && Int_1 == Int_3 && Int_1 == Int_4){
        cout << "The 4 integers are equal. \n";
    }
    else{
        cout << "The four integers are not equal. \n";
    }
    system("pause");
    return 0;
}
```

Output Screenshots





Task 4: Input five numbers and find their sum, product and average.

Code:

```
#include <iostream>
using namespace std;

int main()
{
    float num_1, num_2, num_3, num_4, num_5;
    cout << "Enter 5 numbers: ";
    cin >> num_1 >> num_2 >> num_3 >> num_4 >> num_5;
    cout << "The sum of given numbers is: " << num_1 + num_2 + num_3 + num_4 +
num_5 << endl;
    cout << "The product of given numbers is: " << num_1*num_2*num_3*num_4*num_5 <<
endl;
    cout << "The average of given numbers is: " << (num_1 + num_2 + num_3 + num_4 +
num_5)/5 << endl;
    system("pause");
    return 0;
}
```

Output Screenshots

Conclusion:

The following tasks allow us to understand the basic concepts and use of coding in the language C++.