LAB 03

EC2010: Computer Programming

Final Lab Report

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Reg no : 2021/E/075

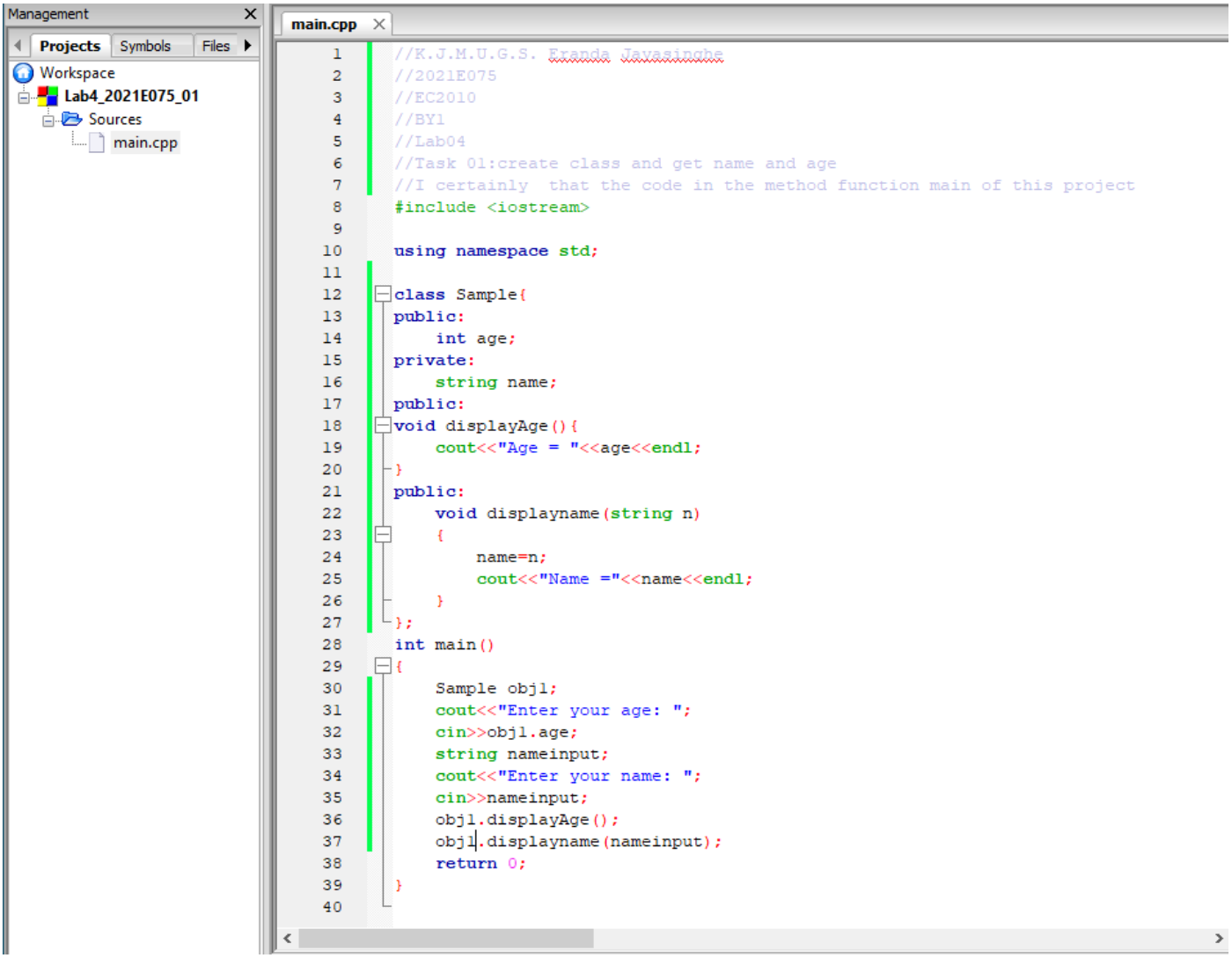
SEMESTER 2

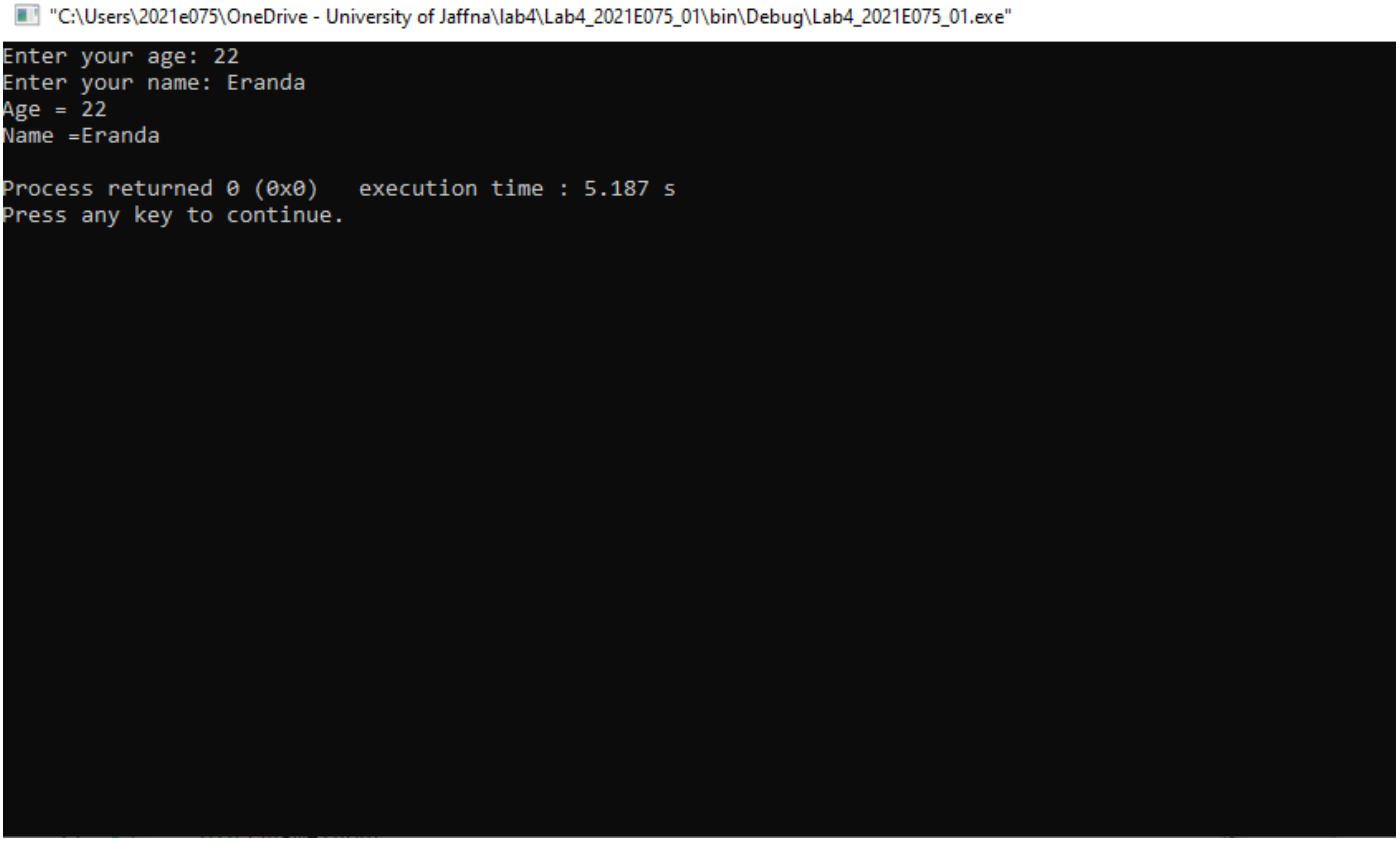
Lab 04

Date :28/12/2022

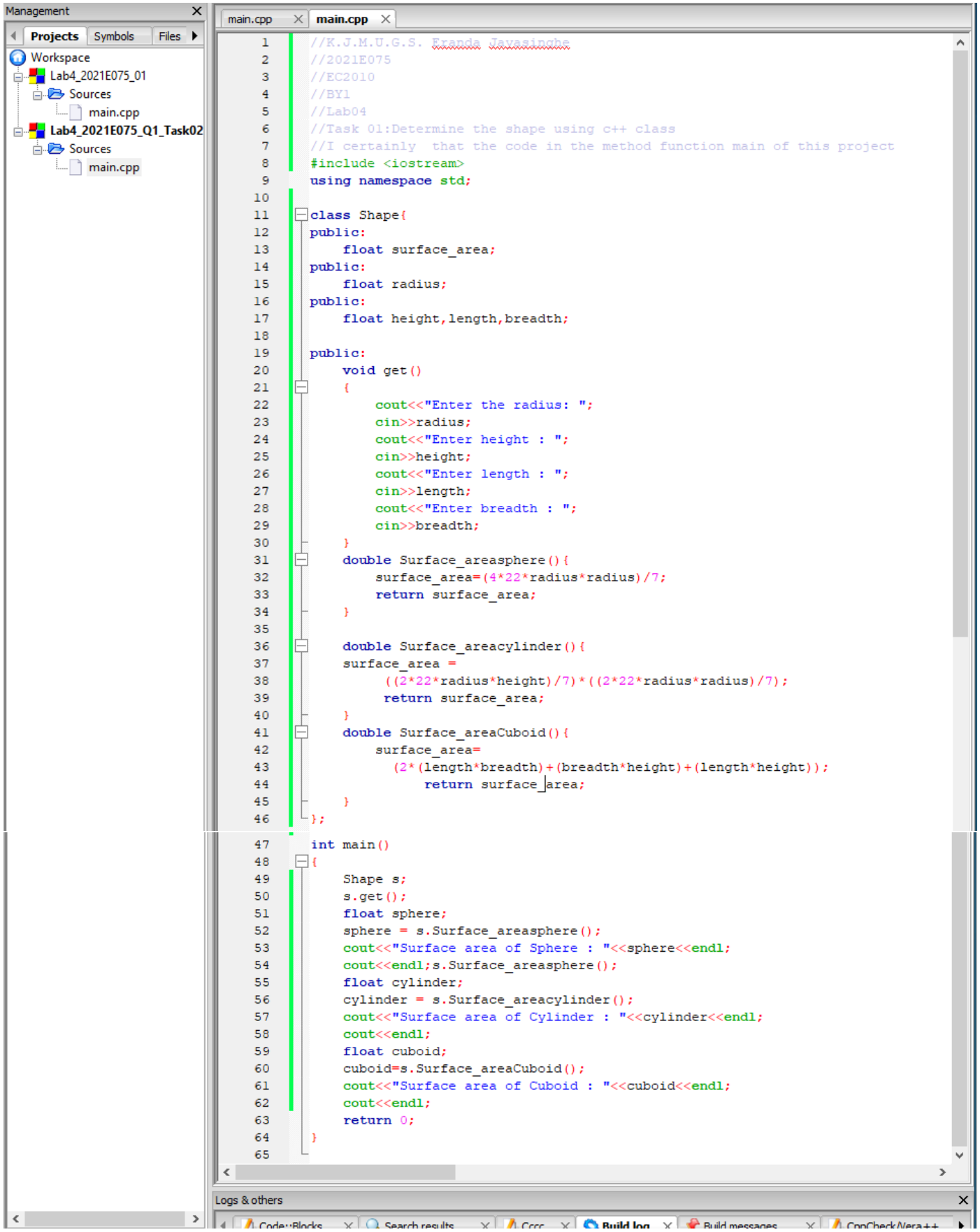
Q1

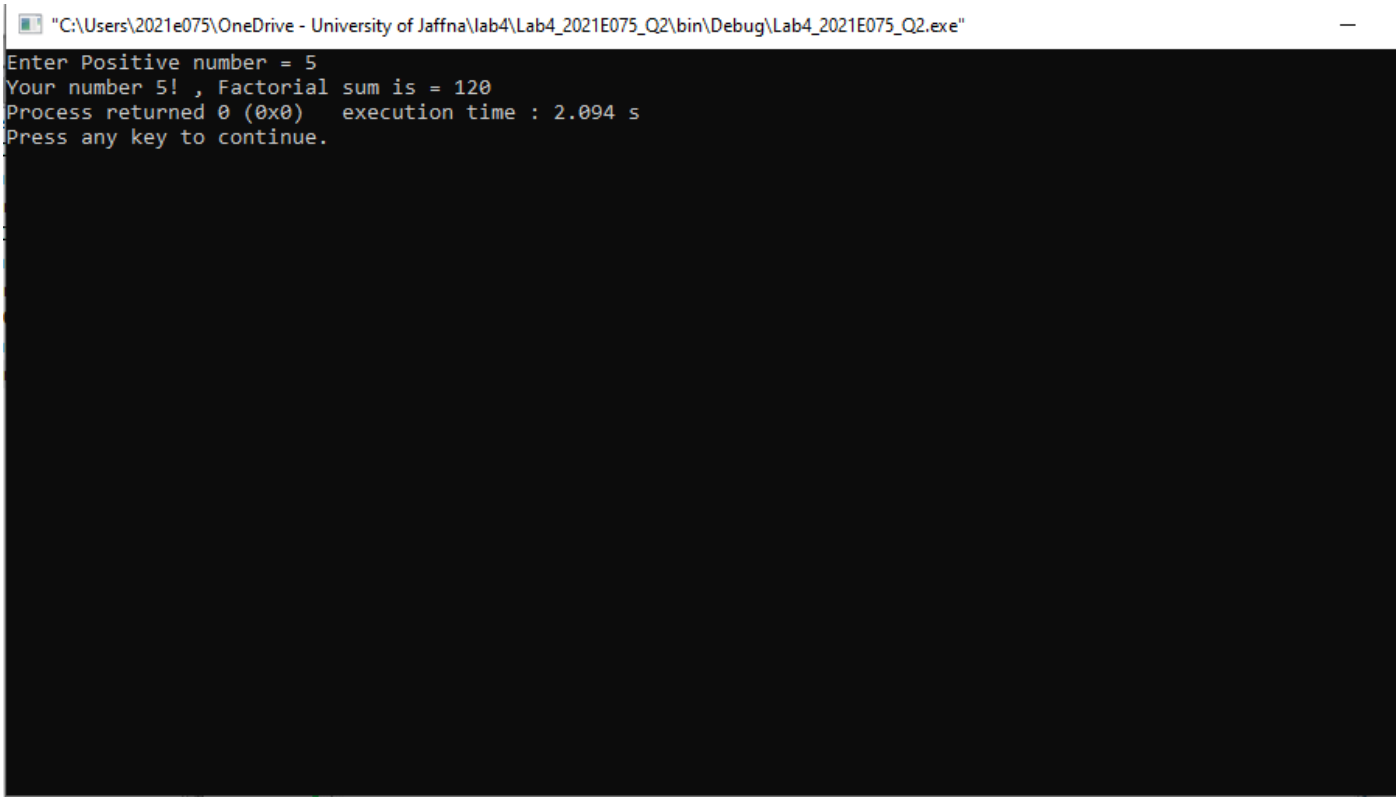
Task 1


Management
Projects
Symbols
Files
Workspace
Lab4_2021E075_01
Sources
main.cpp
main.cpp
1 //K.J.M.U.G.S. Eranda Jayasinghe
2 //2021E075
3 //EC2010
4 //BY1
5 //Lab04
6 //Task 01:create class and get name and age
7 //I certainly that the code in the method function main of this project
8 #include <iostream>
9
10 using namespace std;
11
12 class Sample{
13 public:
14 int age;
15 private:
16 string name;
17 public:
18 void displayAge(){
19 cout<<"Age = "<<age<<endl;
20 }
21 public:
22 void displayname(string n)
23 {
24 name=n;
25 cout<<"Name ="<<name<<endl;
26 }
27 };
28 int main()
29 {
30 Sample obj1;
31 cout<<"Enter your age: ";
32 cin>>obj1.age;
33 string nameinput;
34 cout<<"Enter your name: ";
35 cin>>nameinput;
36 obj1.displayAge();
37 obj1.displayname(nameinput);
38 return 0;
39 }
40


"C:\Users\2021e075\OneDrive - University of Jaffna\lab4\Lab4_2021E075_01\bin\Debug\Lab4_2021E075_01.exe"
Enter your age: 22
Enter your name: Eranda
Age = 22
Name =Eranda
Process returned 0 (0x0) execution time : 5.187 s
Press any key to continue.

Task 2

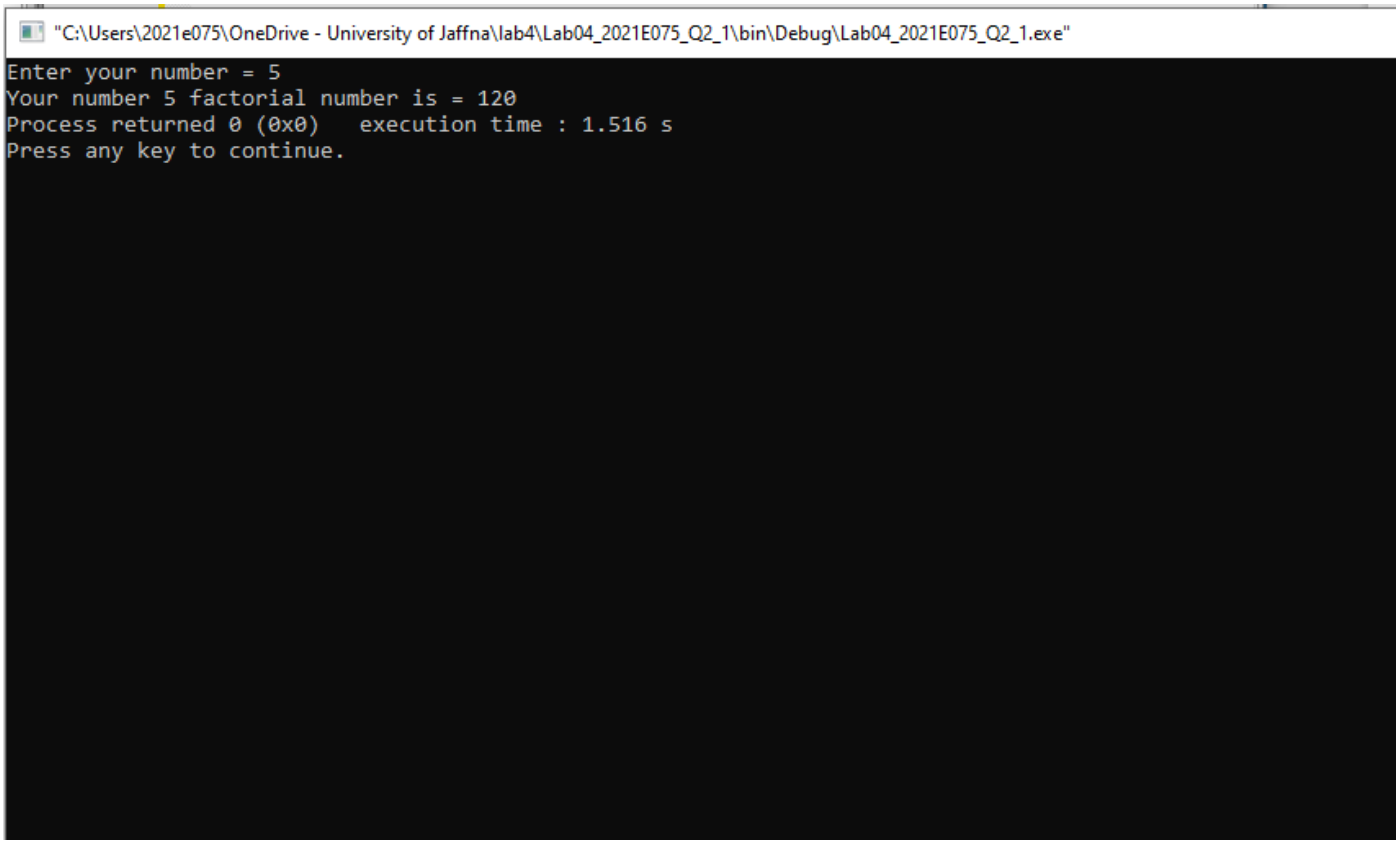

Management
Projects
Symbols
Files
Workspace
Lab4_2021E075_01
Sources
main.cpp
Lab4_2021E075_Q1_Task02
Sources
main.cpp
main.cpp
main.cpp
//K.J.M.U.G.S. Eranda Jayasinghe
//2021E075
//EC2010
//BY1
//Lab04
//Task 01:Determine the shape using c++ class
//I certainly that the code in the method function main of this project
#include <iostream>
using namespace std;
class Shape{
public:
float surface_area;
public:
float radius;
public:
float height,length,breadth;
public:
void get()
{
cout<<"Enter the radius: ";
cin>>radius;
cout<<"Enter height : ";
cin>>height;
cout<<"Enter length : ";
cin>>length;
cout<<"Enter breadth : ";
cin>>breadth;
}
double Surface_areasphere(){
surface_area=(4*22*radius*radius)/7;
return surface_area;
}
double Surface_areacylinder(){
surface_area =
((2*22*radius*height)/7)*((2*22*radius*radius)/7);
return surface_area;
}
double Surface_areaCuboid(){
surface_area=
(2*(length*breadth)+(breadth*height)+(length*height));
return surface_area;
}
};
int main()
{
Shape s;
s.get();
float sphere;
sphere = s.Surface_areasphere();
cout<<"Surface area of Sphere : "<<sphere<<endl;
cout<<endl;s.Surface_areasphere();
float cylinder;
cylinder = s.Surface_areacylinder();
cout<<"Surface area of Cylinder : "<<cylinder<<endl;
cout<<endl;
float cuboid;
cuboid=s.Surface_areaCuboid();
cout<<"Surface area of Cuboid : "<<cuboid<<endl;
cout<<endl;
return 0;
}
Logs & others
Code::Blocks
Search results
Cccc
Build log
Build messages
CppCheck/Vera++



Q2

main.cpp | main.cpp | main.cpp | main.cpp | *main.cpp

```cpp
//K.J.M.U.G.S. Franda Jayasinghe
//2021E075
//EC2010
//BY1
//Lab04
//find factorial number in iterative
//I certainly  that the code in the method function main of this project
#include <iostream>

using namespace std;

int main()
{
    int k , i ,y=1;
    cout<<"Enter your number = ";
    cin>>k;

    for (i=0 ; i<k ;i++){
        y= y*(k-i);
    }
    cout<<"Your number "<<k<<" factorial number is = "<<y;
    return 0;
}

```


"C:\Users\2021e075\OneDrive - University of Jaffna\lab4\Lab04_2021E075_Q2_1\bin\Debug\Lab04_2021E075_Q2_1.exe"
Enter your number = 5
Your number 5 factorial number is = 120
Process returned 0 (0x0)   execution time : 1.516 s
Press any key to continue.

main.cpp | main.cpp | *main.cpp

```cpp
//K.J.M.U.G.S. Eranda Jayasinghe
//2021E075
//EC2010
//BY1
//Lab04
//get factorial number using recursive way
//I certainly  that the code in the method function main of this project
#include <iostream>

using namespace std;

int factorial(int);

int main()
{
    int x,y;
    cout<<"Enter Positive number = ";
    cin>>x;

    y = factorial(x);
    cout<<"Your number "<<x<<"! , Factorial sum is = "<<y;
    return 0;
}
int factorial(int x){
    if (x>0){
        return x*factorial(x-1);
    }
    else{
        return 1;
    }
}
```

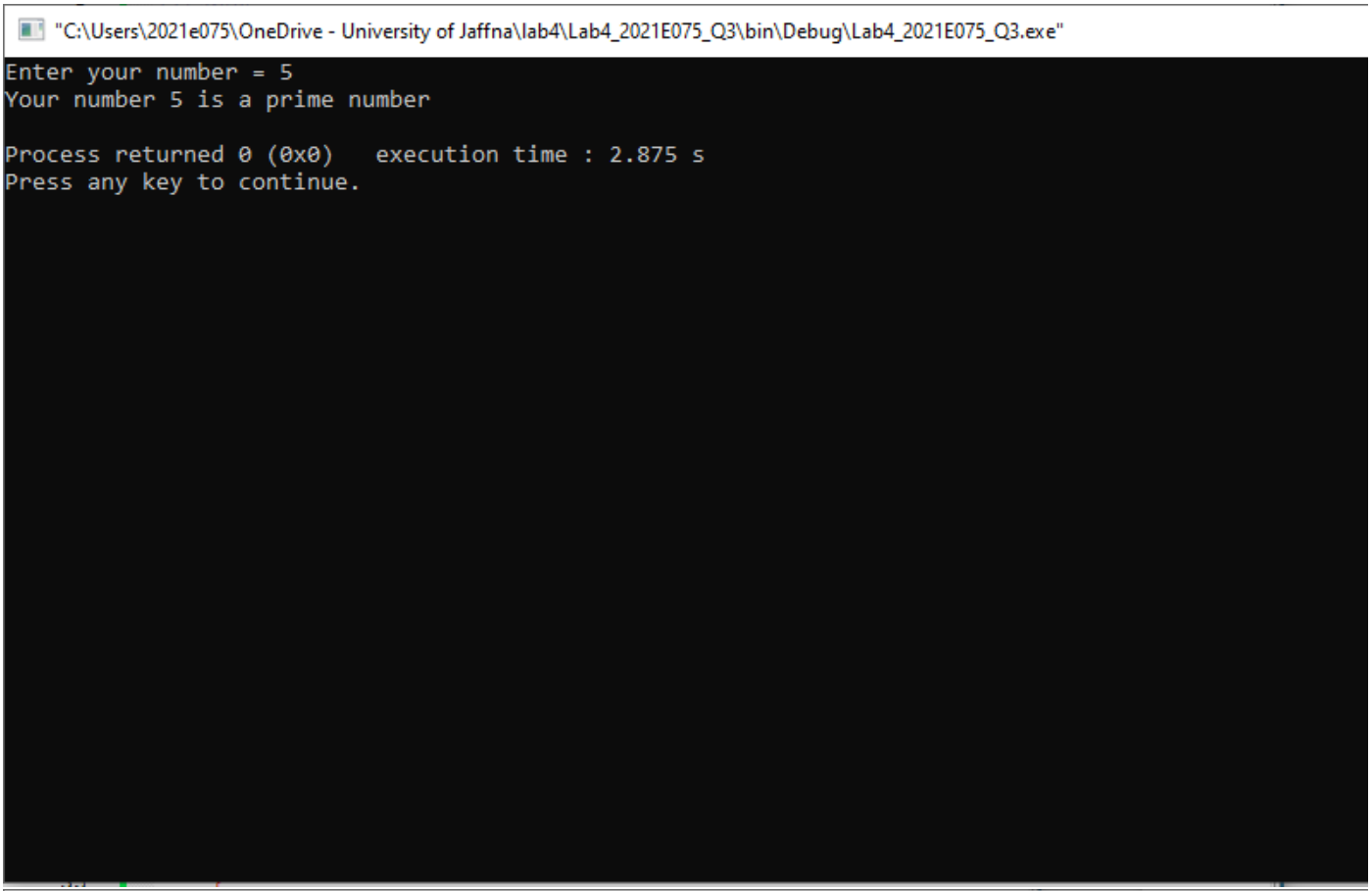
"C:\Users\2021e075\OneDrive - University of Jaffna\lab4\Lab4_2021E075_Q2\bin\Debug\Lab4_2021E075_Q2.exe"

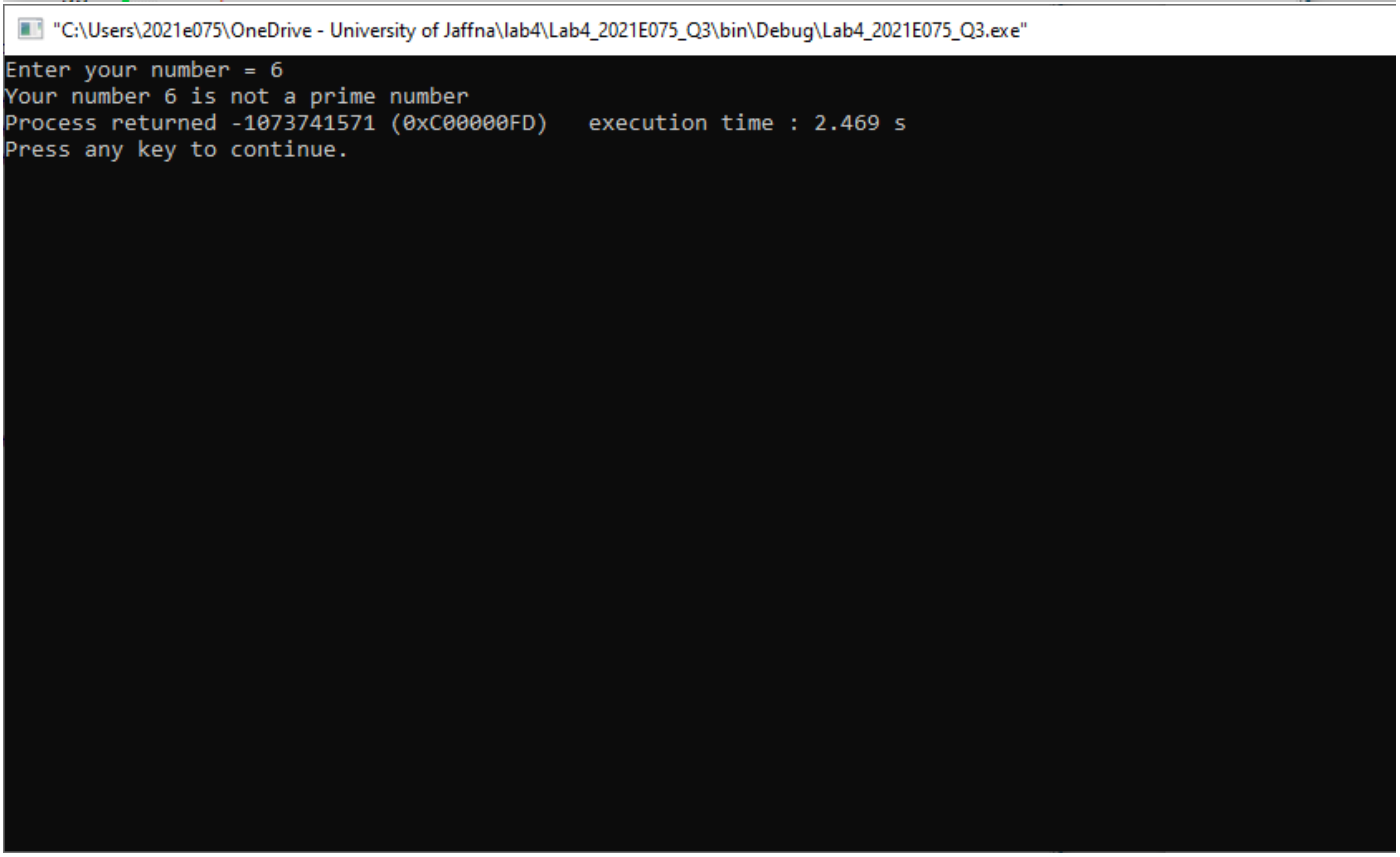
```
Enter Positive number = 5
Your number 5! , Factorial sum is = 120
Process returned 0 (0x0)   execution time : 2.094 s
Press any key to continue.
```

Q3

main.cpp | main.cpp | main.cpp | main.cpp

```cpp
//K.J.M.U.G.S. Eranda Jayasinghe
//2021E075
//EC2010
//BY1
//Lab04
//check the given number prime number or not
//I certainly  that the code in the method function main of this project
#include <iostream>

using namespace std;

int prime(int,int);
int i=0;
int main()
{
    int k;
    cout << "Enter your number = ";
    cin>>k;

    cout<<"Your number "<<prime(k,1)<<" is a prime number"<<endl;

    return 0;
}
int prime(int x , int y){
    if (x%y==0){
            i++;}
    if (x==y){
        if (i==2){
            return x;}
        else{
            cout<<"Your number "<<x<<" is not a prime number ";
        }
    }
    prime(x,y+1);
    }


```


"C:\Users\2021e075\OneDrive - University of Jaffna\lab4\Lab4_2021E075_Q3\bin\Debug\Lab4_2021E075_Q3.exe"
Enter your number = 5
Your number 5 is a prime number
Process returned 0 (0x0)   execution time : 2.875 s
Press any key to continue.


"C:\Users\2021e075\OneDrive - University of Jaffna\lab4\Lab4_2021E075_Q3\bin\Debug\Lab4_2021E075_Q3.exe"
Enter your number = 6
Your number 6 is not a prime number
Process returned -1073741571 (0xC00000FD)   execution time : 2.469 s
Press any key to continue.