OOP LAB TASK # 06

Name: Shahmeer khan.

Student ID: 12113.

Class ID: 106278.

TASK:

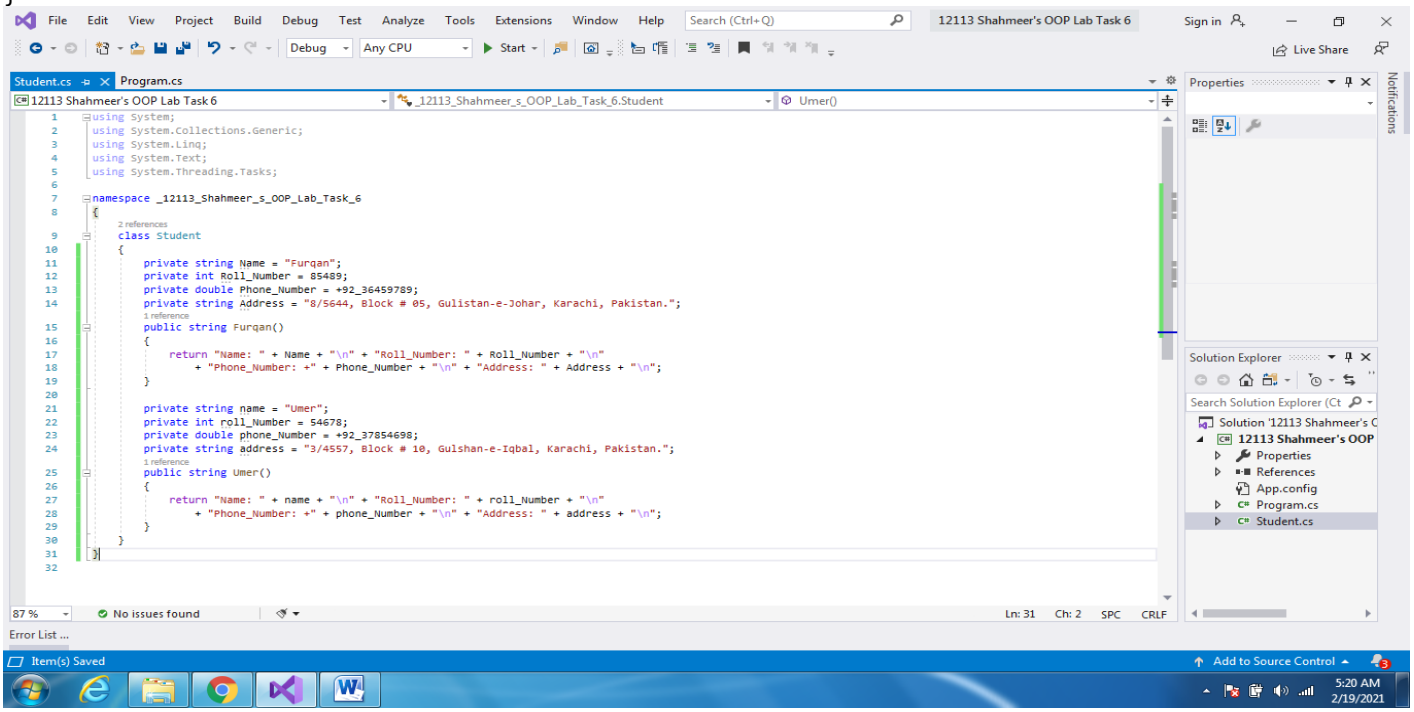
Question no. 1:

Inputted Code:

Student.cs(Class):

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Student
    {
        private string Name = "Furqan";
        private int Roll_Number = 85489;
        private double Phone_Number = +92_36459789;
        private string Address = "8/5644, Block # 05, Gulistan-e-Johar, Karachi,
Pakistan.";
        public string Furqan()
        {
            return "Name: " + Name + "\n" + "Roll_Number: " + Roll_Number + "\n"
                + "Phone_Number: +" + Phone_Number + "\n" + "Address: " + Address + "\n";
        }

        private string name = "Umer";
        private int roll_Number = 54678;
        private double phone_Number = +92_37854698;
```

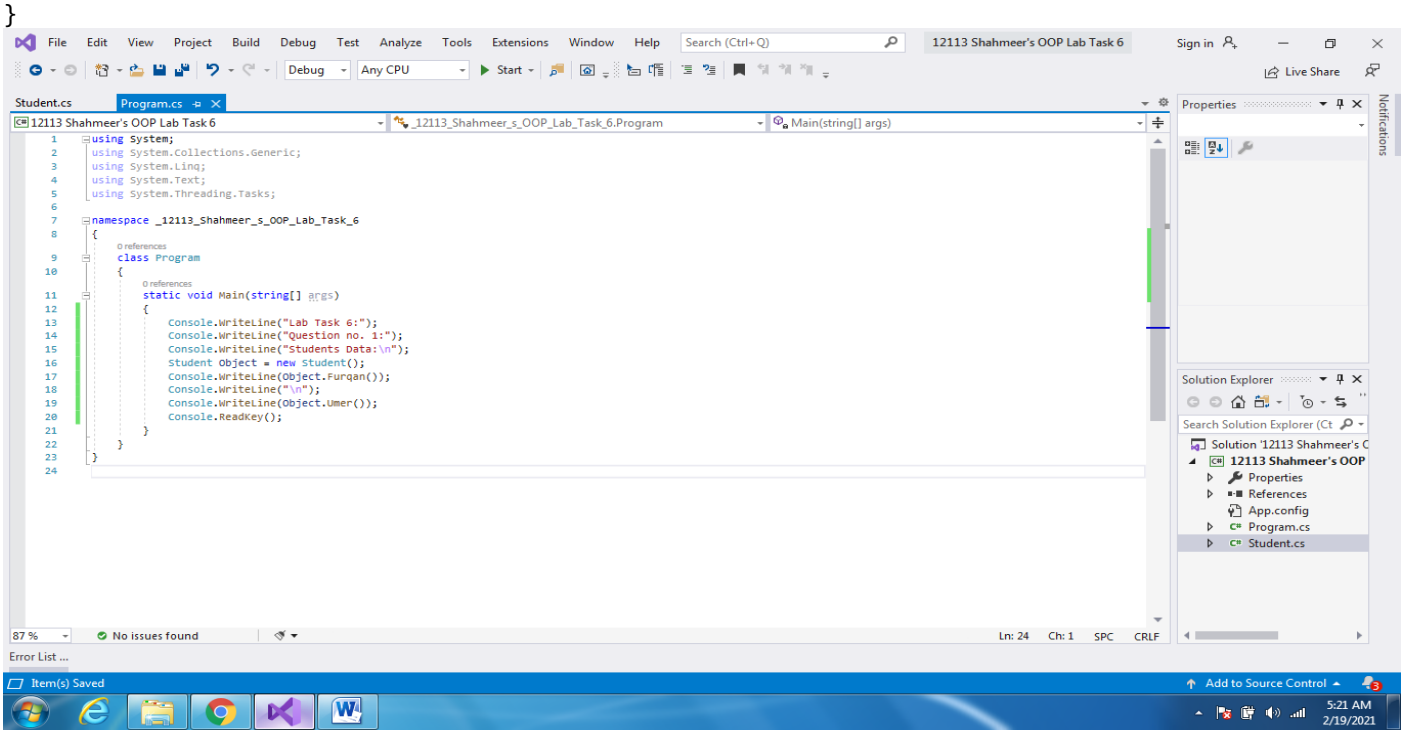
```
        private string address = "3/4557, Block # 10, Gulshan-e-Iqbal, Karachi,
Pakistan.";
        public string Umer()
        {
            return "Name: " + name + "\n" + "Roll_Number: " + roll_Number + "\n"
                + "Phone_Number: +" + phone_Number + "\n" + "Address: " + address + "\n";
        }
    }
}
```



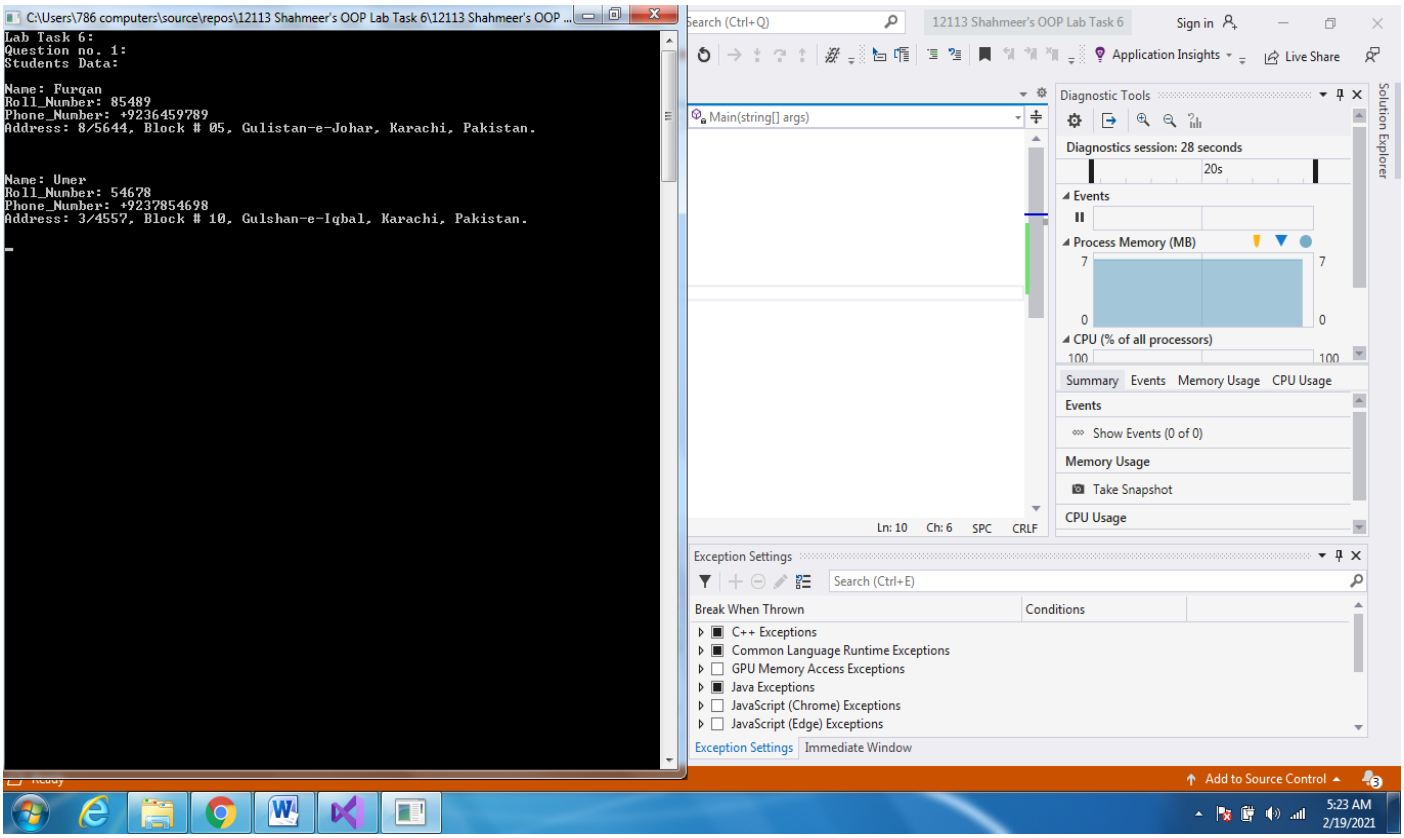
Program.cs:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 1:");
            Console.WriteLine("Students Data:\n");
            Student Object = new Student();
            Console.WriteLine(Object.Furqan());
            Console.WriteLine("\n");
            Console.WriteLine(Object.Umer());
            Console.ReadKey();
        }
```

```
    }
}
```


File Edit View Project Build Debug Test Analyze Tools Extensions Window Help
12113 Shahmeer's OOP Lab Task 6
Sign in
Live Share
Debug
Any CPU
Start
Student.cs
Program.cs
12113 Shahmeer's OOP Lab Task 6
_12113_Shahmeer_s_OOP_Lab_Task_6.Program
Main(string[] args)
Properties
Solution Explorer
Search Solution Explorer (Ct
Solution '12113 Shahmeer's C
12113 Shahmeer's OOP
Properties
References
App.config
Program.cs
Student.cs
87 %
No issues found
Ln: 24 Ch: 1 SPC CRLF
Error List ...
Item(s) Saved
Add to Source Control
5:21 AM
2/19/2021

Output:


C:\Users\786 computers\source\repos\12113 Shahmeer's OOP Lab Task 6\12113 Shahmeer's OOP ...
Lab Task 6:
Question no. 1:
Students Data:
Name: Furqan
Roll_Number: 85489
Phone_Number: +9236459789
Address: 8/5644, Block # 05, Gulistan-e-Johar, Karachi, Pakistan.
Name: Umer
Roll_Number: 54678
Phone_Number: +9237854698
Address: 3/4557, Block # 10, Gulshan-e-Iqbal, Karachi, Pakistan.
Search (Ctrl+Q)
12113 Shahmeer's OOP Lab Task 6
Sign in
Application Insights
Live Share
Main(string[] args)
Diagnostic Tools
Diagnostics session: 28 seconds
20s
Events
Process Memory (MB)
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Ln: 10 Ch: 6 SPC CRLF
Exception Settings
Search (Ctrl+E)
Break When Thrown
Conditions
C++ Exceptions
Common Language Runtime Exceptions
GPU Memory Access Exceptions
Java Exceptions
JavaScript (Chrome) Exceptions
JavaScript (Edge) Exceptions
Exception Settings
Immediate Window
Add to Source Control
5:23 AM
2/19/2021

==========

==========

==========

==========

==========

==========

==========

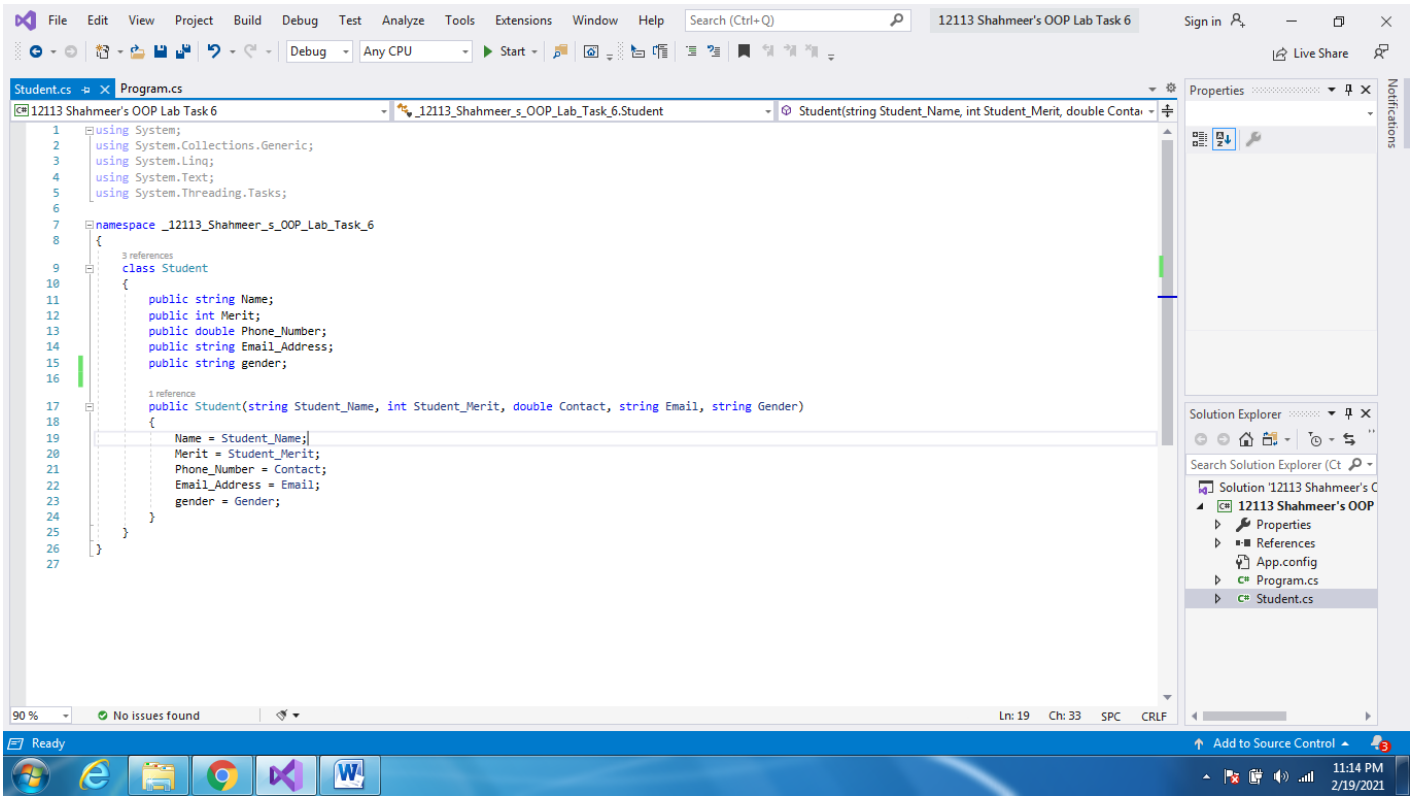
==========

Question no.2:

Inputted Code:

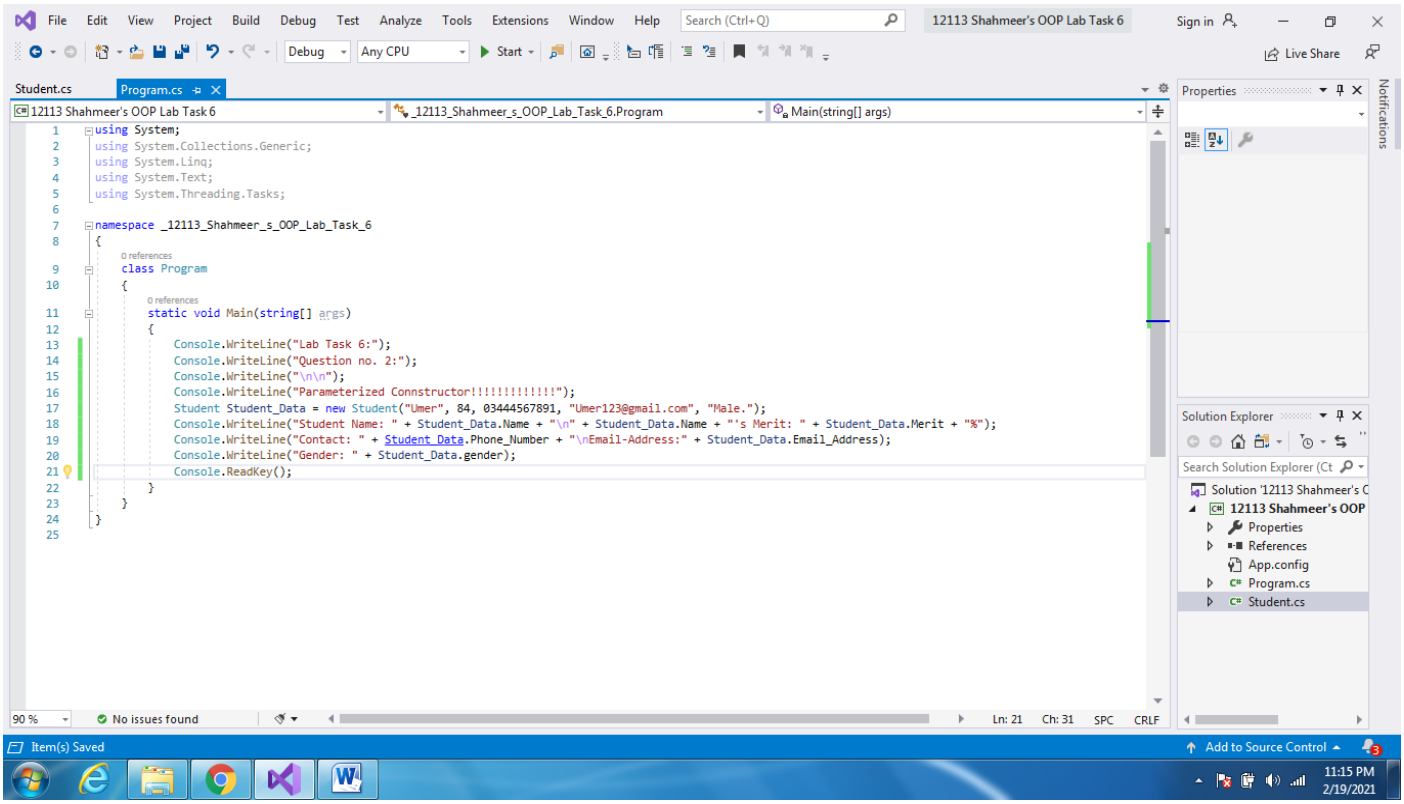
Student.cs(Class):

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Student
    {
        public string Name;
        public int Merit;
        public double Phone_Number;
        public string Email_Address;
        public string gender;

        public Student(string Student_Name, int Student_Merit, double Contact, string
Email, string Gender)
        {
            Name = Student_Name;
            Merit = Student_Merit;
            Phone_Number = Contact;
            Email_Address = Email;
            gender = Gender;
        }
    }
}
```



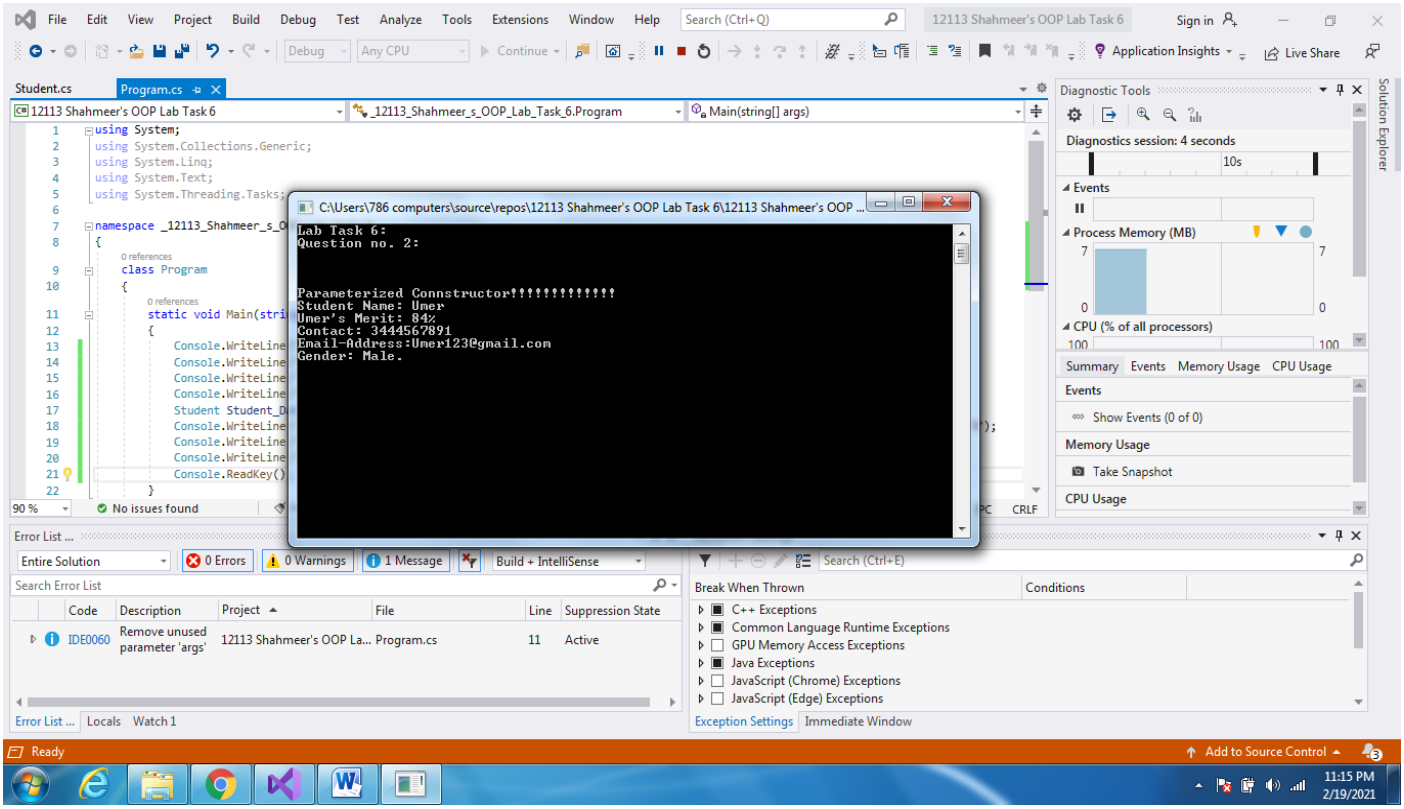
Program.cs:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 2:");
            Console.WriteLine("\n\n");
            Console.WriteLine("Parameterized Connstructor!!!!!!!!!!!!!");
            Student Student_Data = new Student("Umer", 84, 03444567891,
"Umer123@gmail.com", "Male.");
            Console.WriteLine("Student Name: " + Student_Data.Name + "\n" +
Student_Data.Name + "'s Merit: " + Student_Data.Merit + "%");
            Console.WriteLine("Contact: " + Student_Data.Phone_Number + "\nEmail-
Address:" + Student_Data.Email_Address);
            Console.WriteLine("Gender: " + Student_Data.gender);
            Console.ReadKey();
        }
    }
}
```



```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 2:");
            Console.WriteLine("\n\n");
            Console.WriteLine("Parameterized Connstructor!!!!!!!!!!!!!");
            Student Student_Data = new Student("Umer", 84, 03444567891, "Umer123@gmail.com", "Male.");
            Console.WriteLine("Student Name: " + Student_Data.Name + "\n" + Student_Data.Name + "'s Merit: " + Student_Data.Merit + "%");
            Console.WriteLine("Contact: " + Student_Data.Phone_Number + "\nEmail-Address:" + Student_Data.Email_Address);
            Console.WriteLine("Gender: " + Student_Data.gender);
            Console.ReadKey();
        }
    }
}
```

Output:



```
Lab Task 6:
Question no. 2:


Parameterized Connstructor!!!!!!!!!!!!!
Student Name: Umer
Umer's Merit: 84%
Contact: 3444567891
Email-Address:Umer123@gmail.com
Gender: Male.
```

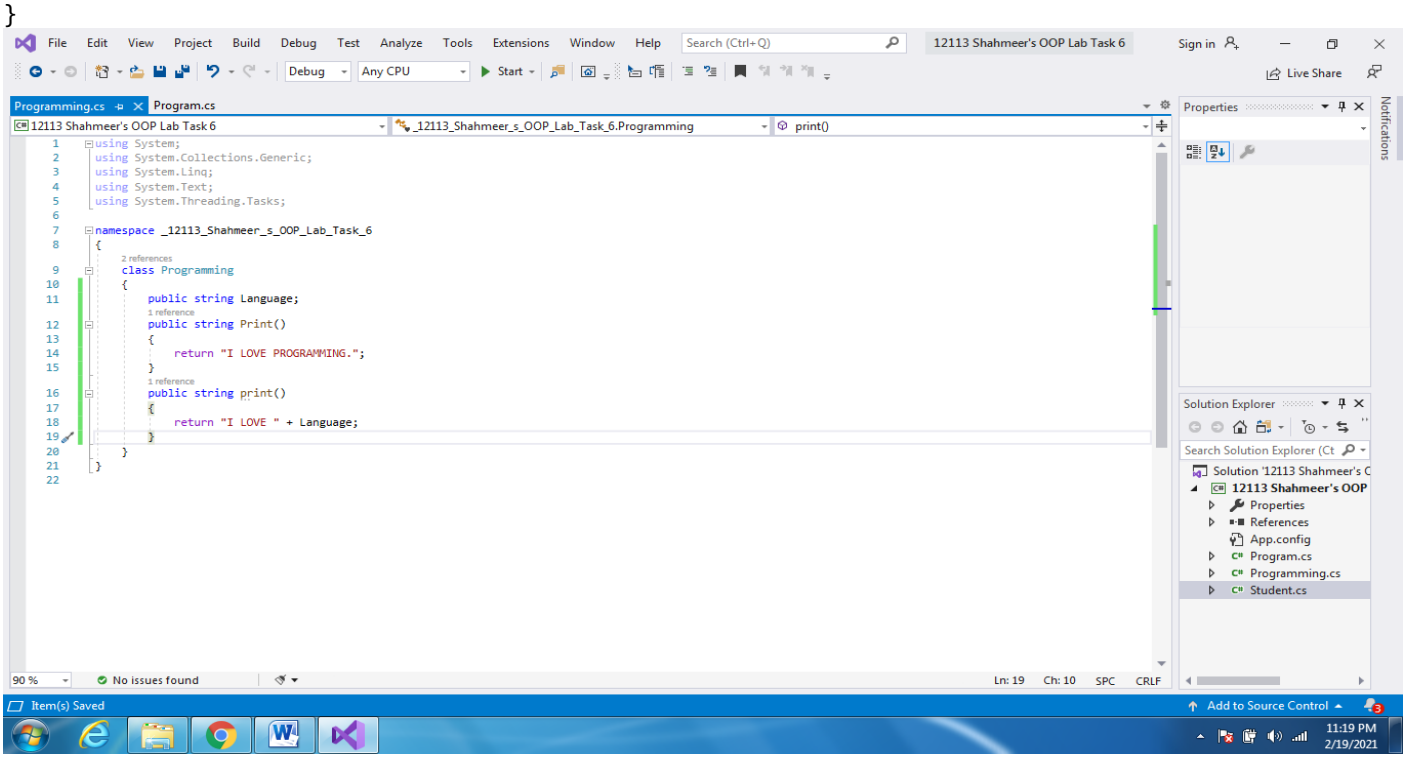
QUESTION 3;

INPUTTED CODE;

Method/Solution 1:

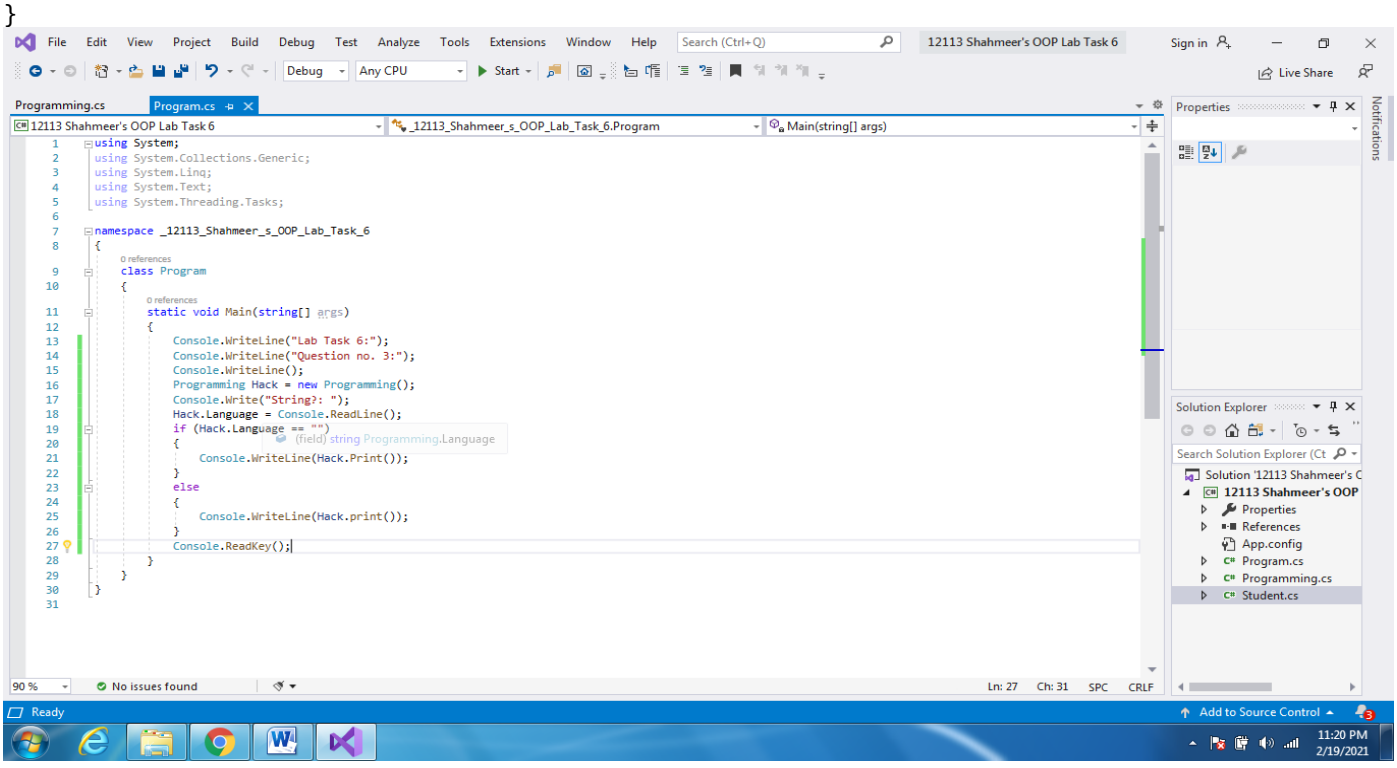
Programming.cs(Class);

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Programming
    {
        public string Language;
        public string Print()
        {
            return "I LOVE PROGRAMMING.";
        }
        public string print()
        {
            return "I LOVE " + Language;
        }
    }
}
```

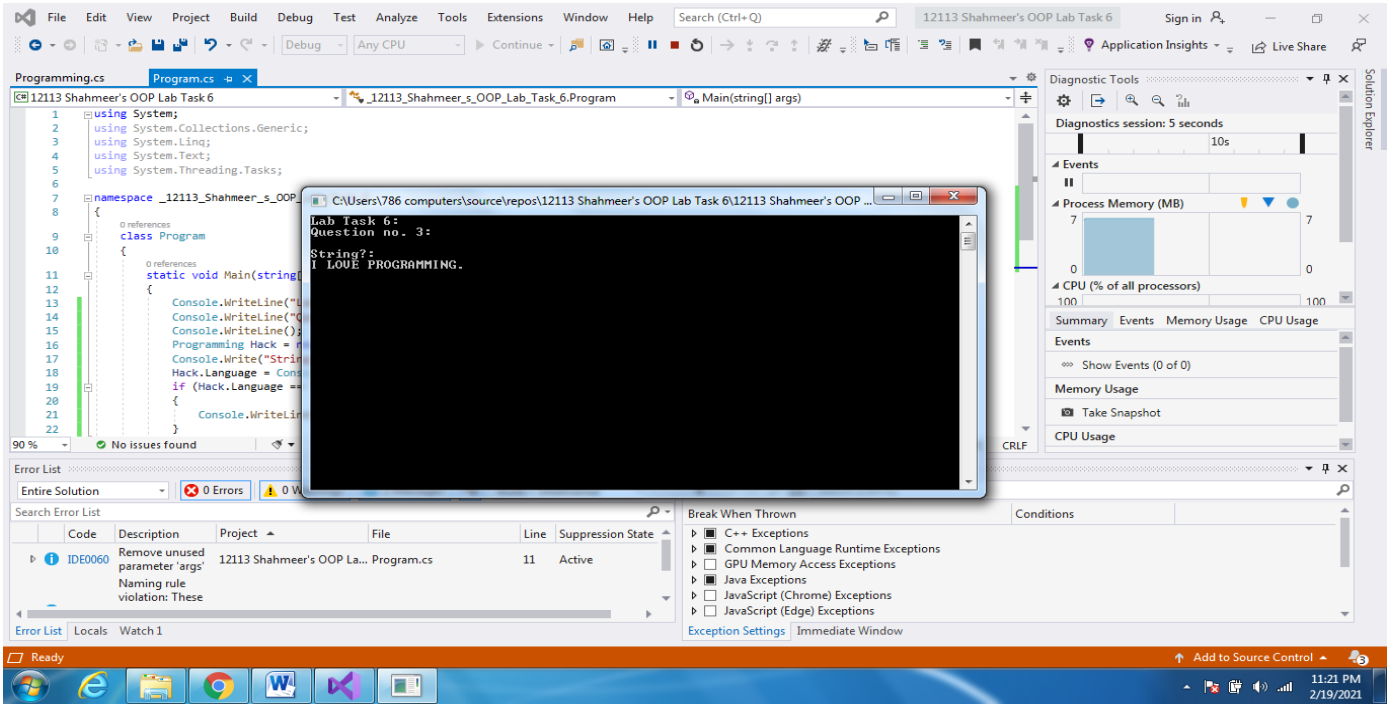


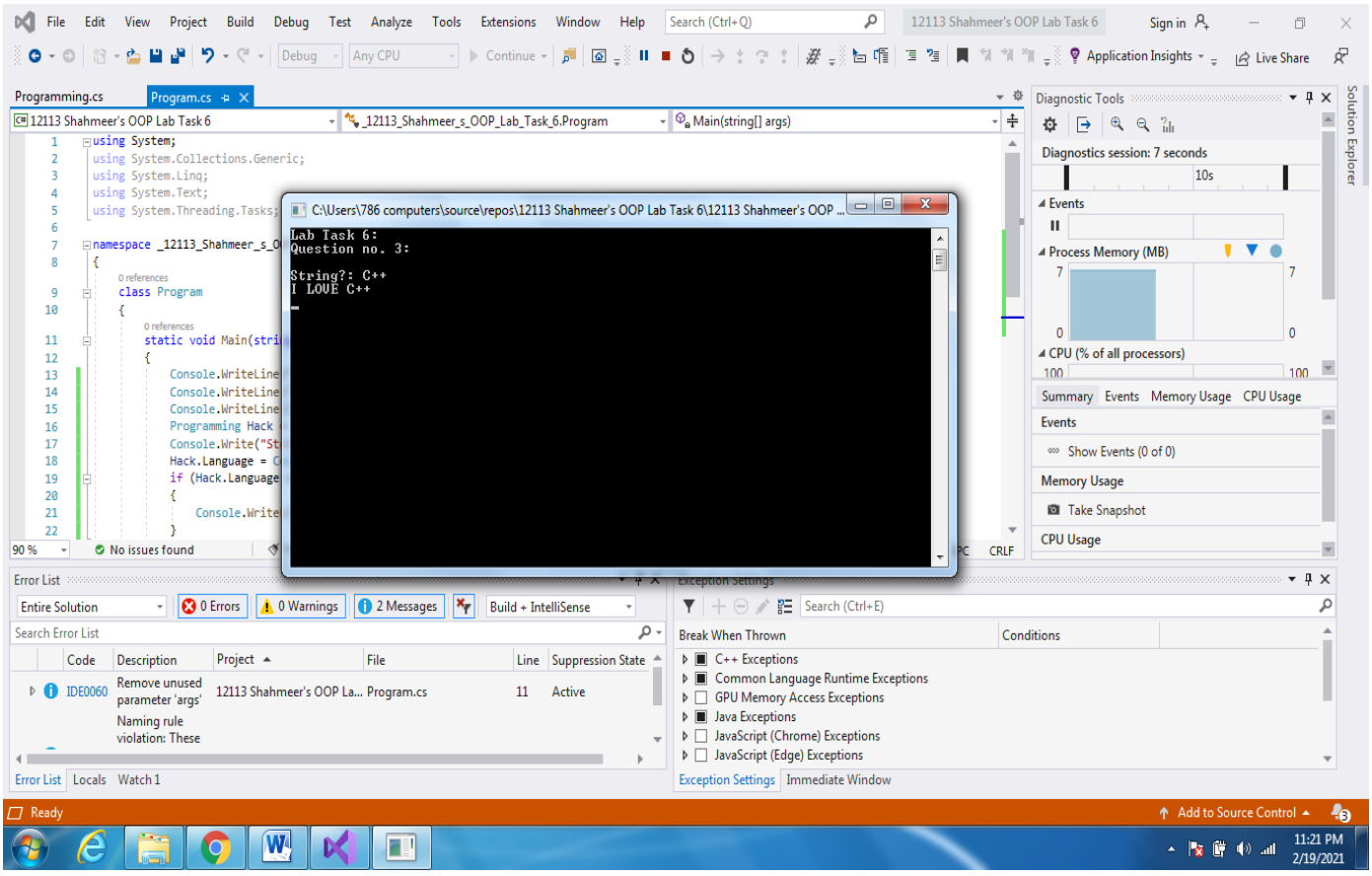
Program.cs;

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 3:");
            Console.WriteLine();
            Programming Hack = new Programming();
            Console.Write("String?: ");
            Hack.Language = Console.ReadLine();
            if (Hack.Language == "")
            {
                Console.WriteLine(Hack.Print());
            }
            else
            {
                Console.WriteLine(Hack.print());
            }
            Console.ReadKey();
        }
    }
}
```



Output;

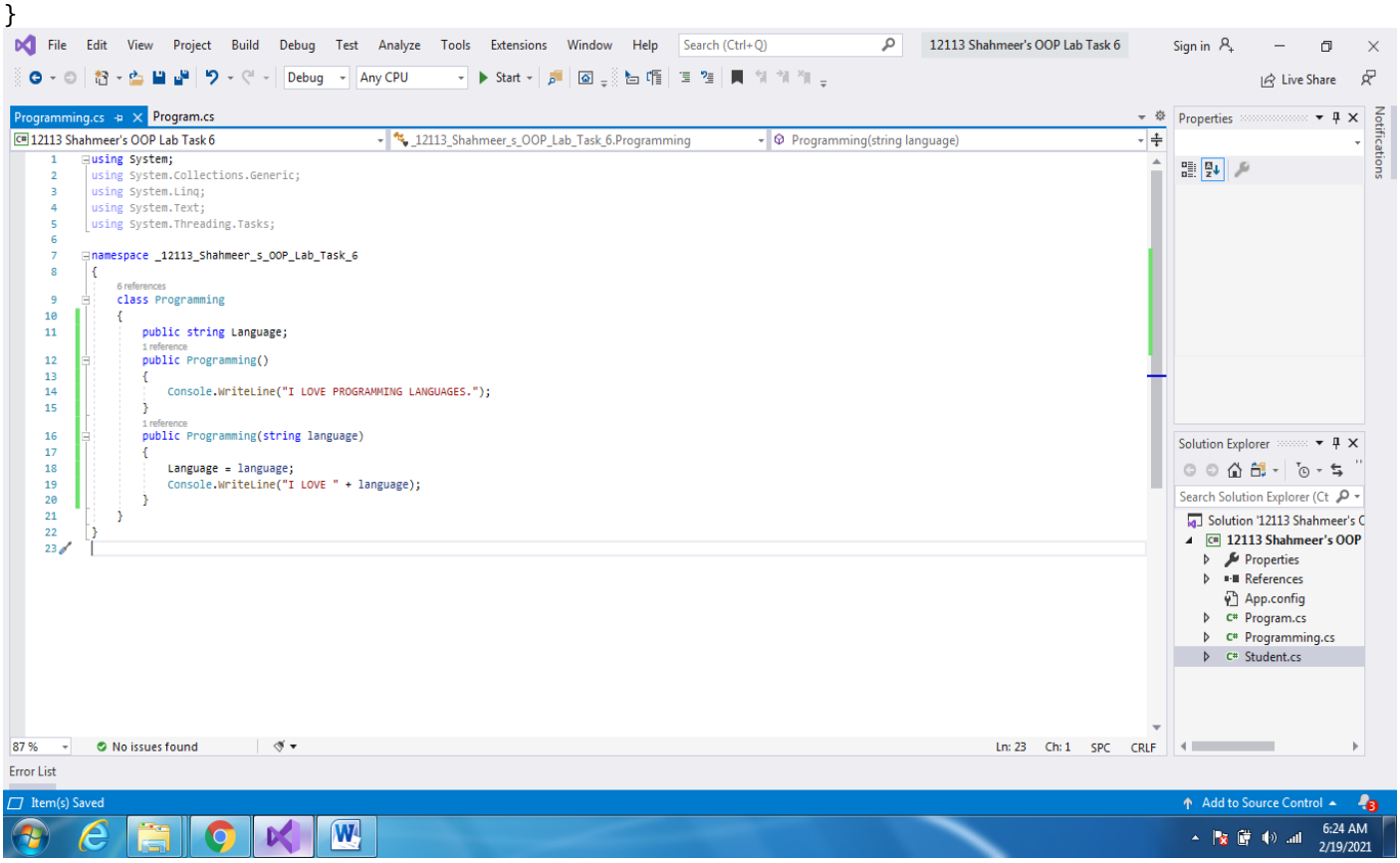

C:\Users\786 computers\source\repos\12113 Shahmeer's OOP Lab Task 6\12113 Shahmeer's OOP ...
Lab Task 6:
Question no. 3:
String?:
I LOVE PROGRAMMING.


C:\Users\786 computers\source\repos\12113 Shahmeer's OOP Lab Task 6\12113 Shahmeer's OOP ...
Lab Task 6:
Question no. 3:
String?: C++
I LOVE C++

Method/Solution 2:

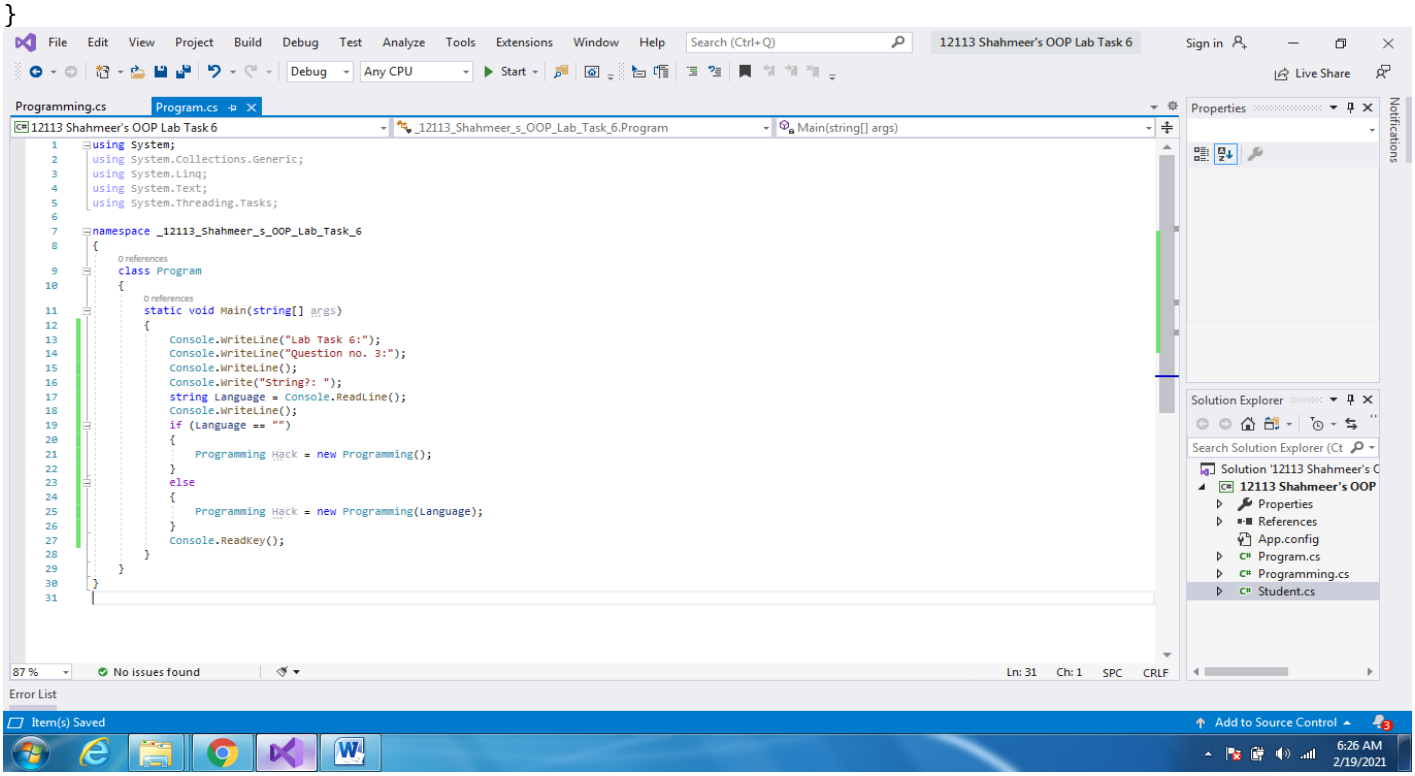
Programming.cs(Class);

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Programming
    {
        public string Language;
        public Programming()
        {
            Console.WriteLine("I LOVE PROGRAMMING LANGUAGES.");
        }
        public Programming(string language)
        {
            Language = language;
            Console.WriteLine("I LOVE " + language);
        }
    }
}
```

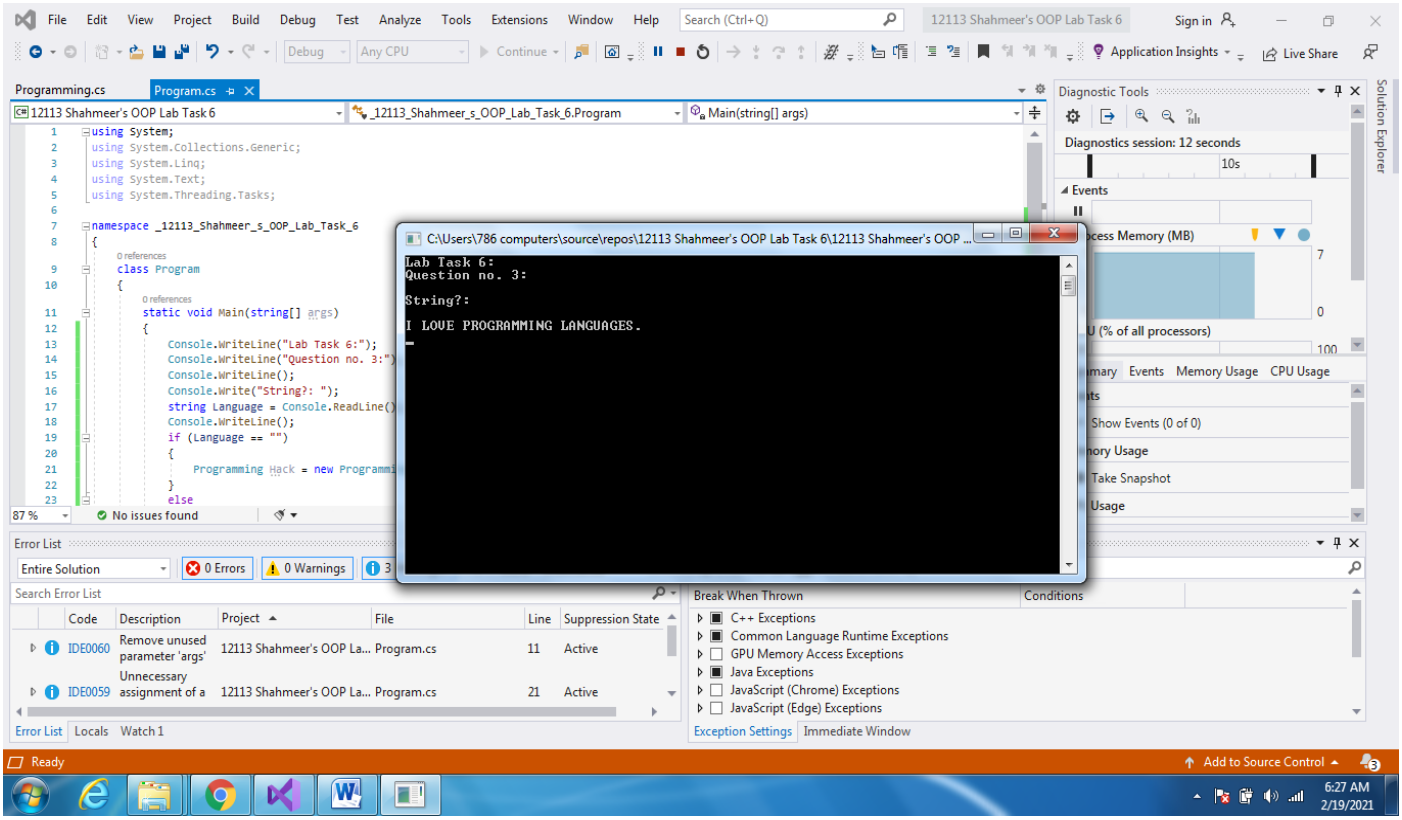


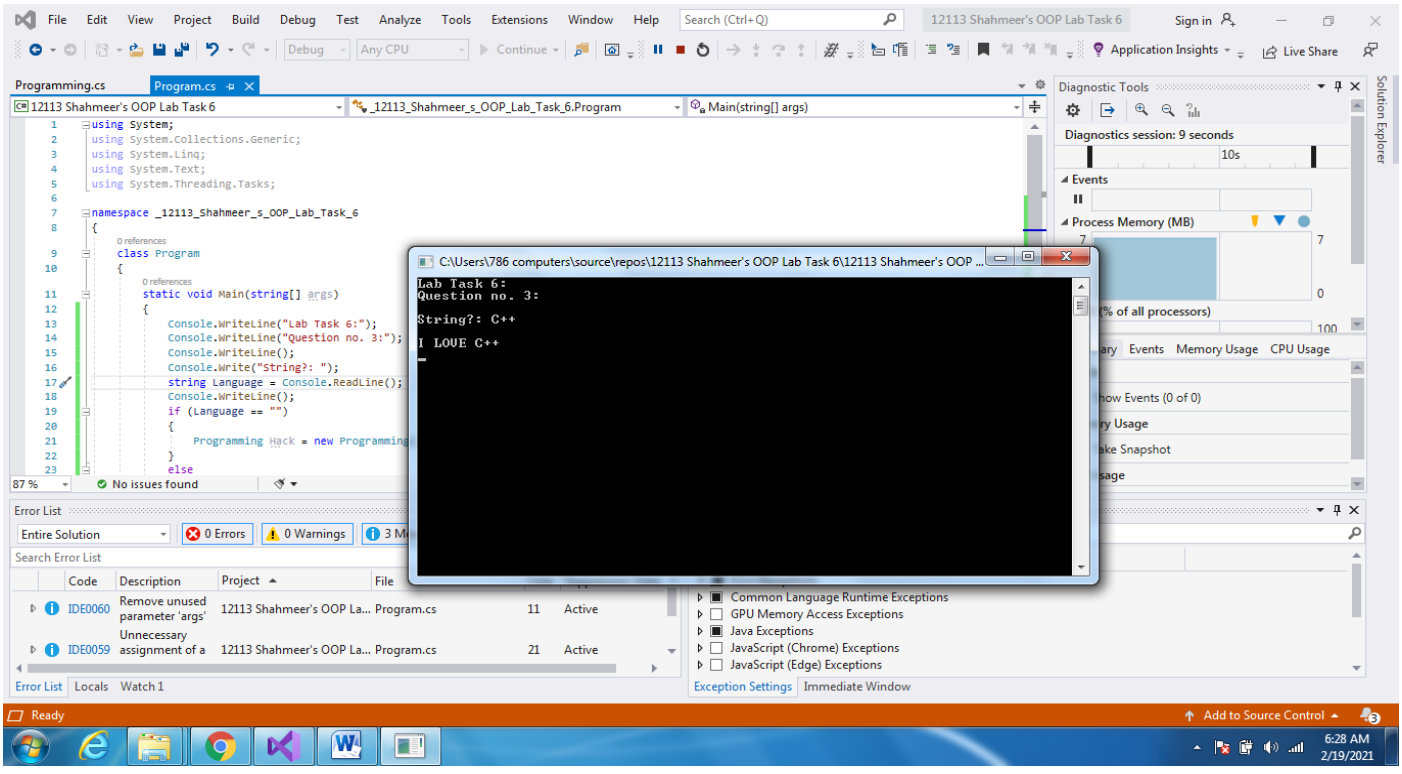
Program.cs;

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 3:");
            Console.WriteLine();
            Console.Write("String?: ");
            string Language = Console.ReadLine();
            Console.WriteLine();
            if (Language == "")
            {
                Programming Hack = new Programming();
            }
            else
            {
                Programming Hack = new Programming(Language);
            }
            Console.ReadKey();
        }
    }
}
```



Output;


C:\Users\786 computers\source\repos\12113 Shahmeer's OOP Lab Task 6\12113 Shahmeer's OOP ...
Lab Task 6:
Question no. 3:
String?:
I LOVE PROGRAMMING LANGUAGES.

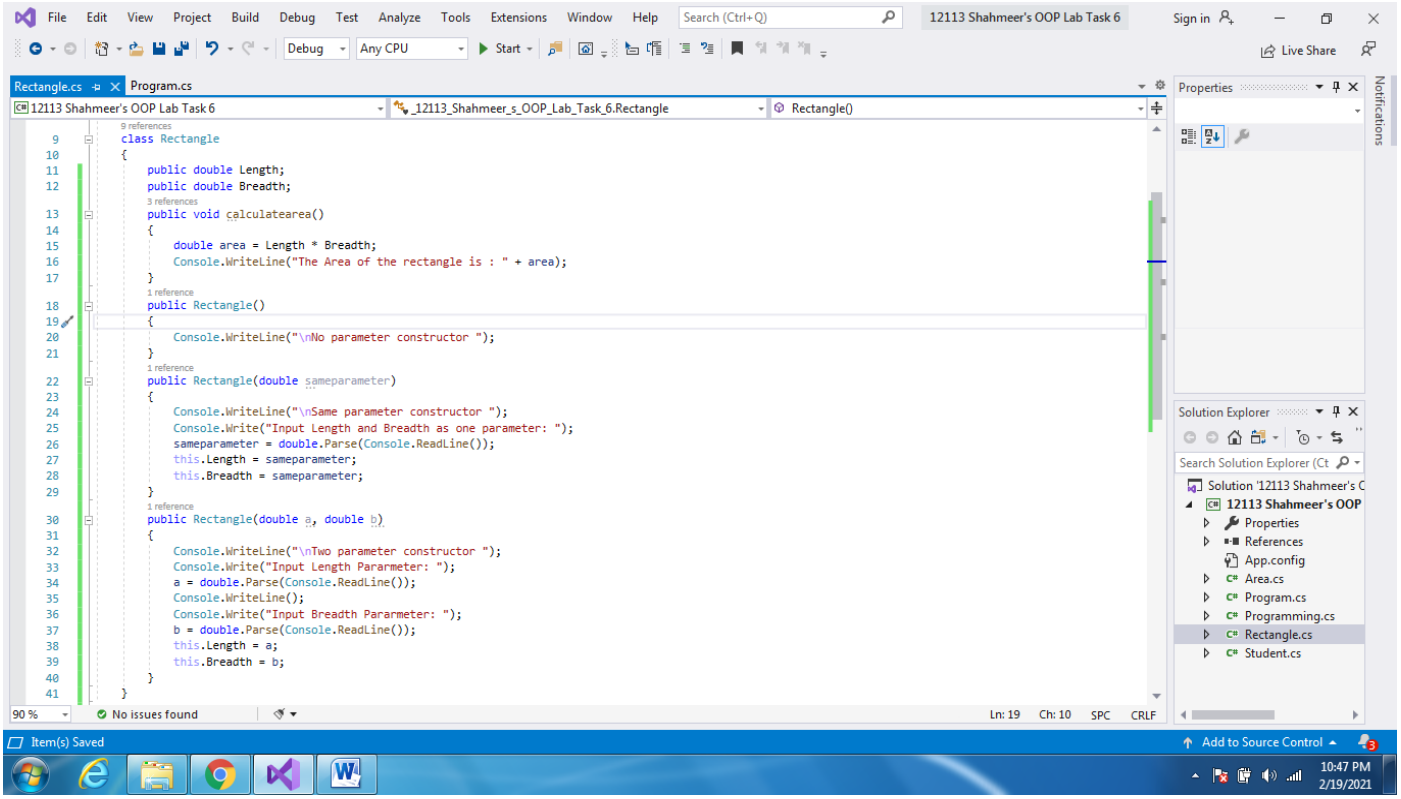

C:\Users\786 computers\source\repos\12113 Shahmeer's OOP Lab Task 6\12113 Shahmeer's OOP ...
Lab Task 6:
Question no. 3:
String?: C++
I LOVE C++

QUESTION 4;

INPUTTED CODE;

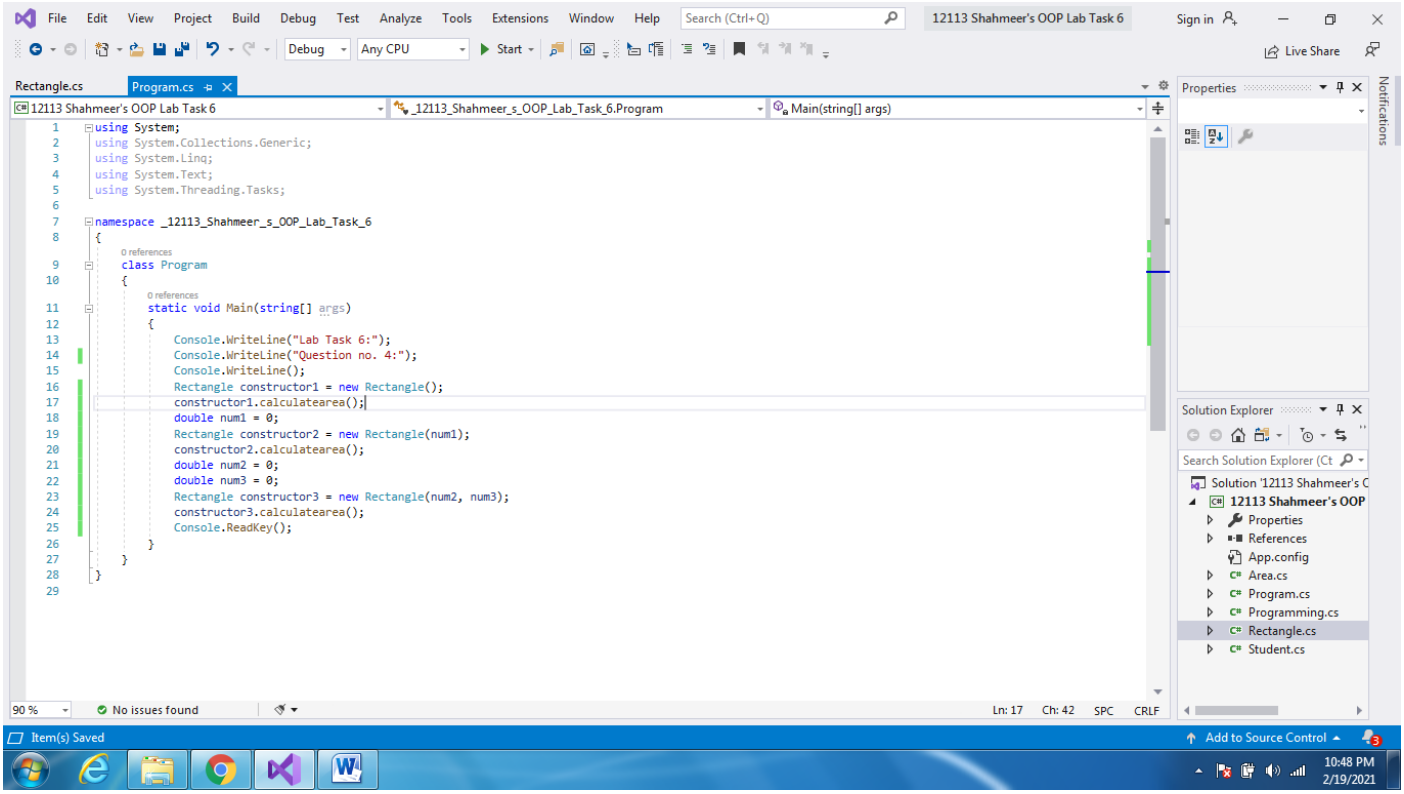
Rectangle.cs(Class);

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Rectangle
    {
        public double Length;
        public double Breadth;
        public void calculatearea()
        {
            double area = Length * Breadth;
            Console.WriteLine("The Area of the rectangle is : " + area);
        }
        public Rectangle()
        {
            Console.WriteLine("\nNo parameter constructor ");
        }
        public Rectangle(double sameparameter)
        {
            Console.WriteLine("\nSame parameter constructor ");
            Console.Write("Input Length and Breadth as one parameter: ");
            sameparameter = double.Parse(Console.ReadLine());
            this.Length = sameparameter;
            this.Breadth = sameparameter;
        }
        public Rectangle(double a, double b)
        {
            Console.WriteLine("\nTwo parameter constructor ");
            Console.Write("Input Length Pararmeter: ");
            a = double.Parse(Console.ReadLine());
            Console.WriteLine();
            Console.Write("Input Breadth Pararmeter: ");
            b = double.Parse(Console.ReadLine());
            this.Length = a;
            this.Breadth = b;
        }
    }
}
```



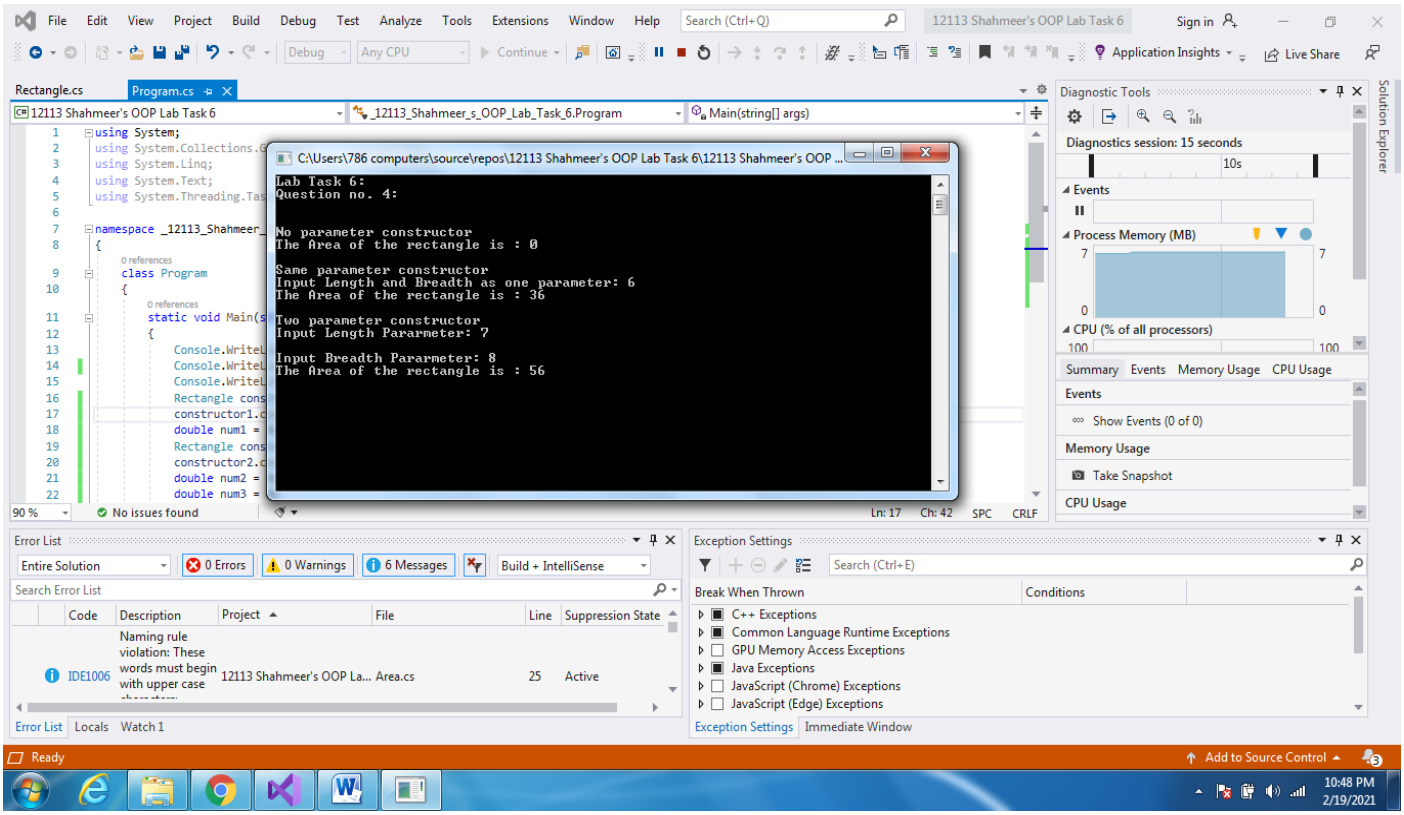
Program.cs;

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 4:");
            Console.WriteLine();
            Rectangle constructor1 = new Rectangle();
            constructor1.calculatearea();
            double num1 = 0;
            Rectangle constructor2 = new Rectangle(num1);
            constructor2.calculatearea();
            double num2 = 0;
            double num3 = 0;
            Rectangle constructor3 = new Rectangle(num2, num3);
            constructor3.calculatearea();
            Console.ReadKey();
        }
    }
}
```



```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    0 references
    class Program
    {
        0 references
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 4:");
            Console.WriteLine();
            Rectangle constructor1 = new Rectangle();
            constructor1.calculatearea();
            double num1 = 0;
            Rectangle constructor2 = new Rectangle(num1);
            constructor2.calculatearea();
            double num2 = 0;
            double num3 = 0;
            Rectangle constructor3 = new Rectangle(num2, num3);
            constructor3.calculatearea();
            Console.ReadKey();
        }
    }
}
```

Output;



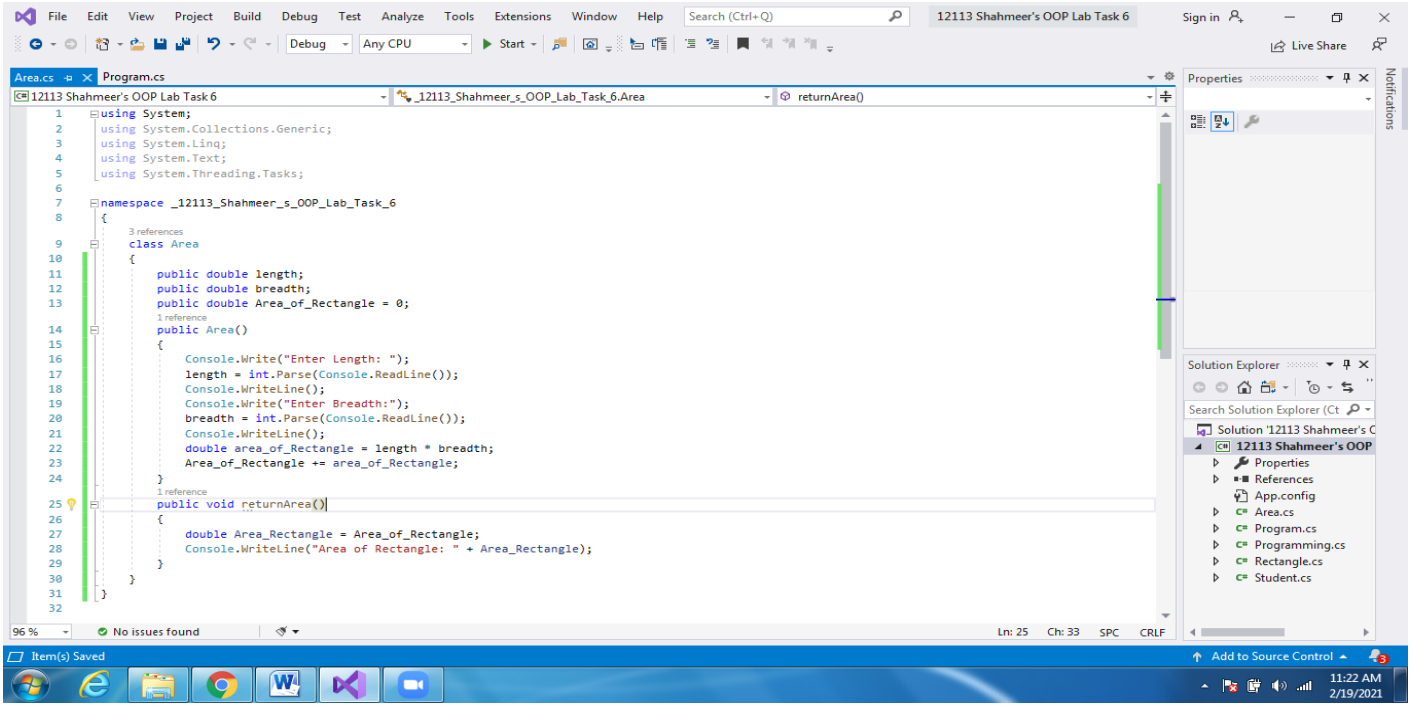
```
Lab Task 6:
Question no. 4:

No parameter constructor
The Area of the rectangle is : 0

Same parameter constructor
Input Length and Breadth as one parameter: 6
The Area of the rectangle is : 36

Two parameter constructor
Input Length Pararmeter: 7

Input Breadth Pararmeter: 8
The Area of the rectangle is : 56
```

QUESTION 5;

INPUTTED CODE;

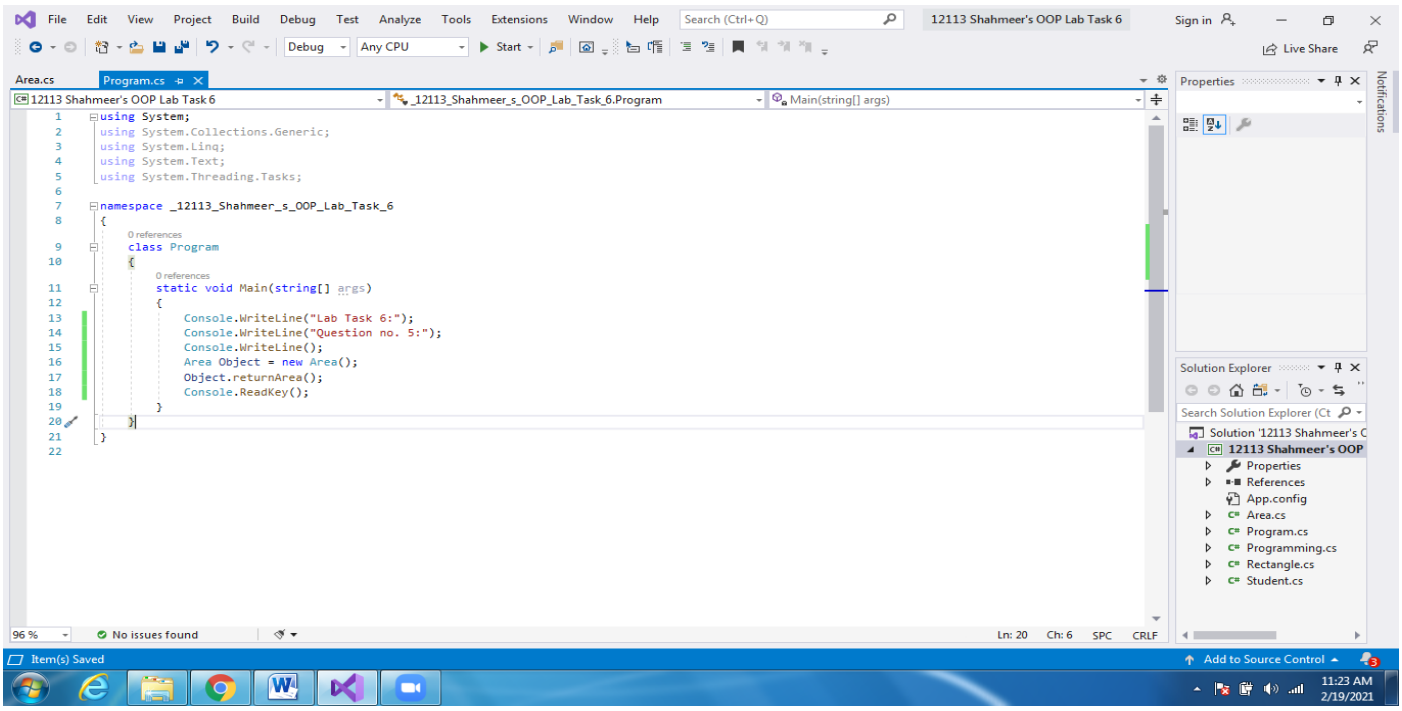
Area.cs(Class);

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Area
    {
        public double length;
        public double breadth;
        public double Area_of_Rectangle = 0;
        public Area()
        {
            Console.Write("Enter Length: ");
            length = int.Parse(Console.ReadLine());
            Console.WriteLine();
            Console.Write("Enter Breadth:");
            breadth = int.Parse(Console.ReadLine());
            Console.WriteLine();
            double area_of_Rectangle = length * breadth;
            Area_of_Rectangle += area_of_Rectangle;
        }
        public void returnArea()
        {
            double Area_Rectangle = Area_of_Rectangle;
            Console.WriteLine("Area of Rectangle: " + Area_Rectangle);
        }
    }
}
```



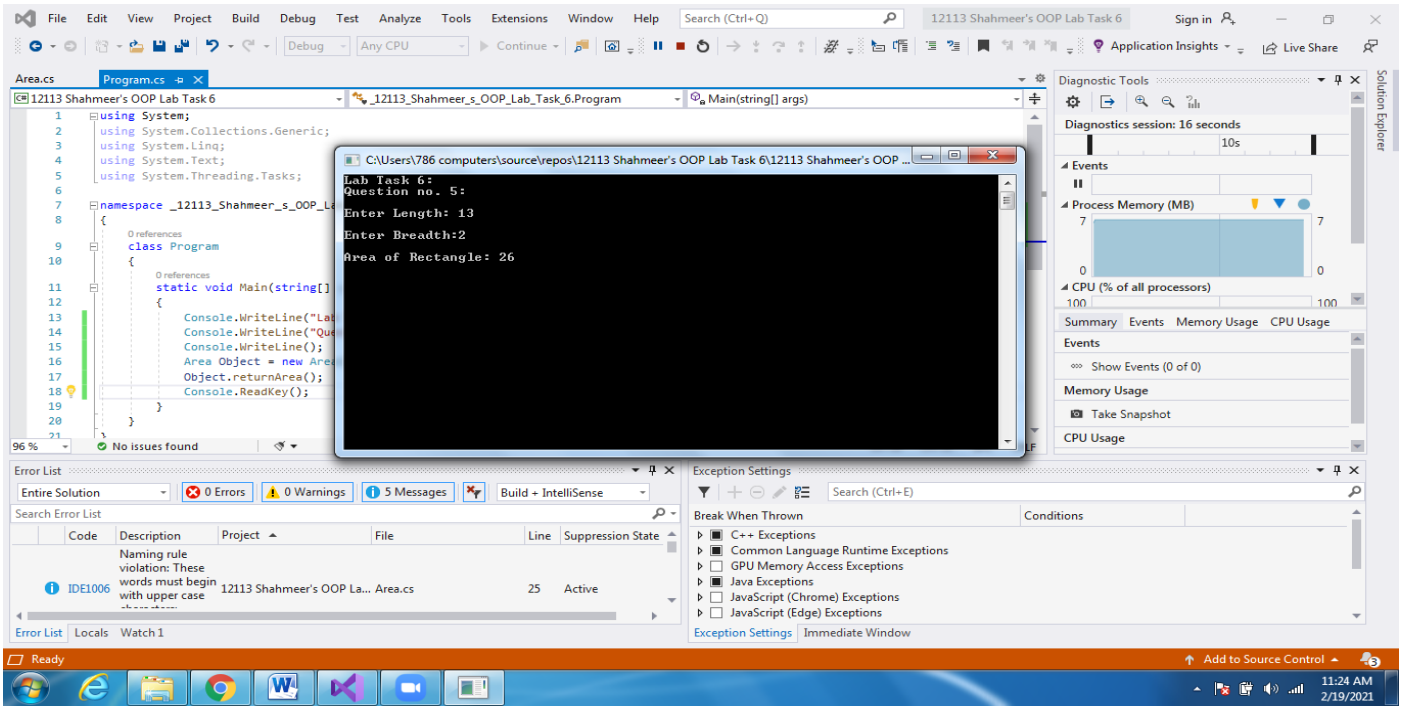
Program.cs;

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 5:");
            Console.WriteLine();
            Area Object = new Area();
            Object.returnArea();
            Console.ReadKey();
        }
    }
}
```



```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace _12113_Shahmeer_s_OOP_Lab_Task_6
{
    0 references
    class Program
    {
        0 references
        static void Main(string[] args)
        {
            Console.WriteLine("Lab Task 6:");
            Console.WriteLine("Question no. 5:");
            Console.WriteLine();
            Area Object = new Area();
            Object.returnArea();
            Console.ReadKey();
        }
    }
}
```

Output;



```
Lab Task 6:
Question no. 5:

Enter Length: 13

Enter Breadth:2

Area of Rectangle: 26
```
