

## RAJSHAHI MOHILA POLYTECHNIC INSTITUTE, RAJSHAHI

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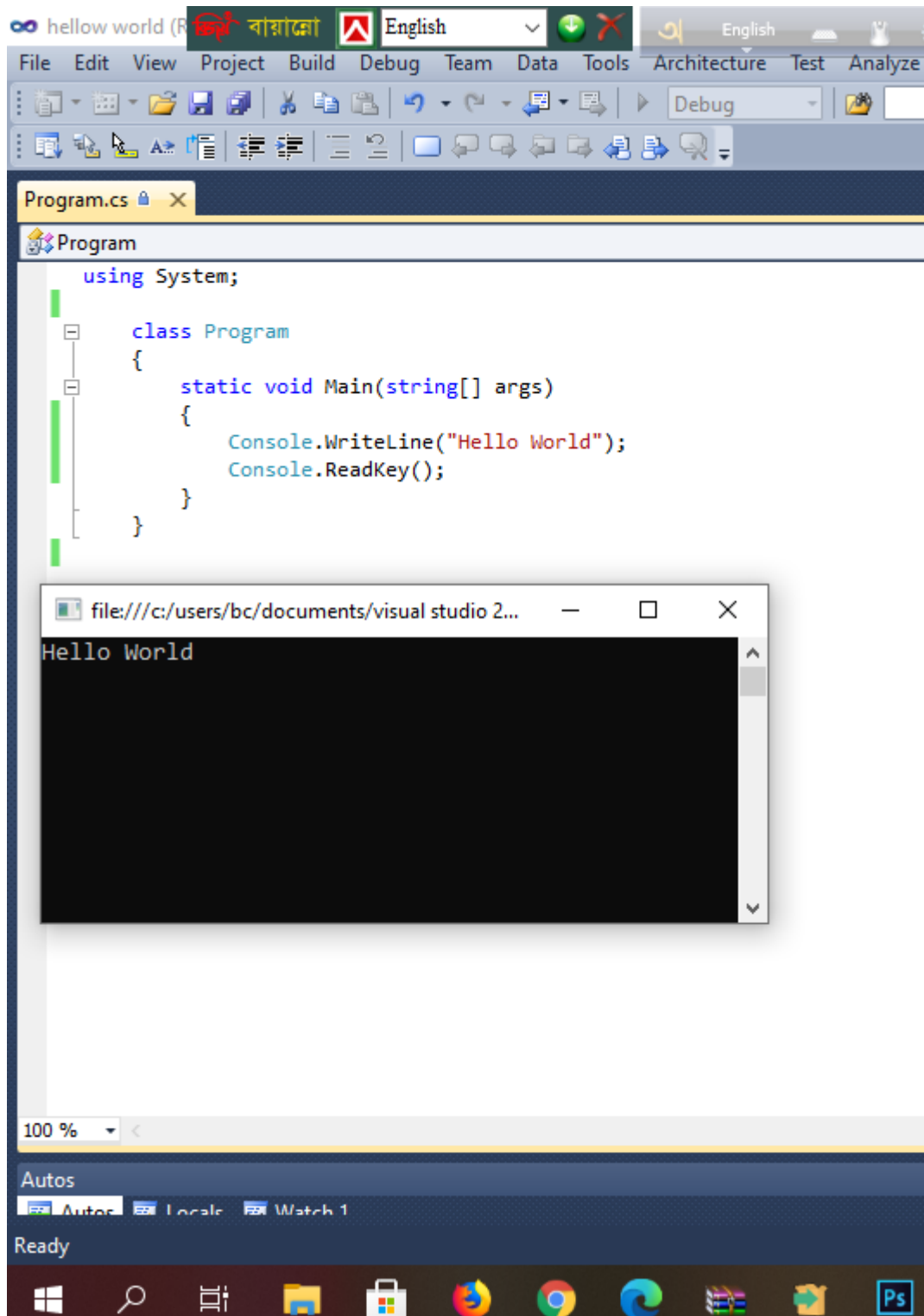
Department : Computer

Semester : 4th

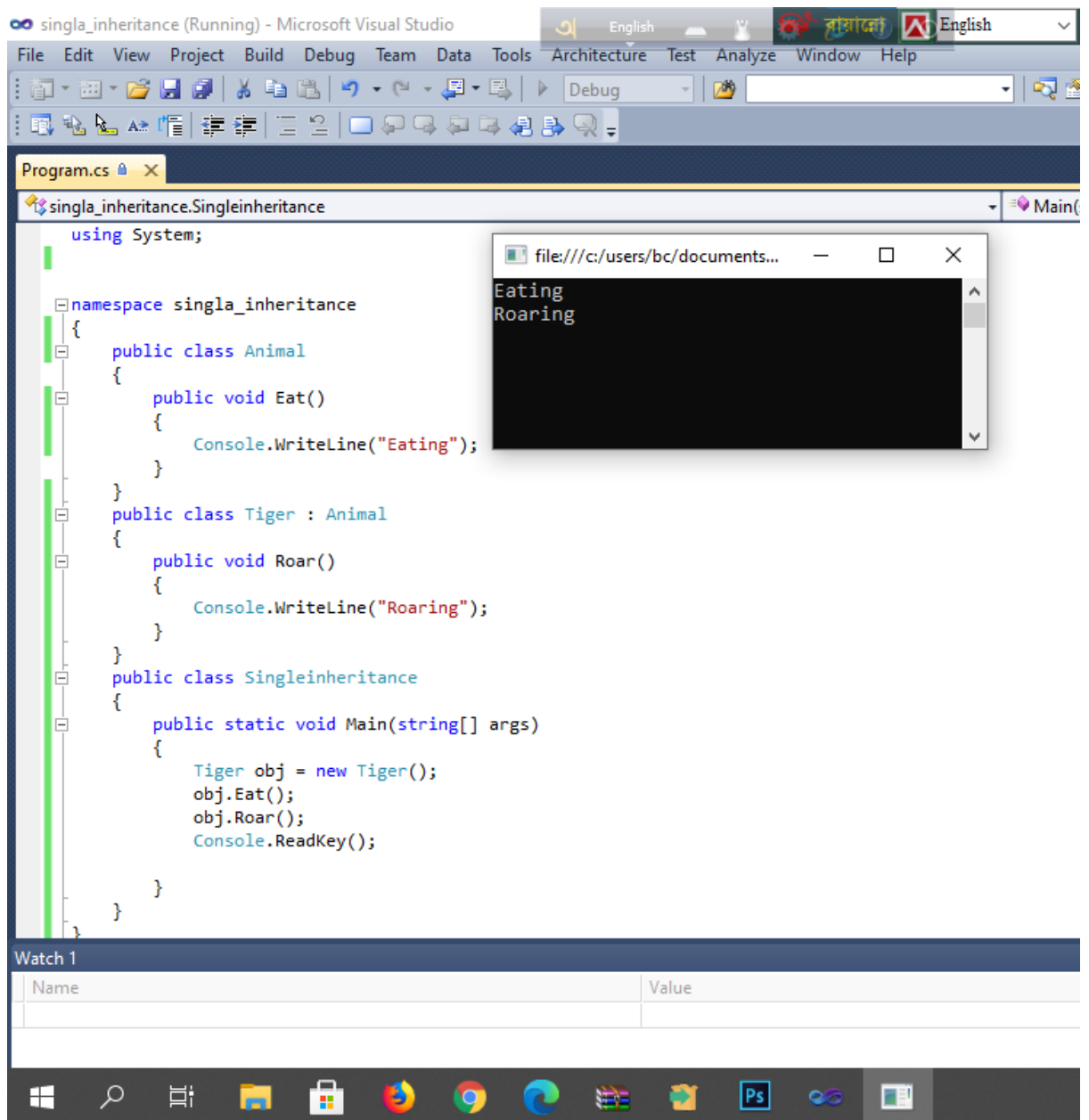
Shift : 2nd

Roll No : 420682

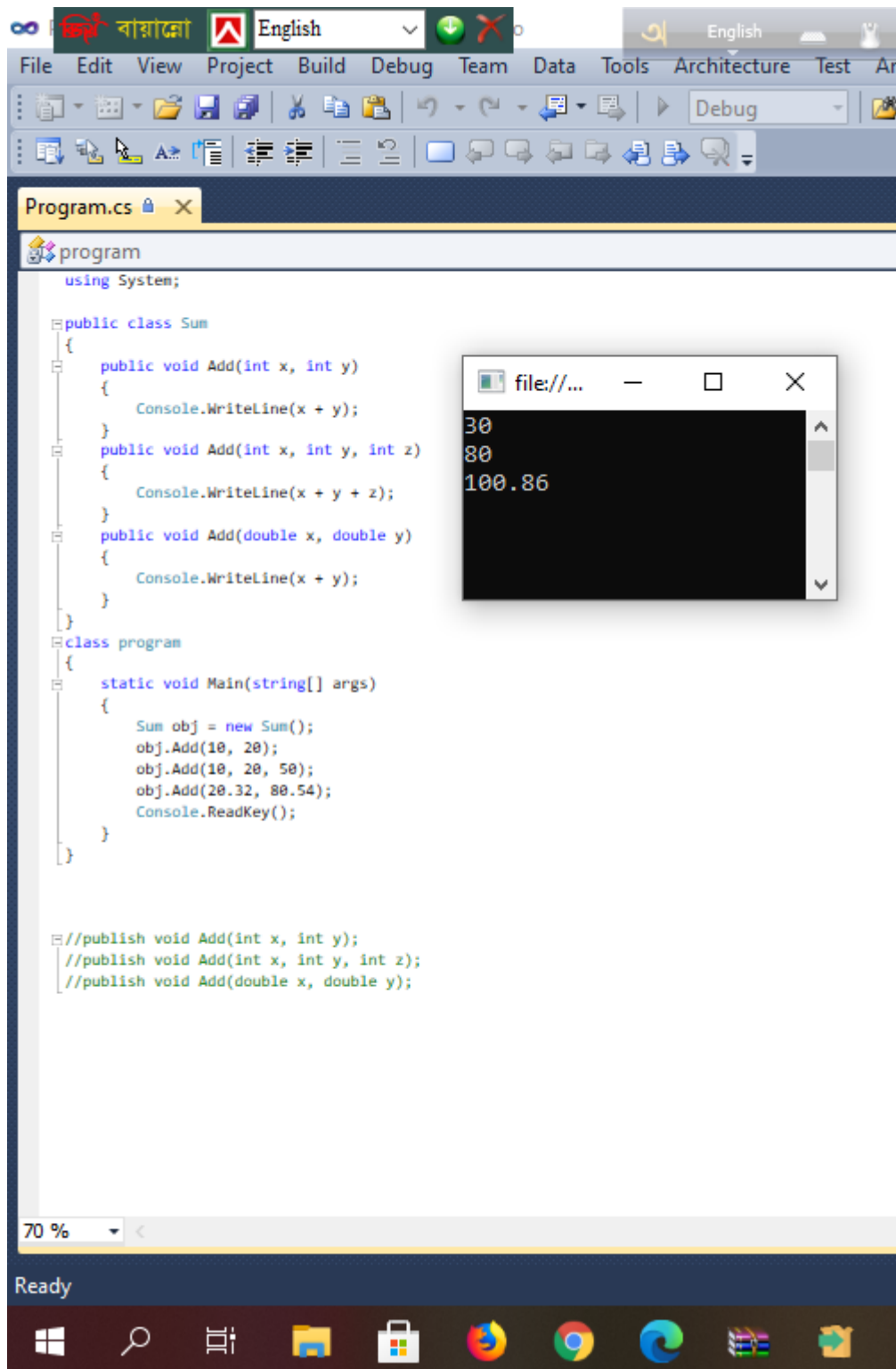
## 1. HELLO WORLD প্রিন্ট করার জন্য একটি শার্পের প্রোগ্রাম।



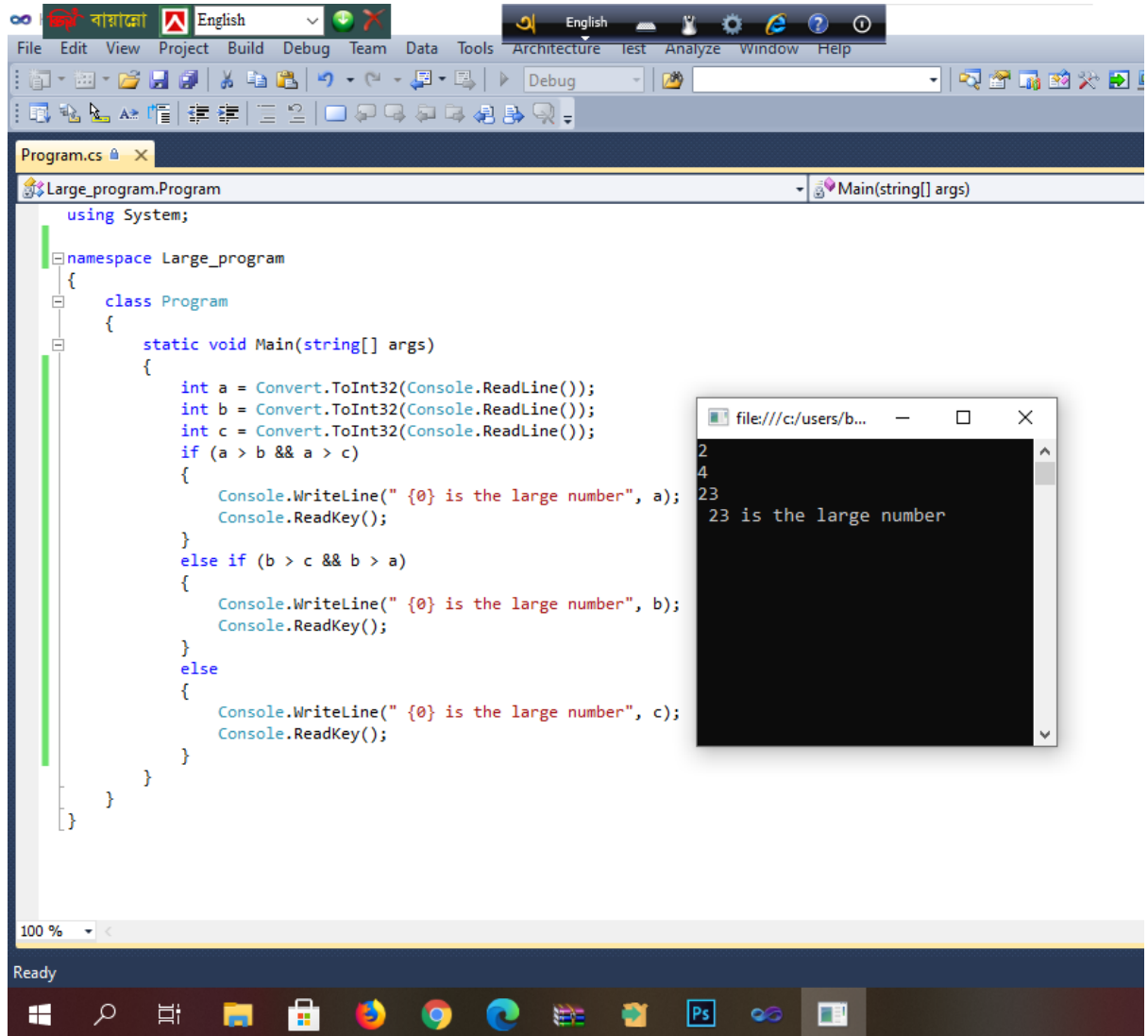
## 2. Single Inheritance C# Program



### 3. Polymorphism C# Program



#### 4. ২টি সংখ্যার মধ্যে বড় সংখ্যাটি বের করার প্রোগ্রাম।

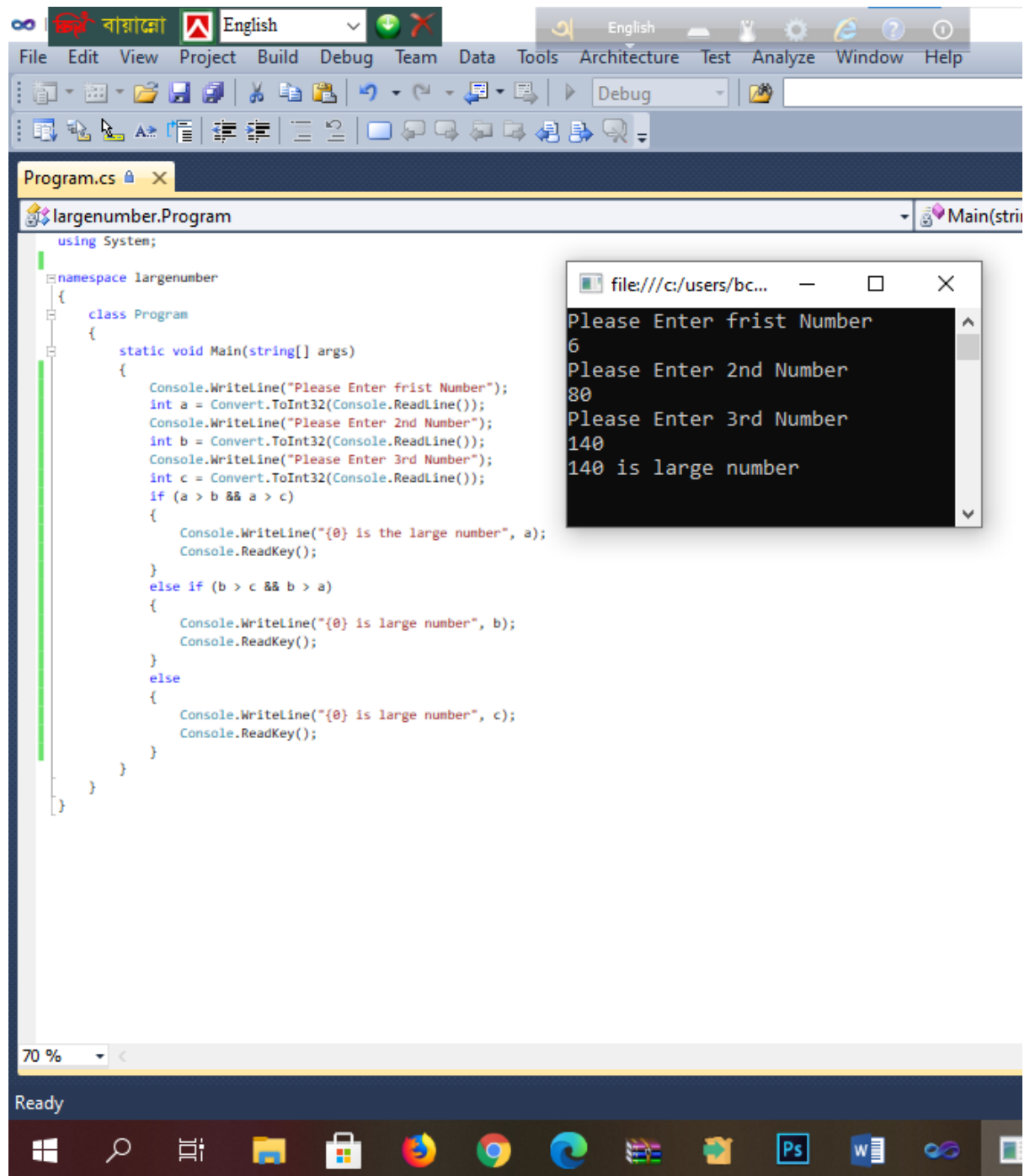


```
using System;

namespace Large_program
{
    class Program
    {
        static void Main(string[] args)
        {
            int a = Convert.ToInt32(Console.ReadLine());
            int b = Convert.ToInt32(Console.ReadLine());
            int c = Convert.ToInt32(Console.ReadLine());
            if (a > b && a > c)
            {
                Console.WriteLine("{0} is the large number", a);
                Console.ReadKey();
            }
            else if (b > c && b > a)
            {
                Console.WriteLine("{0} is the large number", b);
                Console.ReadKey();
            }
            else
            {
                Console.WriteLine("{0} is the large number", c);
                Console.ReadKey();
            }
        }
    }
}
```

file:///c:/users/b... 23 is the large number

## 5. তিনটি সংখ্যার মাঝে বড় সংখ্যা বের করার প্রোগ্রাম



The screenshot displays the Visual Studio IDE with a C# program named `largenumber.Program` open. The code is as follows:

```
using System;

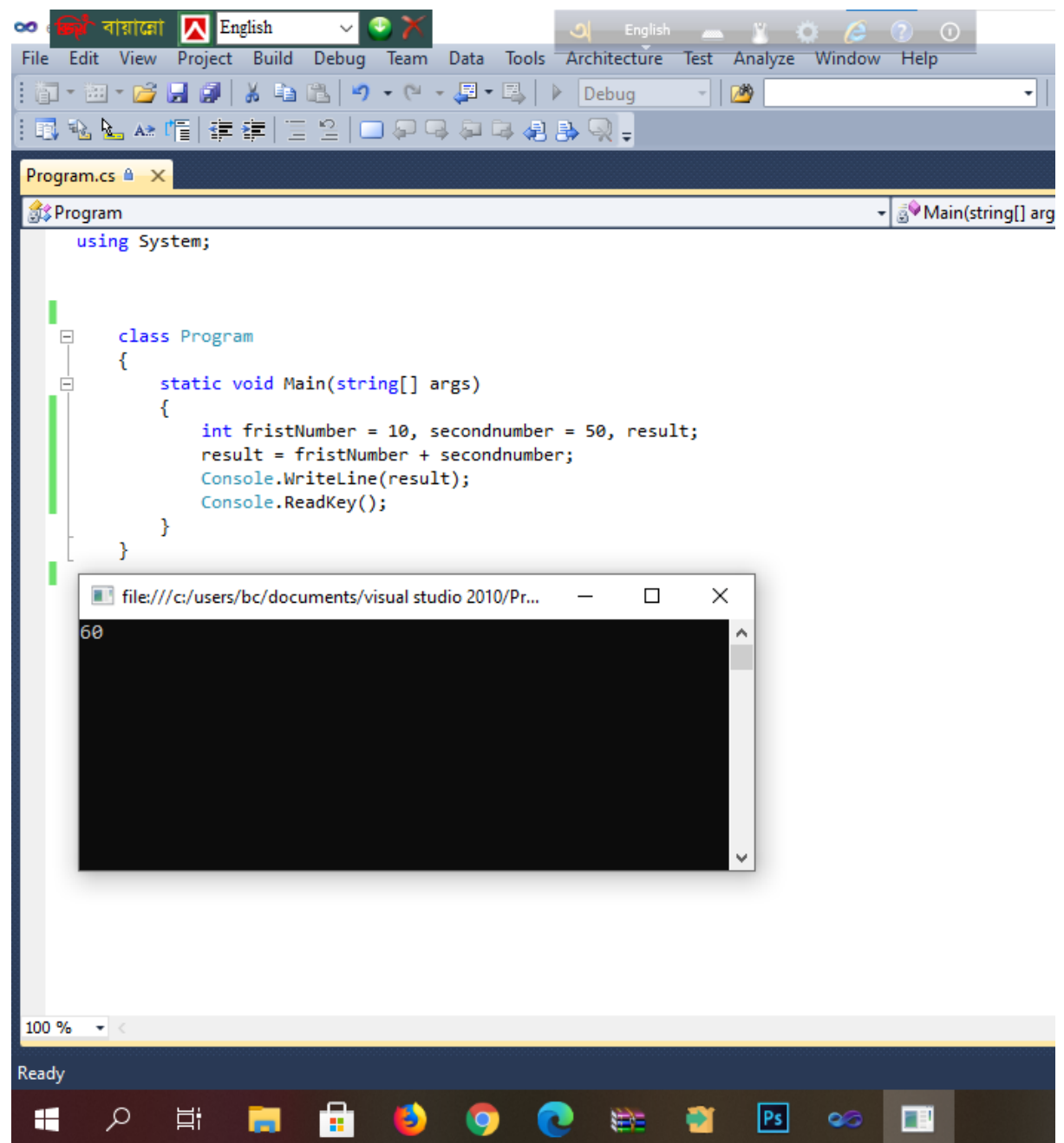
namespace largenumber
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Please Enter frist Number");
            int a = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Please Enter 2nd Number");
            int b = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Please Enter 3rd Number");
            int c = Convert.ToInt32(Console.ReadLine());
            if (a > b && a > c)
            {
                Console.WriteLine("{0} is the large number", a);
                Console.ReadKey();
            }
            else if (b > c && b > a)
            {
                Console.WriteLine("{0} is large number", b);
                Console.ReadKey();
            }
            else
            {
                Console.WriteLine("{0} is large number", c);
                Console.ReadKey();
            }
        }
    }
}
```

Overlaid on the code editor is a console window titled `file:///c:/users/bc...` showing the program's execution:

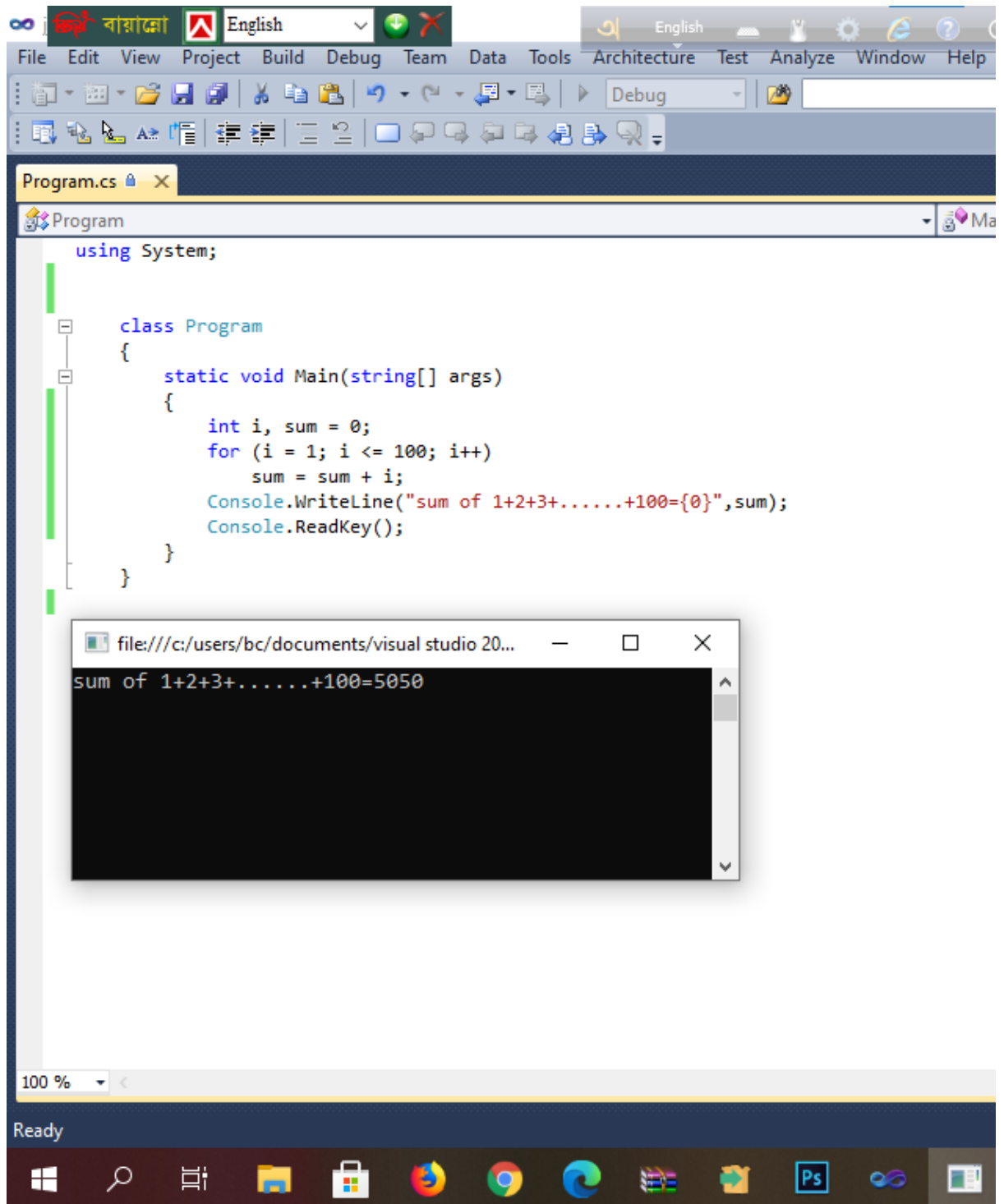
```
Please Enter frist Number
6
Please Enter 2nd Number
80
Please Enter 3rd Number
140
140 is large number
```

The status bar at the bottom of the IDE indicates the program is `Ready`.

## 6. ২টি সংখ্যার যোগফল প্রোগ্রাম

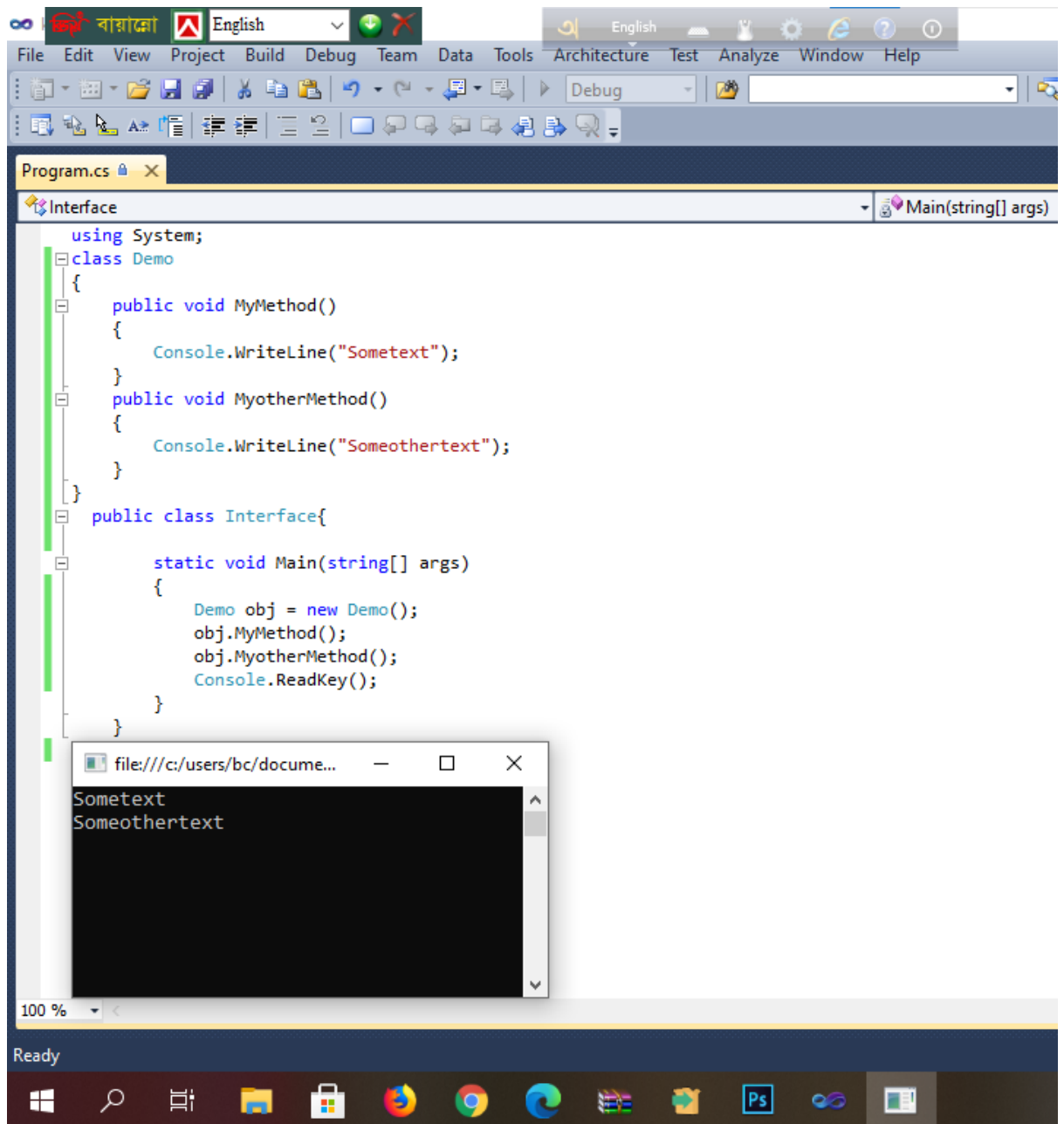


## 7.১ হতে ১০০ পর্যন্ত সংখ্যাগুলো যোগ করার জন্য সি শার্পের প্রোগ্রাম

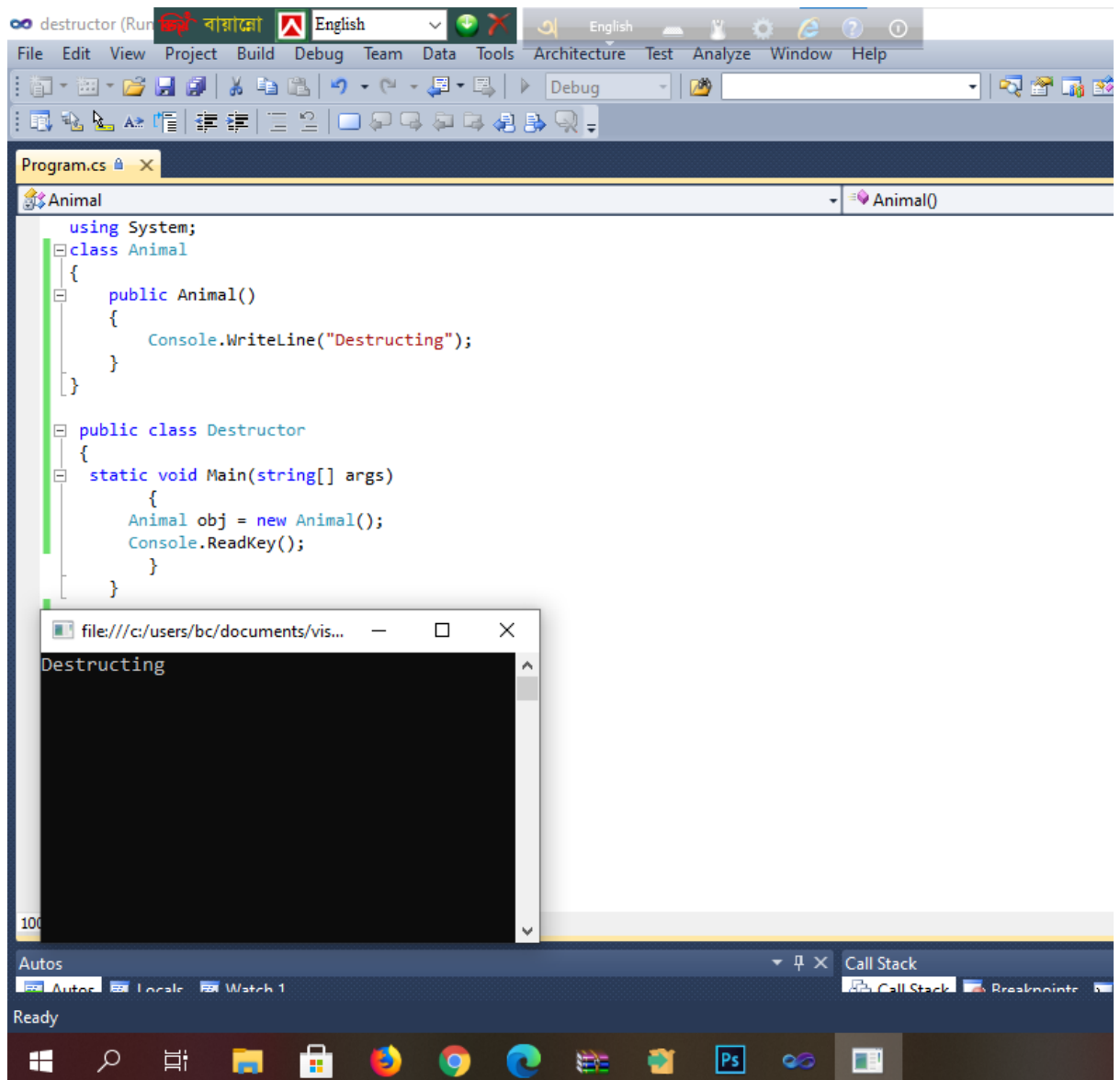




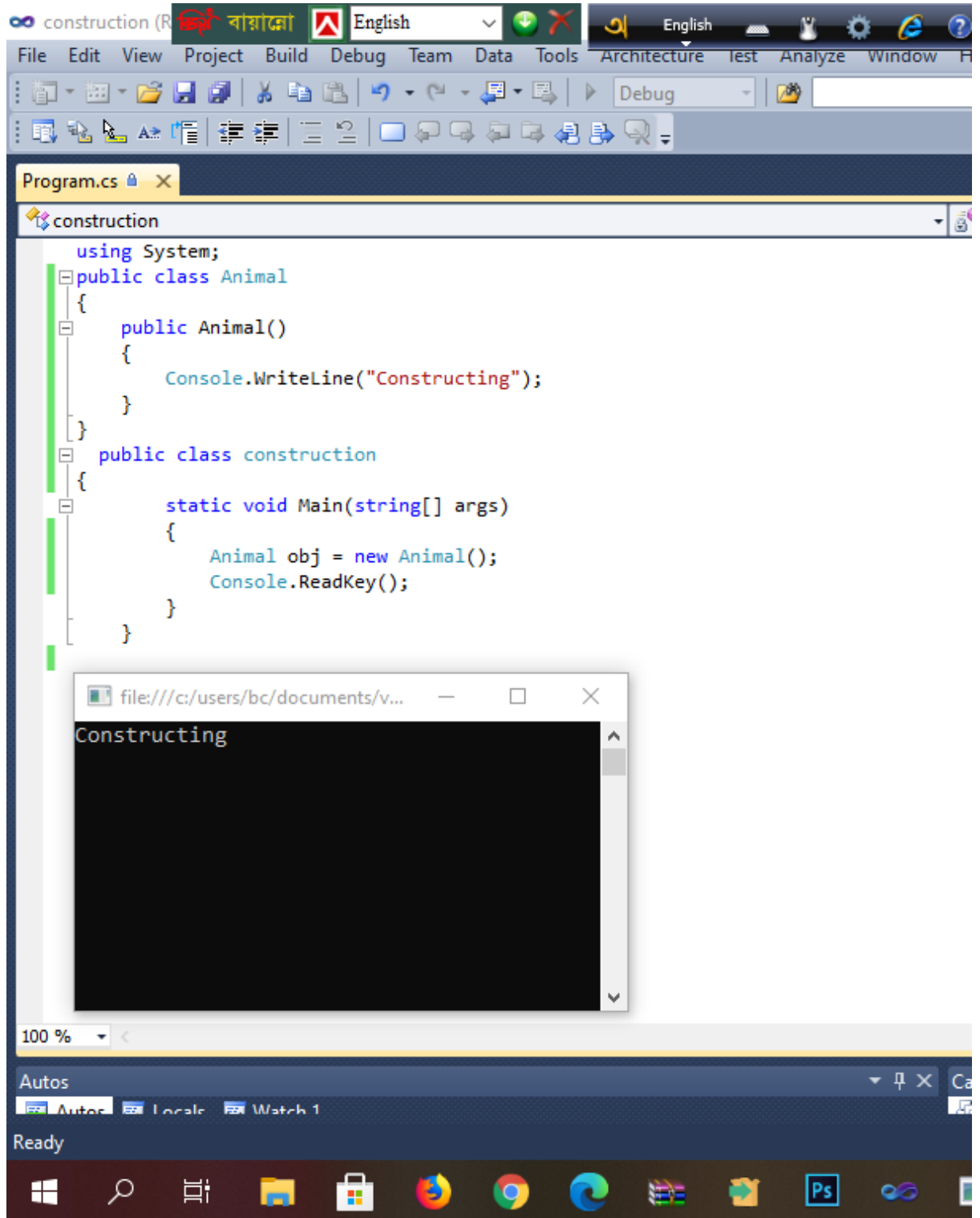
## 8. Interface ব্যবহার করে একটি প্রোগ্রাম



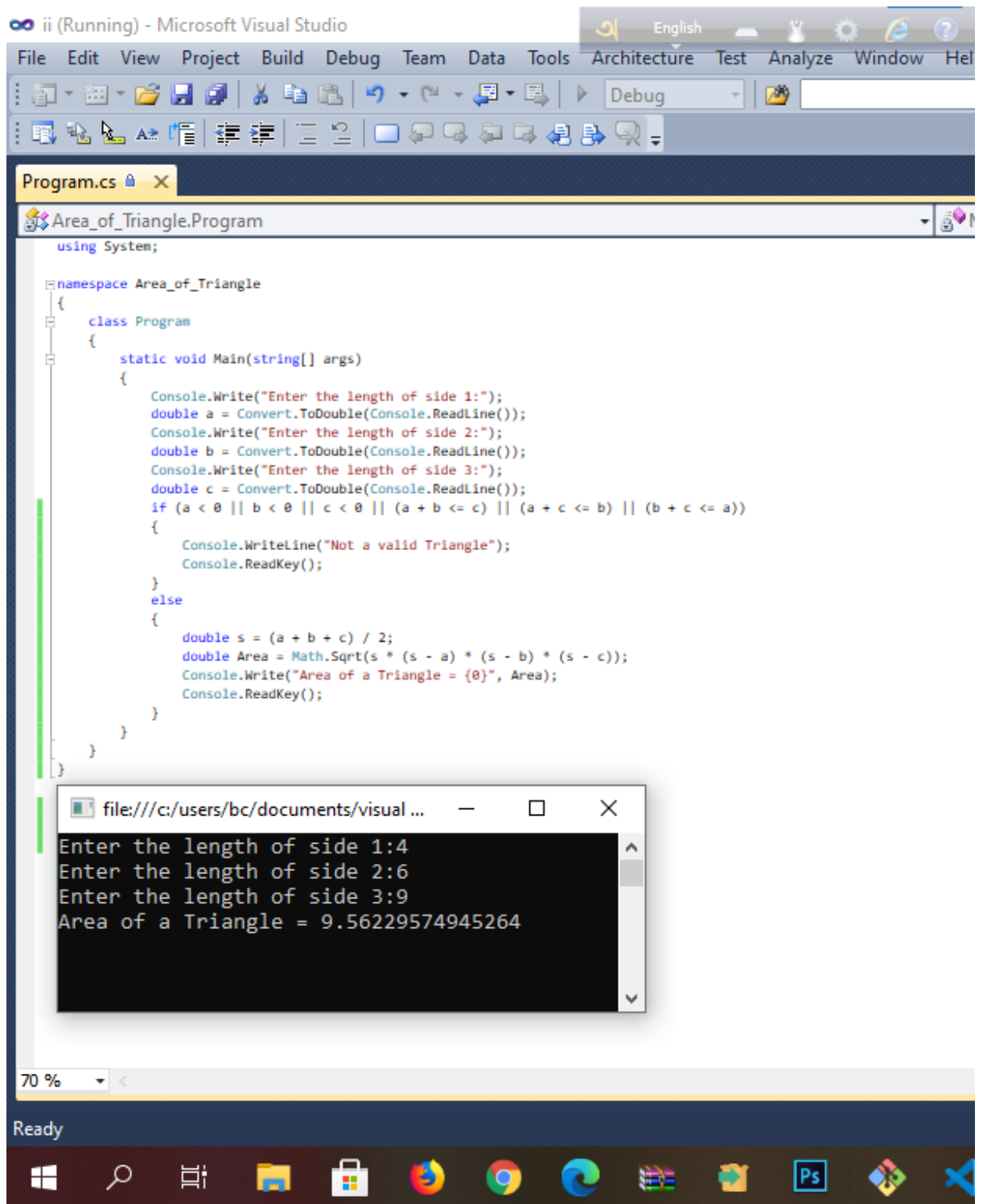
## 9. Destructor ব্যবহার করে একটি প্রোগ্রাম



## 10. Constructor ব্যবহার করে একটি প্রোগ্রাম



# 11. Triangle Area C# Program



ii (Running) - Microsoft Visual Studio

File Edit View Project Build Debug Team Data Tools Architecture Test Analyze Window Help

Program.cs

Area\_of\_Triangle.Program

```
using System;

namespace Area_of_Triangle
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter the length of side 1:");
            double a = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter the length of side 2:");
            double b = Convert.ToDouble(Console.ReadLine());
            Console.WriteLine("Enter the length of side 3:");
            double c = Convert.ToDouble(Console.ReadLine());
            if (a < 0 || b < 0 || c < 0 || (a + b <= c) || (a + c <= b) || (b + c <= a))
            {
                Console.WriteLine("Not a valid Triangle");
                Console.ReadKey();
            }
            else
            {
                double s = (a + b + c) / 2;
                double Area = Math.Sqrt(s * (s - a) * (s - b) * (s - c));
                Console.WriteLine("Area of a Triangle = {0}", Area);
                Console.ReadKey();
            }
        }
    }
}
```

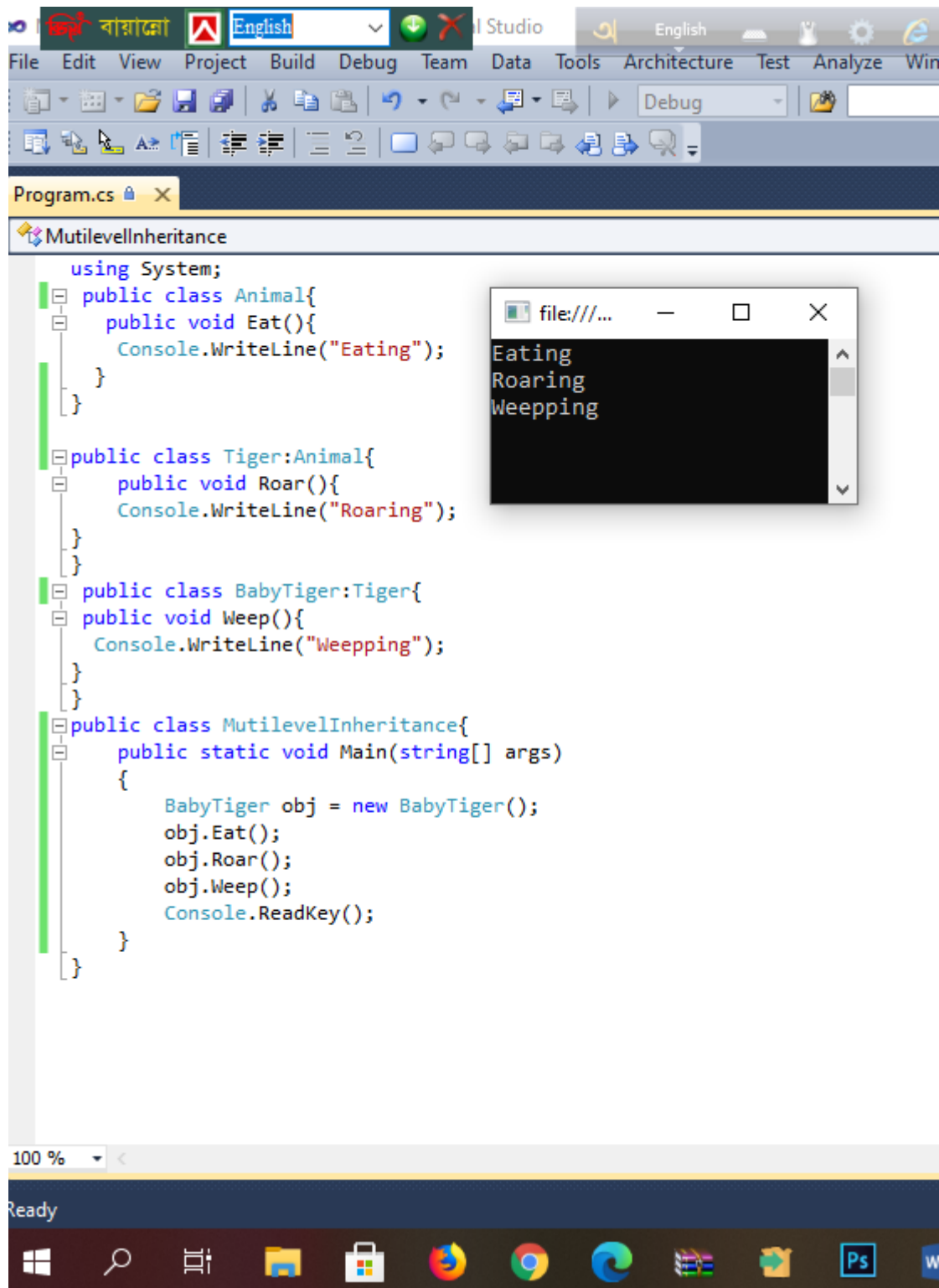
file:///c:/users/bc/documents/visual ...

Enter the length of side 1:4  
Enter the length of side 2:6  
Enter the length of side 3:9  
Area of a Triangle = 9.56229574945264

70 %

Ready

## 12. Multilevel Inheritance C# Program



```
using System;

public class Animal{
    public void Eat(){
        Console.WriteLine("Eating");
    }
}

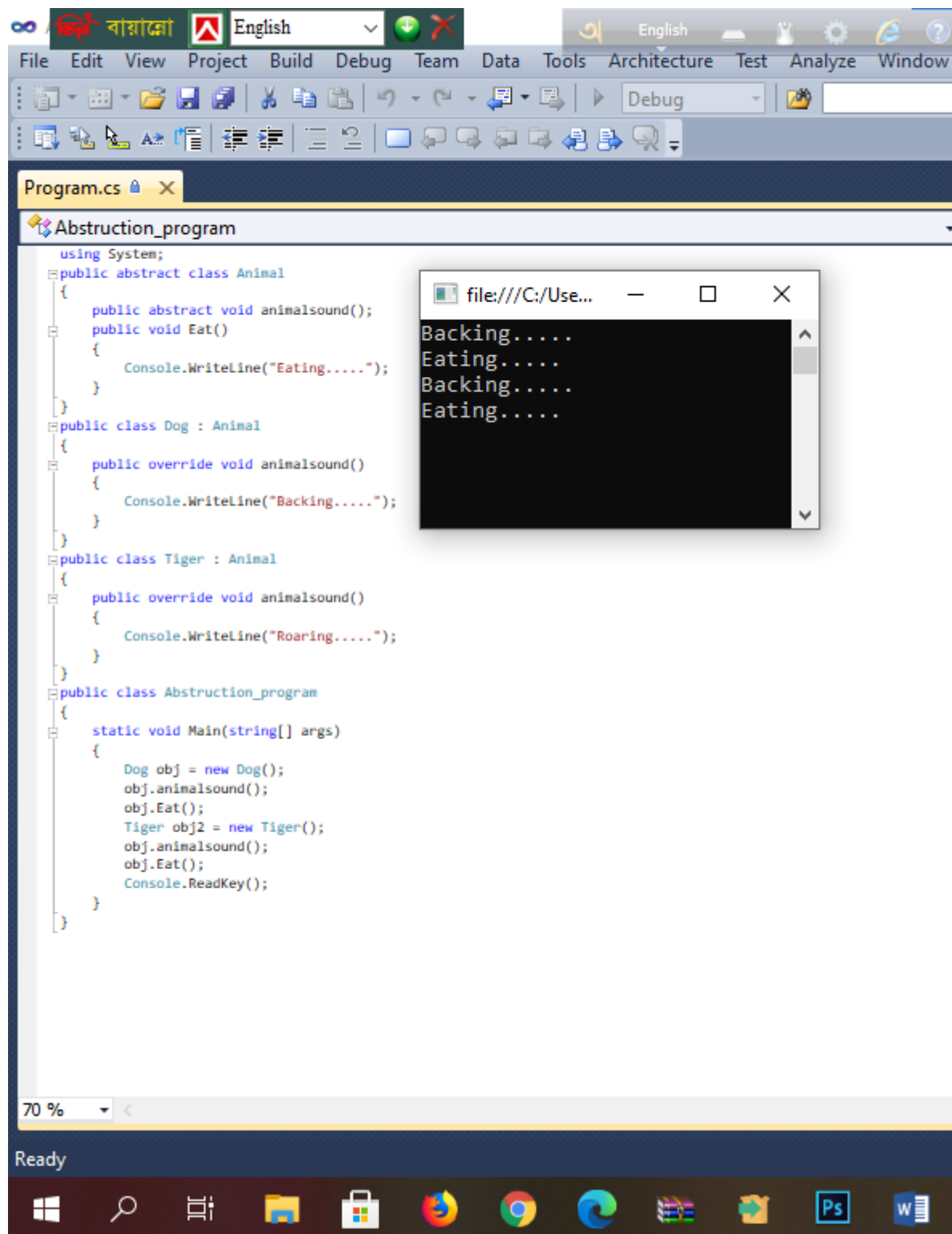
public class Tiger:Animal{
    public void Roar(){
        Console.WriteLine("Roaring");
    }
}

public class BabyTiger:Tiger{
    public void Weep(){
        Console.WriteLine("Weeping");
    }
}

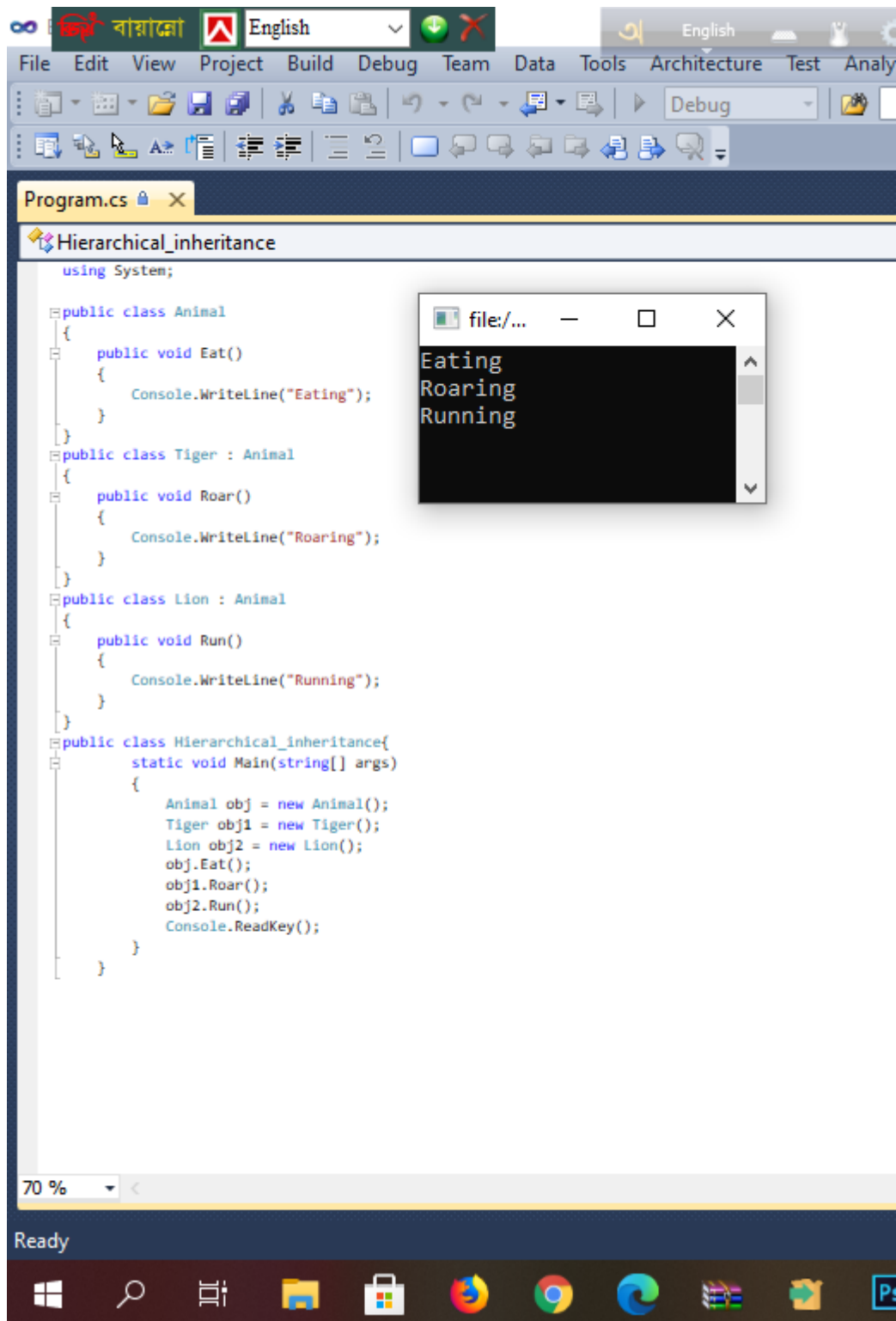
public class MutilevelInheritance{
    public static void Main(string[] args)
    {
        BabyTiger obj = new BabyTiger();
        obj.Eat();
        obj.Roar();
        obj.Weep();
        Console.ReadKey();
    }
}
```

file:///...  
Eating  
Roaring  
Weeping

## 13. Data Abstraction C# Program



## 14. Hierarchical Inheritance C# Program



```
using System;

public class Animal
{
    public void Eat()
    {
        Console.WriteLine("Eating");
    }
}

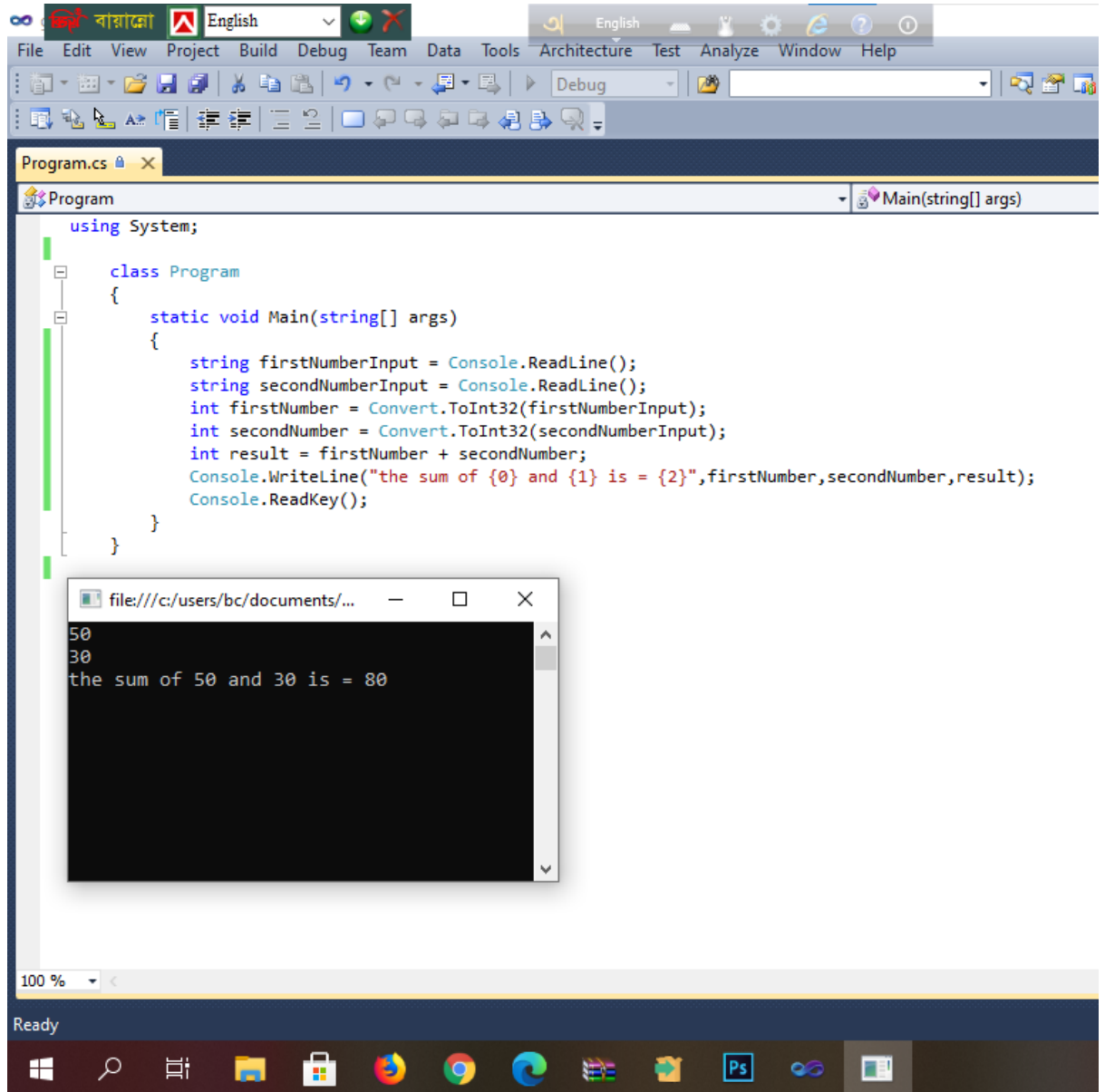
public class Tiger : Animal
{
    public void Roar()
    {
        Console.WriteLine("Roaring");
    }
}

public class Lion : Animal
{
    public void Run()
    {
        Console.WriteLine("Running");
    }
}

public class Hierarchical_inheritance{
    static void Main(string[] args)
    {
        Animal obj = new Animal();
        Tiger obj1 = new Tiger();
        Lion obj2 = new Lion();
        obj.Eat();
        obj1.Roar();
        obj2.Run();
        Console.ReadKey();
    }
}
```

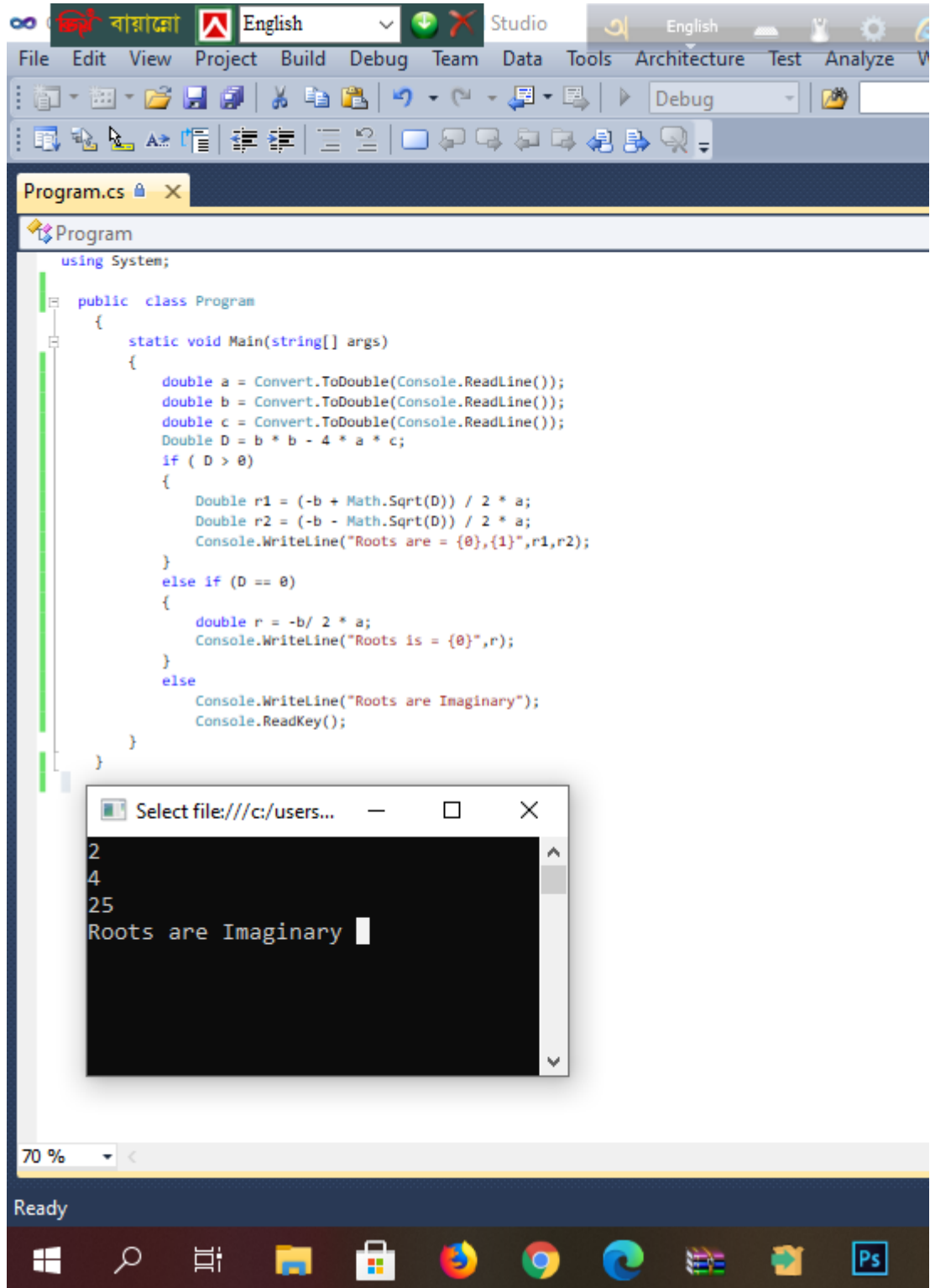
file:/...  
Eating  
Roaring  
Running

## 15. কিবোর্ড থেকে সংখ্যা নিয়ে ২টি সংখ্যার যোগফল

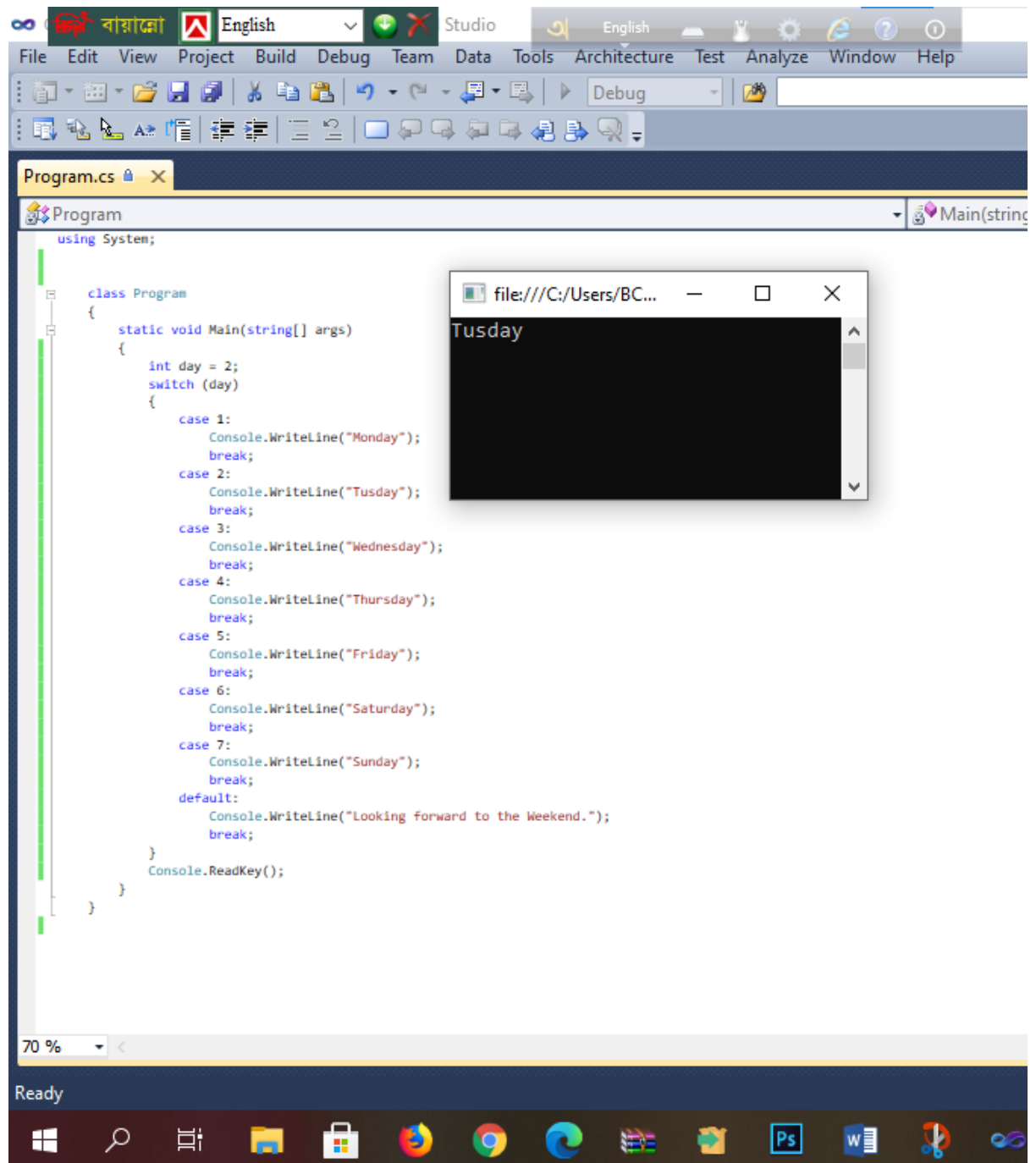




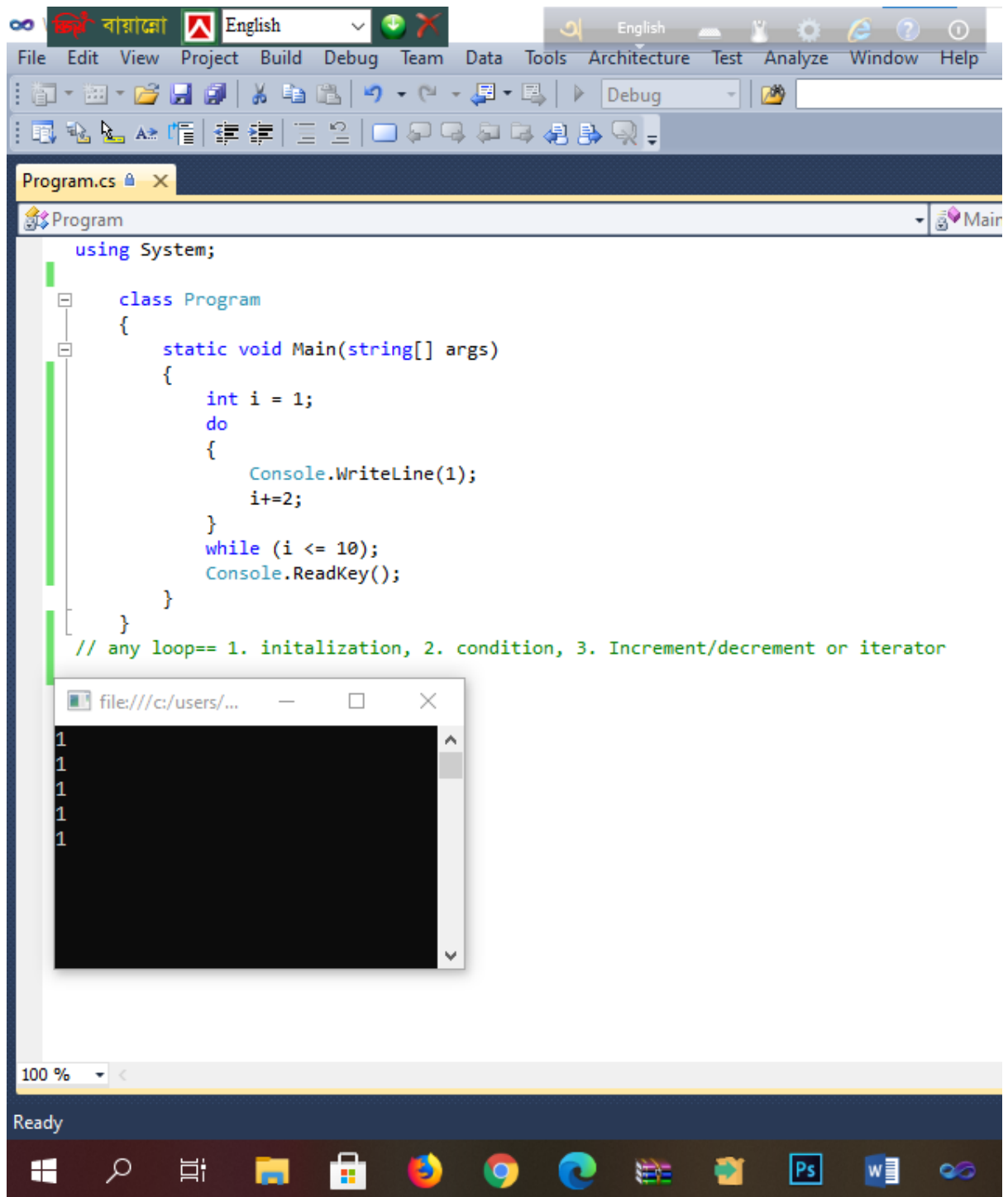
## 16. দ্বিঘাত সমীকরণ প্রোগ্রাম



## 17. Switch statement C# program



## 18. While and Do while loop C# Program



The screenshot displays the Visual Studio IDE with a C# program named 'Program.cs'. The code implements a do-while loop that prints the number 1 to the console ten times. The code is as follows:

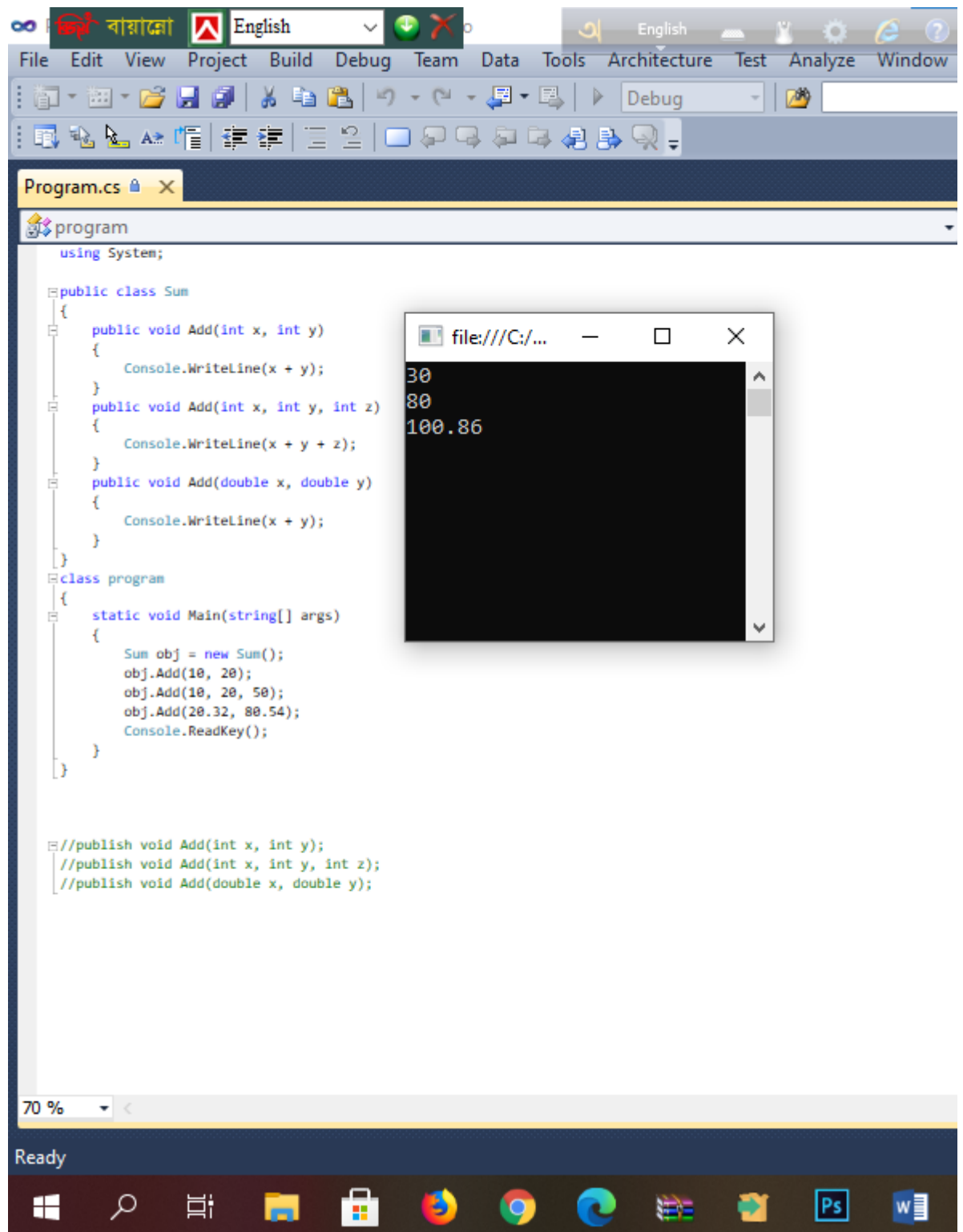
```
using System;

class Program
{
    static void Main(string[] args)
    {
        int i = 1;
        do
        {
            Console.WriteLine(1);
            i+=2;
        }
        while (i <= 10);
        Console.ReadKey();
    }
}
```

Below the code editor, a small console window titled 'file:///c:/users/...' shows the output of the program, which consists of the number '1' printed on ten separate lines. At the bottom of the IDE, the status bar indicates 'Ready'.

## 19. Method Overloading(polymorphism)

### C# program



The screenshot displays the Visual Studio IDE with a C# program named `Program.cs` open. The program demonstrates method overloading with three `Add` methods in the `Sum` class. The `Main` method in the `program` class creates a `Sum` object and calls these methods with different parameter sets. A console window is open, showing the output of the program.

```
using System;

public class Sum
{
    public void Add(int x, int y)
    {
        Console.WriteLine(x + y);
    }
    public void Add(int x, int y, int z)
    {
        Console.WriteLine(x + y + z);
    }
    public void Add(double x, double y)
    {
        Console.WriteLine(x + y);
    }
}

class program
{
    static void Main(string[] args)
    {
        Sum obj = new Sum();
        obj.Add(10, 20);
        obj.Add(10, 20, 50);
        obj.Add(20.32, 80.54);
        Console.ReadKey();
    }
}

//publish void Add(int x, int y);
//publish void Add(int x, int y, int z);
//publish void Add(double x, double y);
```

Console Output:

```
30
80
100.86
```