DAY 16 ASSIGNMENT

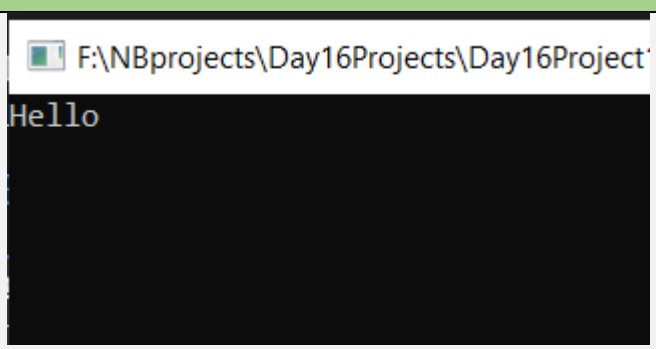
-- BY SARATH KASIMSETTY

1) WACP to print Hello World ,Hint: Think object oriented

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//WACP to print Hello World
//Hint: Think object oriented

namespace Day16Project1_Hello_
{
    internal class Message
    {
        //static method
        public static void Printdata()
        {
             Console.WriteLine("Hello");
        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Message.Printdata();//Print hello from static method

            Console.ReadLine();
        }
    }
}
```

OUTPUT:

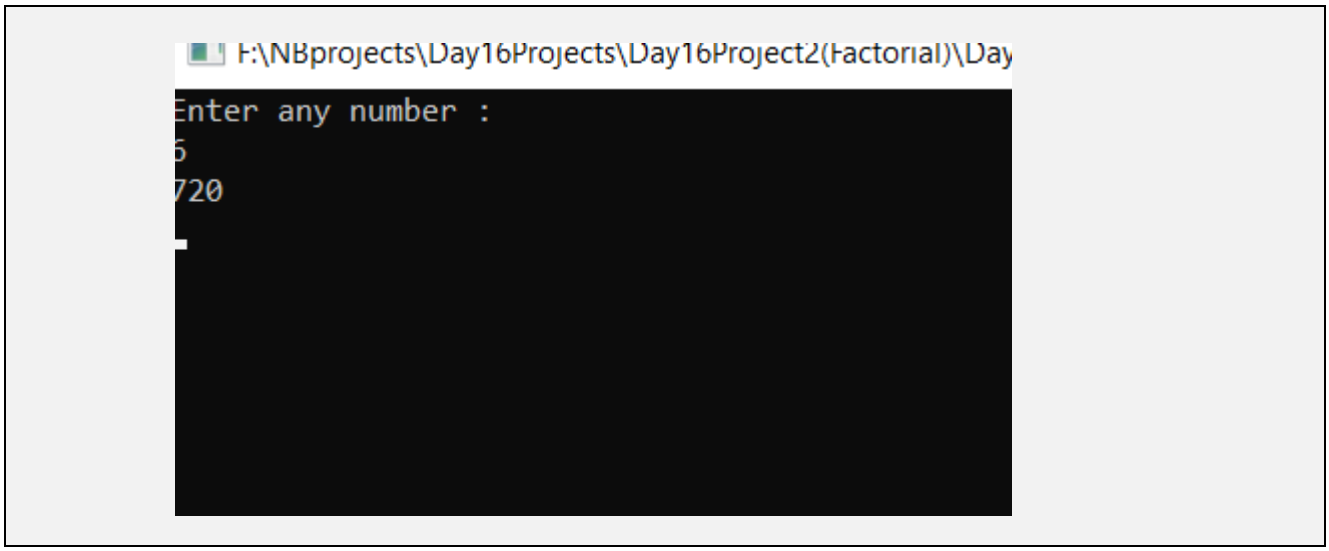


2) WACP to read a number from user and print factorial of it.
Hint : Think object orient

CODE:

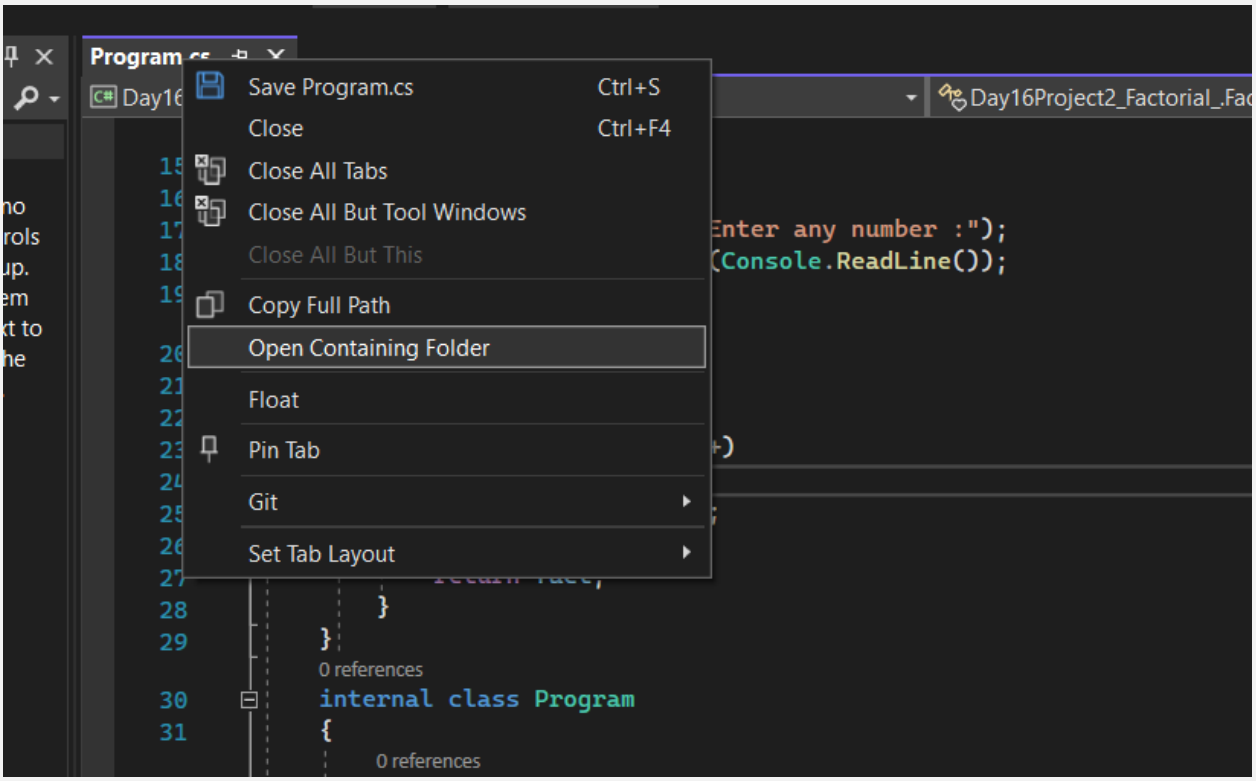
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//WACP to read a number from user and print factorial of it.
//Hink: Think object orient

namespace Day16Project2_Factorial_
{
     class Factorial
    {
        int n;
        public void ReadInput()
        {
            Console.WriteLine("Enter any number :");
            n = Convert.ToInt32(Console.ReadLine());
        }
        public int PrintFact()
        {
            int fact = 1;
            for(int i=1;i<=n;i++)
            {
                fact = fact * i;
            }
            return fact;
        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Factorial num = new Factorial();
            num.ReadInput();

            Console.WriteLine(num.PrintFact());

            Console.ReadLine();

        }
    }
}
```

OUTPUT:

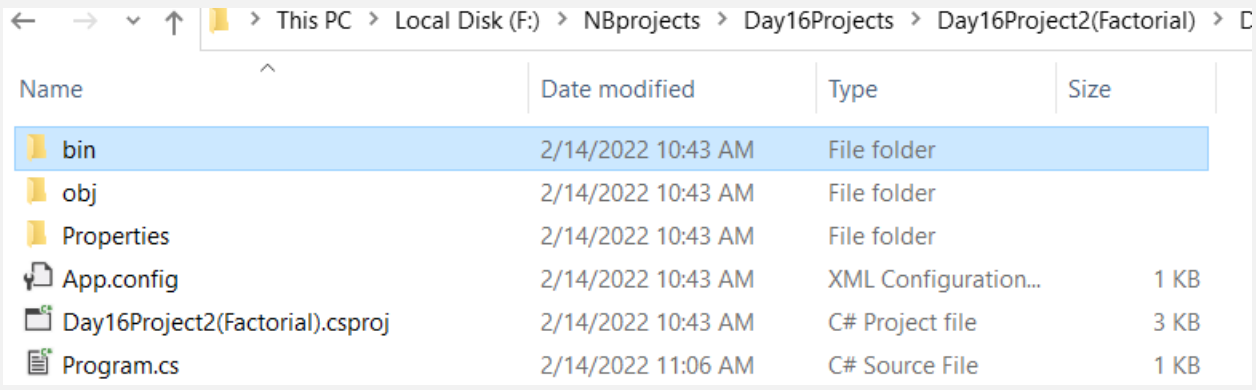

F:\NBprojects\Day16Projects\Day16Project2(Factorial)\Day
Enter any number :
6
720

3) For the console application created in 2nd task, add screen shot of the .exe file location .

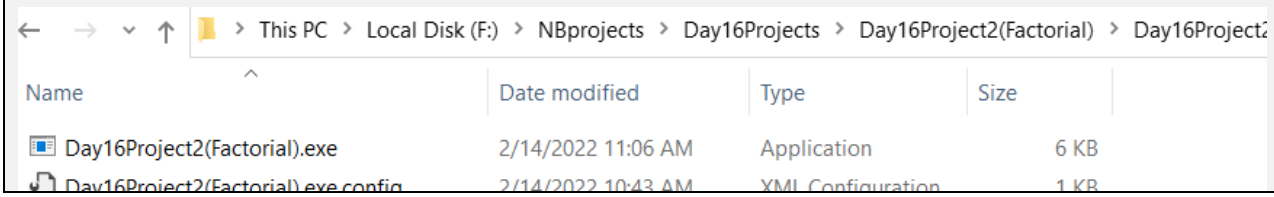
CLICK THE RIGHT BUTTON ON PROGRAM.CS AND OPEN CONTAINING FOLDER



OPEN BIN AND AFTER CLICK DEBUG



CLICK .EXE FILE TO DISPLAY CONSOLE APPLICATION



4) Create a Class Library Project with name as <YourName>Library (Example : MeganadhLibrary)

Create a class Mathematics as discussed in the class.
[Add methods for reading number and finding factorial]

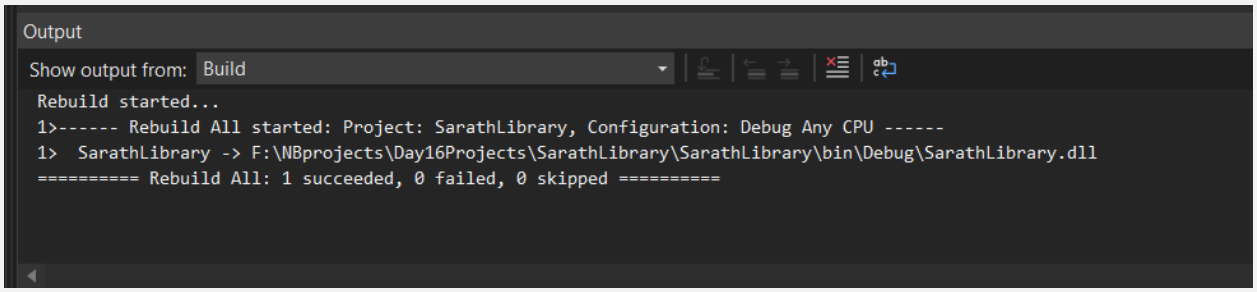
Re-Build the project and you will a .dll file.
(Put the screen shot of this)

Copy the dll file to your desktop
(put the screen shot of this)

CODE: Create a Class Library Project with name as < YourName > Library.
Create a class Mathematics as discussed in the class.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//Create a Class Library Project with name as < YourName > Library
//Create a class Mathematics as discussed in the class.

namespace SarathLibrary
{
    internal class Mathematics
    {
        int n;
        //read value from user
        public void ReadInput()
        {
            Console.WriteLine("Enter any number");
            n = Convert.ToInt32(Console.ReadLine());
        }
        // Method for find factorial of given number
        public int GetFactorial()
        {
            int fact = 1;
            for(int i=1;i<=n;i++)
            {
                fact = fact * i;
            }
            return fact;
        }
    }
}
```

Re-Build the project and you will a .dll file. (Put the screen shot of this)



Copy the dll file to your desktop(put the screen shot of this

5) Create a class library with three classes in it:
a. Mathematics b. Physics c. Chemistry
And add methods as discussed in the class
refer all the three classes in a console application.

Mathematics class Library

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//Create a Class Library Project with name as < YourName > Library
//Create a class Mathematics as discussed in the class.

namespace SarathLibrary
{
    public class Mathematics
    {
        int n;
        //read value from user
        public void ReadInput()
        {
            Console.WriteLine("Enter any number");
            n = Convert.ToInt32(Console.ReadLine());
        }
        // factorial of given number
        public int GetFactorial()
        {
            int fact = 1;
            for(int i=1;i<=n;i++)
            {
                fact = fact * i;
            }
            return fact;
        }
    }
}
```

Physics class Library

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty

namespace SarathLibrary
{
    //class physics
    public class Physics
    {
        // method of find finalvelocity
        public int FinalVelocity(int a,int u,int t)
        {
            return u + a * t;
        }
```

```
    }
}
```

Chemistry class Library

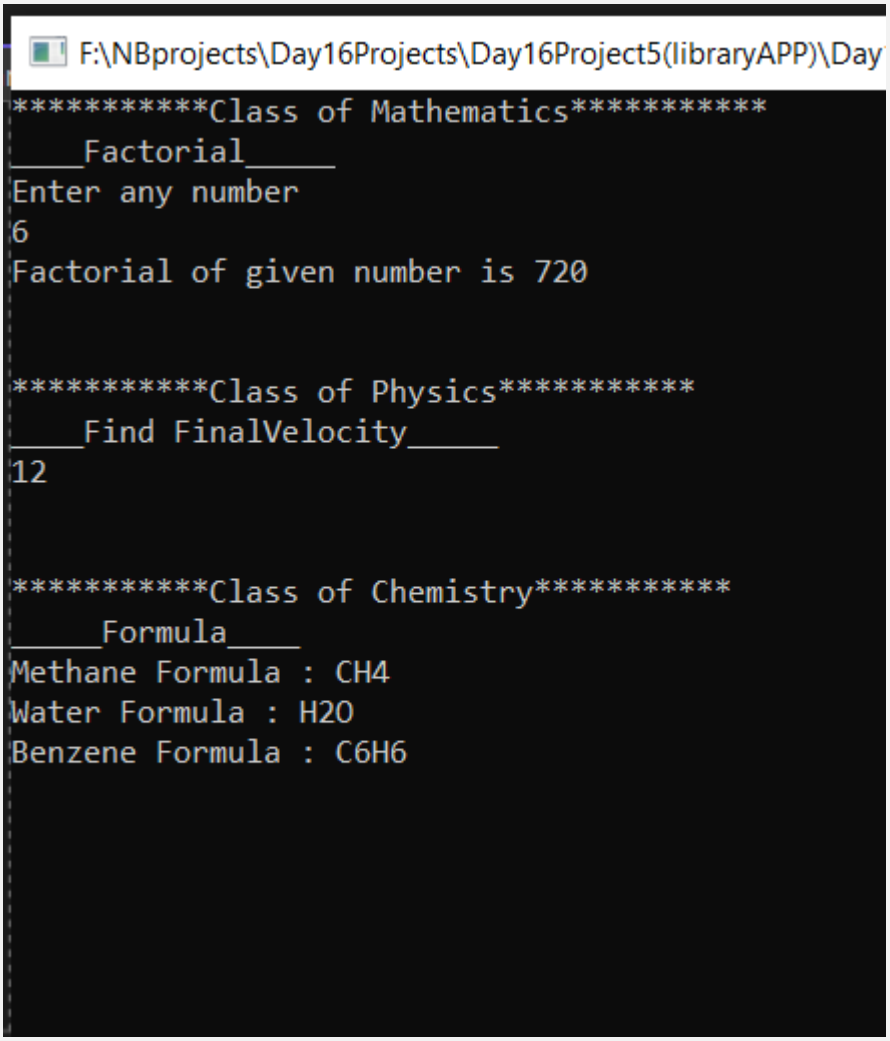
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath

namespace SarathLibrary
{
    //CLass chemistry
    public class Chemistry
    {
        //methods of formulas
        public string GetWater()
        {
            return "H2O";
        }
        public string GetMethane()
        {
            return "CH4";
        }
        public string GetBenzene()
        {
            return "C6H6";
        }
    }
}
```

Console Application CODE:

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

namespace Day16Project5_libraryAPP_
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("**********Class of Mathematics**********");
            Mathematics f = new Mathematics();
            Console.WriteLine("____Factorial_____");
            f.ReadInput();
            Console.WriteLine("Factorial of given number is {0}",f.GetFactorial());

            Console.WriteLine("\n\n**********Class of Physics**********");

            Console.WriteLine("____Find FinalVelocity_____");
            Physics velocity = new Physics();

            Console.WriteLine(velocity.FinalVelocity(5, 2, 2));
```

```
            Console.WriteLine("\n\n***********Class of Chemistry***********");
            Chemistry formula = new Chemistry();
            Console.WriteLine("_____Formula____");
            Console.WriteLine("Methane Formula : {0}",formula.GetMethane());
            Console.WriteLine("Water Formula : {0}",formula.GetWater());
            Console.WriteLine("Benzene Formula : {0}",formula.GetBenzene());

            Console.ReadLine();

        }
    }
}
```

OUTPUT:

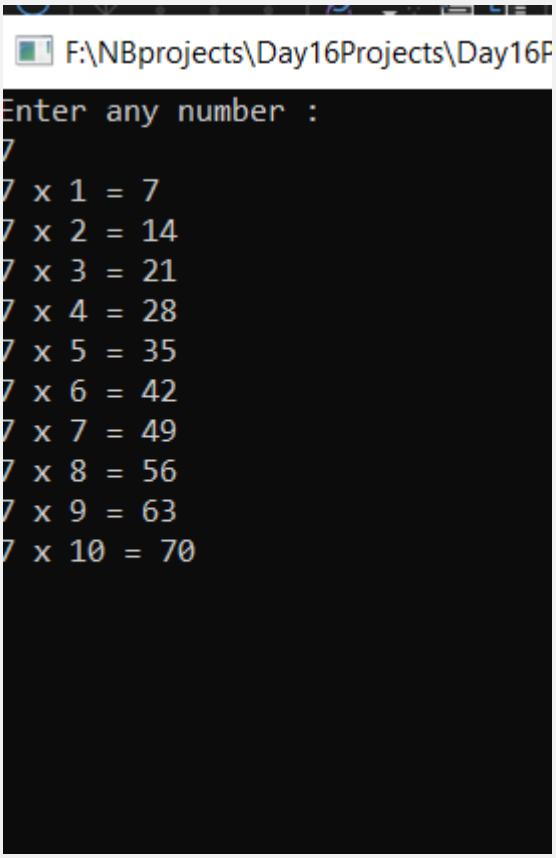


6) ACP to print multiple table of a number

CODE:

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

namespace Day16Project6_MultipleTable_
{
    class Mathematics
    {
        int input;
        /// <summary>
        /// Read value from user
        /// </summary>
        public void ReadInput()
        {
            Console.WriteLine("Enter any number :");
            input = Convert.ToInt32(Console.ReadLine());
        }

        /// <summary>
        ///Method of multiple table and print user given value
        /// </summary>
        public void MultipleData()
        {
            for (int i = 1; i <= 10; i++)
            {
                Console.WriteLine("{0} x {1} = {2}",input,i,input* i);
            }
        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //Mathematics Object
           Mathematics table = new Mathematics();
            table.ReadInput();
            table.MultipleData();

            Console.ReadLine();
        }
    }
}
```

OUTPUT:



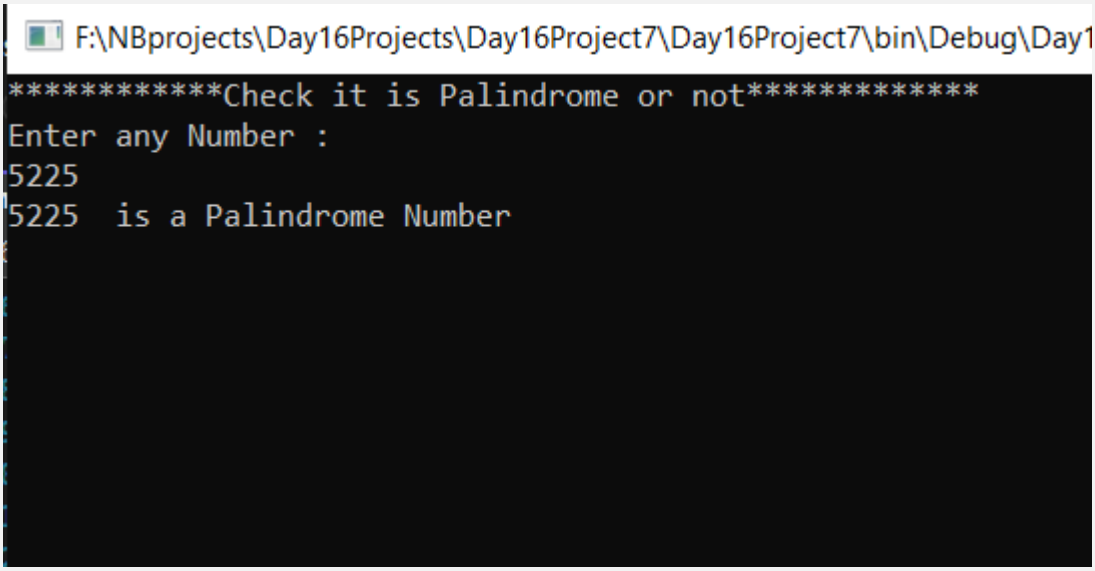
7) WACP to check if the given is number is Palindrome or not

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
// WACP to check if the given is number is Palindrome or not

namespace Day16Project7
{
    class Maths //class name Maths
    {

        int  m, input, rem, rev = 0;
        /// <summary>
        /// Read value from user
        /// </summary>
        public void ReadInput()
```

```
        {
            Console.WriteLine("Enter any Number :");
            input=Convert.ToInt32(Console.ReadLine());
        }

        /// <summary>
        /// It method of check it is number is Palindrome or NOT
        /// </summary>
        public void PalindromeValue()
        {
            m = input;
            while(m>0)
            {
                rem = m % 10;
                m = m / 10;
                rev = rev * 10 + rem;
            }
            if (rev == input)
            {
                Console.WriteLine("{0}  is a Palindrome Number",input);
            }
            else
                Console.WriteLine("{0} is a NOT Palindrome Number", input);

        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Maths num =new Maths();
            num.ReadInput();
            num.PalindromeValue();

            Console.ReadLine();
        }
    }
}
```

OUTPUT:



8) Create a solution "MyProject" (as discussed in class) Add three projects

a. YourNameLibrary (and add any class with methods)

b. PublicLibrary (add any class with methods)

c. ClientApp (and here refer above two libraries)

SARATH LIBRARY CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//YourNameLibrary (and add any class with methods)

namespace SarathLibrary
{
    public class Mathematics
    {
        /// <summary>
        /// Find power A and B
        /// </summary>
        /// <param name="a">Base value</param>
        /// <param name="b">Power Value</param>
        /// <returns>aPowerb</returns>
        public static int aPowerb(int a,int b)
        {
            int pow = 1;
            for (int i = 1; i <= b; i++)
                pow = pow * a;
```

```
            return pow;
        }

        /// <summary>
        /// Find Factorial of given value
        /// </summary>
        /// <param name="a"></param>
        /// <returns></returns>
        public static int Factorial(int a)
        {
            int fact = 1;
            for(int i=1;i<=a;i++)
            {
                fact = fact * i;
            }
            return fact;
        }
        /// <summary>
        /// Adding two numbers
        /// </summary>
        /// <param name="a"></param>
        /// <param name="b"></param>
        /// <returns></returns>
        public static int Add(int a,int b)
        {
            return a + b;
        }
    }
}
```

PUBLIC LIBRARY CODE:

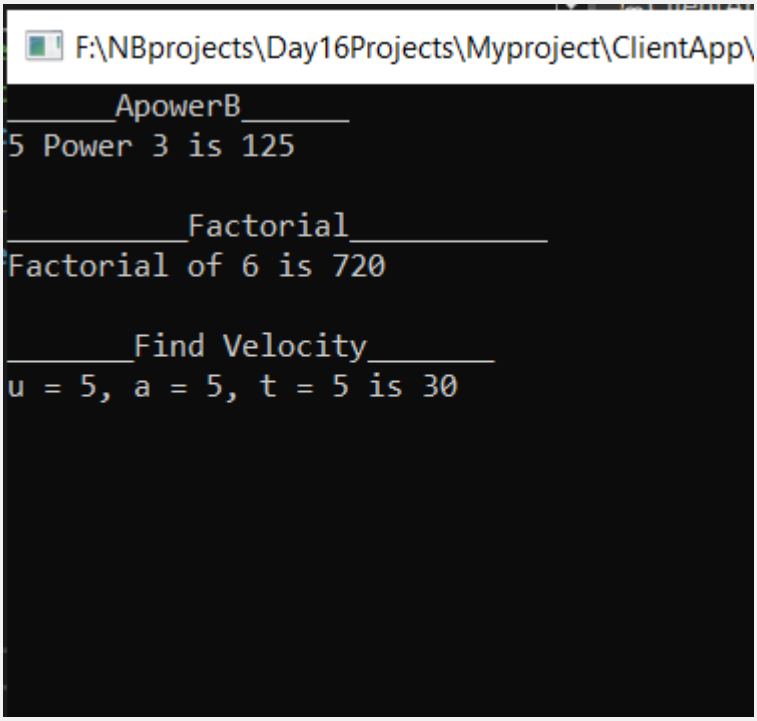
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
//sarath kasimsetty
//PublicLibrary (add any class with methods)

namespace PublicLibrary
{
    public class Physics
    {
        /// <summary>
        /// Find Velocity of given values
        /// </summary>
        /// <param name="u"></param>
        /// <param name="a"></param>
        /// <param name="t">time</param>
        /// <returns>FindVelocity</returns>
        public static int FindVelocity(int u, int a, int t)
        {
            return u + a * t;
        }
    }
```

```
}
```

MyPROJECT(CONSOLE APP) CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using SarathLibrary;
using PublicLibrary;
//sarath kasimsetty
//Create a solution "MyProject" (as discussed in class)
//ClientApp (and here refer above two libraries)
namespace ClientApp
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("______ApowerB______");
            Console.WriteLine("5 Power 3 is {0}",Mathematics.aPowerb(5, 3));

            Console.WriteLine("\n__________Factorial__________");
            Console.WriteLine("Factorial of 6 is {0}",Mathematics.Factorial(6));

            Console.WriteLine("\n_______Find Velocity_______");
            Console.WriteLine("u = 5, a = 5, t = 5 is {0}",Physics.FindVelocity(5, 5, 5));

            Console.ReadLine();
        }
    }
}
```

CODE:

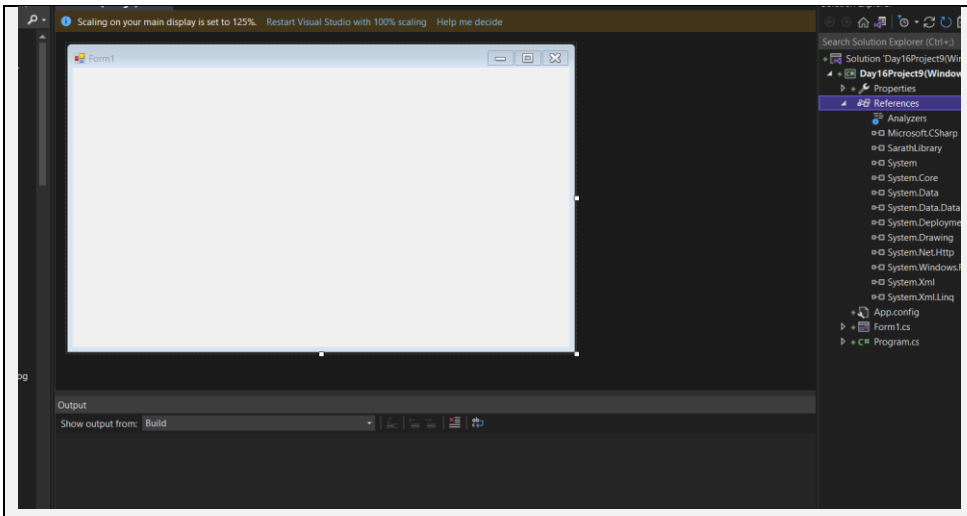

F:\NBprojects\Day16Projects\Myproject\ClientApp\
_____ApowerB_____
5 Power 3 is 125
_____Factorial_____
Factorial of 6 is 720
_____Find Velocity_____
u = 5, a = 5, t = 5 is 30

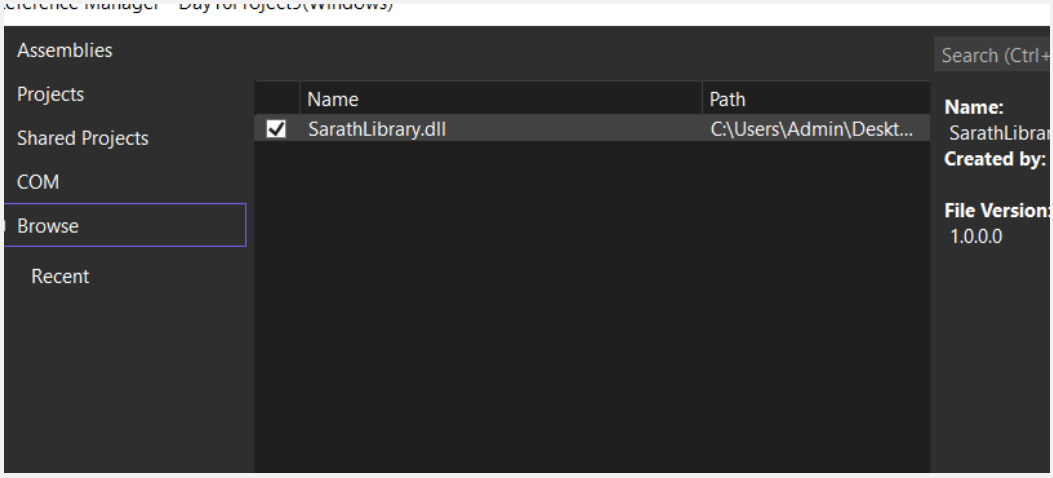
9) Add one more project (windows application)
Add some 3 or 4 screen shots just to prove that you have done this.

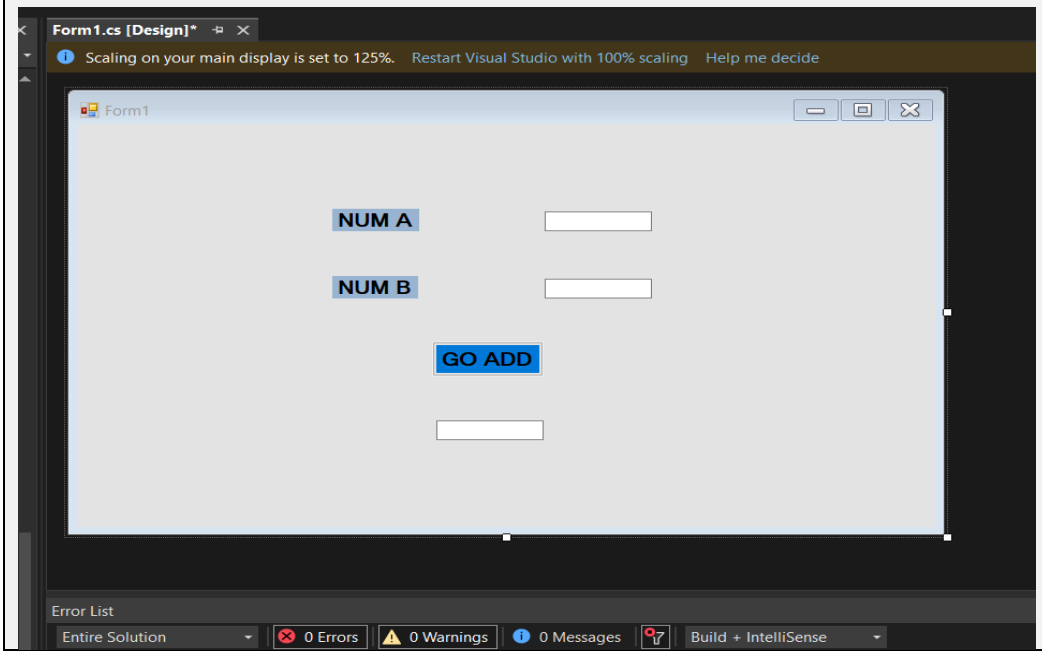
CODE:

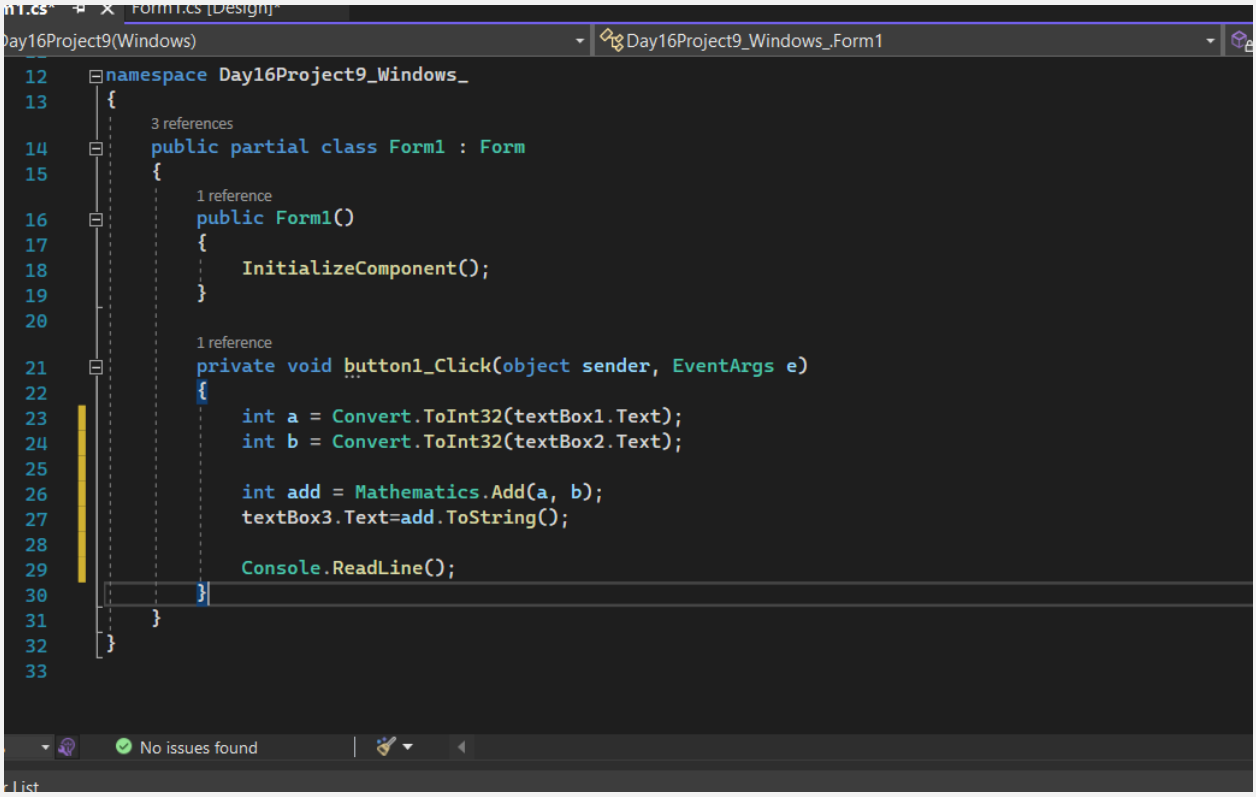
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using SarathLibrary;

namespace Day16Project9_Windows_
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            int a = Convert.ToInt32(textBox1.Text);
            int b = Convert.ToInt32(textBox2.Text);

            int add = Mathematics.Add(a, b);
            textBox3.Text=add.ToString();

            Console.ReadLine();
        }
    }
}
```

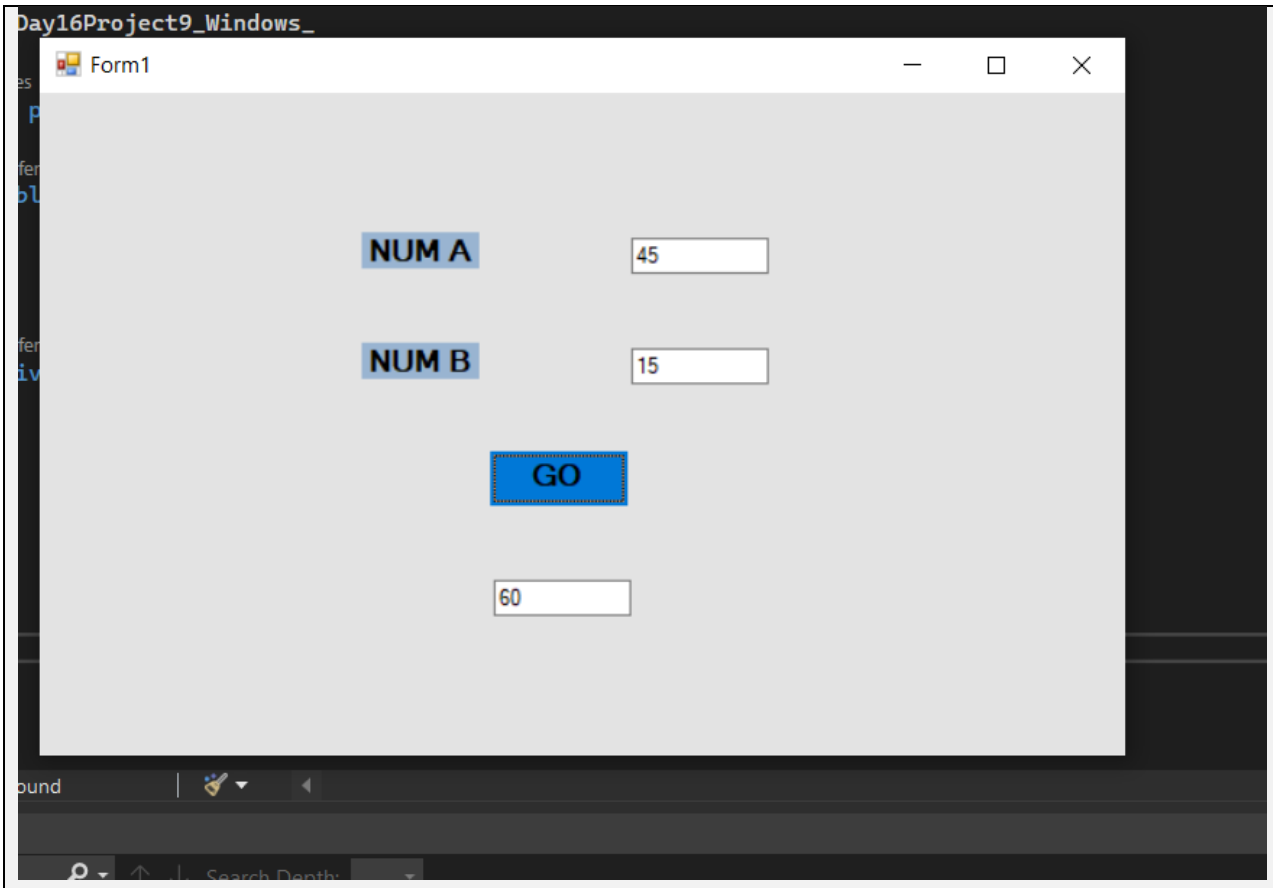
SCREENSHOT:


Scaling on your main display is set to 125%.
Restart Visual Studio with 100% scaling
Help me decide
Form1
Search Solution Explorer (Ctrl+;)
Properties
References
Analyzers
Microsoft.CSharp
SarathLibrary
System
System.Core
System.Data
System.Drawing
System.Net.Http
System.Xml
System.Xml.Linq
App.config
Form1.cs
Program.cs
Output
Show output from:
Build


Assemblies
Projects
Shared Projects
COM
Browse
Recent
Search (Ctrl+
Name
Path
SarathLibrary.dll
C:\Users\Admin\Deskt...
Name:
SarathLibra
Created by:
File Version:
1.0.0.0


Form1.cs [Design]*
Scaling on your main display is set to 125%.
Restart Visual Studio with 100% scaling
Help me decide
Form1
NUM A
NUM B
GO ADD
Error List
Entire Solution
0 Errors
0 Warnings
0 Messages
Build + IntelliSense


Form1.cs [Design]*
Day16Project9(Windows)
Day16Project9_Windows_.Form1
namespace Day16Project9_Windows_
{
3 references
public partial class Form1 : Form
{
1 reference
public Form1()
{
InitializeComponent();
}
1 reference
private void button1_Click(object sender, EventArgs e)
{
int a = Convert.ToInt32(textBox1.Text);
int b = Convert.ToInt32(textBox2.Text);
int add = Mathematics.Add(a, b);
textBox3.Text=add.ToString();
Console.ReadLine();
}
}
}
No issues found


Day16Project9_Windows_
Form1
NUM A
45
NUM B
15
GO
60