Day16 Assignment
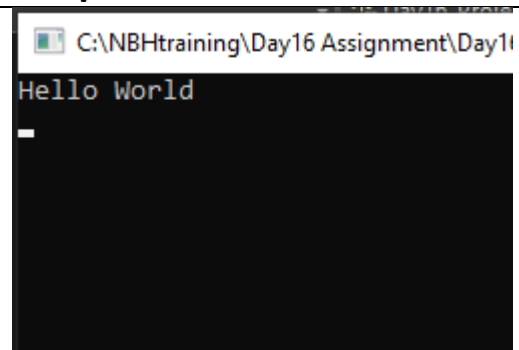## By
Narala Praveen
14-Feb-2022

Question1:
WACP to print Hello World?

Code

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

namespace Day16_Project1
{   //Author :Narala Praveen
    //Purpose:Code for hello program.
    class Hello
    {
        public static void PrintHello()
        {
            Console.WriteLine("Hello World");
        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
          Hello.PrintHello();
           Console.ReadLine();
        }
    }
}
```

Output:

C:\NBHtraining\Day16 Assignment\Day1

Hello World

Question2:
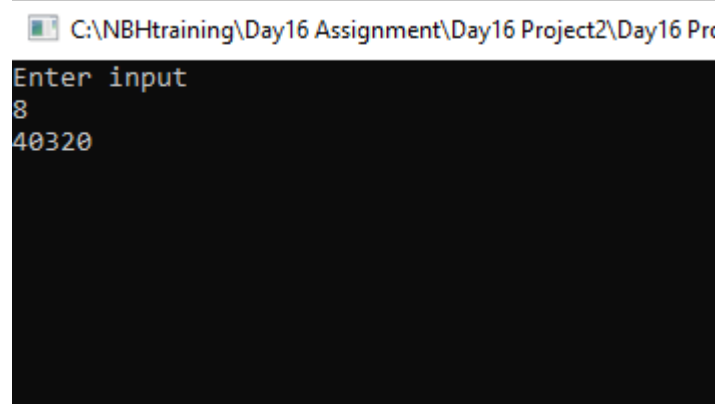## WACP to read a number from user and print Factorial of it?

Code:

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

namespace Day16_Project2
{   //Author:Narala Praveen
    //Purpose:Code for Factorial

    class Maths
    {
        public static int GetFactorial()
        {
            int input; int fact = 1;
            Console.WriteLine("Enter input");
            input = Convert.ToInt32(Console.ReadLine());


            for(int i =1;i<=input;i++)
                fact=fact*i;
                return fact;

        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {

            Console.WriteLine(Maths.GetFactorial());
            Console.ReadLine();
        }
    }
}
```
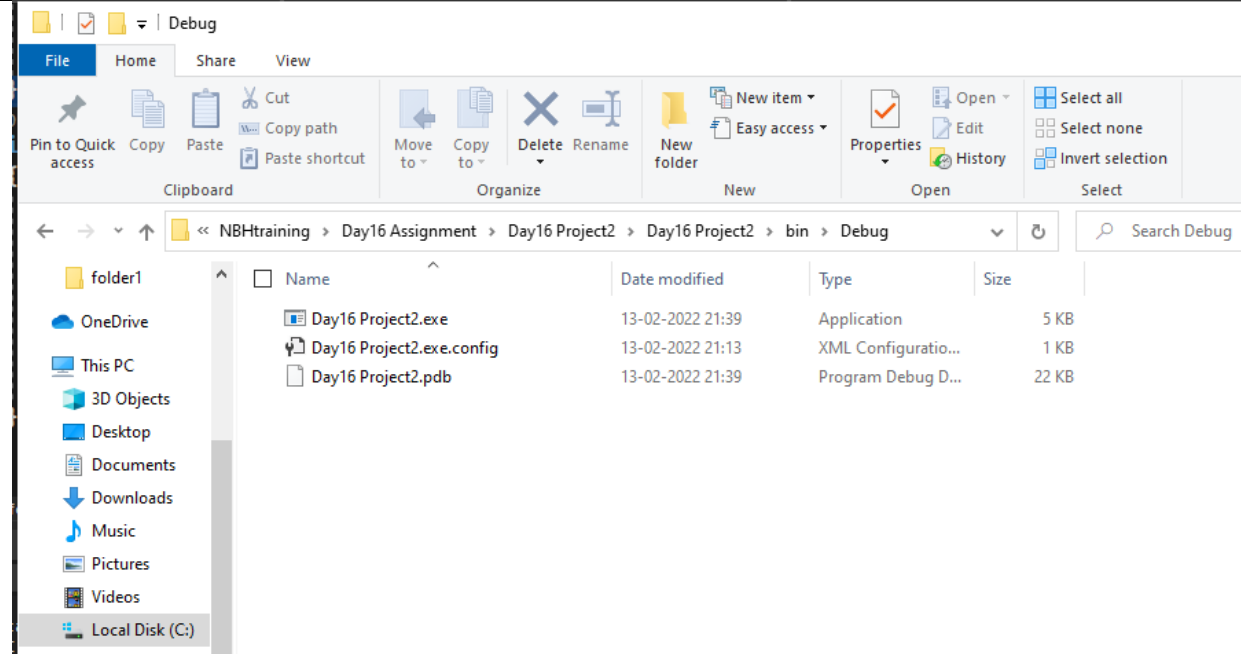
Output:

C:\NBHtraining\Day16 Assignment\Day16 Project2\Day16 Pro

```
Enter input
8
40320
```

Question3:
For the Console application created in 2nd task ,Add screen shot of the .exe file location?
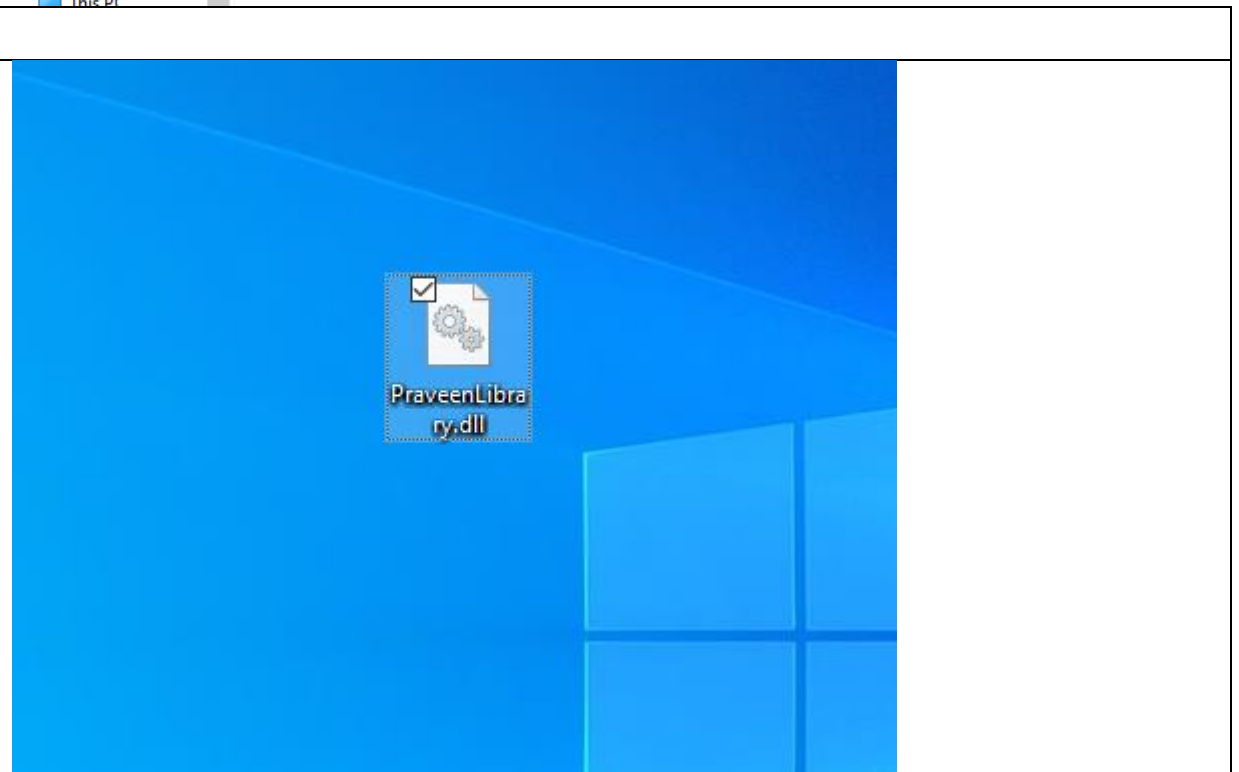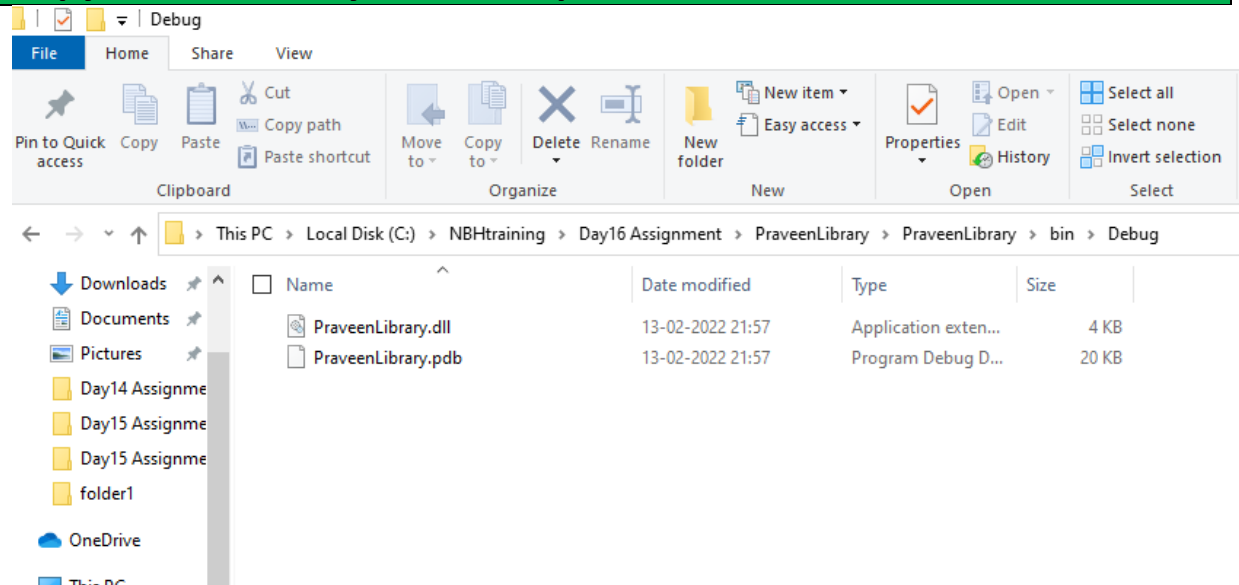
Question4:
Create a class Library project with the name as
<yourname>
Create a class Mathematics as discussed in the class
[Add methods for reading number and finding factorial]
Rebuild the project and you will get .dll file.
Copy the dll file to your desktop?

		Debug

File   Home   Share   View

Pin to Quick access | Copy | Paste | ✂ Cut | Move to ▾ | Copy to ▾ | ✕ Delete ▾ | Rename | New folder | 🗋 New item ▾ | Easy access ▾ | Properties | Open ▾ | Edit | History | Select all | Select none | Invert selection

Clipboard   Organize   New   Open   Select

← → ∨ ↑ 📁 > This PC > Local Disk (C:) > NBHtraining > Day16 Assignment > PraveenLibrary > PraveenLibrary > bin > Debug

⬇ Downloads
📄 Documents
🖼 Pictures
📁 Day14 Assignme
📁 Day15 Assignme
📁 Day15 Assignme
📁 folder1
☁ OneDrive
💻 This PC

Name	Date modified	Type	Size
PraveenLibrary.dll	13-02-2022 21:57	Application exten...	4 KB
PraveenLibrary.pdb	13-02-2022 21:57	Program Debug D...	20 KB

PraveenLibrary.dll

Question5:

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?

Chemistry class:

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

namespace PraveenLibrary
{
    public  class chemistry
    {
        public string GetBenzene()
        {
            return "C6H6";
        }
        public string GetWater()
        {
            return "H20";
        }
        public string GetMethane()
        {
            return "CH4";
        }
    }
}
```

Physics class:

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

namespace PraveenLibrary
{
    public  class physics
    {
        public static int FinalVelocity(int u,int a,int t)
        {
            return  u + a * t;
        }
    }
}
```

Mathematics class:

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

namespace PraveenLibrary
{
    public class Mathematics
    {
        public static int GetFactorial()
        {
            int input;
            int fact = 1;
            Console.WriteLine("Enter number");
            input=Convert.ToInt32(Console.ReadLine());
            for(int i =1;i<=input;i++)
```

```
            fact=fact*i;
            return fact;
        }
        public static int Add(int a,int b)
        {
            return a+b;
        }
        public static int Multiplication(int a,int b)
        {
            return a * b;
        }
        public static int Division(int a, int b)
        {
            return a / b;
        }


    }
}
```
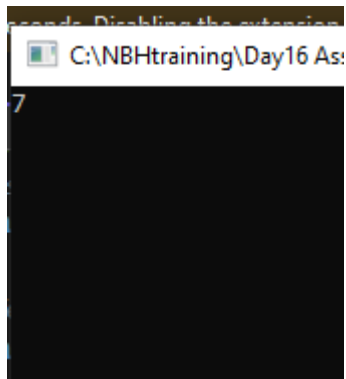
Console app:

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

namespace Day16project5
{   //Author:Narala Praveen
    //Purpose:To implement Library methods.
    internal class Program
    {
        static void Main(string[] args)
        {
            chemistry c = new chemistry();

            Console.WriteLine(c.GetBenzene());
            //Console.WriteLine(Mathematics.Add(2,5));
            //Console.WriteLine(physics.FinalVelocity(5, 2, 5));
            Console.ReadLine();
        }
    }
}
```
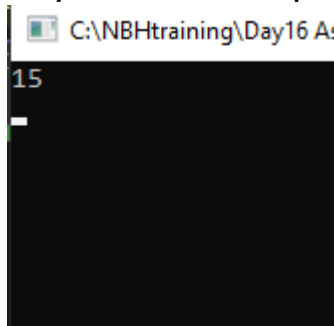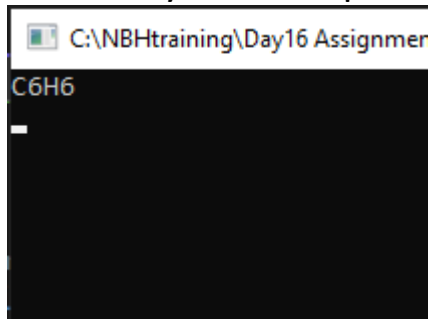
Mathematics class Output:

Physics class output:

Chemistry class output:

Question6:
WACP to print multiplication table of a number?

Code:

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

namespace Day16_Project6
{ //Author :Narala Praveen
  //Purpose:Code for Multiplication table for a given number.

    class Multiplication
```

```csharp
    {


            int n;
            public void ReadData()
            {
                Console.WriteLine("Enter number");
                n = Convert.ToInt32(Console.ReadLine());
            }
        public void GetMultiplication()
        {
            for (int i = 1; i <= 10; i++)
            {

                Console.WriteLine(n+"x"+i+"="+n*i);

            }

        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
             Multiplication m = new Multiplication();
            m.ReadData();
             m.GetMultiplication();
            Console.ReadLine();
        }
    }
}
```
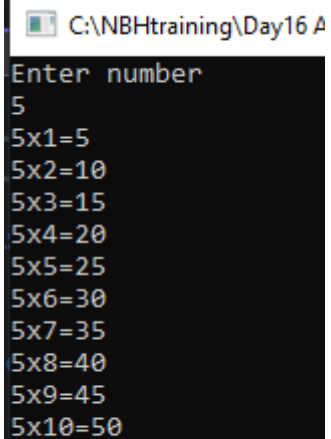
Output:

```
C:\NBHtraining\Day16 A
Enter number
5
5x1=5
5x2=10
5x3=15
5x4=20
5x5=25
5x6=30
5x7=35
5x8=40
5x9=45
5x10=50
```

Question7:
WACP to check if the given number is Palindrome or not?

Code:

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

namespace Day16project7
{   //Author:Narala Praveen
    //Purpose:Code for Pallidrome

    class Pallindrome
    {
        public int n;
        public int rem;
        public int rev;
        public int temp;

        public void ReadData()
        {

            Console.WriteLine("Enter number");
            n=Convert.ToInt32(Console.ReadLine());
        }
        public void GetPallindrome()
        {
            temp = n;
            while(n >0)
            {
                rem = n % 10;
                rev = (rev * 10) + rem;

                n = n / 10;
            }
            if (temp==rev)

                Console.WriteLine("The number  is pallindrome");

            else

                Console.WriteLine("The number is not Pallindrome");


        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Pallindrome p=new Pallindrome();
            p.ReadData();
            p.GetPallindrome();
            Console.ReadLine();

        }
    }
}
```

Output:

C:\NBHtraining\Day16 Assignment\Day16projec

```
Enter number
636
The number  is pallindrome
```

Create a Solution "My project"(as discussed in class)
Add three projects
   a. Your name Library.
   b. Public library.
   c. Client app(And here refer above two Libraries)

Code:

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

namespace praveenLibrary
{
    public class Mathematics
    {
        public static int Add( int a,int b)
        {
            return a + b;
        }
        public static int Difference(int a ,int b)
        {
            return a - b;
        }
        public static int Multiplication(int a ,int b)
        {
            return (a * b);
        }
    }
}
```

Code:

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

namespace publiclibrary
{
    public class Physics
    {
        public static int FinalVelocity(int u,int a,int t)
        {
            return u + a * t;
        }
    }
}
```
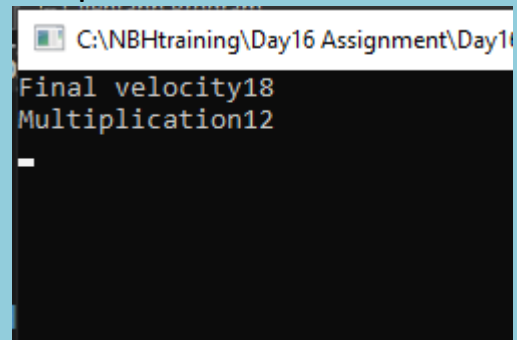
Client app:

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
```

```csharp
using System.Text;
using System.Threading.Tasks;
using publiclibrary;
using praveenLibrary;
namespace Clientapp
{
    internal class Program
    {
        static void Main(string[] args)
        {

            Console.WriteLine($"Final velocity{ Physics.FinalVelocity(6, 2, 6)}");

Console.WriteLine($"Multiplication{Mathematics.Multiplication(2,6)}");
            Console.ReadLine();
        }
    }
}
```

Output:


```
C:\NBHtraining\Day16 Assignment\Day1
Final velocity18
Multiplication12
```

Question9:
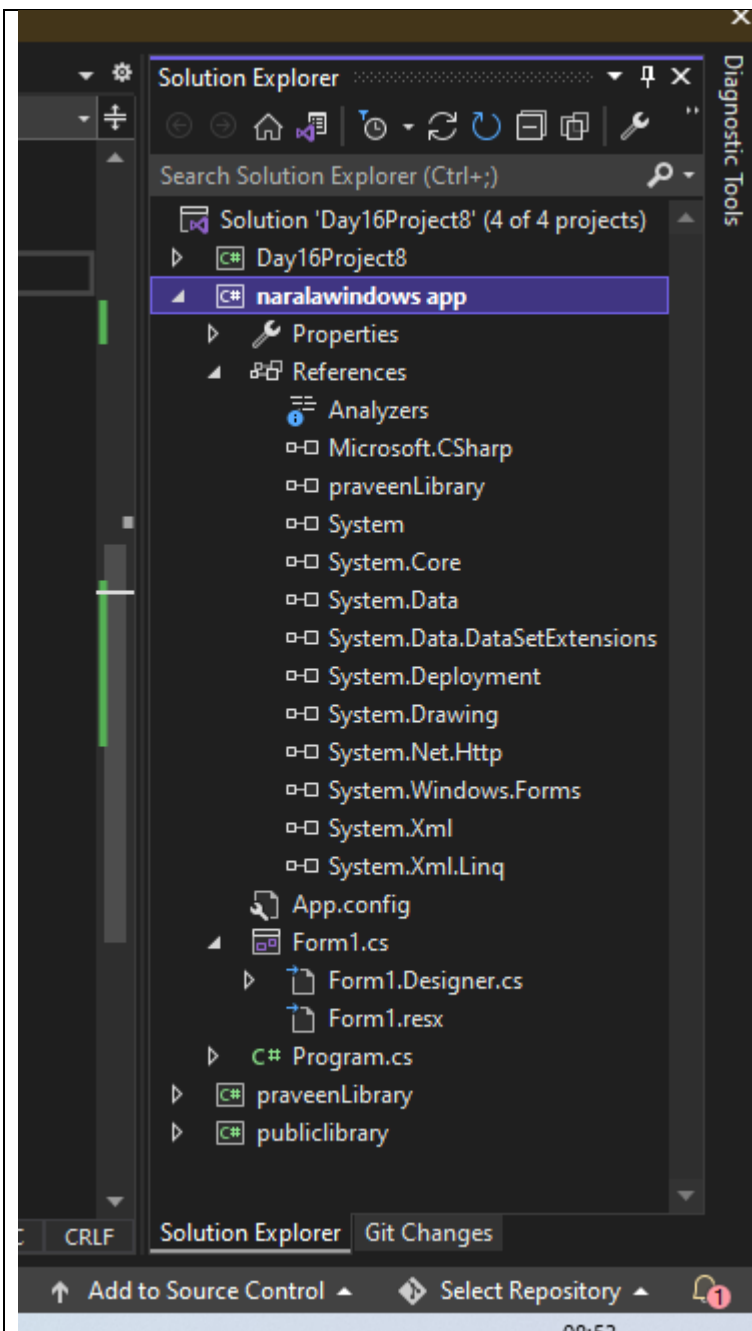## Add one more project (Windows Application)
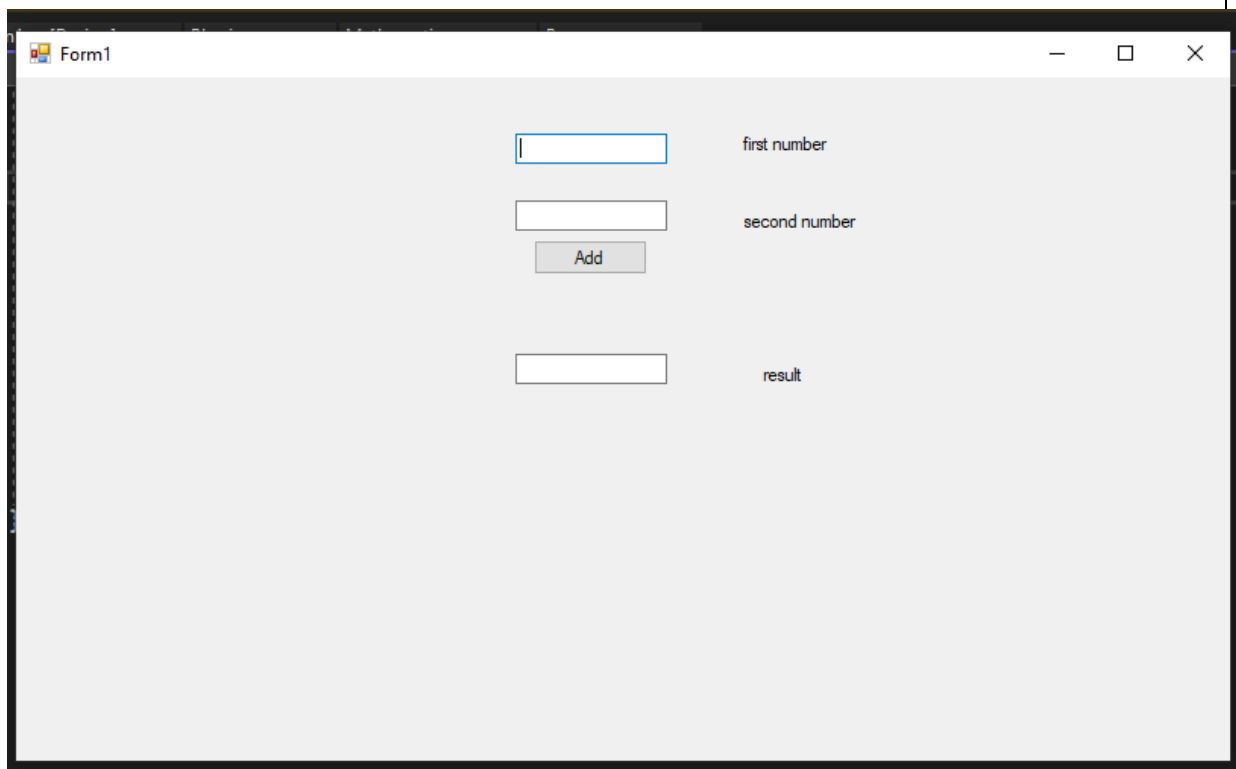## Add some 3 or 4 screen shots .

```csharp
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 praveenLibrary;

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

        private void label1_Click(object sender, EventArgs e)
        {

        }

        private void Add_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();
        }
    }
}
```

```csharp
23
24        }
25
          1 reference
26        private void Add_Click(object sender, EventArgs e)
27        {
28            int a = Convert.ToInt32(textBox1.Text);
29            int b = Convert.ToInt32(textBox2.Text);
30            int Add = Mathematics.Add(a, b);
31            textBox3.Text=Add.ToString();
32        }
33    }
34 }
35
```

Form1

5

6

Add

11

Form1

first number

second number

Add

result
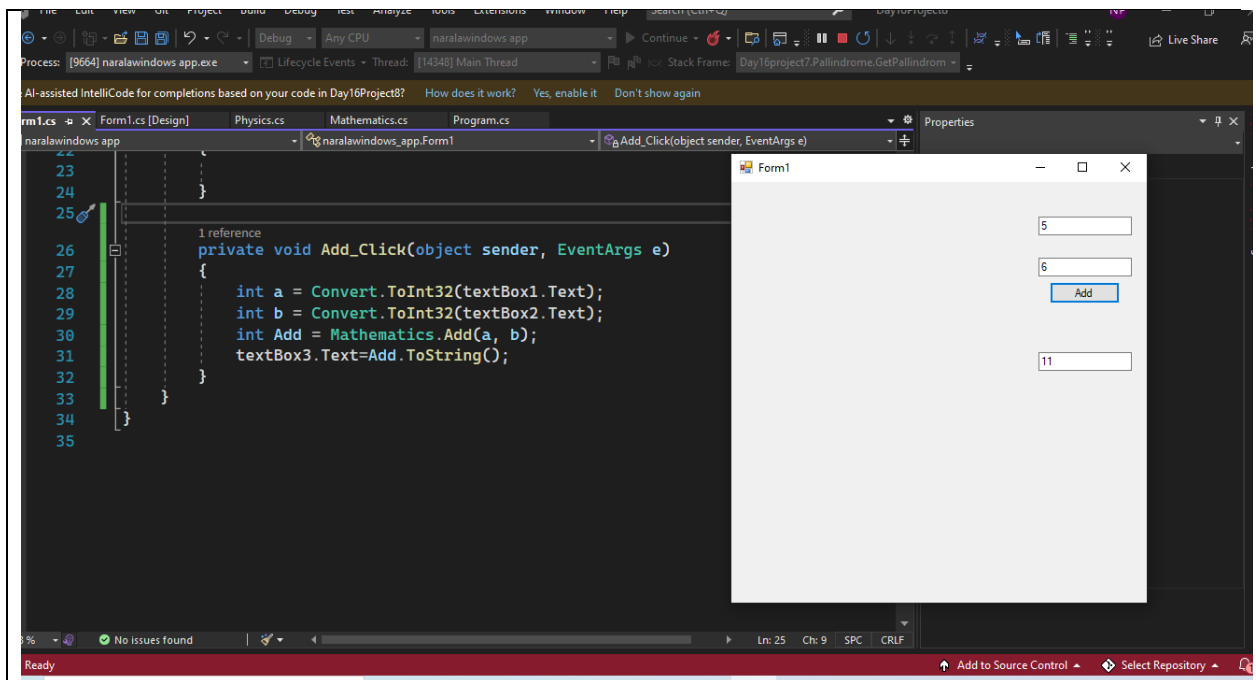
Question10:

Research and write the uses of Partial class?

WACP for example?

Add screenshots?

Code:
```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace praveenLibrary
{
    public partial class Mathematics
    {
        public static int Add( int a,int b)
        {
            return a + b;
        }
        public static int Difference(int a ,int b)
        {
            return a - b;
        }
        public static int Multiplication(int a ,int b)
        {
            return (a * b);
        }
    }
}
```

Code2:
```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace praveenLibrary
{
    public partial class Mathematics
    {
        public static int Divide(int a ,int b)
        {
            return a / b;
        }
    }
}
```

Output:

```
C:\NBHtraining\Day16 Assignment\Day16Projec
Final velocity
18
Multiplication
12
Division
4
```

Partial class:

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

namespace praveenLibrary
{
    public partial class Mathematics
    {
        public static int Divide(int a ,int b)
        {
            return a / b;
        }
    }
}
```