

DAY 16 ASSIGNMENT
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14TH FEB 2022

Q1.WACP to print Hello World

Code:

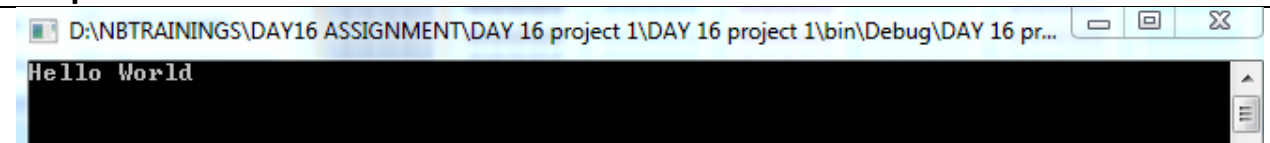
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace DAY_16_project_1
{
    class Message
    {
        public void PrintHello()
        {
            Console.WriteLine("Hello World");
        }
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Message obj = new Message();
            obj.PrintHello();

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

Output:



Q2.WACP to read number from user and print factorial of it.

Code:

```
using System;
```

```

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

namespace DAY_16_PROJECT2
{
    class Factorial
    {

        public void Readinput()
        {
            int input;
            Console.WriteLine("Enter any nummber");
            input = Convert.ToInt32(Console.ReadLine());
            int fact = 1;
            for (int i = 1; i <= input; i++)
                fact = fact * i;
            Console.WriteLine(fact);

        }
    }

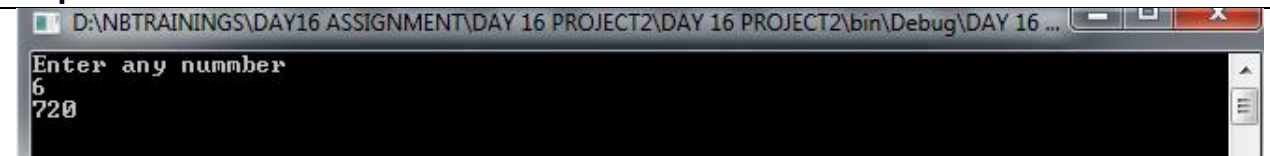
    internal class Program
    {
        static void Main(string[] args)
        {
            Factorial f = new Factorial();
            f.Readinput();

            Console.ReadLine();

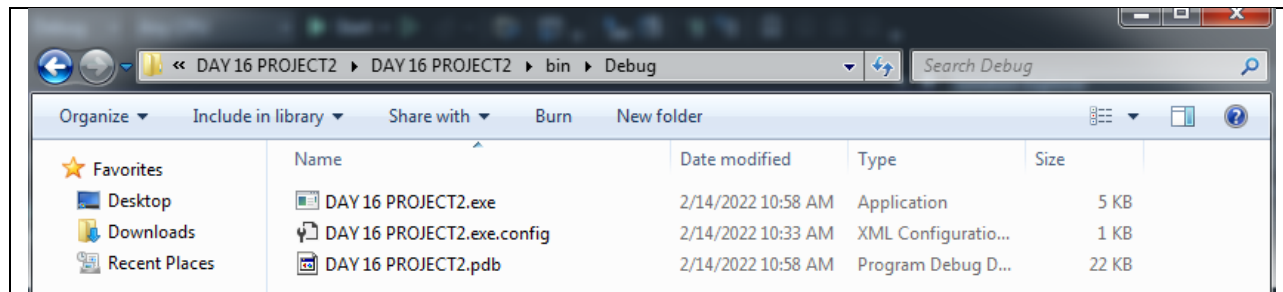
        }
    }
}

```

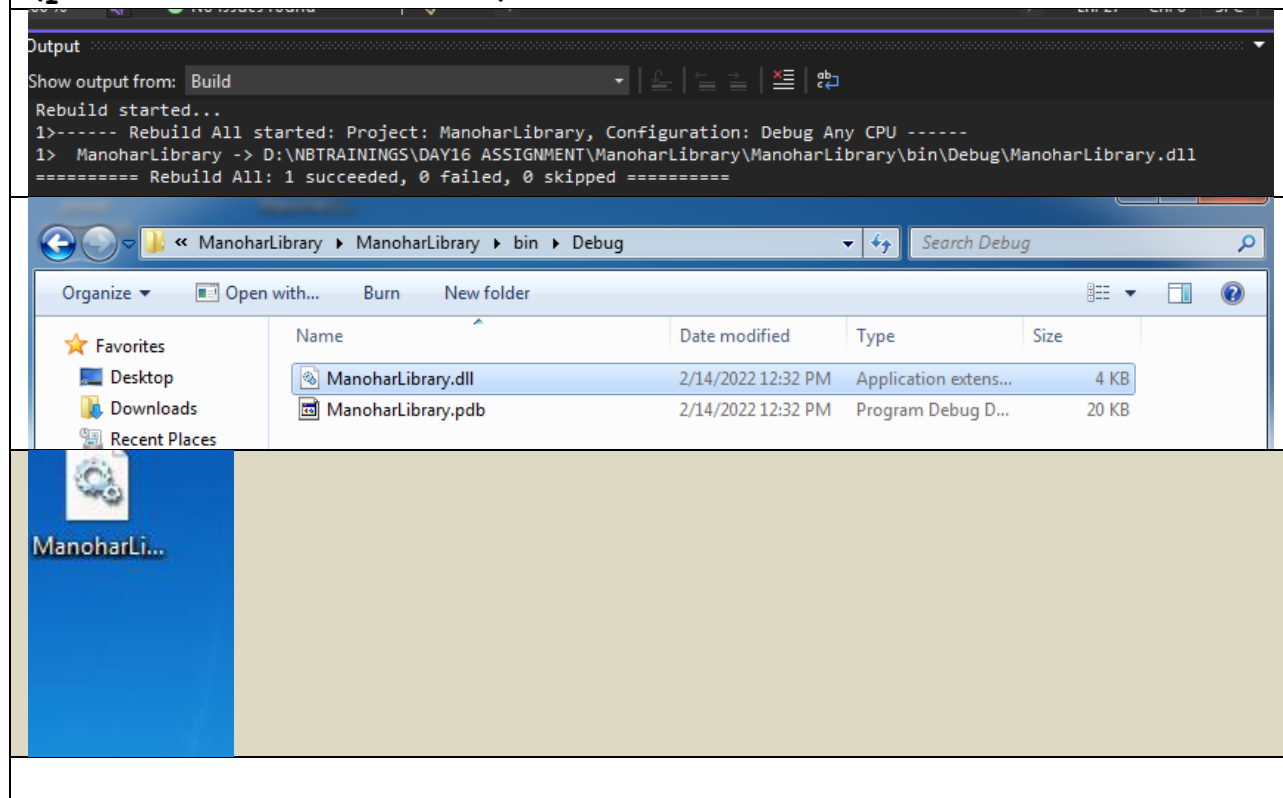
Ouput:



Q3.For the console application created in 2nd Task add screenshot of he .exe file location



Q4. Create a class Library Project with name as <you name>Library
Create a class Mathematics as discussed in the class.
[Add methods for reading number and finding factorial]
Re-build the project and you will get a .dll file
(put screenshot of it)
Copy the .dll file to desktop
(put screenshot of it)



Q5. Create a class library with three classes in it:

- Mathematics**
- Physics**
- Chemistry**

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using ManoharLibrary1;

namespace DAY16_PROJECT5
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine(Chemistry.GetWater());
            Console.WriteLine(Chemistry.GetBenzene());
            Console.WriteLine(Chemistry.GetMethene());
            Console.WriteLine(Mathematics.Add(5,7));
            Console.WriteLine(Physics.GetVelocity(3,2,3));

            Console.ReadLine();
        }
    }
}

```

```

H2O
C6H6
CH4
12
5
9

```

Q6.WACP to print multable table of a number

Code:

```

using System;
using System.Collections.Generic;

```

```

using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day16Project4MultiplicationTable
{
    internal class Multiplication
    {
        int input;

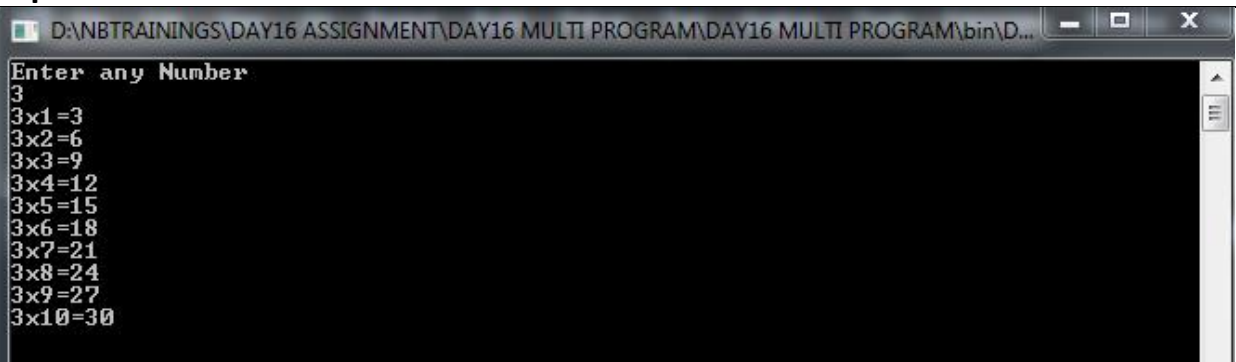
        public void ReadData()
        {
            Console.WriteLine("Enter any Number");
            input = Convert.ToInt32(Console.ReadLine());
        }

        public void GetMultiplication()
        {
            for (int i = 1; i <= +10; i++)
            {
                Console.WriteLine(input + "x" + i + "=" + input * i);
            }
        }

        static void Main(string[] args)
        {
            Multiplication m = new Multiplication();
            m.ReadData();
            m.GetMultiplication();
            Console.ReadLine();
        }
    }
}

```

Ouput:



```

D:\NBTRAININGS\DAY16 ASSIGNMENT\DAY16 MULTI PROGRAM\DAY16 MULTI PROGRAM\bin\D...
Enter any Number
3
3x1=3
3x2=6
3x3=9
3x4=12
3x5=15
3x6=18
3x7=21
3x8=24
3x9=27
3x10=30

```

Q7. 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;

namespace Day16Project5Pallindrome
{
    class Palindrome
    {
        int input;

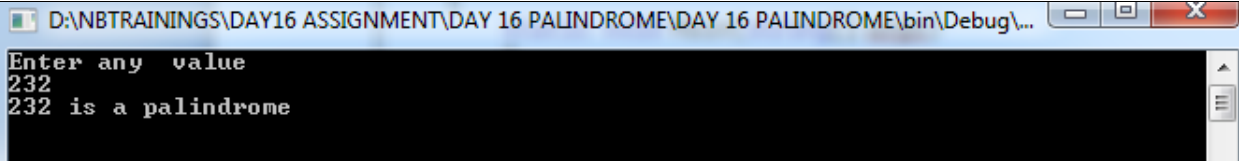
        public void ReadData()
        {
            Console.WriteLine("Enter any value");
            input = Convert.ToInt32(Console.ReadLine());
        }

        public void CheckPalindrom()
        {
            int sum = 0, rem = 0, temp = input;
            while (input > 0)
            {
                rem = input % 10;
                sum = sum * 10 + rem;
                input = input / 10;
            }
            if (temp == sum)
            {
                Console.WriteLine("{0} is a palindrome", temp);
            }
            else
            {
                Console.WriteLine("{0} Given value is Not a Palindrome", temp);
            }
        }
    }

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

```
}  
}
```

Output:



```
D:\NBTRAININGS\DAY16 ASSIGNMENT\DAY 16 PALINDROME\DAY 16 PALINDROME\bin\Debug\...  
Enter any value  
232  
232 is a palindrome
```

Q8. Create a solution "MyProject" (as discussed in class)

Add three projects

- YourNameLibrary (and add any class with methods)
- PublicLibrary (add any class with methods)
- ClientApp (and here refer above two libraries)

ManoharLibrary:

```
using System;  
using System.Collections.Generic;  
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;  
  
namespace ManoharLibrary  
{  
    public static class Mathematics  
    {  
        public static int Factorial(int n)  
        {  
            int fact = 1;  
            for (int i = 1; i < n; i++)  
                fact = fact * i;  
            return fact;  
        }  
        public static int Add(int a, int b)  
        {  
            return a + b;  
        }  
        public static int Mul(int a, int b)  
        {  
            return a * b;  
        }  
    }  
}
```

PublicLibrary:

```
using System;
```

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

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

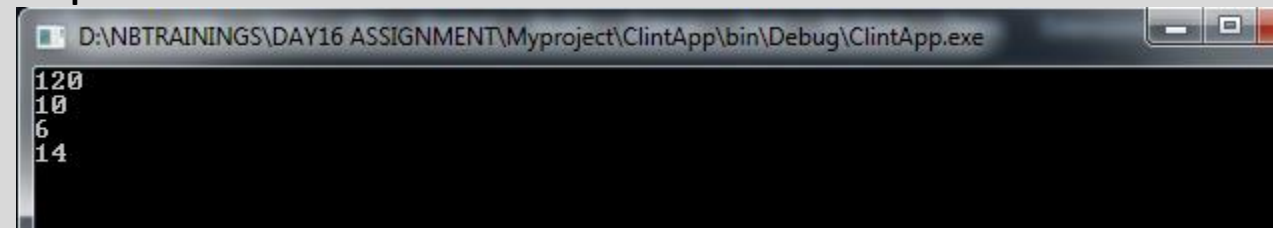
Consoleapp:

```
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using ManoharLibrary;
using PublicLibrary;

namespace ClintApp
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine(Mathematics.Factorial(6));
            Console.WriteLine(Mathematics.Add(5, 5));
            Console.WriteLine(Mathematics.Mul(2, 3));
            Console.WriteLine(Physics.FinalVelocity(2,3,4));

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

Output:



```
D:\NBTRAININGS\DAY16 ASSIGNMENT\Myproject\ClintApp\bin\Debug\ClintApp.exe
120
10
6
14
```


Q9.Add one more project (windows application)

Add some 3 or 4 screen shots just to prove that you have done this.

Code for windows application:

```
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 ManoharLibrary;

namespace MyWindowsApp1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

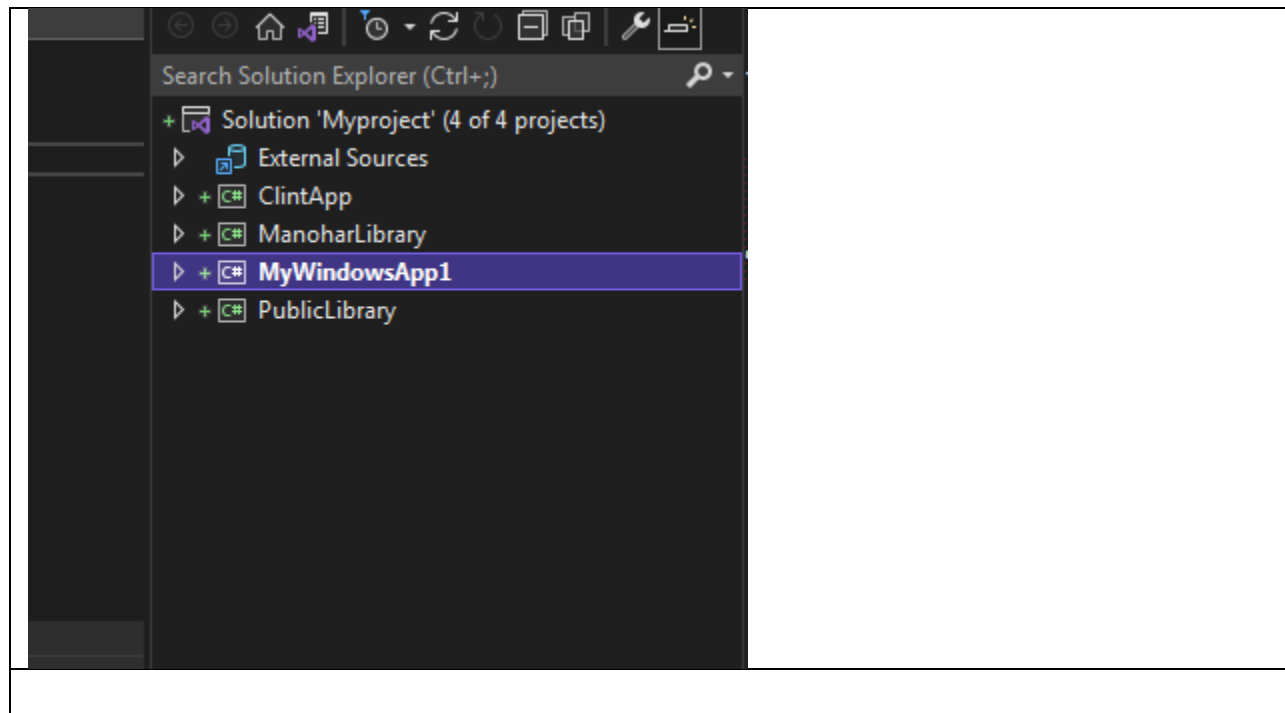
        private void button1_Click(object sender, EventArgs e)
        {
            int input = Convert.ToInt32(textBox1.Text);
            int factorial = Mathematics.Factorial(input);
            textBox2.Text = factorial.ToString();
        }
    }
}
```



7

GO

720



Q10. Research and write what is the use of partial classes in C#

WRITE EXAMPLE CODE AND PUT SCREEN SHOTS

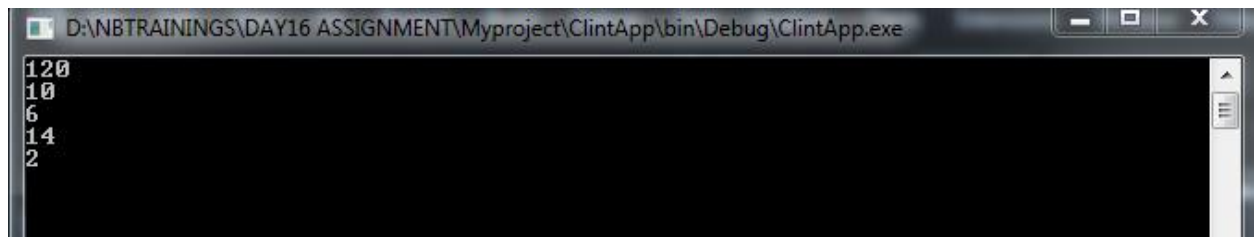
CODE :

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

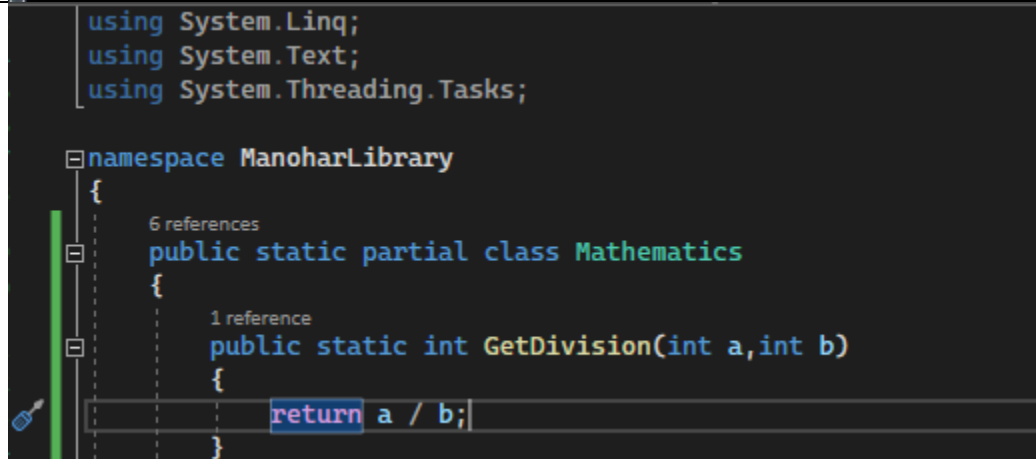
namespace ClintApp
{
    internal class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine(Mathematics.Factorial(6));
            Console.WriteLine(Mathematics.Add(5, 5));
            Console.WriteLine(Mathematics.Mul(2, 3));
            Console.WriteLine(Physics.FinalVelocity(2,3,4));
            Console.WriteLine(Mathematics.GetDivision(6, 3));

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

```
}  
}  
}
```



```
D:\NBTRAININGS\DAY16 ASSIGNMENT\Myproject\ClintApp\bin\Debug\ClintApp.exe  
120  
10  
6  
14  
2
```



```
using System.Linq;  
using System.Text;  
using System.Threading.Tasks;  
  
namespace ManoharLibrary  
{  
    6 references  
    public static partial class Mathematics  
    {  
        1 reference  
        public static int GetDivision(int a,int b)  
        {  
            return a / b;  
        }  
    }  
}
```