DAY 21 ASSIGNMENT

-- BY SARATH KASIMSETTY

2) Create a web service for Mathematical Operations.
Example : Factorial, add, multiple, division.

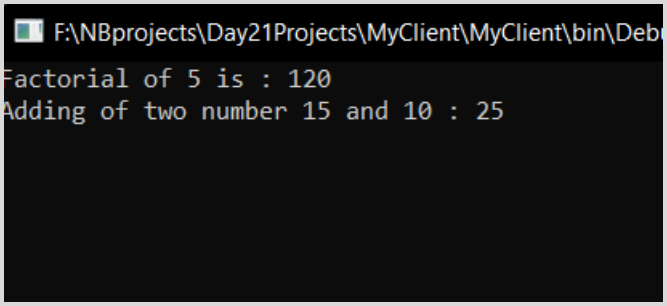
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace MathematicsLibrary
{
    /// <summary>
    /// Summary description for Algebra
    /// </summary>
    [WebService(Namespace = "http://tempuri.org/")]
    [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
    [System.ComponentModel.ToolboxItem(false)]
    // To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
following line.
    // [System.Web.Script.Services.ScriptService]
    public class Algebra : System.Web.Services.WebService
    {

        [WebMethod]
        public string HelloWorld()
        {
            return "Hello World";
        }

        [WebMethod]
        public int Factorial(int n)
        {
            int fact = 1, i;
            for (i = 1; i <= n; i++)
                fact = fact * i;
            return fact;
        }
        [WebMethod]
        public int Add(int a ,int b)
        {
            return a + b;
        }
        [WebMethod]
        public int Mul(int a, int b)
        {
            return a * b;
        }

    }
}
```

3) Create a Console Application and consume the web service

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using MyClient.ServiceReference1;

namespace MyClient
{
    internal class Program
    {
        static void Main(string[] args)
        {
            AlgebraSoapClient obj = new AlgebraSoapClient();

            Console.WriteLine("Factorial of 5 is : {0}",obj.Factorial(5));
            Console.WriteLine("Adding of two number 15 and 10 : {0}",obj.Add(15, 10));
            Console.ReadLine();
        }
    }
}
```

OUTPUT:



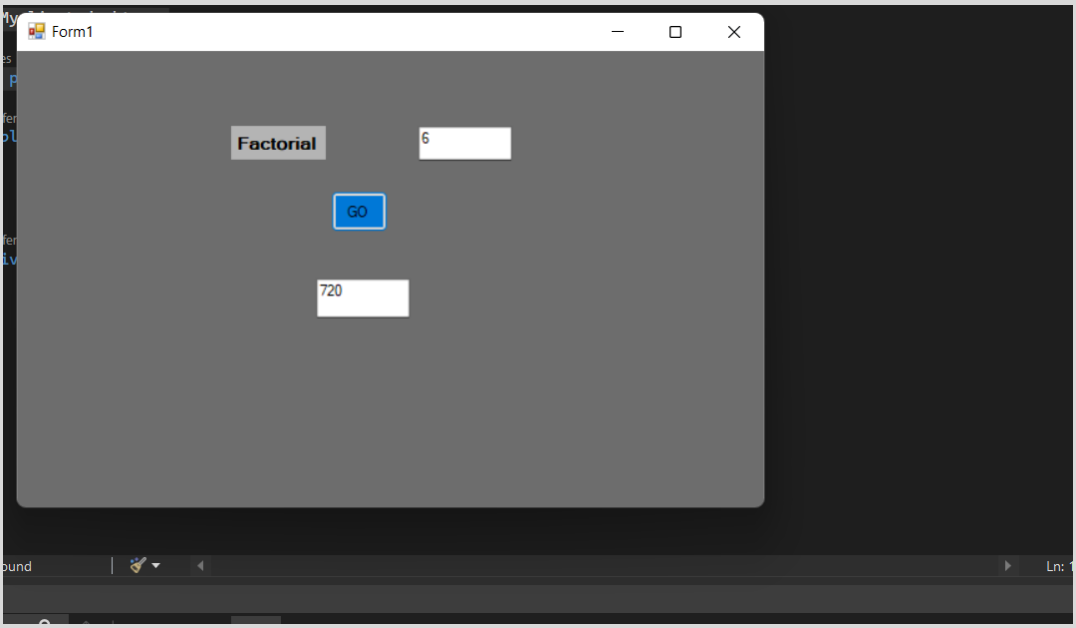
4) Create a Windows Forms application and consume the web service [for finding factorial of the number]

CODE:

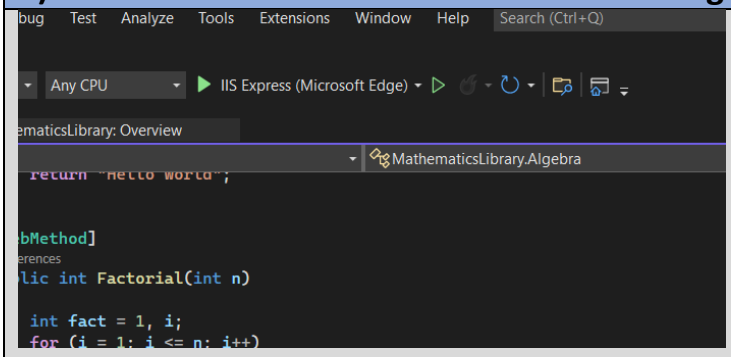
```
using Myclient_desktop_.ServiceReference1;
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
//sarath kasimsetty

namespace Myclient_desktop_
{
    public partial class Form1 : Form
```

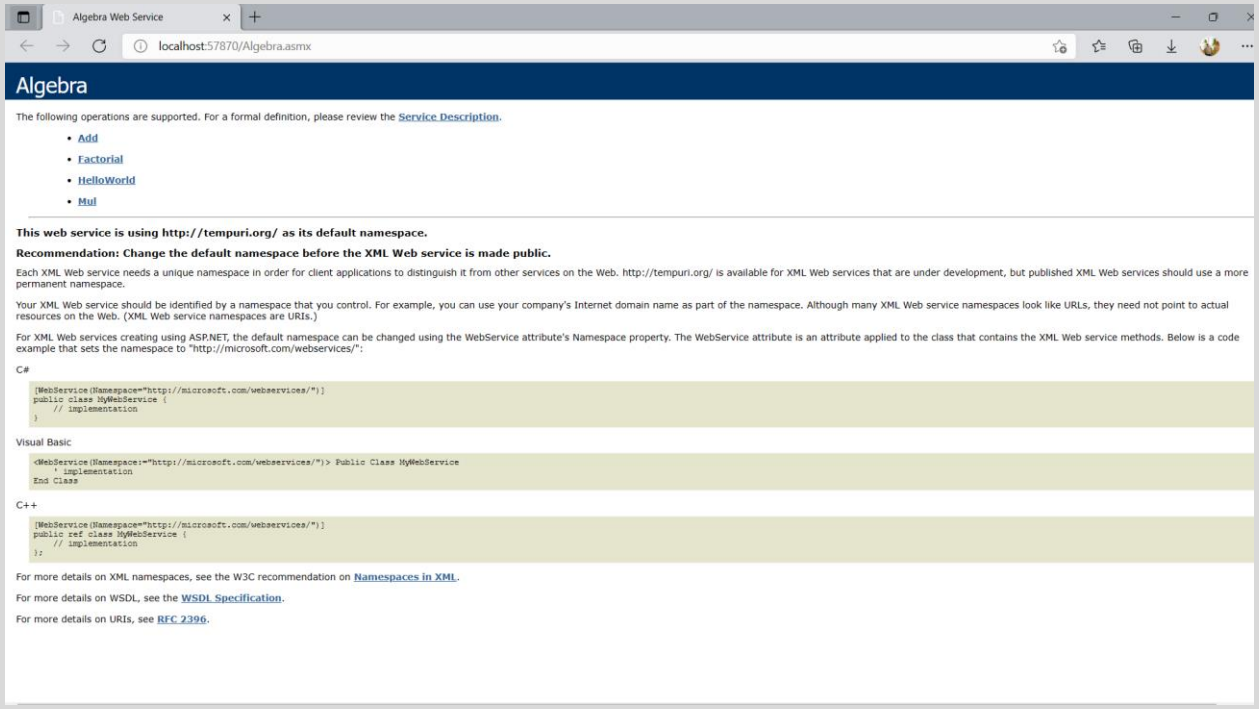
```
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            int n = Convert.ToInt32(textBox1.Text);
            AlgebraSoapClient m = new AlgebraSoapClient();

            textBox2.Text = m.Factorial(n).ToString();
            Console.ReadLine();
        }
    }
}
```

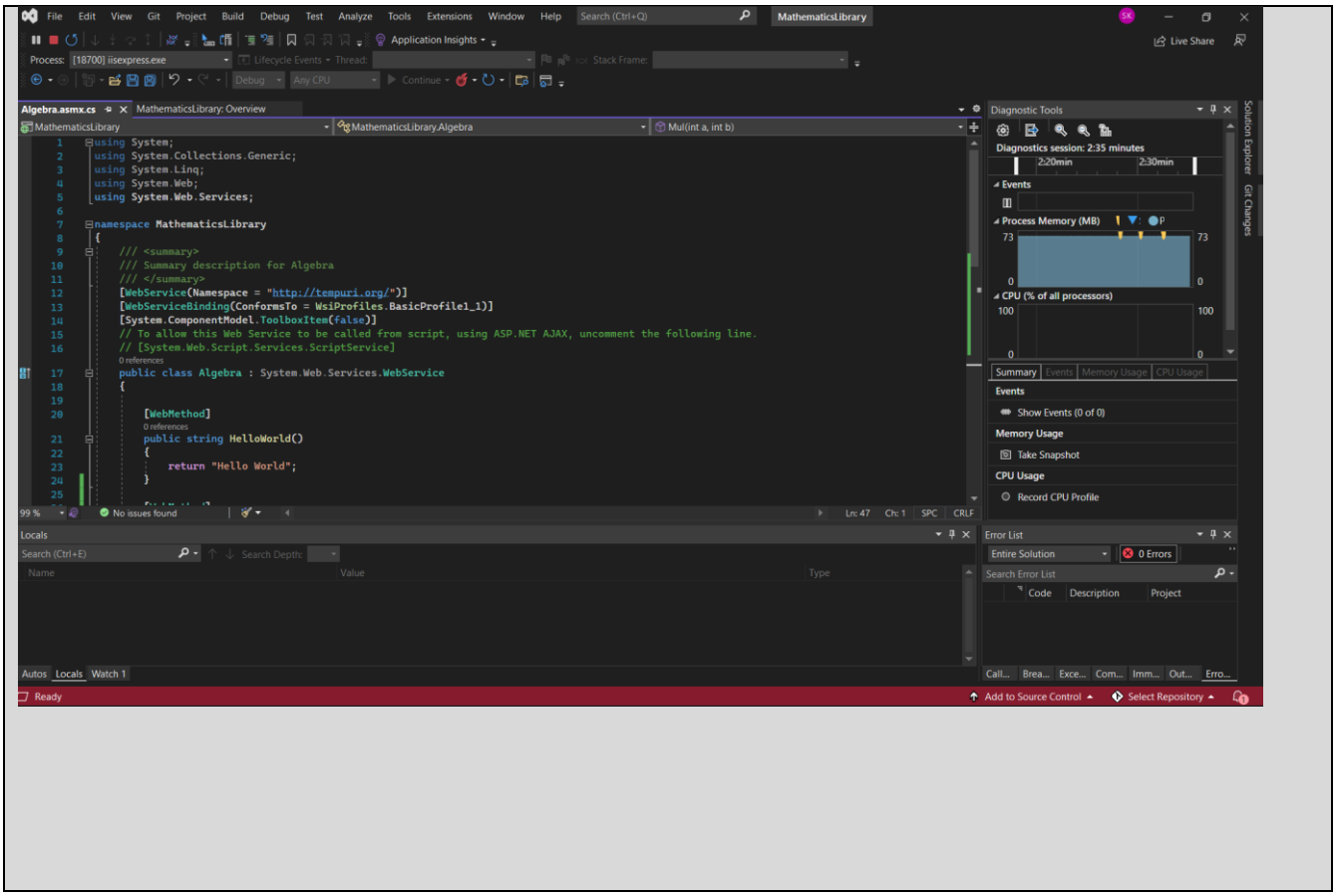
Output:



5) Put the screen shots of webservice running






File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
MathematicsLibrary
Application Insights
Live Share
Process: [18700] iisexpress.exe
Lifecycle Events
Thread:
Stack Frame:
Debug
Any CPU
Continue
Algebra.asmx.cs
MathematicsLibrary: Overview
MathematicsLibrary
MathematicsLibrary.Algebra
Mul(int a, int b)
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public class Algebra : System.Web.Services.WebService
{
[WebMethod]
0 references
public string HelloWorld()
{
return "Hello World";
}
99 %
No issues found
Ln: 47
Ch: 1
SPC
CRLF
Diagnostic Tools
Diagnostics session: 2:35 minutes
2:20min
2:30min
Events
Process Memory (MB)
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Record CPU Profile
Locals
Search (Ctrl+E)
Search Depth:
Name
Value
Type
Autos
Locals
Watch 1
Error List
Entire Solution
0 Errors
Search Error List
Code
Description
Project
Ready
Add to Source Control
Select Repository