Feb 21th Assignment

By

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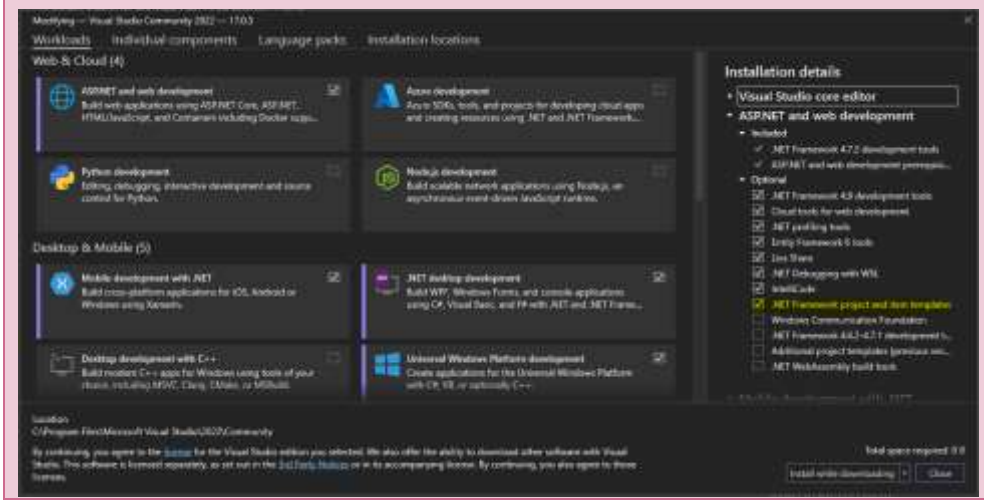
1. Update your Visual Studio with .Net Framework Templates



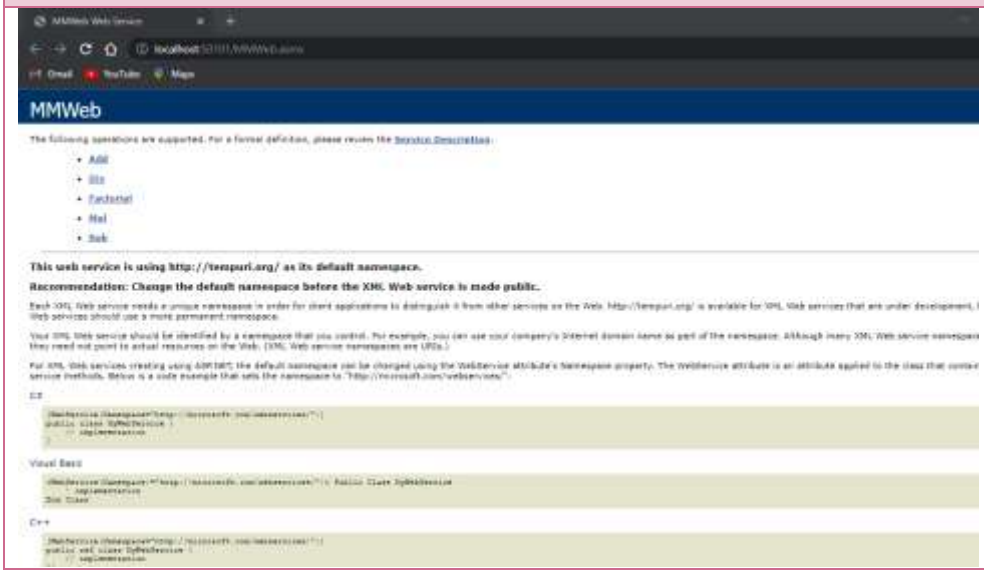
2. Create a web service for Mathematical Operations. Example : Factorial, add, mul, div

Code:

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

namespace MatheMaticsWebService
{
    /// <summary>
    /// Summary description for MMWeb
    /// </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 MMWeb : System.Web.Services.WebService
    {
        [WebMethod]
        public int Factorial(int n)
        {
            int fact = 1;
            for (int i = 1; i < n; i++)
                fact = fact * i;
            return fact;
        }
        [WebMethod]
        public int Add(int a, int b)
```

```
        {
            return a + b;
        }
        [WebMethod]
        public int Sub(int a, int b)
        {
            return a - b;
        }
        [WebMethod]
        public int Mul(int a, int b)
        {
            return a * b;
        }
        [WebMethod]
        public int Div(int a, int b)
        {
            return a / b;
        }
    }
}
```

Output:

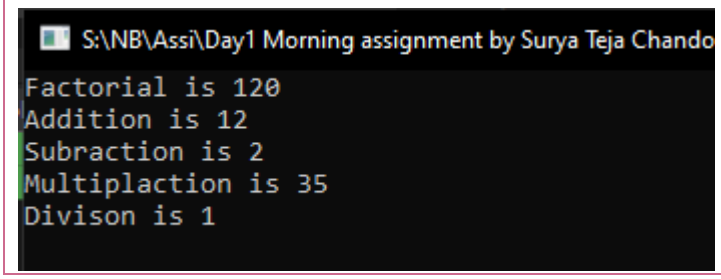


3. Create a Console Application and consume the web service

Code:

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

namespace MMConsole
{
    internal class Program
    {
        static void Main(string[] args)
        {
            MMWebSoapClient con = new MMWebSoapClient();
            Console.WriteLine($"Factorial is {con.Factorial(5)}");
            Console.WriteLine($"Addition is {con.Add(7, 5)}");
            Console.WriteLine($"Subraction is {con.Sub(7, 5)}");
            Console.WriteLine($"Multiplaction is {con.Mul(7, 5)}");
            Console.WriteLine($"Divison is {con.Div(7, 5)}");

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

Output:

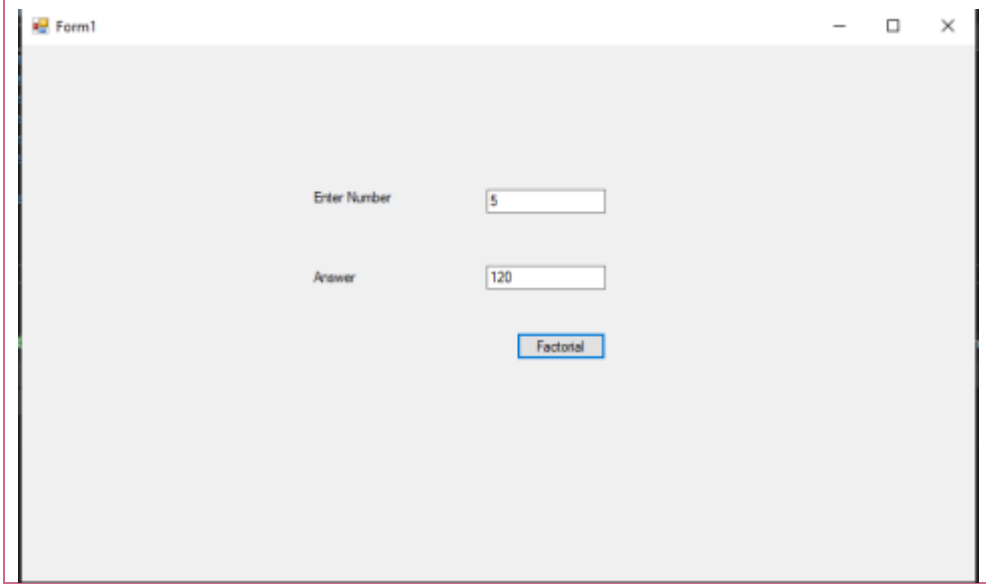


4. Create a Windows Forms application and consume the web service

Code:

```
using MMWindows.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;

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

        private void label1_Click(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            MMWebSoapClient win = new MMWebSoapClient();

            int n = Convert.ToInt32(textBox1.Text);
            textBox2.Text = win.Factorial(n).ToString();
        }
    }
}
```

Output:



5. Put the screen shots of web service running