



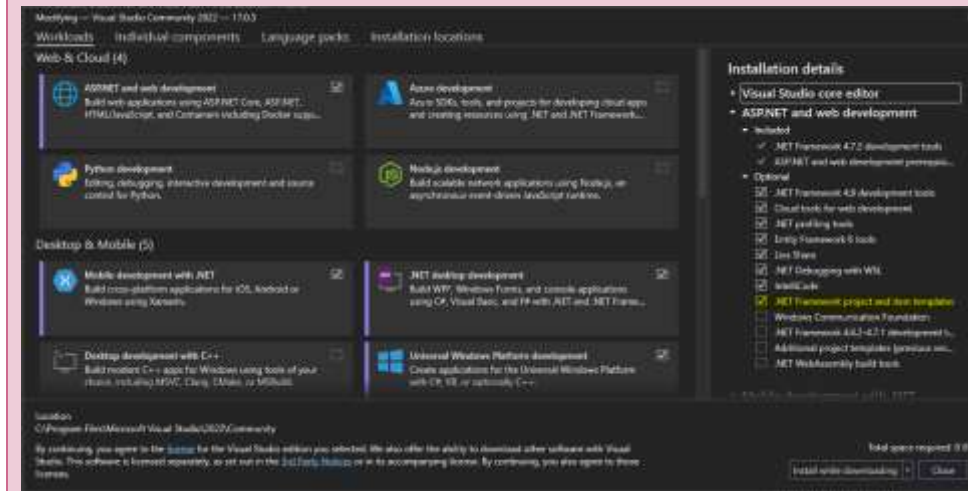
Feb 21th Assignment

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;

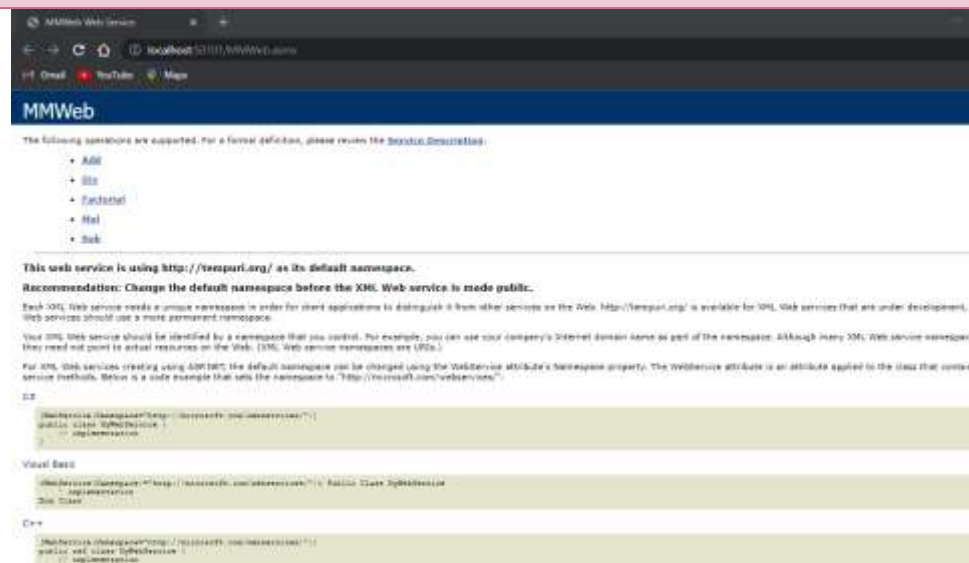
namespace MatheMaticsWebService
{
    /// <summary>
    /// Summary description for MMWeb
    /// </summary>
    [WebService(Namespace = "http://tempuri.org/")]
    [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
    [System.ComponentModel.ToolboxItem(false)]
    // To allow this Web Service 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

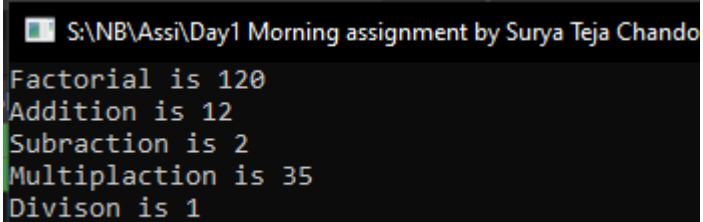
Code:

```
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($"Subtraction is {con.Sub(7, 5)}");
            Console.WriteLine($"Multiplaction is {con.Mul(7, 5)}");
            Console.WriteLine($"Divison is {con.Div(7, 5)}");

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

Output:



S:\NB\Assi\Day1 Morning assignment by Surya Teja Chando

```
Factorial is 120
Addition is 12
Subtraction is 2
Multiplaction is 35
Divison is 1
```

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:

Form1

Enter Number

Answer

5. Put the screen shots of web service running

MMWeb Web Service

localhost:5001/MMWeb.aspx

MMWeb

The following operations are supported, for a formal definition, please review the [Service Description](#):

- Add
- Sub
- Factorial
- Mul
- Div

This web service is using <http://tempuri.org/> as its default namespace.

Recommendation: Change the default namespace before the XML Web service is made public.

Each XML Web service needs a unique namespace in order for client applications to distinguish it from other services on the Web. <http://tempuri.org/> is available for XML Web services that are under development, but Web services should use a more permanent namespace.

Your XML Web service should be identified by a namespace that you control. For example, you can use your company's Internet domain name as part of the namespace. Although many XML Web service namespaces may need not point to actual resources on the Web, XML Web service namespaces are URIs.

For XML Web services created using ASP.NET, the default namespace can be changed using the `WebService` attribute's `Namespace` property. The `WebService` attribute is an attribute applied to the class that contains service methods. Below is a code example that sets the namespace to "http://microsoft.com/web/services/".

```

C#
[WebService(Namespace="http://microsoft.com/web/services/")]
public class WebService :
    IWebService
{
    // Implementation
}

Visual Basic
[WebService(Namespace="http://microsoft.com/web/services/")]
Public Class WebService
    ' Implementation
End Class

C++
[WebService(Namespace="http://microsoft.com/web/services/")]
public ref class WebService :
    IWebService
{
    // Implementation
}

```