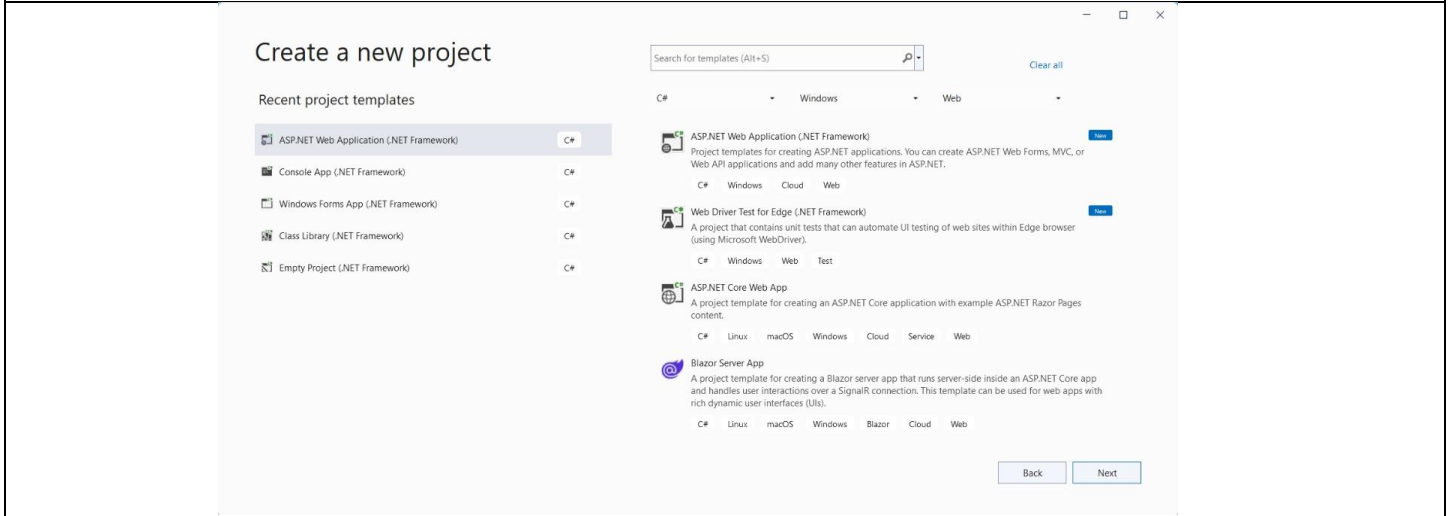


DAY21 ASSIGNMENT

BY

PAVAN KUMAR (21-02-2022)

Q1). Update your Visual Studio with .NET Framework Templates add on



Q2). Create a web service for Mathematical Operations Example: Factorial, add, mul, div

CODE:

```
using System;
using System.Collections.Generic;

namespace PavanServices
{
    /// <summary>
    /// Summary description for WebService1
    /// </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 WebService1: System.Web.Services.WebService
    {

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

```

OUTPUT:

← → ↻ ⓘ localhost:65089/WebService1.asmx

WebService1

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

- [Add](#)
- [Div](#)
- [Factorial](#)
- [Mul](#)
- [Sub](#)

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.

Q3). Create a Console Application and consume the webservice

CODE:

```

using System;
using MyConsoleApp.ServiceReference1;

namespace MyConsoleApp
{
    /// <summary>
    /// DONE BY: PAVAN
    /// PURPOSE: AIRTHEMATIC OPERATIONS USING WEB SERVICES
    /// </summary>
    internal class Program
    {

```

```

static void Main(string[] args)
{
    WebService1SoapClient obj = new WebService1SoapClient();
    Console.WriteLine("****Factorial of a Number: ****");
    Console.WriteLine(obj.Factorial(4));
    Console.WriteLine("****Addition of a Number: ****");
    Console.WriteLine(obj.Add(6, 2));
    Console.WriteLine("****Subtraction of a Number: ****");
    Console.WriteLine(obj.Sub(6, 2));
    Console.WriteLine("****Multiplication of a Number: ****");
    Console.WriteLine(obj.Mul(6, 2));
    Console.WriteLine("****Division of a Number: ****");
    Console.WriteLine(obj.Div(6, 2));
    Console.ReadLine();
}
}
}

```

WEB SERVICE CODE:

```

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

namespace PavanServices
{
    /// <summary>
    /// Summary description for WebService1
    /// </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 WebService1: System.Web.Services.WebService
    {

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

        [WebMethod]
        public int Add(int a, int b)
        {
            return a + b;
        }
    }
}

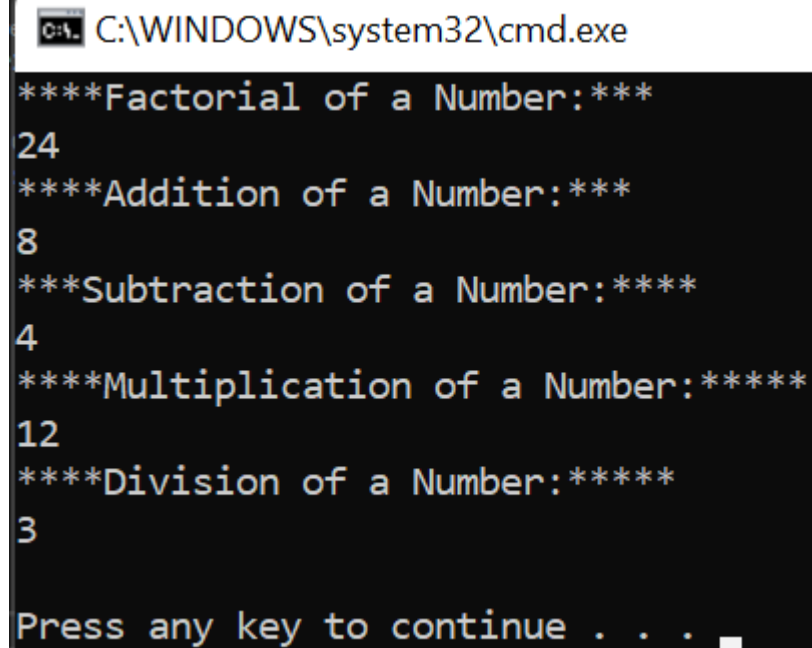
```

```

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

```

OUTPUT:



```

C:\WINDOWS\system32\cmd.exe

****Factorial of a Number:***
24
****Addition of a Number:***
8
***Subtraction of a Number:****
4
****Multiplication of a Number:*****
12
****Division of a Number:*****
3

Press any key to continue . . . 

```

Q4). Create a Windows Forms application and consume the webservice

CODE:

```

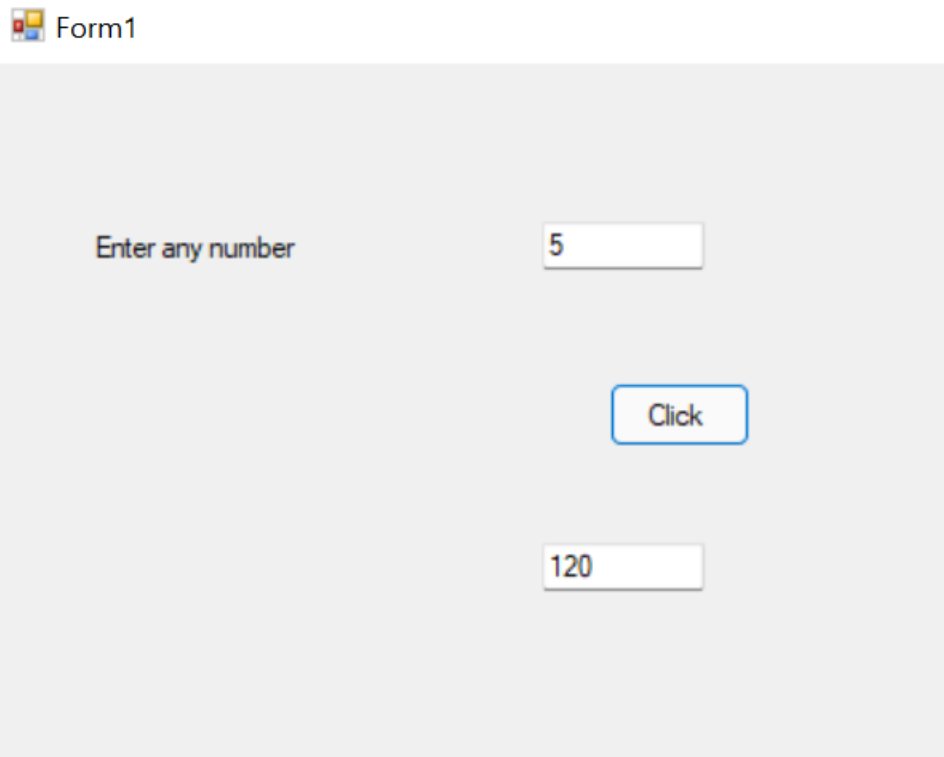
MYWINDOWSAPP:
using System;
using System.Windows.Forms;
using MyWindowsApp.ServiceReference1;

namespace MyWindowsApp
{
    public partial class Form1: Form

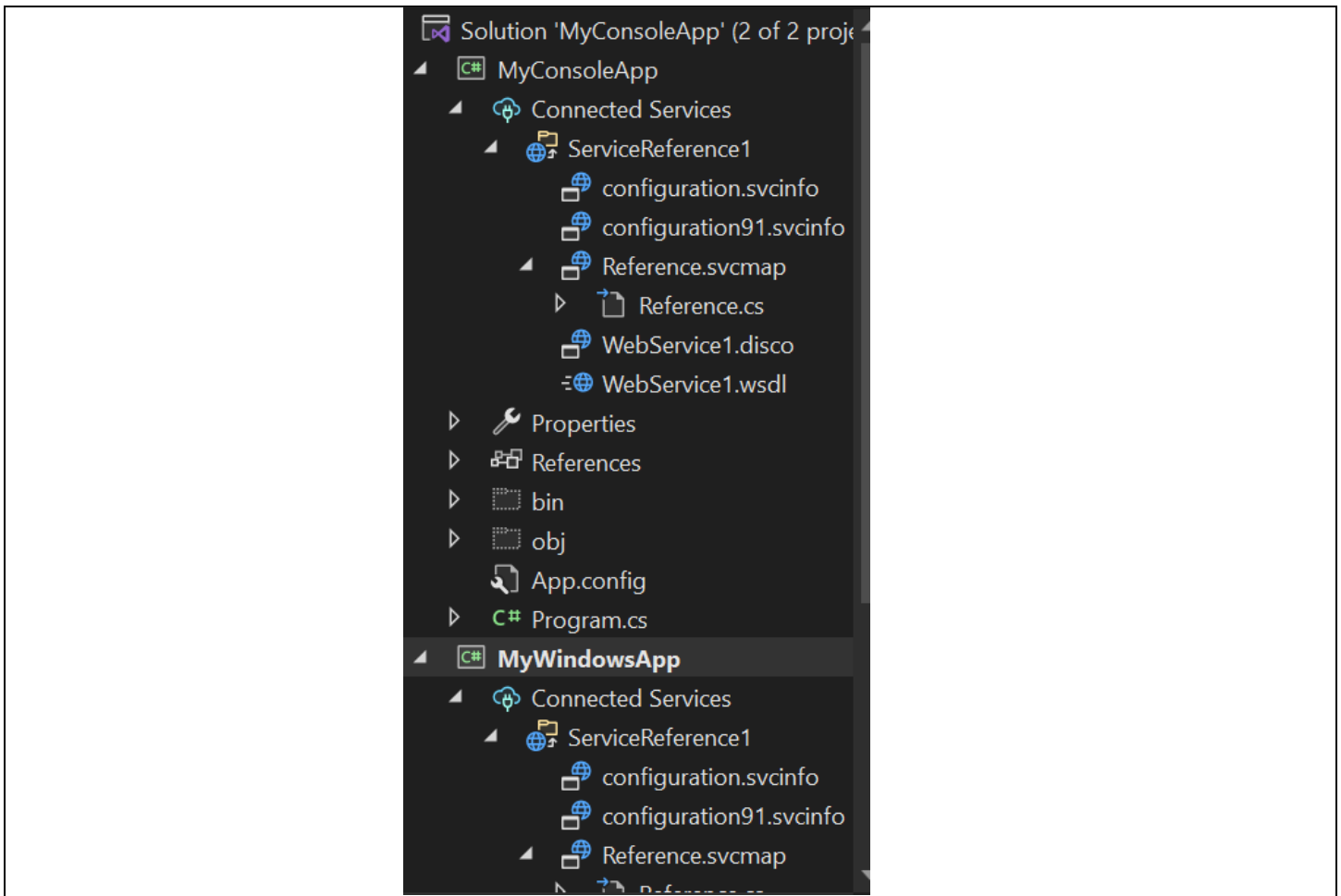
```

```
{  
    public Form1()  
    {  
        InitializeComponent();  
    }  
  
    private void button1_Click(object sender, EventArgs e)  
    {  
        WebService1SoapClient obj = new WebService1SoapClient();  
        textBox2.Text = obj.Factorial(5).ToString();  
    }  
}
```

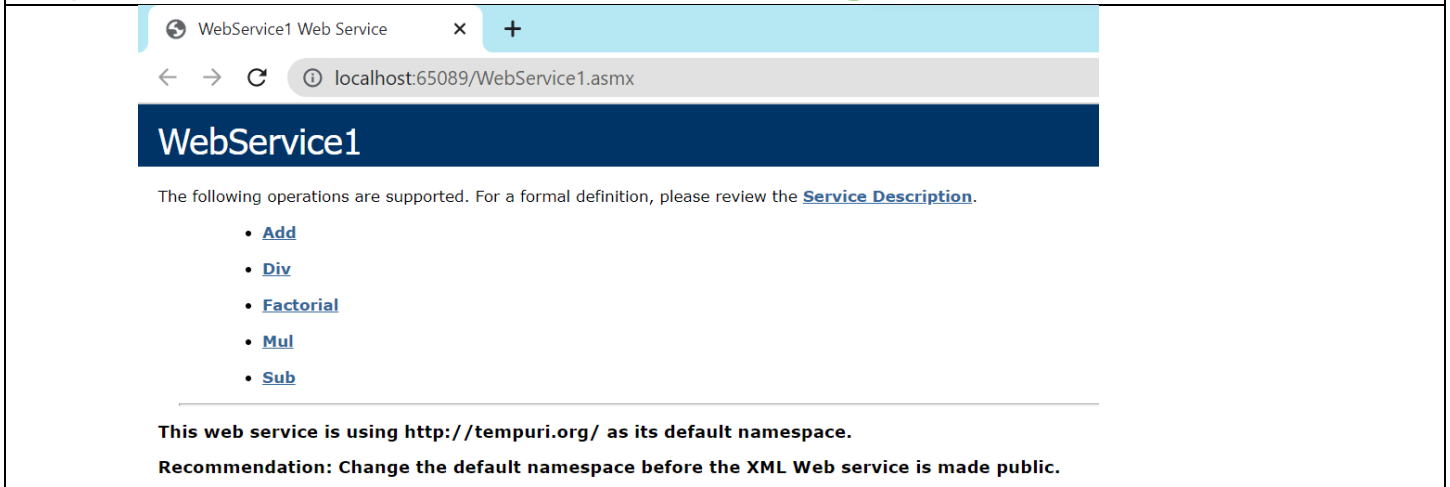
OUTPUT:













The screenshot shows a Windows Form titled "Form1". Inside the form, there is a label "Enter any number" followed by a text box containing the value "5". Below this, there is a button labeled "Click". At the bottom, there is another text box containing the value "120", which is the result of the factorial calculation performed when the button was clicked.



Q5). Put the screen shots of webservice running.



 Solution 'PavanServices' (1 of 1 project)

- ▷  External Sources
- ◀  **PavanServices**
 -  Connected Services
 - ▷  Properties
 - ▷  References
 -  packages.config
 - ▷  Web.config
 - ◀  WebService1.asmx
 - ◀  WebService1.asmx.cs
 - ▷  WebService1