

## 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

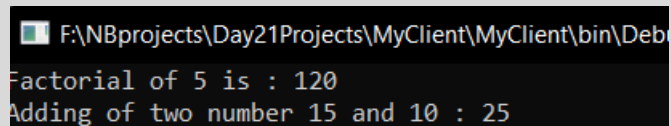
#### CODE:

```
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:



F:\NBprojects\Day21Projects\MyClient\MyClient\bin\Deb  
Factorial of 5 is : 120  
Adding of two number 15 and 10 : 25

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

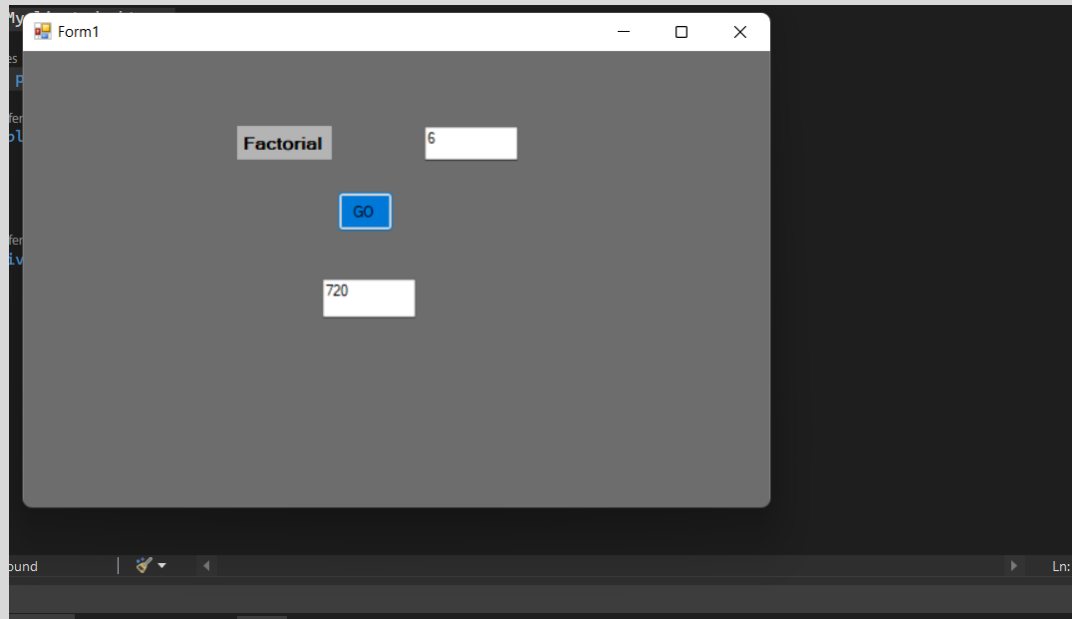
#### CODE:

```
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

The screenshot displays the Visual Studio IDE and a web browser. In Visual Studio, the 'MathematicsLibrary: Overview' window shows the 'MathematicsLibrary.Algebra' class with the following code:

```
Return "Hello World";

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

The web browser shows the 'Algebra Web Service' running at `localhost:57870/Algebra.asmx`. The page title is 'Algebra'. The content lists supported operations: Add, Factorial, HelloWorld, and Mul. It also includes a warning about the default namespace (`http://tempuri.org/`) and provides code examples for C#, Visual Basic, and C++.

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

- [Add](#)
- [Factorial](#)
- [HelloWorld](#)
- [Mul](#)

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 published XML 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 look like URLs, they need not point to actual resources on the Web. (XML Web service namespaces are URIs.)

For XML Web services creating 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 the XML Web service methods. Below is a code example that sets the namespace to `"http://microsoft.com/webservices/"`:

**C#**

```
[WebService(Namespace="http://microsoft.com/webservices/")]
public class MyWebService {
    // Implementation
}
```

**Visual Basic**

```
<WebService(Namespace="http://microsoft.com/webservices/")> Public Class MyWebService
    ' Implementation
End Class
```

**C++**

```
[WebService(Namespace="http://microsoft.com/webservices/")]
public ref class MyWebService {
    // Implementation
};
```

For more details on XML namespaces, see the W3C recommendation on [Namespaces in XML](#).

For more details on WSDL, see the [WSDL Specification](#).

For more details on URIs, see [RFC 2396](#).

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search (Ctrl+Q) MathematicsLibrary

Process: [18700] iisexpress.exe Lifecycle Events Thread Stack Frame

Debug Any CPU Continue

Algebra.asmx.cs MathematicsLibrary: Overview

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Web;
5 using System.Web.Services;
6
7 namespace MathematicsLibrary
8 {
9     /// <summary>
10     /// Summary description for Algebra
11     /// </summary>
12     [WebService(Namespace = "http://tempuri.org/")]
13     [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
14     [System.ComponentModel.ToolboxItem(false)]
15     // To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the following line.
16     // [System.Web.Script.Services.ScriptService]
17     public class Algebra : System.Web.Services.WebService
18     {
19
20         [WebMethod]
21         public string HelloWorld()
22         {
23             return "Hello World";
24         }
25     }
26 }
```

99 % No issues found

Locals Search (Ctrl+E) Search Depth Value Type

Autos Locals Watch 1

Diagnostic Tools

Diagnostics session: 2:35 minutes

2:20min 2:30min

Events

Process Memory (MB) 73 73

CPU (% of all processors) 100 100

Summary Events Memory Usage CPU Usage

Events

Show Events (0 of 0)

Memory Usage

Take Snapshot

CPU Usage

Record CPU Profile

Error List

Entire Solution 0 Errors

Search Error List

Code	Description	Project
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Ready Add to Source Control Select Repository

