

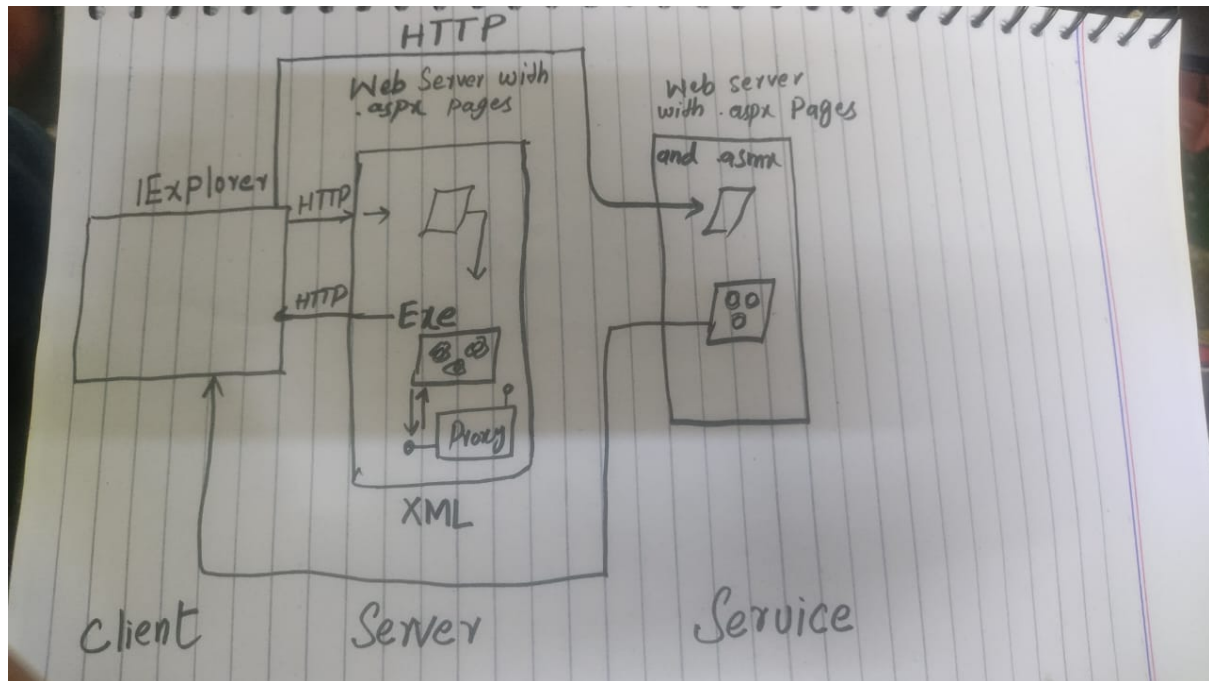
## Internet Application Development Web Services - Assignment

Dated: Thursday, 15th May 2025

Registration No: 03-3-01-038-2022

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### Question 1:



### Question 2:

Code:

```
Imports System.Web
```

```
Imports System.Web.Services
```

```
Imports System.Web.Services.Protocols
```

' To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the following line.

```
' <System.Web.Script.Services.ScriptService()> _
```

```
<WebService(Namespace:="http://tempuri.org/")> _
```

```
<WebServiceBinding(ConformsTo:=WsiProfiles.BasicProfile1_1)> _
```

```
<Global.Microsoft.VisualBasic.CompilerServices.DesignerGenerated()> _
```

```
Public Class WebService
```

```
    Inherits System.Web.Services.WebService
```

```
<WebMethod(>
Public Function AddNumbers(ByVal num1 As Integer, ByVal num2 As Integer) As
String
```

```
    Dim result As Integer = num1 + num2
    Return "Result: " & result.ToString()
End Function
```

```
<WebMethod(>
Public Function SubtractNumbers(ByVal num1 As Integer, ByVal num2 As Integer)
As String
```

```
    Dim result As Integer = num1 - num2
    Return "Result: " & result.ToString()
End Function
```

```
<WebMethod(>
Public Function MultiplyNumbers(ByVal num1 As Integer, ByVal num2 As Integer)
As String
```

```
    Dim result As Integer = num1 * num2
    Return "Result: " & result.ToString()
End Function
```

```
<WebMethod(>
Public Function DevisionNumbers(ByVal num1 As Integer, ByVal num2 As Integer)
As String
```

```
    Dim result As Integer = num1 / num2
    Return "Result: " & result.ToString()
End Function
End Class
```

localhost:51215/WebService.aspx

## WebService

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

- [AddNumbers](#)
- [DevisionNumbers](#)
- [MultiplyNumbers](#)
- [SubtractNumbers](#)

---

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
```

# WebService

Click [here](#) for a complete list of operations.

## SubtractNumbers

### Test

To test the operation using the HTTP POST protocol, click the 'Invoke' button.

| Parameter                             | Value                           |
|---------------------------------------|---------------------------------|
| num1:                                 | <input type="text" value="50"/> |
| num2:                                 | <input type="text" value="20"/> |
| <input type="button" value="Invoke"/> |                                 |

WebService Web Service localhost:51215/WebService.aspx

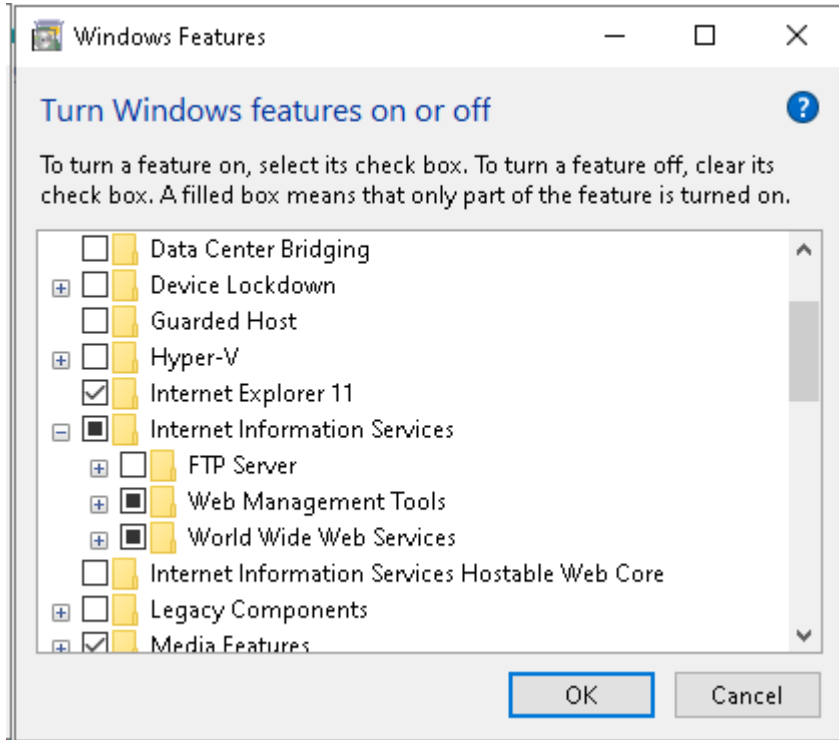
localhost:51215/WebService.aspx/SubtractNumbers

This XML file does not appear to have any style information associated with it. The document tree is shown below.

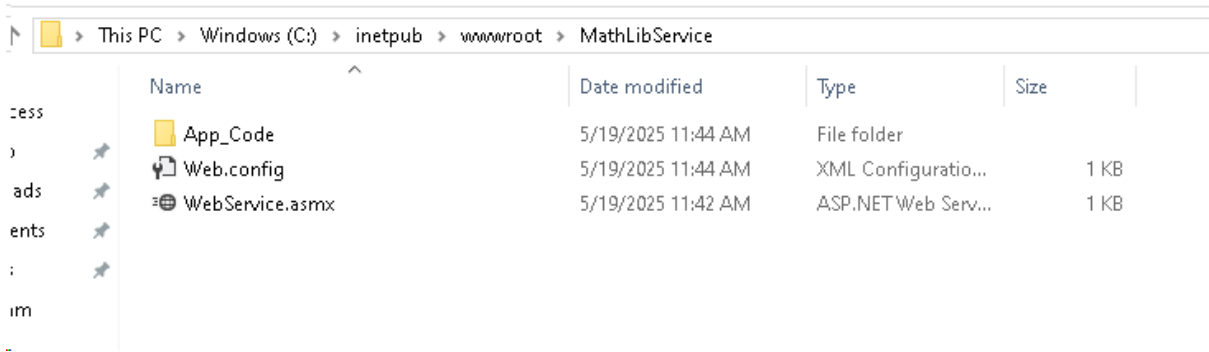
```
<string xmlns="http://tempuri.org/">Result: 30</string>
```

# Question 3 & 4:

Install IIS:



Create the two Applications:



Site name:

MathLibService

Application pool:

MathLibService

Select...

Content Directory

Physical path:

C:\inetpub\wwwroot\MathLibService

...

Pass-through authentication

Connect as...

Test Settings...

Binding

Type:

http

IP address:

All Unassigned

Port:

9696

Host name:

Example: www.contoso.com or marketing.contoso.com

☒ Start Website immediately

OK

Cancel

# localhost - /

|                               |                                    |
|-------------------------------|------------------------------------|
| Monday, May 19, 2025 11:44 AM | <dir> <a href="#">App_Code</a>     |
| Monday, May 19, 2025 11:44 AM | 476 <a href="#">Web.config</a>     |
| Monday, May 19, 2025 11:42 AM | 93 <a href="#">WebService.asmx</a> |

And our ASMX service is working:

WebService Web Service

localhost:9696/WebService.asmx

## WebService

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

- [AddNumbers](#)
- [DivideNumbers](#)
- [MultiplyNumbers](#)
- [SubtractNumbers](#)

**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 under development, but published XML Web services should use a more permanent namespace.

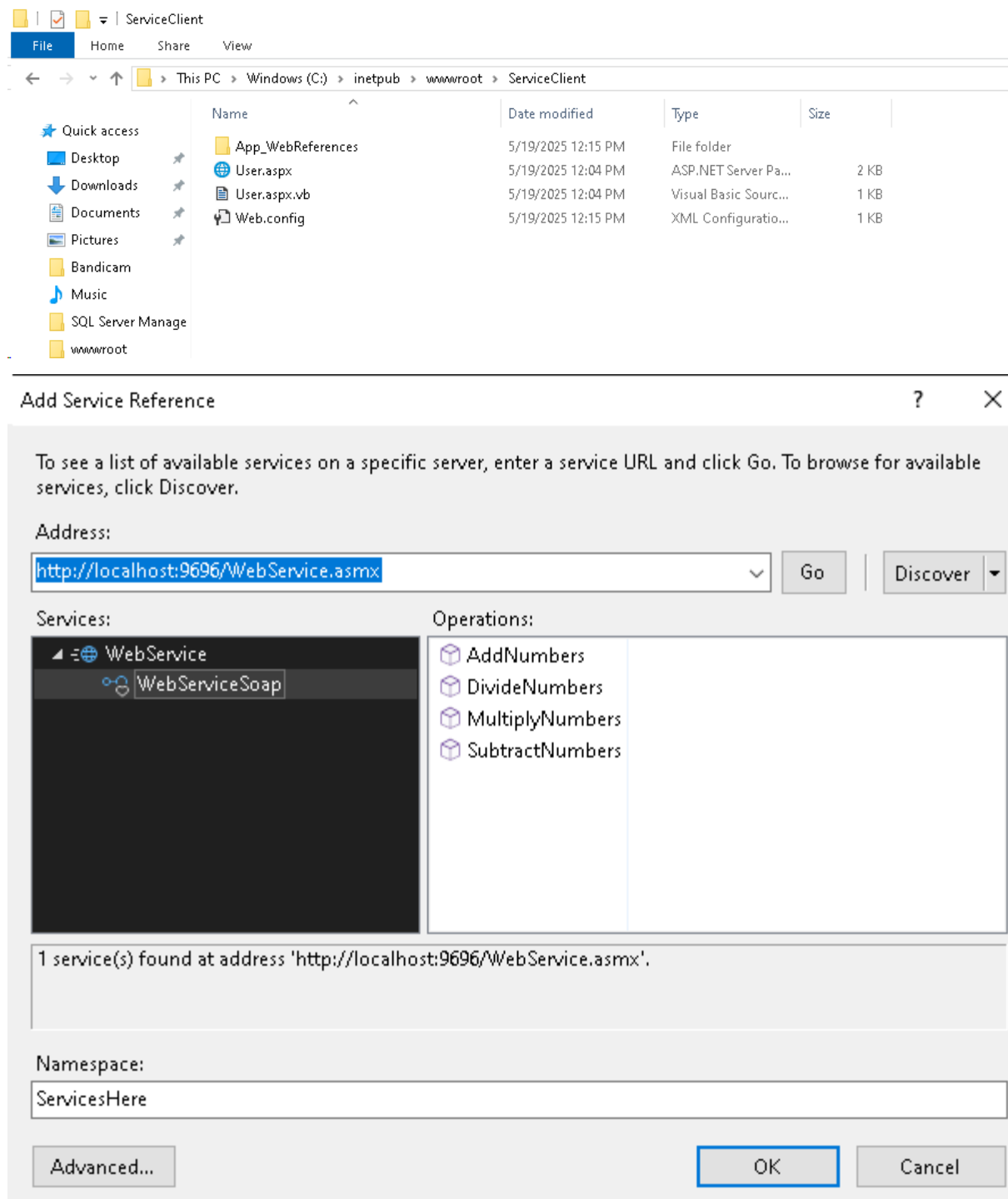
Your XML Web service should be identified by a namespace that you control. For example, you can use your company's Internet service namespaces look like URLs, they need not point to actual resources on the Web. (XML Web service namespaces are URIs.)

For XML Web services created using ASP.NET, the default namespace can be changed using the `WebService` attribute's `Namespace` attribute on 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
}
```

## Now we open our Service Client:



In the namespace is Services as i change it later.

```
Dim service As New Services.WebServiceSoapClient()

0 references
Protected Sub btnAddClick(sender As Object, e As EventArgs) Handles btnAdd.Click
    Dim a As Integer = Integer.Parse(txtA.Text)
    Dim b As Integer = Integer.Parse(txtB.Text)
    Dim result As String = service.AddNumbers(a, b)
    lblResult.Text = "Result: " & result
End Sub

0 references
Protected Sub btnSubClick(sender As Object, e As EventArgs) Handles btnSub.Click
    Dim a As Integer = Integer.Parse(txtA.Text)
    Dim b As Integer = Integer.Parse(txtB.Text)
    Dim result As String = service.SubtractNumbers(a, b)
    lblResult.Text = "Result: " & result
End Sub

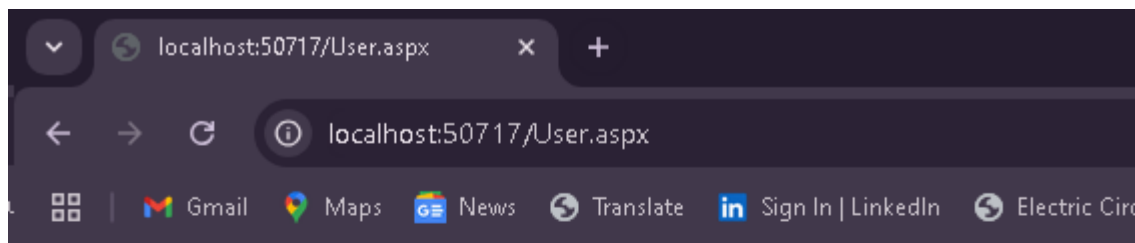
0 references
Protected Sub btnMulClick(sender As Object, e As EventArgs) Handles btnMul.Click
    Dim a As Integer = Integer.Parse(txtA.Text)
    Dim b As Integer = Integer.Parse(txtB.Text)
```

Property TextBox.Text As String  
Gets or sets the text content of the TextBox control.

Returns:  
The text displayed in the TextBox control. The default is an empty string ("").

No issues found

Running of web services: In local server.



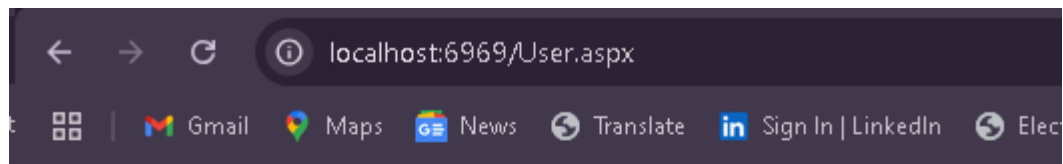
## Math Operations using Web Service

Enter A:

Enter B:

**Result: Result is: 12**

Now we run our as we create it using the 6969 proxy:  
Multiply the result:



## Math Operations using Web Service

Enter A:

Enter B:

**Result: Result is: 64**