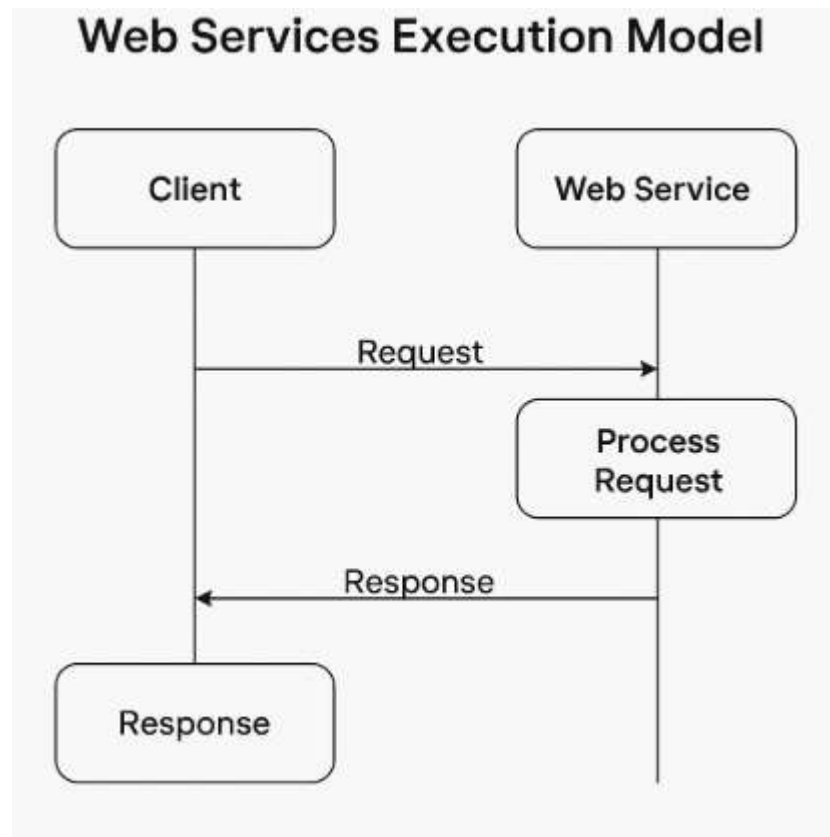


Hussain Ali Jahangir

Web services assignment

diagram



Q2

Source code

```
Imports System.Web.Services

<WebService(Namespace:="http://tempuri.org/")>
<WebServiceBinding(ConformsTo:=WsiProfiles.BasicProfile1_1)>
<Global.Microsoft.VisualBasic.CompilerServices.DesignerGenerated()>
Public Class MathService
    Inherits System.Web.Services.WebService

    <WebMethod()>
    Public Function Add(x As Integer, y As Integer) As String
        Return (x + y).ToString()
    End Function
End Class
```

```

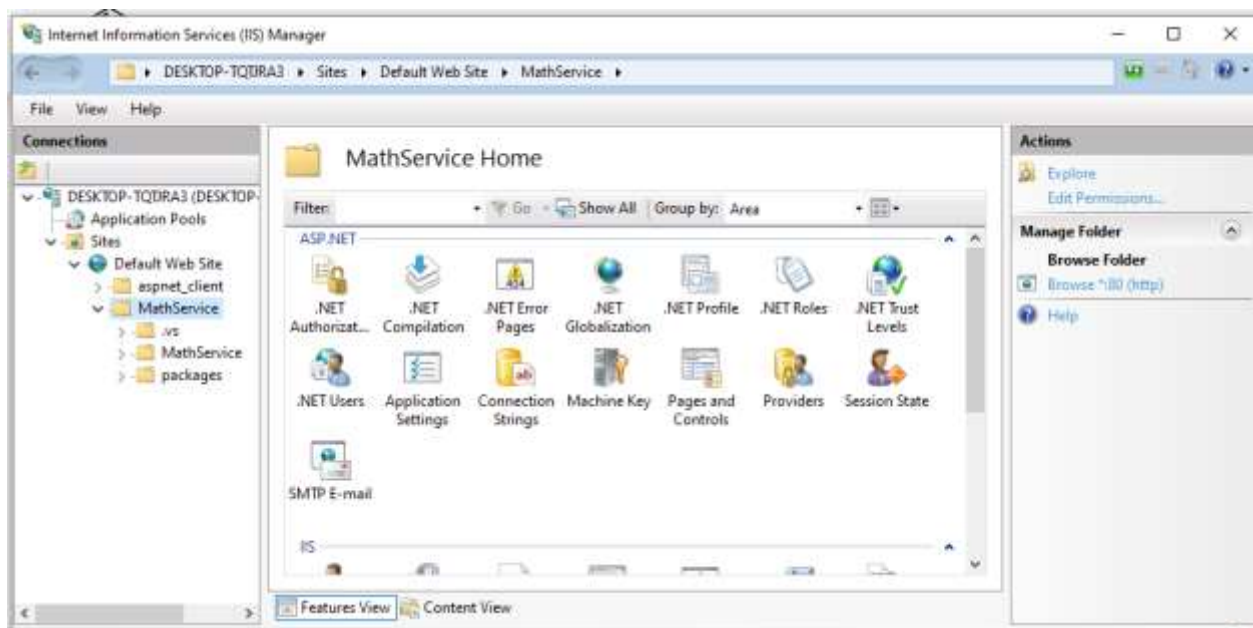
<WebMethod(>
Public Function Subtract(x As Integer, y As Integer) As String
    Return (x - y).ToString()
End Function

<WebMethod(>
Public Function Multiply(x As Integer, y As Integer) As String
    Return (x * y).ToString()
End Function

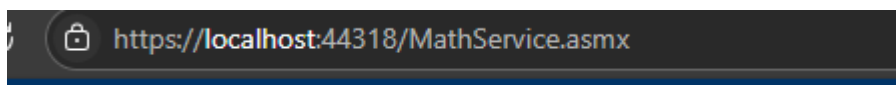
<WebMethod(>
Public Function Divide(x As Integer, y As Integer) As String
    If y = 0 Then
        Return "Error: Division by zero"
    Else
        Return (x / y).ToString()
    End If
End Function
End Class

```

Q3 IIS manager



url to run on browser



Q4

MathService

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

- [Add](#)
- [Divide](#)
- [Multiply](#)
- [Subtract](#)

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 used for 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. Because 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 property. The WebService attribute 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 {
```

Add

Test

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

Parameter	Value
x:	45
y:	23
Invoke	

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/">68</string>
```

Checking validation

Divide

Test

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

Parameter	Value
x:	12
y:	0

12
—
0

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/">Error: Division by zero</string>
```

Serviceclient code (front end)

```
<%@ Page Language="vb" AutoEventWireup="false" CodeBehind="Default.aspx.vb"
Inherits="ServiceClient._Default" %>

<!DOCTYPE html>
<html xmlns = "http://www.w3.org/1999/xhtml" >
<head runat="server">
    <title>MathService Client</title>
</head>
<body>
<form id = "form1" runat="server">
    <h2> MathService Web Client</h2>

    <Label> First Number:</label>
    <asp:TextBox ID = "txtNum1" runat="server" /><br /><br />

    <Label> Second Number:</label>
    <asp:TextBox ID = "txtNum2" runat="server" /><br /><br />

    <asp:Button ID = "btnAdd" runat="server" Text="Add" OnClick="btnAdd_Click"
/>
    <asp:Button ID = "btnSub" runat="server" Text="Subtract"
OnClick="btnSub_Click" />
    <asp:Button ID = "btnMul" runat="server" Text="Multiply"
OnClick="btnMul_Click" />
    <asp:Button ID = "btnDiv" runat="server" Text="Divide"
OnClick="btnDiv_Click" /><br /><br />

    <strong> Result : </strong>
    <asp:Label ID = "lblResult" runat="server" Text="--" />
</form>
</body>
</html>
```

Backend

```
Imports MathServiceRef
```

```
Public Class _Default
```

```
    Inherits System.Web.UI.Page
```

```
    Dim client As New WebService1SoapClient()
```

```
    Protected Sub btnAdd_Click(sender As Object, e As EventArgs)
```

```
        Dim a As Integer = Integer.Parse(txtNum1.Text)
```

```
        Dim b As Integer = Integer.Parse(txtNum2.Text)
```

```
        lblResult.Text = client.Add(a, b)
```

```
    End Sub
```

```
    Protected Sub btnSub_Click(sender As Object, e As EventArgs)
```

```
        Dim a As Integer = Integer.Parse(txtNum1.Text)
```

```
        Dim b As Integer = Integer.Parse(txtNum2.Text)
```

```
        lblResult.Text = client.Subtract(a, b)
```

```
    End Sub
```

```
    Protected Sub btnMul_Click(sender As Object, e As EventArgs)
```

```
        Dim a As Integer = Integer.Parse(txtNum1.Text)
```

```
        Dim b As Integer = Integer.Parse(txtNum2.Text)
```

```
        lblResult.Text = client.Multiply(a, b)
```

```
    End Sub
```

```
    Protected Sub btnDiv_Click(sender As Object, e As EventArgs)
```

```
        Dim a As Integer = Integer.Parse(txtNum1.Text)
```

```
        Dim b As Integer = Integer.Parse(txtNum2.Text)
```

```
        lblResult.Text = client.Divide(a, b)
```

```
    End Sub
```

```
End Class
```