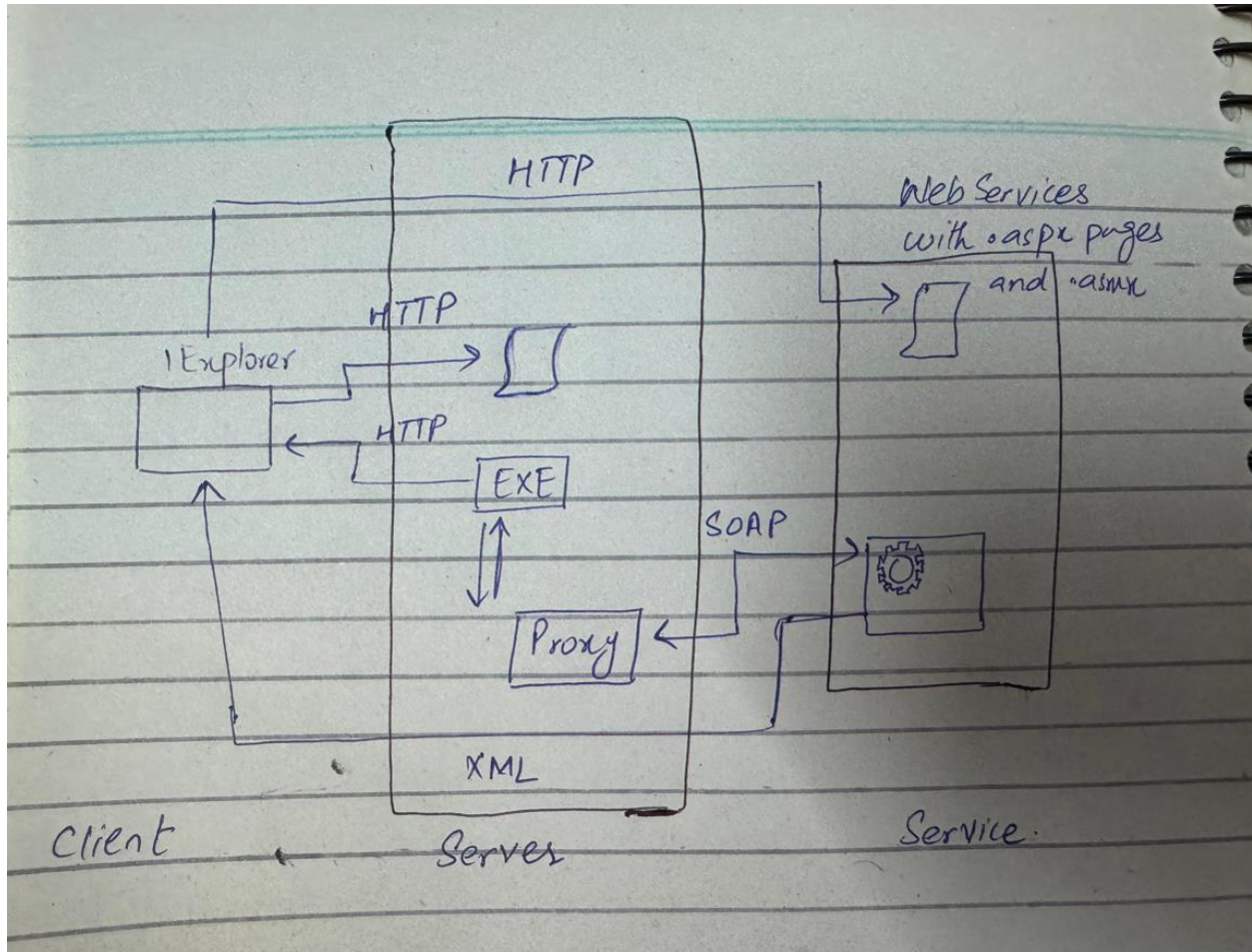


Question Number # 1



Question Number # 2

```
MathLibService.aspx  + X
<%@ WebService Language="VB" CodeBehind="~/App_Code/MathLibService.vb" Class="MathLibService" %>
```

```
MathLibService.vb
C:\> inetpub > wwwroot > MathLibService > App_Code > MathLibService.vb
1 Imports System.Web.Services
2 <WebService(Namespace:="http://smartcalc.com/MathService")>
3 <WebServiceBinding(ConformsTo:=WsiProfiles.BasicProfile1_1)>
4 Public Class MathLibService
5     Inherits System.Web.Services.WebService
6
7     <WebMethod()>
8     Public Function Add(a As Double, b As Double) As String
9         Return (a + b).ToString()
10    End Function
11
12    <WebMethod()>
13    Public Function Subtract(a As Double, b As Double) As String
14        Return (a - b).ToString()
15    End Function
16
17    <WebMethod()>
18    Public Function Multiply(a As Double, b As Double) As String
19        Return (a * b).ToString()
20    End Function
21
22    <WebMethod()>
23    Public Function Divide(a As Double, b As Double) As String
24        If b = 0 Then
25            Return "Division by zero error"
26        End If
27        Return (a / b).ToString()
28    End Function
29 End Class
```

Question Number #3

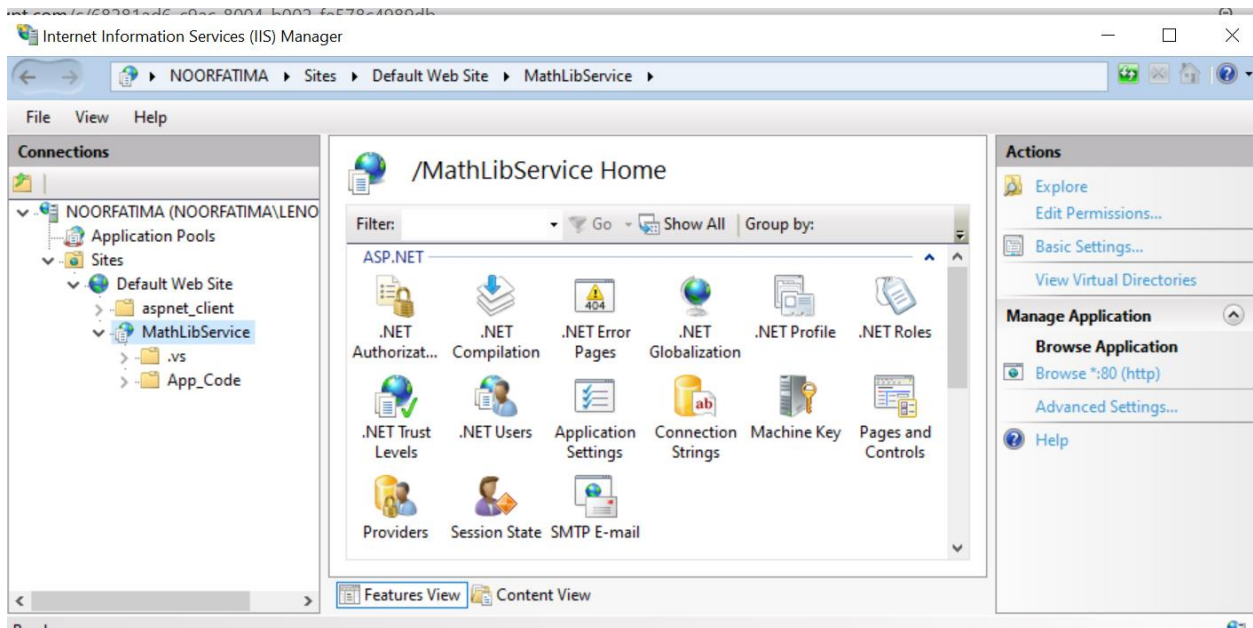
[←](#) [→](#) [🔄](#) [📄](#) localhost/MathLibService/MathLibService.asmx

[📱](#) [📧 Gmail](#) [📺 YouTube](#) [📍 Maps](#)

MathLibService

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

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



MathLibService

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

Add

Test

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

Parameter	Value
a:	<input type="text" value="1"/>
b:	<input type="text" value="3"/>

SOAP 1.1

The following is a sample SOAP 1.1 request and response. The placeholders shown need to be replaced with actual values.

```
POST /MathLibService/MathLibService.asmx HTTP/1.1
Host: localhost
Content-Type: text/xml; charset=utf-8
Content-Length: length
SOAPAction: "http://smarcalc.com/MathService/Add"

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <Add xmlns="http://smarcalc.com/MathService">
      <doublelec/a>
        <doublelec/b>
      </Add>
    </soap:Body>
  </soap:Envelope>

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: length

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <AddResponse xmlns="http://smarcalc.com/MathService">
      <AddResult>string/AddResult
    </AddResponse>
  </soap:Body>
</soap:Envelope>
```

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

```
<string xmlns="http://smarcalc.com/MathService">3</string>
```

MathLibService

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

Multiply

Test

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

Parameter	Value
a:	<input type="text" value="2"/>
b:	<input type="text" value="2"/>

SOAP 1.1

The following is a sample SOAP 1.1 request and response. The placeholders shown need to be replaced with actual values.

```
POST /MathLibService/MathLibService.asmx HTTP/1.1
Host: localhost
Content-Type: text/xml; charset=utf-8
Content-Length: length
SOAPAction: "http://smarcalc.com/MathService/Multiply"

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:x="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <Multiply xmlns="http://smarcalc.com/MathService">
      <@double</@>
      <@double</@>
    </Multiply>
  </soap:Body>
</soap:Envelope>

HTTP/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: length

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:x="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <MultiplyResponse xmlns="http://smarcalc.com/MathService">
      <MultiplyResultTesting</MultiplyResult>
    </MultiplyResponse>
  </soap:Body>
</soap:Envelope>
```

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

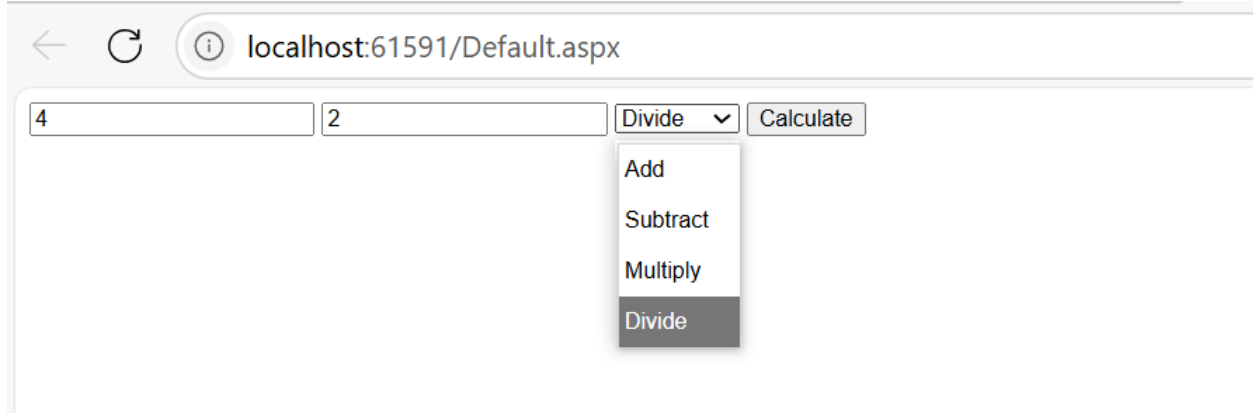
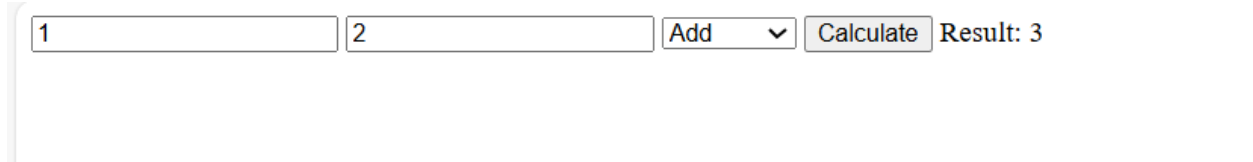
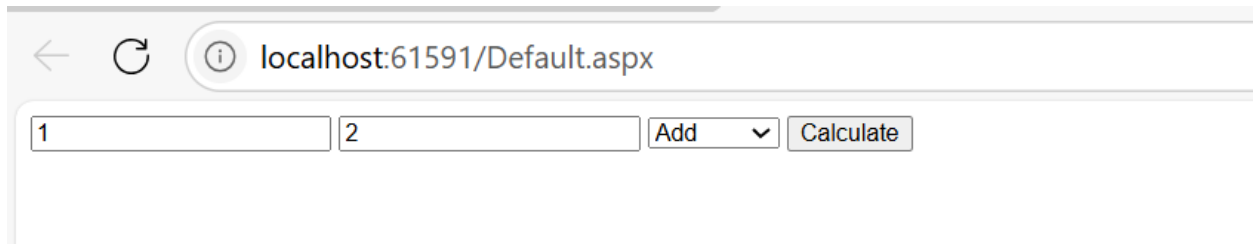
```
<string xmlns="http://smarcalc.com/MathService">4</string>
```

Question Number # 4

```
Default.aspx  X
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Default.aspx.vb" Inherits="_Default" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title>Calculator</title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <asp:TextBox ID="txtNum1" runat="server" />
      <asp:TextBox ID="txtNum2" runat="server" />
      <asp:DropDownList ID="ddlOperation" runat="server">
        <asp:ListItem Text="Add" Value="Add" />
        <asp:ListItem Text="Subtract" Value="Subtract" />
        <asp:ListItem Text="Multiply" Value="Multiply" />
        <asp:ListItem Text="Divide" Value="Divide" />
      </asp:DropDownList>
      <asp:Button ID="btnCalculate" runat="server" Text="Calculate" OnClick="btnCalculate_Click" />
      <asp:Label ID="lblResult" runat="server" Text="" />
    </div>
  </form>
</body>
</html>
```

```
Default.aspx.vb X
C:\> Users > LENOVO T450 > Desktop > IAD_Labs > ServiceClient > Default.aspx.vb
1 Partial Class _Default
2     Inherits System.Web.UI.Page
3
4     Protected Sub btnCalculate_Click(ByVal sender As Object, ByVal e As EventArgs) Handles btnCalculate.Click
5         Dim num1 As Double = Convert.ToDouble(txtNum1.Text)
6         Dim num2 As Double = Convert.ToDouble(txtNum2.Text)
7         Dim result As Double = 0
8
9         Dim operation As String = ddlOperation.SelectedValue
10
11         Select Case operation
12             Case "Add"
13                 result = num1 + num2
14             Case "Subtract"
15                 result = num1 - num2
16             Case "Multiply"
17                 result = num1 * num2
18             Case "Divide"
19                 If num2 <> 0 Then
20                     result = num1 / num2
21                 Else
22                     lblResult.Text = "Cannot divide by zero."
23                     Exit Sub
24                 End If
25             End Select
26
27         lblResult.Text = "Result: " & result.ToString()
28     End Sub
29
30 End Class
```



4

2

Divide ▼

Calculate

Result: 2