FINOLEX ACADEMY OF MANAGEMENT AND TECHNOLOGY, RATNAGIRI

DEPARTMENT OF MCA

PRACTICAL NO. 05

Web Services and WCF

1. **Create an XML Web Service to implement calculator with web methods to add, sub, multiply, divide two decimal values. Consume this service through a web client application.**

Ans:

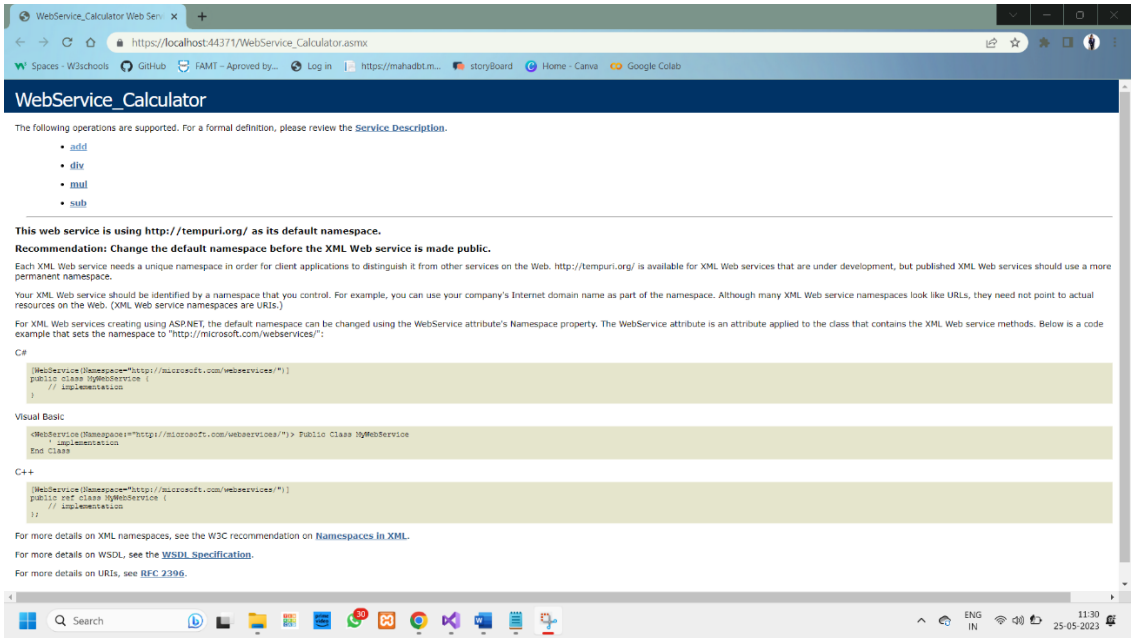
1) **Project 1 - XMLWebService_Calculator**

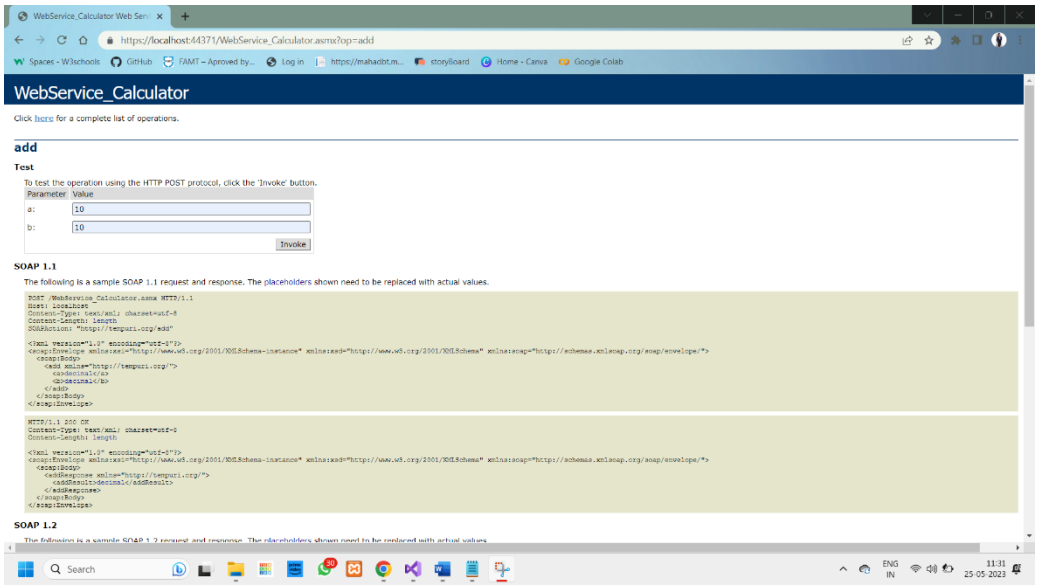
- **CODE – WebService_Calculator.asmx.cs**

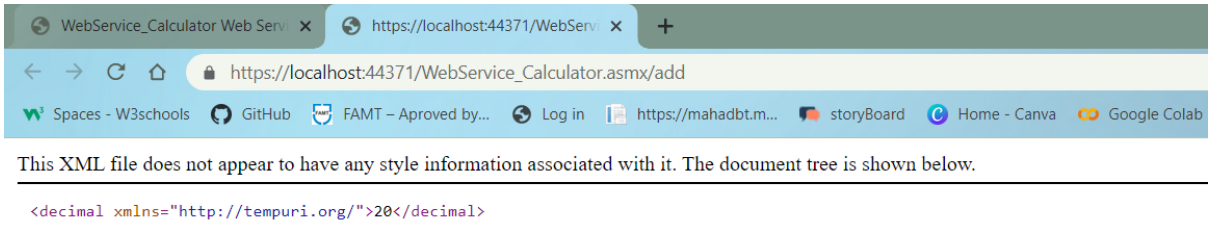
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace XMLWebService_Calculator
{
   /// <summary>
   /// Summary description for WebService_Calculator
   /// </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 WebService_Calculator : System.Web.Services.WebService
   {

      [WebMethod]
      public decimal add(decimal a, decimal b)
      {
         return a + b;
      }
      [WebMethod]
      public decimal sub(decimal a, decimal b)
      {
         return a - b;
      }
      [WebMethod]
      public decimal mul(decimal a, decimal b)
```

```
        {
            return a * b;
        }
        [WebMethod]
        public decimal div(decimal a, decimal b)
        {
            return a / b;
        }
    }
}
```

- **OUTPUT-**



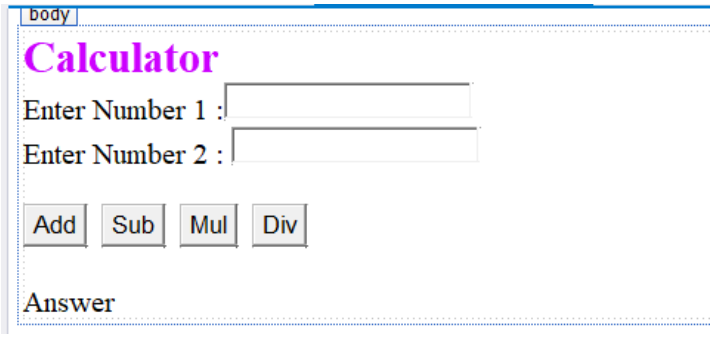




2)Project 2 - XMLWebService_Calculator_Client

- **CODE –**

WF_Calculator.aspx




```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WF_Calculator.aspx.cs"
Inherits="XMLWebService_Calculator_Client.WF_Calculator" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
      <div>
         <asp:Label ID="Label1" runat="server" Font-Bold="True" Font-Size="X-Large"
ForeColor="#CC00FF" Text="Calculator"></asp:Label>
         <br />
         <asp:Label ID="Label2" runat="server" Text="Enter Number 1 :"></asp:Label>
         <asp:TextBox ID="txtNum1" runat="server"></asp:TextBox>
         <br />
         <asp:Label ID="Label3" runat="server" Text="Enter Number 2 : "></asp:Label>
         <asp:TextBox ID="txtNum2" runat="server"></asp:TextBox>
         <br />
         <br />
         <asp:Button ID="btnAdd" runat="server" OnClick="btnAdd_Click" Text="Add" />
 
         <asp:Button ID="btnSub" runat="server" OnClick="btnSub_Click" Text="Sub" />
 
```

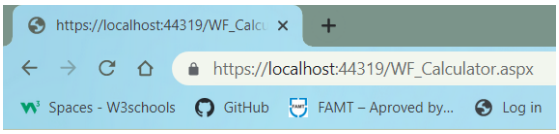
```
        <asp:Button ID="btnMul" runat="server" OnClick="btnMul_Click" Text="Mul" />
 
        <asp:Button ID="btnDiv" runat="server" OnClick="btnDiv_Click" Text="Div" />
        <br />
        <br />
        <asp:Label ID="lblAnswer" runat="server" Text="Answer"></asp:Label>
      </div>
   </form>
</body>
</html>
```

WF_Calculator.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace XMLWebService_Calculator_Client
{
   public partial class WF_Calculator : System.Web.UI.Page
   {
      ServiceReference1.WebService_CalculatorSoapClient proxy1 = new
ServiceReference1.WebService_CalculatorSoapClient();
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void btnAdd_Click(object sender, EventArgs e)
      {
         decimal num1 = Convert.ToDecimal(txtNum1.Text);
         decimal num2 = Convert.ToDecimal(txtNum2.Text);

         lblAnswer.Text = proxy1.add(num1, num2).ToString();
      }

      protected void btnSub_Click(object sender, EventArgs e)
      {
         decimal num1 = Convert.ToDecimal(txtNum1.Text);
         decimal num2 = Convert.ToDecimal(txtNum2.Text);
         lblAnswer.Text = proxy1.sub(num1, num2).ToString();
      }

      protected void btnMul_Click(object sender, EventArgs e)
      {
         decimal num1 = Convert.ToDecimal(txtNum1.Text);
         decimal num2 = Convert.ToDecimal(txtNum2.Text);
         lblAnswer.Text = proxy1.mul(num1, num2).ToString();
      }

      protected void btnDiv_Click(object sender, EventArgs e)
      {
```

```
            decimal num1 = Convert.ToDecimal(txtNum1.Text);
            decimal num2 = Convert.ToDecimal(txtNum2.Text);
            lblAnswer.Text = proxy1.div(num1, num2).ToString();
        }
    }
}
```

- **OUTPUT-**

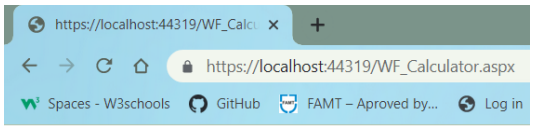


Calculator

Enter Number 1 : 10
Enter Number 2 : 5

Add Sub Mul Div

15

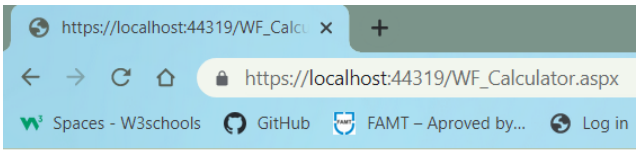


Calculator

Enter Number 1 : 10
Enter Number 2 : 5

Add Sub Mul Div

5

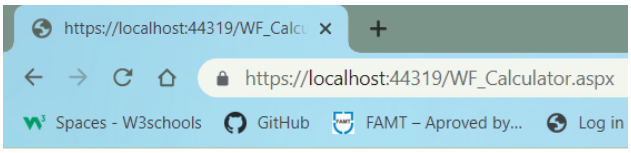


Calculator

Enter Number 1 : 10
Enter Number 2 : 5

Add Sub Mul Div

50



Calculator

Enter Number 1 : 10
Enter Number 2 : 5

Add Sub Mul Div

2

2. Create an XML Web Service that retrieves employee details from emp_info Database table. Design a Web client that consumes this service.

Ans:

- **Code-**

WebServiceEmp.asmx:

```
using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace XMLWebService_Emp
{
   /// <summary>
   /// Summary description for WebServiceEmp
   /// </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 WebServiceEmp : System.Web.Services.WebService
   {
      static string conStr = ConfigurationManager.ConnectionStrings["ConnectionString"].ToString();
      SqlConnection con = new SqlConnection(conStr);
      SqlCommand cmd = null;
      SqlDataReader dr = null;
      DataTable dt = null;

      [WebMethod]
      public DataSet GetData()
      {
          cmd = new SqlCommand("SELECT * FROM emp", con);
          if (con.State == ConnectionState.Closed)
        {
            con.Open();
        }
        cmd.ExecuteNonQuery();
        SqlDataAdapter sda = new SqlDataAdapter(cmd);
        DataSet ds = new DataSet();
        sda.Fill(ds);
        con.Close();
        return ds;
      }
   }
}
```

WebFormEmp.aspx:

Retrieve Employee Details using XML Web Service

Column0	Column1	Column2
abc	abc	abc
abc	abc	abc
abc	abc	abc
abc	abc	abc
abc	abc	abc

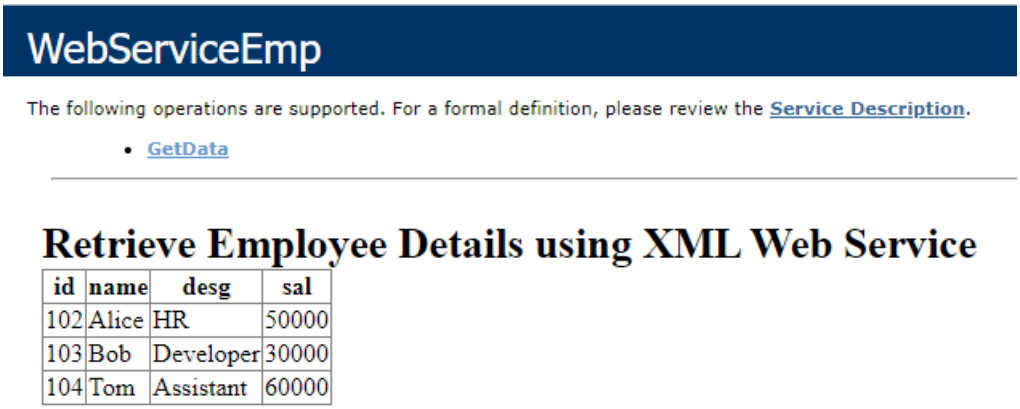
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebFormEmp.aspx.cs"
Inherits="XMLWebServiceEmp_Client.WebFormEmp" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
      <asp:Label ID="Label1" runat="server" Font-Bold="True" Font-Size="20pt" Text="Retrieve
Employee Details using XML Web Service"></asp:Label>

      <br />

      <asp:GridView ID="GridView1" runat="server">
      </asp:GridView>
      <br />

   </form>
</body>
</html>
```

WebFormEmp.aspx.cs:

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace XMLWebServiceEmp_Client
{
   public partial class WebFormEmp : System.Web.UI.Page
   {
      ServiceReference1.WebServiceEmpSoapClient proxy = new
ServiceReference1.WebServiceEmpSoapClient();

      protected void Page_Load(object sender, EventArgs e)
      {
         DataSet ds = proxy.GetData();

         GridView1.DataSource = ds.Tables[0]; GridView1.DataBind();
```

```
        }
    }
}
```

- **Output:**


WebServiceEmp
The following operations are supported. For a formal definition, please review the Service Description.
GetData
Retrieve Employee Details using XML Web Service
id name desg sal
102 Alice HR 50000
103 Bob Developer 30000
104 Tom Assistant 60000

3. Create an XML Web Service that insert employee details into emp_info Database table. Design a Web client that consumes this service.

Ans:

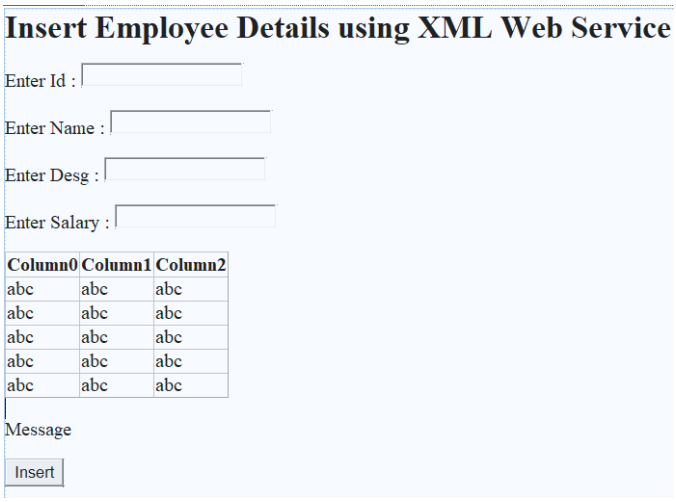
- **CODE –**

WebServiceEmp.asmx:

```
using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace XMLWebService_Emp
{
   /// <summary>
   /// Summary description for WebServiceEmp
   /// </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 WebServiceEmp : System.Web.Services.WebService
   {
      static string conStr = ConfigurationManager.ConnectionStrings["ConnectionString"].ToString();
      SqlConnection con = new SqlConnection(conStr);
      SqlCommand cmd = null;
      SqlDataReader dr = null;
      DataTable dt = null;

      [WebMethod]
      public DataSet GetData()
      {
          cmd = new SqlCommand("SELECT * FROM emp", con);
          if (con.State == ConnectionState.Closed)
          {
              con.Open();
          }
         cmd.ExecuteNonQuery();
         SqlDataAdapter sda = new SqlDataAdapter(cmd);
         DataSet ds = new DataSet();
         sda.Fill(ds);
         con.Close();

         return ds;
      }
```

```
        [WebMethod]
        public int InsertData(int id, string name, string desg, int sal)
        {
            if (con.State == ConnectionState.Closed)
            {
                con.Open();
            }
            cmd = new SqlCommand("INSERT INTO emp(id, name, desg, sal)
VALUES(@id,@name,@desg,@sal)", con);

            cmd.Parameters.AddWithValue("@id", id);
            cmd.Parameters.AddWithValue("@name", name);
            cmd.Parameters.AddWithValue("@desg", desg);
            cmd.Parameters.AddWithValue("@sal", sal);

            int r = cmd.ExecuteNonQuery();
            con.Close();

            return r;
        }
    }
}
```

WebFormEmp.aspx:




```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebFormEmp.aspx.cs"
Inherits="XMLWebServiceEmp_Client.WebFormEmp" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <asp:Label ID="Label1" runat="server" Font-Bold="True" Font-Size="20pt" Text="Insert Employee Details
using XML Web Service"></asp:Label>
        <p>
            Enter Id :
            <asp:TextBox ID="txtId" runat="server"></asp:TextBox>
        </p>
```

```
        <p>
            Enter Name : <asp:TextBox ID="txtName" runat="server"></asp:TextBox>
        </p>
        <p>
            Enter Desg :
            <asp:TextBox ID="txtDesg" runat="server"></asp:TextBox>
        </p>
        <p>
            Enter Salary :
            <asp:TextBox ID="txtSal" runat="server"></asp:TextBox>
        </p>
        <asp:GridView ID="GridView1" runat="server">
        </asp:GridView>
        <br />
        <asp:Label ID="lblMessage" runat="server" Text="Message"></asp:Label>
        <p>
            <asp:Button ID="btnInsert" runat="server" OnClick="btnInsert_Click" Text="Insert" />
        </p>
    </form>
</body>
</html>

WebFormEmp.aspx.cs:
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace XMLWebServiceEmp_Client
{
    public partial class WebFormEmp : System.Web.UI.Page
    {
        ServiceReference1.WebServiceEmpSoapClient proxy = new ServiceReference1.WebServiceEmpSoapClient();

        protected void Page_Load(object sender, EventArgs e)
        {
            DataSet ds = proxy.GetData();

            GridView1.DataSource = ds.Tables[0]; GridView1.DataBind();
        }

        protected void btnInsert_Click(object sender, EventArgs e)
        {
            int r = proxy.InsertData(Convert.ToInt32(txtId.Text), txtName.Text, txtDesg.Text,
Convert.ToInt32(txtSal.Text));

            if (r > 0)
            {
                txtId.Text = txtName.Text = txtDesg.Text = txtSal.Text = " ";
                lblMessage.Text = "Record Inserted Sucessfully";
            }
            else
            {
                lblMessage.Text = "Record Not Inserted";
            }
            DataSet ds = proxy.GetData();

            GridView1.DataSource = ds.Tables[0];
            GridView1.DataBind();
        }
```

```
    }
}
```

- **Output:**


WebServiceEmp
The following operations are supported. For a formal definition, please review the Service Description.
GetData
InsertData
Insert Employee Details using XML Web Service
Enter Id : 105
Enter Name : Noddy
Enter Desg : Manager
Enter Salary : 35000
id name desg sal
101 Jerry Jr.Assistant 45000
102 Alice HR 50000
103 Bob Developer 30000
104 Tom Assistant 60000
105 Noddy Manager 35000
Record Inserted Sucessfully
Insert

4. Design a Web Service using WCF for simple Calculator and consume it with client application.

Ans:

- **CODE –**
  1)Project 1 – WcfServiceLibrary_Calculator

  Calculator_WCF.cs(Class File)

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Runtime.Serialization;
using System.Text;
using System.Threading.Tasks;

namespace WcfServiceLibrary_Calculator
{
   class Calculator_WCF
   {
      [DataMember]
      public double n1;
      [DataMember]
      public double n2;
   }
}
```

ICalculator(Interface file)

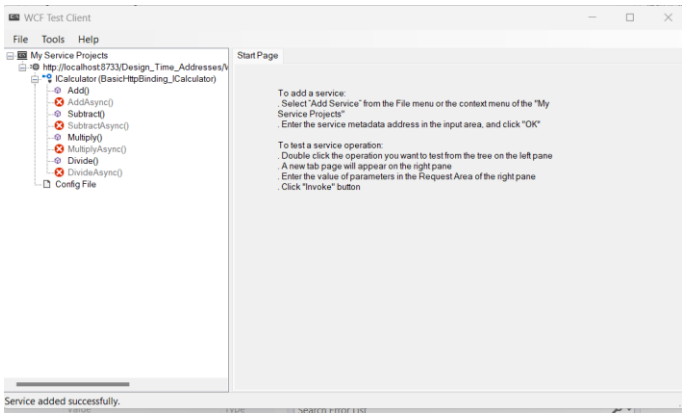
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Runtime.Serialization;
using System.ServiceModel;
using System.Text;

namespace WcfServiceLibrary_Calculator
{

   [ServiceContract]
   public interface ICalculator
   {
      [OperationContract]
      double Add(double n1, double n2);
      [OperationContract]
      double Subtract(double n1, double n2);
      [OperationContract]
      double Multiply(double n1, double n2);
      [OperationContract]
      double Divide(double n1, double n2);

      }
```

```
}
```

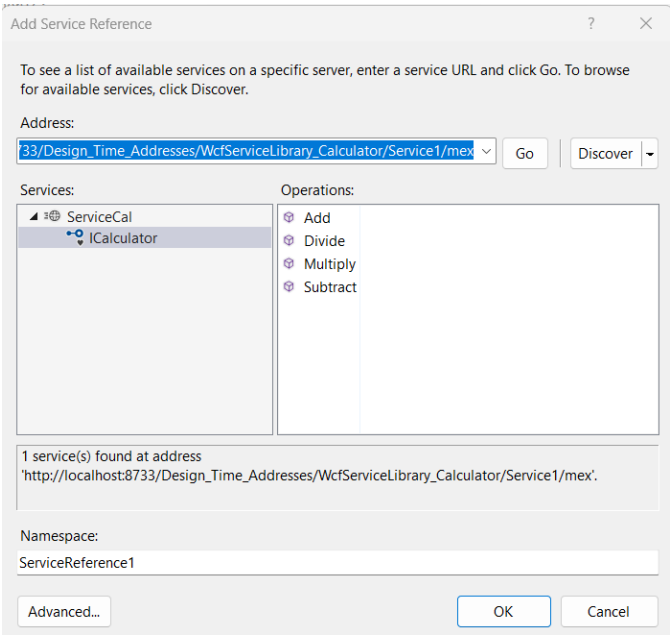
ServiceCal(Service File)

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Runtime.Serialization;
using System.ServiceModel;
using System.Text;

namespace WcfServiceLibrary_Calculator
{
   // NOTE: You can use the "Rename" command on the "Refactor" menu to change the class name
"Service1" in both code and config file together.
   public class ServiceCal : ICalculator
   {
      public double Add(double n1, double n2)
      {
         return n1 + n2;
      }
      public double Subtract(double n1, double n2)
      {
         return n1 - n2;
      }
      public double Multiply(double n1, double n2)
      {
         return n1 * n2;
      }
      public double Divide(double n1, double n2)
      {
         return n1 / n2;
      }

   }
}
```

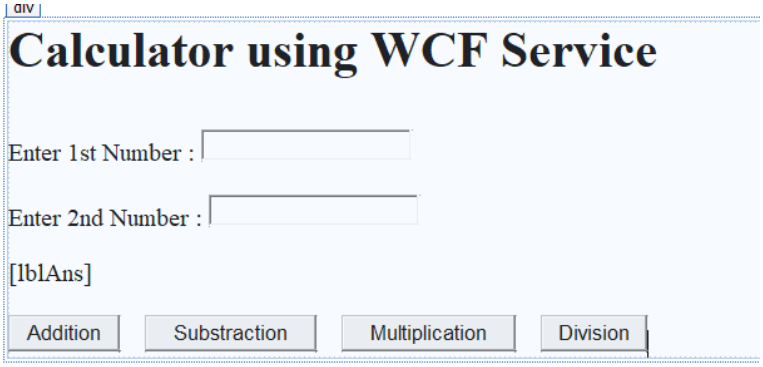
- **OUTPUT-**



2)Project 2- WcfServiceLibrary_Calculator_Client



WF_Calculator_WCF.aspx




```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WF_Calculator_WCF.aspx.cs"
Inherits="WcfServiceLibrary_Calculator_Client.WF_Calculator_WCF" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h1>Calculator using WCF Service</h1>
<br />
Enter 1st Number :
```

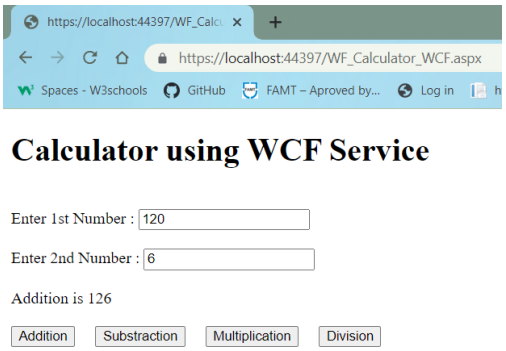
```
<asp:TextBox ID="txtNum1" runat="server"></asp:TextBox>
<br />
<br />
Enter 2nd Number :
<asp:TextBox ID="txtNum2" runat="server"></asp:TextBox>
<br />
<br />
<asp:Label ID="lblAns" runat="server"></asp:Label>
<br />
<br />
<asp:Button ID="btnAdd" runat="server" CssClass="auto-style1" OnClick="btnAdd_Click"
Text="Addition" />
   
<asp:Button ID="btnSub" runat="server" CssClass="auto-style1" OnClick="btnSub_Click"
Text="Substraction" />
   
<asp:Button ID="btnMult" runat="server" CssClass="auto-style1" OnClick="btnMult_Click"
Text="Multiplication" />
   
<asp:Button ID="btnDiv" runat="server" CssClass="auto-style1" OnClick="btnDiv_Click"
Text="Division" />

      </div>
   </form>
</body>
</html>
```

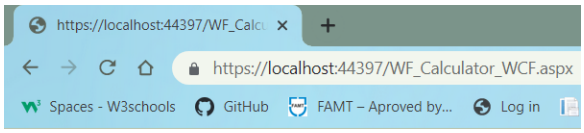
WF_Calculator_WCF.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace WcfServiceLibrary_Calculator_Client
{
   public partial class WF_Calculator_WCF : System.Web.UI.Page
   {
      ServiceReference1.CalculatorClient proxy1 = new ServiceReference1.CalculatorClient();
         protected void Page_Load(object sender, EventArgs e)
      {

      }
      protected void btnAdd_Click(object sender, EventArgs e)
      {
         double n1 = Convert.ToDouble(txtNum1.Text);
         double n2 = Convert.ToDouble(txtNum2.Text);

         lblAns.Text ="Addition is " +proxy1.Add(n1, n2).ToString();
      }
      protected void btnSub_Click(object sender, EventArgs e)
      {
         double n1 = Convert.ToDouble(txtNum1.Text);
```

```
        double n2 = Convert.ToDouble(txtNum2.Text);

        lblAns.Text ="Substraction is " +proxy1.Subtract(n1, n2).ToString();
    }

        protected void btnMult_Click(object sender, EventArgs e)
         {
            double n1 = Convert.ToDouble(txtNum1.Text);
            double n2 = Convert.ToDouble(txtNum2.Text);

            lblAns.Text ="Multiplication is " +proxy1.Multiply(n1, n2).ToString();
        }

    protected void btnDiv_Click(object sender, EventArgs e)
    {
            double n1 = Convert.ToDouble(txtNum1.Text);
            double n2 = Convert.ToDouble(txtNum2.Text);

            lblAns.Text ="Division is " +proxy1.Divide(n1, n2).ToString();
        }

}
                }
```

- **OUTPUT-**





Calculator using WCF Service

Enter 1st Number : 120

Enter 2nd Number : 6

Division is 20

Addition Substraction Multiplication Division

5. Create an XML Web Service that update product details into product_info Database table. Design a Web client that consumes this service.

Ans:

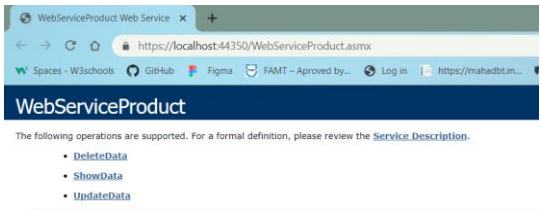
- **CODE –**
  1) **Project 1 - XMLWebServices_ProductDB**

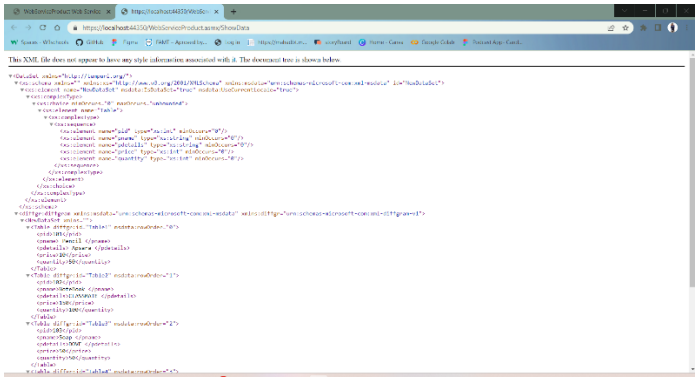
WebServiceProduct.asmx.cs

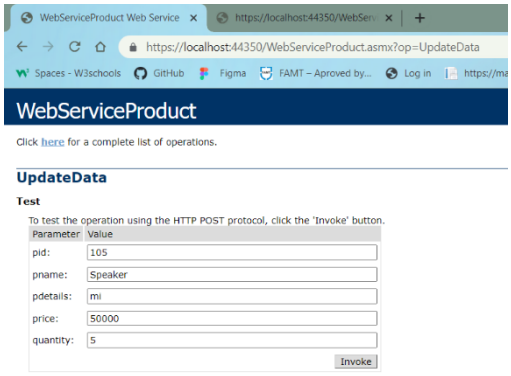
```
using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace XMLWebServices_ProductDB
{
   /// <summary>
   /// Summary description for WebServiceProduct
   /// </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 WebServiceProduct : System.Web.Services.WebService
   {

      static string conStr =
ConfigurationManager.ConnectionStrings["productConnString"].ToString();
      SqlConnection con = new SqlConnection(conStr);
      SqlCommand cmd = null;


      [WebMethod]
      public DataSet ShowData()
      {
         cmd = new SqlCommand("SELECT * FROM productDetails", con);
         if (con.State == ConnectionState.Closed)
         {
            con.Open();
         }

         cmd.ExecuteNonQuery();
         SqlDataAdapter sda = new SqlDataAdapter(cmd);
         DataSet ds = new DataSet();
         sda.Fill(ds);
         con.Close();

         return ds;
```

```
    }
    [WebMethod]
    public int UpdateData(int pid, string pname, string pdetails, int price, int quantity)

    {
        cmd = new SqlCommand("UPDATE productDetails SET pname=@p_name,
pdetails=@p_details,price = @prc,quantity = @qunt WHERE pid = @p_id", con);
        if (con.State == ConnectionState.Closed)
        {
            con.Open();
        }
        cmd.Parameters.AddWithValue("@p_id", pid);
        cmd.Parameters.AddWithValue("@p_name", pname);
        cmd.Parameters.AddWithValue("@p_details", pdetails);
        cmd.Parameters.AddWithValue("@qunt", quantity);
        cmd.Parameters.AddWithValue("@prc", price);

        int r = cmd.ExecuteNonQuery();
        con.Close();

        return r;
    }
        [WebMethod]
        public int DeleteData(int pid)
        {
            if (con.State == ConnectionState.Closed)
            {
                con.Open();
            }

            cmd = new SqlCommand("DELETE productDetails WHERE pid=@p_id",  con);



            cmd.Parameters.AddWithValue("@p_id", pid);

            int r = cmd.ExecuteNonQuery(); con.Close();

            return r;
        }

    }



}
```

- **OUTPUT-**

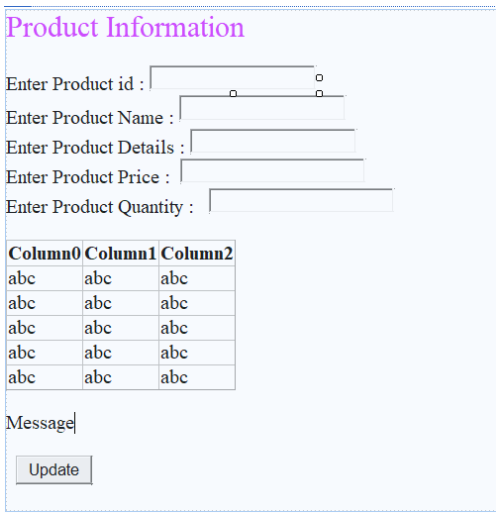






2) Project 2- XMLWebServices_ProductDB_Client

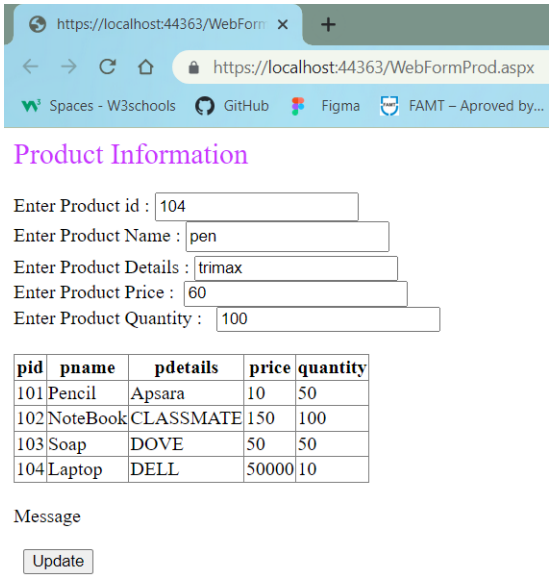
WebFormProd.aspx

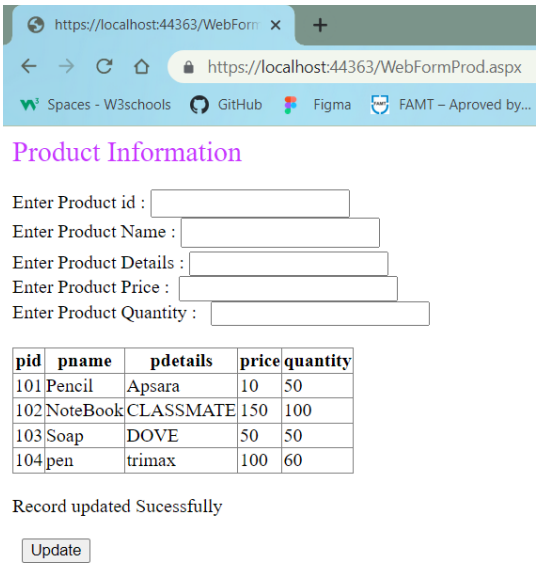



```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebFormProd.aspx.cs"
Inherits="XMLWebServices_ProductDB_Client.WebFormProd" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Product Information" Font-Size="X-Large"
ForeColor="#CC33FF"></asp:Label>

            <br />
            <br />

          <asp:Label ID="Label2" runat="server" Text="Enter Product id : "></asp:Label>
            <asp:TextBox ID="txtPid" runat="server" Height="19px"></asp:TextBox>
            <br />
```

```
        <asp:Label ID="Label3" runat="server" Text="Enter Product Name : "></asp:Label>

        <asp:TextBox ID="txtPname" runat="server" style="margin-bottom: 3px"
Height="20px"></asp:TextBox>

            <br />

            <asp:Label ID="Label4" runat="server" Text="Enter Product Details : "></asp:Label>
            <asp:TextBox ID="txtDetails" runat="server"></asp:TextBox>



            <br />
            <asp:Label ID="Label5" runat="server" Text="Enter Product Price : "></asp:Label>
               <asp:TextBox ID="txtPrice" runat="server" Width="179px"></asp:TextBox>

    <br />
            <asp:Label ID="Label6" runat="server" Text="Enter Product Quantity : "></asp:Label>
               
            <asp:TextBox ID="txtQuantity" runat="server" Width="179px"></asp:TextBox>


            <br />
            <br />
            <asp:GridView ID="gvProductDetails" runat="server">
            </asp:GridView>
            <br />



<asp:Label ID="lblMessage" runat="server" Text="Message"></asp:Label>

            <br />
            <br />

 
            <asp:Button ID="btnUpdate" runat="server" Text="Update" OnClick="btnUpdate_Click"   />


            <br />
            <br />

        </div>
    </form>
</body>
</html>
```

- **OUTPUT-**


https://localhost:44363/WebForm
https://localhost:44363/WebFormProd.aspx
Spaces - W3schools
GitHub
Figma
FAMT – Aproved by...
Product Information
Enter Product id : 104
Enter Product Name : pen
Enter Product Details : trimax
Enter Product Price : 60
Enter Product Quantity : 100
pid pname pdetails price quantity
101 Pencil Apsara 10 50
102 NoteBook CLASSMATE 150 100
103 Soap DOVE 50 50
104 Laptop DELL 50000 10
Message
Update


https://localhost:44363/WebForm
https://localhost:44363/WebFormProd.aspx
Spaces - W3schools
GitHub
Figma
FAMT – Aproved by...
Product Information
Enter Product id :
Enter Product Name :
Enter Product Details :
Enter Product Price :
Enter Product Quantity :
pid pname pdetails price quantity
101 Pencil Apsara 10 50
102 NoteBook CLASSMATE 150 100
103 Soap DOVE 50 50
104 pen trimax 100 60
Record updated Sucessfully
Update

6. Create an XML Web Service that delete product details from product_info Database table based on productID. Design a Web client that consumes this service.

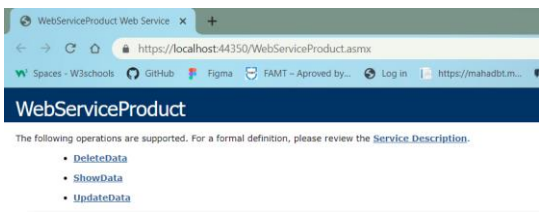
Ans:

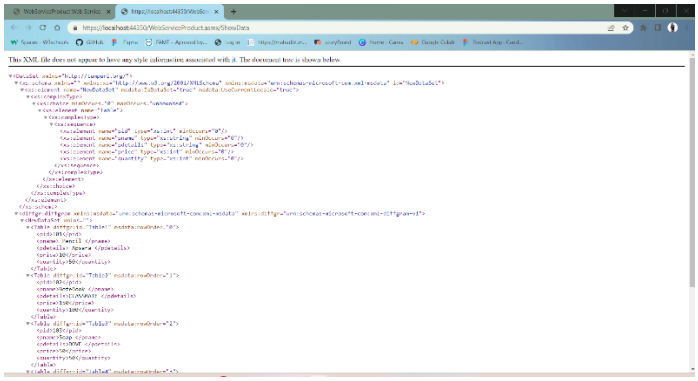
- **CODE –**
  Project 1 - XMLWebServices_ProductDB
  WebServiceProduct.asmx.cs

```
using System;
using System.Collections.Generic;
using System.Configuration;
using System.Data;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace XMLWebServices_ProductDB
{
   /// <summary>
   /// Summary description for WebServiceProduct
   /// </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 WebServiceProduct : System.Web.Services.WebService
   {

      static string conStr =
ConfigurationManager.ConnectionStrings["productConnString"].ToString();
      SqlConnection con = new SqlConnection(conStr);
      SqlCommand cmd = null;


      [WebMethod]
      public DataSet ShowData()
      {
         cmd = new SqlCommand("SELECT * FROM productDetails", con);
         if (con.State == ConnectionState.Closed)
         {
            con.Open();
         }

         cmd.ExecuteNonQuery();
         SqlDataAdapter sda = new SqlDataAdapter(cmd);
         DataSet ds = new DataSet();
         sda.Fill(ds);
         con.Close();

         return ds;
      }
```

```
    [WebMethod]
    public int UpdateData(int pid, string pname, string pdetails, int price, int quantity)

    {
        cmd = new SqlCommand("UPDATE productDetails SET pname=@p_name,
pdetails=@p_details,price = @prc,quantity = @qunt WHERE pid = @p_id", con);
        if (con.State == ConnectionState.Closed)
        {
            con.Open();
        }
        cmd.Parameters.AddWithValue("@p_id", pid);
        cmd.Parameters.AddWithValue("@p_name", pname);
        cmd.Parameters.AddWithValue("@p_details", pdetails);
        cmd.Parameters.AddWithValue("@qunt", quantity);
        cmd.Parameters.AddWithValue("@prc", price);

        int r = cmd.ExecuteNonQuery();
        con.Close();

        return r;
    }
        [WebMethod]
        public int DeleteData(int pid)
        {
            if (con.State == ConnectionState.Closed)
            {
                con.Open();
            }

            cmd = new SqlCommand("DELETE productDetails WHERE pid=@p_id",  con);



            cmd.Parameters.AddWithValue("@p_id", pid);

            int r = cmd.ExecuteNonQuery(); con.Close();

            return r;
        }

    }



}
```

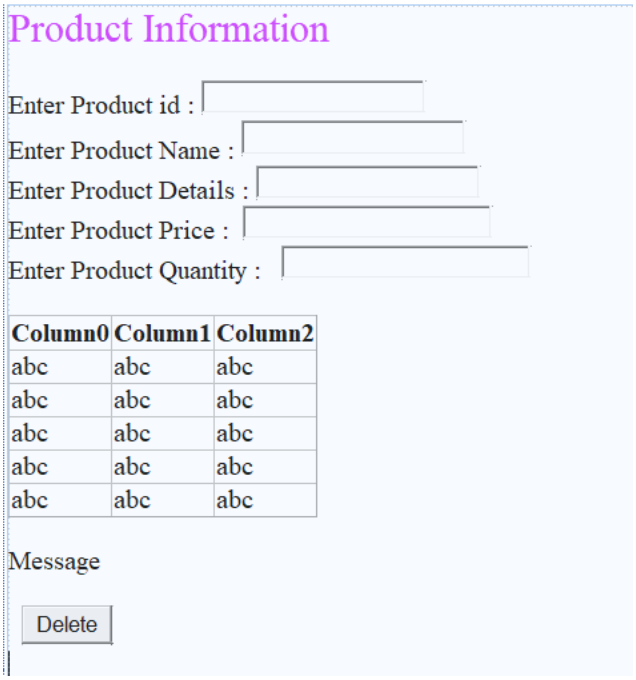
- **OUTPUT-**





Project 2 - XMLWebServices_ProductDB_Client1

WebForm_productDel.aspx



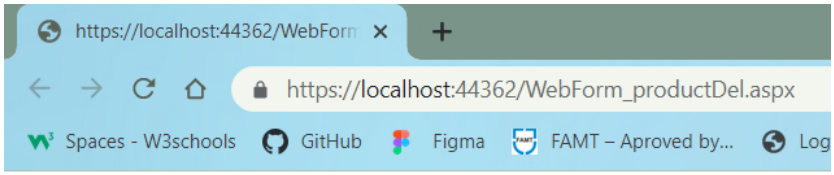

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm_productDel.aspx.cs"
Inherits="XMLWebService_ProductDB_Client1.WebForm_productDel" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Product Information" Font-Size="X-Large"
ForeColor="#CC33FF"></asp:Label>

            <br />
            <br />
```

```
        <asp:Label ID="Label2" runat="server" Text="Enter Product id : "></asp:Label>
          <asp:TextBox ID="txtPid" runat="server" Height="19px"></asp:TextBox>
          <br />

       <asp:Label ID="Label3" runat="server" Text="Enter Product Name : "></asp:Label>

       <asp:TextBox ID="txtPname" runat="server" style="margin-bottom: 3px"
Height="20px"></asp:TextBox>

          <br />

          <asp:Label ID="Label4" runat="server" Text="Enter Product Details : "></asp:Label>
          <asp:TextBox ID="txtDetails" runat="server"></asp:TextBox>



          <br />
          <asp:Label ID="Label5" runat="server" Text="Enter Product Price : "></asp:Label>
             <asp:TextBox ID="txtPrice" runat="server" Width="179px"></asp:TextBox>

    <br />
          <asp:Label ID="Label6" runat="server" Text="Enter Product Quantity : "></asp:Label>
             
          <asp:TextBox ID="txtQuantity" runat="server" Width="179px"></asp:TextBox>


          <br />
          <br />
          <asp:GridView ID="gvProductDetails" runat="server">
          </asp:GridView>
          <br />



<asp:Label ID="lblMessage" runat="server" Text="Message"></asp:Label>

          <br />
          <br />

 
          <asp:Button ID="btnDelete" runat="server" Text="Delete" OnClick="btnDelete_Click"  />


          <br />
          <br />

       </div>
    </form>
</body>
</html>
```

WebForm_productDel.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace XMLWebService_ProductDB_Client1
{
   public partial class WebForm_productDel : System.Web.UI.Page
   {
      ServiceReference2.WebServiceProductSoapClient proxy1 = new
ServiceReference2.WebServiceProductSoapClient();
      protected void Page_Load(object sender, EventArgs e)
      {
         DataSet ds = proxy1.ShowData();

         gvProductDetails.DataSource = ds.Tables[0];
         gvProductDetails.DataBind();
      }

      protected void btnDelete_Click(object sender, EventArgs e)
      {
         int r = proxy1.DeleteData(Convert.ToInt32(txtPid.Text));
          if (r > 0)
         {

            lblMessage.Text = "Record deleted Sucessfully";
         }
         else
         {
            lblMessage.Text = "Record Not deleted";
         }

         DataSet ds = proxy1.ShowData();

         gvProductDetails.DataSource = ds.Tables[0];
         gvProductDetails.DataBind();
      }
   }
                  }
```

- **OUTPUT-**



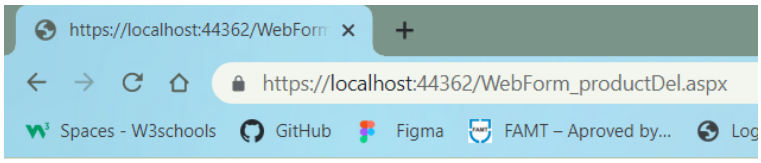
Product Information

Enter Product id : 103
Enter Product Name :
Enter Product Details :
Enter Product Price :
Enter Product Quantity :

pid	pname	pdetails	price	quantity
101	Pencil	Apsara	10	50
102	NoteBook	CLASSMATE	150	100
103	Soap	DOVE	50	50
104	pen	trimax	100	60

Message

Delete



Product Information

Enter Product id : 103
Enter Product Name :
Enter Product Details :
Enter Product Price :
Enter Product Quantity :

pid	pname	pdetails	price	quantity
101	Pencil	Apsara	10	50
102	NoteBook	CLASSMATE	150	100
104	pen	trimax	100	60

Record deleted Sucessfully

Delete