

Deccan Education Society's
Navinchandra Mehta Institute of
Technology and Development

C E R T I F I C A T E

This is to certify that Mr. / ~~Miss.~~ Kale Atharva Nagesh of M.C.A.
Semester II with Roll No.C22059 has completed All practicals of
MCAL24 Advanced Web Technologies Lab under my supervision in
this college during the year 2022-2023.

CO	R1: Journal	R2: Performance during lab session	R3: Implementation using different problem solving techniques	R4: Mock Viva	Attendance
CO1					
CO2					
CO3					
CO4					
CO5					

Practical-in-charge

Head of Department

MCA Department
(NMITD)

INDEX			
Topic		Date	Signature
Category 1: Windows Form Application			
I	A. Design a calculator UI based applications using basic Windows forms Controls.	06/04/2023	
Category 2: C# Console			
II	A. Design Applications using Classes and Objects B. Design Applications using Inheritance and Abstract Classes	10/04/2023	
Category 3: ASP.NET			
III	A. Design a Web Application for an Organization with Registration forms and advanced controls(Validation) B. Create website using master page and theme concept.	18/04/2023	
Category 4: ADO.NET			
IV	A. Create a webpage that demonstrates the use of data bound controls of ASP.NET B. Design a webpage to demonstrate a connection oriented architecture. C. Design a webpage to demonstrate a disconnected architecture. D. Design a webpage to demonstrate use of stored procedure.	17/05/2023	
Category 5: State Management Techniques			
V	A. Design Web Applications using Client Side Session Managements Techniques B. Design Web Applications using Server Side Session Management Techniques	28/05/2023	
Category 6: Web Services and WCF Service			
VI	A. Design Web Application to produce and Consume a web service B. Design Web Application to produce and Consume a WCF Service	07/06/2023	
Category 7: ASP.NET MVC			

VII	A. Design MVC based Web applications.	09/06/2023	
Category 8: LINQ			
VIII	A. Design a webpage to display the use of LINQ.	12/06/2023	

Category 1: Windows Form Application

A. Design a calculator UI based applications using basic Windows forms Controls.

Code:

```
using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Reflection.Emit;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Calculator

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        float num1, ans;

        int count;

        private void btn0_Click(object sender, EventArgs e)

        {
```

```
        lbl1.Text = null;

        txt1.Text = txt1.Text + 0;
    }

    private void btn00_Click(object sender, EventArgs e)
    {
        lbl1.Text = null;

        txt1.Text = txt1.Text + 0 + 0;
    }

    private void btnDot_Click(object sender, EventArgs e)
    {
        lbl1.Text = null;

        txt1.Text = txt1.Text + ".";
    }

    private void btn1_Click(object sender, EventArgs e)
    {
        lbl1.Text = null;

        txt1.Text = txt1.Text + 1;
    }

    private void btn2_Click(object sender, EventArgs e)
    {
        lbl1.Text = null;

        txt1.Text = txt1.Text + 2;
    }

    private void btn3_Click(object sender, EventArgs e)
    {
        lbl1.Text = null;

        txt1.Text = txt1.Text + 3;
    }
}
```

```
}  
  
private void btn4_Click(object sender, EventArgs e)  
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 4;  
}  
  
private void btn5_Click(object sender, EventArgs e)  
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 5;  
}  
  
private void btn6_Click(object sender, EventArgs e)  
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 6;  
}  
  
private void btn7_Click(object sender, EventArgs e)  
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 7;  
}  
  
private void btn8_Click(object sender, EventArgs e)  
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 8;  
}  
  
private void btn9_Click(object sender, EventArgs e)
```

```
{  
    lbl1.Text = null;  
    txt1.Text = txt1.Text + 9;  
}  
  
private void btnClear_Click(object sender, EventArgs e)  
{  
    lbl1.Text = "Enter your input";  
    txt1.Text = null;  
}  
  
private void btnAdd_Click(object sender, EventArgs e)  
{  
    num1 = float.Parse(txt1.Text);  
    txt1.Clear();  
    txt1.Focus();  
    count = 1;  
}  
  
private void btnSub_Click(object sender, EventArgs e)  
{  
    num1 = float.Parse(txt1.Text);  
    txt1.Clear();  
    txt1.Focus();  
    count = 2;  
}  
  
private void btnMul_Click(object sender, EventArgs e)
```

```
{  
    num1 = float.Parse(txt1.Text);  
    txt1.Clear();  
    txt1.Focus();  
    count = 3;  
}
```

```
private void btnDiv_Click(object sender, EventArgs e)
```

```
{  
    num1 = float.Parse(txt1.Text);  
    txt1.Clear();  
    txt1.Focus();  
    count = 4;  
}
```

```
private void btnEq_Click(object sender, EventArgs e)
```

```
{  
    compute(count);  
}
```

```
public void compute(int count)
```

```
{  
    switch (count)  
    {  
        case 1:  
            ans = num1 + float.Parse(txt1.Text);  
            txt1.Text = ans.ToString();  
        }  
    }
```



```
        break;
    case 2:
        ans = num1 - float.Parse(txt1.Text);
        txt1.Text = ans.ToString();
        break;
    case 3:
        ans = num1 * float.Parse(txt1.Text);
        txt1.Text = ans.ToString();
        break;
    case 4:
        ans = num1 / float.Parse(txt1.Text);
        txt1.Text = ans.ToString();
        break;
    default:
        break;
    }
}

}
```

Output:

Form1

Enter your Input

7	8	9	/
4	5	6	+
1	2	3	-
0	00	.	*
Equal			C

Form1

200

7	8	9	/
4	5	6	+
1	2	3	-
0	00	.	*
Equal			C

Form1

20

7	8	9	/
4	5	6	+
1	2	3	-
0	00	.	*
Equal			C

Form1

10

7	8	9	/
4	5	6	+
1	2	3	-
0	00	.	*
Equal			C

Category 2: C# Console

A. Design Applications using Classes and Objects

Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Practical2

{

    class program2

    {

        int rollnumber;

        string name;

        string course;


        public void insertData(int r, string n, string c)

        {

            rollnumber = r;

            name = n;

            course = c;

        }

        public void display()

        {

            Console.WriteLine("Roll Number:"+rollnumber);


            Console.WriteLine("Name:"+name);
```

```
        Console.WriteLine("Course:"+course);

        Console.WriteLine("-----");
    }
}

class program
{
    static void Main(string[] args)
    {
        program2 pro = new program2();
        pro.insertData(14, "Yash Bhosle", "MCA");
        pro.display();
        pro.insertData(19, "Bhushan Borse", "MCA");
        pro.display();
        pro.insertData(41, "Pranay Giradkar", "MCA");
        pro.display();
        pro.insertData(59, "Atharva Kale", "MCA");
        pro.display();
        pro.insertData(70, "Gunvantraj Kumavat", "MCA");
        pro.display();
        pro.insertData(86, "Jay Nevrekar", "MCA");
        pro.display();
        pro.insertData(107, "Deep Salunke", "MCA");
        pro.display();
        Console.ReadKey();
    }
}
```

Output:



```
F:\MCA\SEM_2\AWT\Experiments\Journal\Practical2\Practical2\bin\Debug\net6.0\Practical2.exe
Roll Number:14
Name:Yash Bhosle
Course:MCA
-----
Roll Number:19
Name:Bhushan Borse
Course:MCA
-----
Roll Number:41
Name:Pranay Giradkar
Course:MCA
-----
Roll Number:59
Name:Atharva Kale
Course:MCA
-----
Roll Number:70
Name:Gunvantraj Kumavat
Course:MCA
-----
Roll Number:86
Name:Jay Nevrekar
Course:MCA
-----
Roll Number:107
Name:Deep Salunke
Course:MCA
-----
```

B. Design Applications using Inheritance and Abstract Classes

Code:

```
namespace Single_Inheritance
{
    public abstract class Bridgecourse
    {
        public virtual void basicsubject()
        {

        }
    }
    public class MCA : Bridgecourse
    {
        int totalsubjects;
        public void subjects(int t)
        {
            totalsubjects = t;
            Console.WriteLine("Total Main Subjects: "+totalsubjects);
        }
        public void basicsubject()
        {
            Console.WriteLine("+2");
        }
    }
    class Program
    {
        static void Main(string[] args)
```

```
{  
    MCA M=new MCA();  
    Console.WriteLine("B.COM.");  
    M.subjects(5);  
    M.basicsubject();  
    Console.WriteLine("BSC IT/CS");  
    M.subjects(5);  
    Console.ReadKey();  
}  
}  
}
```

Output:



```
F:\MCA\SEM_2\AWT\Experiments\Journal\Single_Inheritance\Single_Inheritance\bin\Debug\net6.0\Single_Inheritance.exe  
B.COM.  
Total Main Subjects: 5+2  
BSC IT/CS  
Total Main Subjects: 5
```

Category 3: ASP.NET

A. Design a Web Application for an Organization with Registration forms and advanced controls(Validation)

Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Experiment4_Registration_Form

{

    public partial class Registration : System.Web.UI.Page

    {

        protected void Page_Load(object sender, EventArgs e)

        {

        }

        protected void Button1_Click(object sender, EventArgs e)

        {

            message.Text = "Hello " + username.Text + "!";

            message.Text = message.Text + "<br/> You have successfully registered with the  
following details.";

            ShowUserName.Text=username.Text;

            ShowEmail.Text=emailID.Text;

            if(RadioButton1.Checked)

            {

                ShowGender.Text = RadioButton1.Text;

            }

        }

    }

}
```



```
else

    ShowGender.Text = RadioButton2.Text;

var courses = "";

if (CheckBox1.Checked)

{

    courses = CheckBox1.Text + " ";

}

if(CheckBox2.Checked)

{

    courses += CheckBox2.Text + " ";

}

if (CheckBox3.Checked)

{

    courses += CheckBox3.Text + " ";

}

ShowCourses.Text = courses;

ShowUserNameLabel.Text = "User Name";

ShowEmailIDLabel.Text = "Email ID";

ShowGenderLabel.Text = "Gender";

ShowCourseLabel.Text = "Courses";

username.Text = "";

emailID.Text = "";

RadioButton1.Checked = false;

RadioButton2.Checked = false;

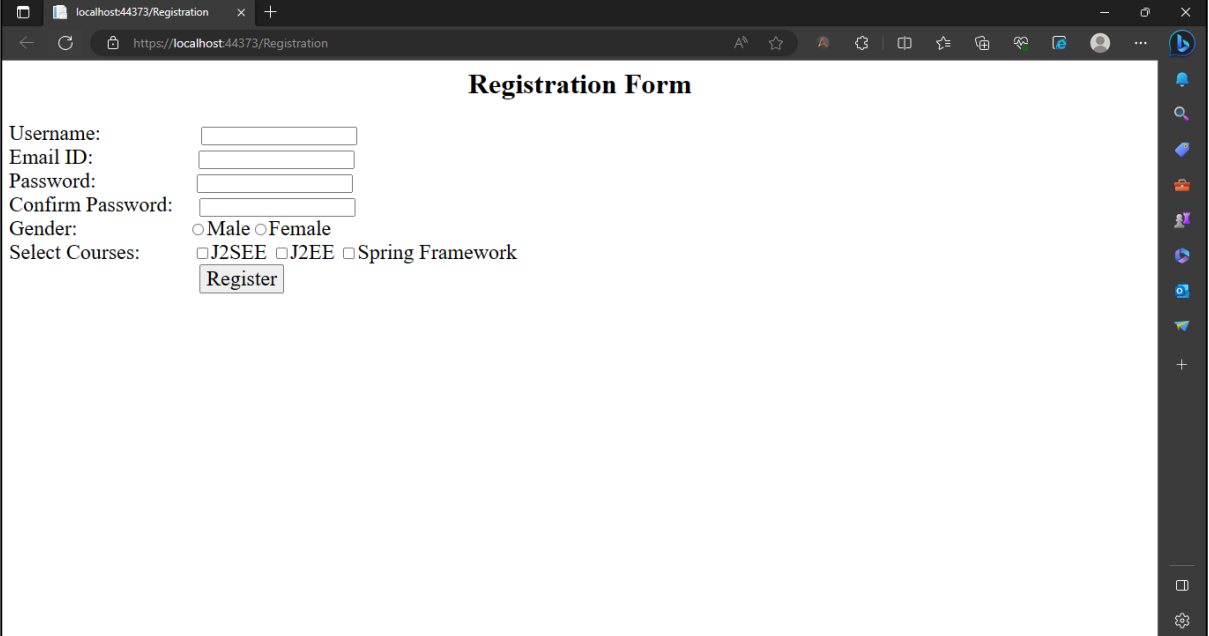
CheckBox1.Checked = false;

CheckBox2.Checked = false;

CheckBox3.Checked = false;
```

```
}  
  
}  
  
}
```

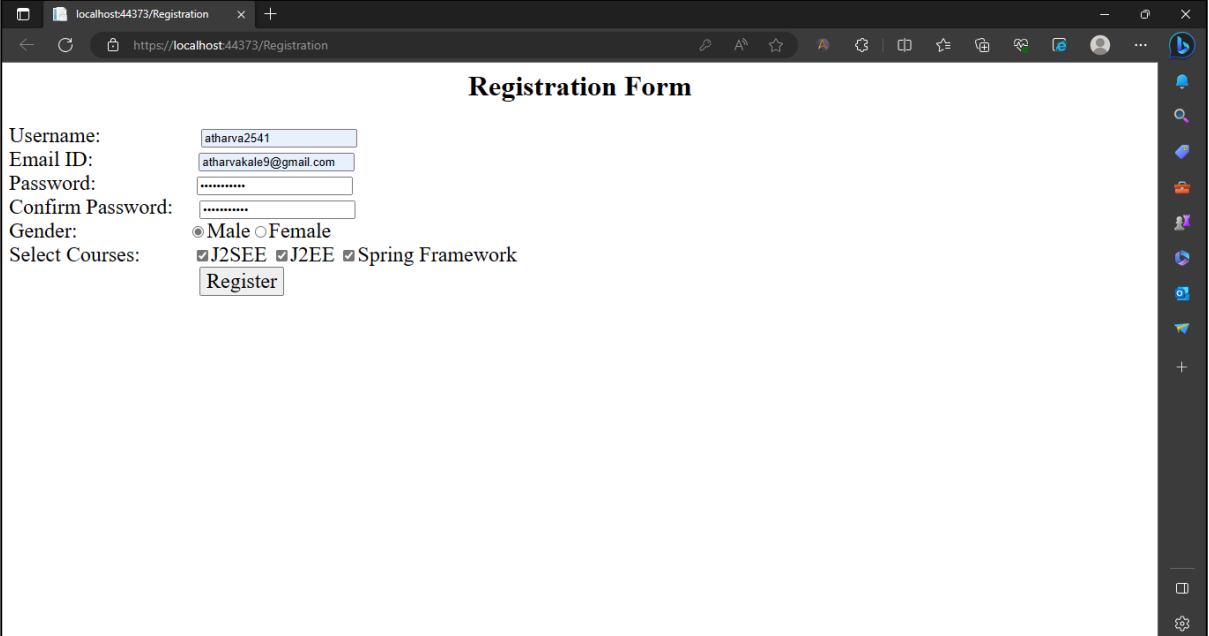
Output:



localhost:44373/Registration x +
https://localhost:44373/Registration

Registration Form

Username:
Email ID:
Password:
Confirm Password:
Gender: ☐ Male ☐ Female
Select Courses: ☐ J2SEE ☐ J2EE ☐ Spring Framework



localhost:44373/Registration x +
https://localhost:44373/Registration

Registration Form

Username:
Email ID:
Password:
Confirm Password:
Gender: ☒ Male ☐ Female
Select Courses: ☒ J2SEE ☒ J2EE ☒ Spring Framework

localhost44373/Registration

https://localhost44373/Registration

Registration Form

Username:

Email ID:

Password:

Confirm Password:

Gender:

☐ Male

☐ Female

Select Courses:

☐ J2SEE

☐ J2EE

☐ Spring Framework

Register

Hello atharva2541!

You have successfully registered with the following details.

User Name	atharva2541
Email ID	atharvakale9@gmail.com
Gender	Male
Courses	J2SEE J2EE Spring Framework

B. Create website using master page and theme concept.

Code:

Site1.Master

```
<% @ Master Language="C#" AutoEventWireup="true" CodeBehind="Site1.master.cs"
Inherits="PracMaster.Site1" %>

<!DOCTYPE html>

<html>

<head runat="server">

    <title></title>

    <asp:ContentPlaceholder ID="head" runat="server">

        </asp:ContentPlaceholder>

        <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css">

        <script
src="https://cdn.jsdelivr.net/npm/jquery@3.6.4/dist/jquery.slim.min.js"></script>

        <script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></script>

        <script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/bootstrap.bundle.min.js"></scri
pt>

    </head>

    <body>

        <form id="form1" runat="server">

            <div>

                <!-- Grey with black text -->

                <nav class="navbar navbar-expand-sm bg-dark navbar-dark">

                    <ul class="navbar-nav">

                        <li class="nav-item ">

                            <a class="nav-link" href="WebForm1.aspx">Home</a>
```

```
</li>

<li class="nav-item">

  <a class="nav-link" href="Sport.aspx">Sports</a>

</li>

<li class="nav-item">

  <a class="nav-link" href="Entertainment.aspx">Entertainment</a>

</li>

<li class="nav-item">

  <a class="nav-link" href="Politics.aspx">Politics</a>

</li>

</ul>

</nav>

<asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">

</asp:ContentPlaceHolder>

</div>

</form>

</body>

</html>
```

WebForm1.aspx

```
<% @ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="PracMaster.WebForm1" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

  <style type="text/css">

    .auto-style1 {

      width: 1400px;

      height: 700px;

    }

  </style>

</asp:Content>
```

```
</style>

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

</asp:Content>
```

Sport.aspx

```
<% @ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="Sport.aspx.cs" Inherits="PracMaster.Sport" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

    <center>

        <p>

        </p>

        <h3>Manchester City have won their first-ever Champions League and a treble after
a 1-0 win over Inter Milan.</h3>

        <p>

            They outpaced closest rivals Arsenal to comfortably win the Premier League, and
last week beat fierce rivals Manchester United in the FA Cup final.</p>

        <p>

            It means City have become the first English Premier League club since United to
win a treble of all three major trophies in one season.

            Manchester City owner Sheikh Mansour was also present to watch his team's victory on
Saturday evening.

            It was only the second game he has attended since his investment vehicle, the Abu Dhabi
United Group, purchased City in 2008.
```

The club has risen to become the dominant force in the English game under Mansour's stewardship, having won seven Premier League titles in the past 12 years and five of the last six.

</p>

</center>

</asp:Content>

Entertainment.aspx

```
<% @ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="Entertainment.aspx.cs"
Inherits="PracMaster.Entertainment" %>
```

```
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
```

```
</asp:Content>
```

```
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
```

```
<center>
```

```

```

```
<h3>'Aanibaani': Sayaji Shinde and Upendra Limaye starrer is all ..</h3>
```

```
</center>
```

<p style="text-align:left">आपल्याकडे कधी काय घडेल याचा नेम नसतो. आता हेच बघा ना आपल्या प्रत्येकाला 'आणीबाणी' साठी सज्ज होण्याचं फर्मान काढलं आहे. 28 जुलैपासून ही 'आणीबाणी' लागू होणार आहे आणि विशेष म्हणजे या 'आणीबाणी'ला मराठीतल्या काही कलाकारांनी जाहीर पाठींबा दिला आहे. उपेंद्र लिमये, प्रवीण तरडे, सयाजी शिंदे, संजय खापरे, वीणा जामकर, उषा नाईक, प्राजक्ता हनमधर, सीमा कुलकर्णी, रोहित कोकाटे, सुनील अभ्यंकर, पद्मनाभ बिंड, किशोर नांदलस्कर अशा मराठीतील दिग्गजांचा या 'आणीबाणी'त सहभाग असणार आहे.

या 'आणीबाणी'चा जनतेला कोणताही त्रास न होता, फक्त आणि फक्त मनोरंजनाचा दिलखुलास आनंद अनुभवायला मिळणार आहे. कारण ही मनोरंजनाची 'आणीबाणी' असणार आहे. दिग्गज कलाकारांची मोट एकत्र बांधत सुप्रसिद्ध लेखक अरविंद जगताप यांच्या साथीने मराठी रुपेरी पडद्यावर दिग्दर्शकीय पदार्पण करणारे दिनेश जगताप यांनी या 'आणीबाणी' साठी पुढाकार घेतला आहे. 'दिनिशा फिल्म्स' निर्मित 'आणीबाणी' हा मराठी चित्रपट 28 जुलै ला प्रेक्षकांच्या भेटीला येणार आहे. छोट्या पडद्यावर बरंच काम केल्यानंतर आता मराठी रुपेरी पडद्यावर 'आणीबाणी'

सारखा संवेदनशील विषय रंजकपणे मांडण्याचं धाडस दिग्दर्शक दिनेश जगताप यांनी लेखकाच्या सोबतीने दाखवलं आहे.

आणीबाणीच्या काळाच्या पार्श्वभूमीवर सांगितलेली ही हलकी-फुलकी गोष्ट आहे. या चित्रपटातील नायकाच्या अभिमन्यूच्या अफलातून संघर्षाची. एखाद्या सरकारी आदेशाची अंमलबजावणी करताना होणाऱ्या गोंधळाची. नवरा बायकोच्या प्रेमाची आणि सोबत बाप लेकाच्या नात्याची. राजकीय परिस्थितीवर आपल्या मिश्रित लिखाणाने प्रहार करत लेखक अरविंद जगताप यांनी आणीबाणीच्या पार्श्वभूमीवर ही रंजक कथा लिहिली आहे. 'आणीबाणी' कोणासाठी अडचण ठरणार? आणि अडचणीत सापडलेले या 'आणीबाणी' तून कसे बाहेर पडणार? याची मनोरंजक कथा चित्रपटात मांडण्यात आली आहे.

</p>

</asp:Content>

Politics.aspx

<% @ Page Title="" Language="C#" MasterPageFile="~/Site1.Master" AutoEventWireup="true" CodeBehind="Politics.aspx.cs" Inherits="PracMaster.Politics" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">

<center>

<h3>PM Modi Returns To India After Landmark Visits To US, Egypt</h3></center>

<p>The prime minister had embarked on his visit to the US on June 20 and in New York, he led a historic event at the UN Headquarters to commemorate the 9th International Day of Yoga on June 21.</p>

<p>Prime Minister Narendra Modi returned to India Sunday night after his six-day visit to the US and Egypt during which several landmark agreements were signed.</p>

<p>PM Modi was received at the Delhi airport by Union Minister of State for External Affairs Meenakshi Lekhi and BJP chief J P Nadda. BJP leaders and party MPs from Delhi such as Harsh Vardhan, Hans Raj Hans and Gautam Gambhir were also present.</p>

<p>The visit was marked by several major deals to boost cooperation in key areas such as defence, space and trade.

PM Modi arrived in Cairo on June 24 after concluding his high-profile state visit to the U.S. and was received at the airport by Egyptian Prime Minister Mostafa Madbouly.</p>

<p>He concluded his first-ever visit to Egypt Sunday evening. During the visit, he held talks with President Abdel Fattah El-Sisi and was conferred the Arab country's highest honour 'Order of the Nile'.

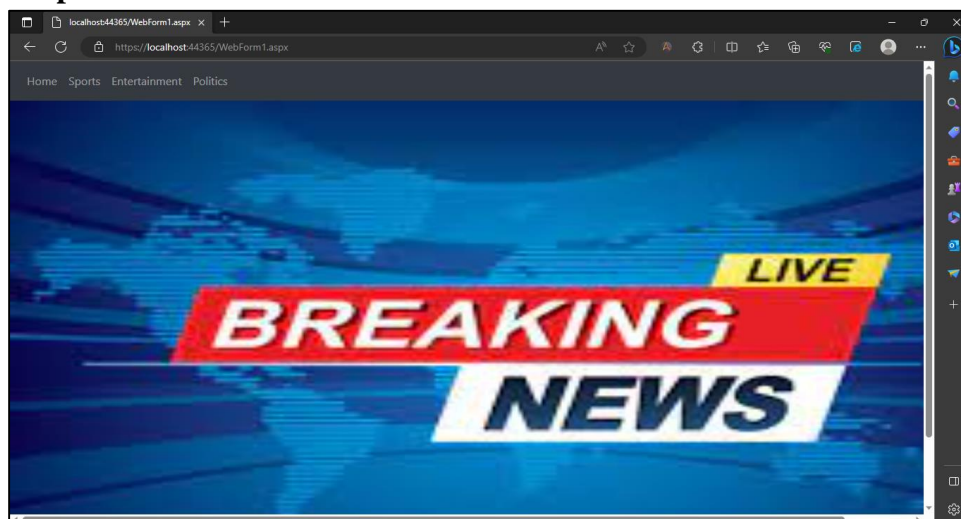
PM Modi and Mr. Sisi discussed ways to further strengthen the strategic partnership between the two countries with a focus on improving trade and investments, energy ties and people-to-people ties. The two countries elevated their relationship to a "Strategic Partnership".

President El-Sisi conferred Modi the 'Order of the Nile' award - Egypt's highest state honour. This is the 13th highest state honour conferred upon Prime Minister Modi.</p>

<p>“He asked Nadda ji how it is going here, and Nadda ji told him that party leaders were reaching out to people with the report card of the nine years of his government, and the country is happy,” BJP MP Manoj Tiwari told reporters when asked what the Prime Minister asked them after meeting them at the airport.</p>

</asp:Content>


Output:



localhost44365/Sport.aspx

https://localhost44365/Sport.aspx

Home Sports Entertainment Politics



Manchester City have won their first-ever Champions League and a treble after a 1-0 win over Inter Milan.


They outpaced closest rivals Arsenal to comfortably win the Premier League, and last week beat fierce rivals Manchester United in the FA Cup final.

It means City have become the first English Premier League club since United to win a treble of all three major trophies in one season. Manchester City owner Sheikh Mansour was also present to watch his team's victory on Saturday evening. It was only the second game he has attended since his investment vehicle, the Abu Dhabi United Group, purchased City in 2008. The club has risen to become the dominant force in the English game under Mansour's stewardship, having won seven Premier League titles in the past 12 years and five of the

localhost44365/Entertainment.aspx

https://localhost44365/Entertainment.aspx

Home Sports Entertainment Politics




'Aanibaani': Sayaji Shinde and Upendra Limaye starrer is all ..

आपल्याकडे कधी काय घडेल याचा नेम नसतो. आता हेच बघा ना आपल्या प्रत्येकाला 'आणीबाणी' साठी सजव होण्याचं फर्मान काढत आहे. 28 जुलैपासून ही 'आणीबाणी' लागू होणार आहे आणि विशेष म्हणजे या 'आणीबाणी'ला मराठीतल्या काही कलाकारांनी जाहीर पाठींबा दिला आहे. उपेंद्र लिमये, प्रवीण तरडे, सयाजी शिंदे, संजय खापरे, वीणा जमकर, उषा नाईक, प्राजक्ता हनमधर, सीमा कुलकर्णी, रोहित कोकाटे, सुनील अर्भकर, पचनाम बिड, किशोर नांदलस्कर अशा मराठीतील दिग्गजांचा या 'आणीबाणी'त सहभाग असणार आहे. या 'आणीबाणी'चा जनतेला कोणताही त्रास न होता, फक्त आणि फक्त मनोरंजनाचा दितलखुतास आनंद अनुभवायला मिळणार आहे. कारण ही मनोरंजनाची 'आणीबाणी' असणार आहे. दिग्गज कलाकारांची मोट एकत्र बांधत सुप्रसिद्ध लेखक अरविंद जगताप यांच्या साथीने मराठी रुपेरी पडद्यावर दिग्दर्शकीय पदार्पण करणारे दिनेश जगताप यांनी या 'आणीबाणी' साठी पुढाकार घेतला आहे. 'दिग्गजां फिल्म' निर्मित 'आणीबाणी' हा मराठी चित्रपट 28 जुलैला प्रेक्षकांच्या भेटीला येणार आहे. छोट्या पडद्यावर बरेच काम केल्यानंतर आता मराठी रुपेरी पडद्यावर 'आणीबाणी' सारखा संवेदनशील विषय रंजकपणे मांडण्याचं धाडस दिग्दर्शक दिनेश जगताप यांनी लेखकाच्या सोबतीने दाखवत आहे. 'आणीबाणी'च्या काळाच्या पार्श्वभूमीवर सांगितलेली ही हलकी-फुलकी गोष्ट आहे. या चित्रपटातील नायकाच्या अभिमन्यूच्या अफतातून संघर्षाची, एखाद्या सरकारी आदेशाची अंमलबजावणी करताना होणाऱ्या गोष्टांची, नवरा बायकोच्या प्रेमाची आणि सोबत बाप तेकाच्या नात्याची, राजकीय परिस्थितीवर आपल्या भिक्कित लिखाणाने प्रहार करत लेखक अरविंद जगताप यांनी 'आणीबाणी'च्या पार्श्वभूमीवर ही रंजक कथा तिथिली आहे. 'आणीबाणी' कोणासाठी अडवण ठरणार? आणि अडवणीत सापडलेले या 'आणीबाणी'तून कसे बाहेर पडणार? याची मनोरंजक कथा चित्रपटात मांडण्यात आली आहे.

localhost44365/Politics.aspx

https://localhost44365/Politics.aspx

Home Sports Entertainment Politics



PM Modi Returns To India After Landmark Visits To US, Egypt

The prime minister had embarked on his visit to the US on June 20 and in New York, he led a historic event at the UN Headquarters to commemorate the 9th International Day of Yoga on June 21.

Prime Minister Narendra Modi returned to India Sunday night after his six-day visit to the US and Egypt during which several landmark agreements were signed.

PM Modi was received at the Delhi airport by Union Minister of State for External Affairs Meenakshi Lekhi and BJP chief J P Nadda. BJP leaders and party MPs from Delhi such as Harsh Vardhan, Hans Raj Hans and Gautam Gambhir were also present.

The visit was marked by several major deals to boost cooperation in key areas such as defence, space and trade. PM Modi arrived in Cairo on June 24 after concluding his high-profile state visit to the U.S. and was received at the airport by Egyptian Prime Minister Mostafa Madbouly.

He concluded his first-ever visit to Egypt Sunday evening. During the visit, he held talks with President Abdel Fattah El-Sisi and was conferred the Arab country's highest honour 'Order

Category 4: ADO.NET

A. Create a webpage that demonstrates the use of data bound controls of ASP.NET

Code:

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title></title>

</head>

<body>

    <form id="form1" runat="server">

        <div>

            Grid View Demonstration:<asp:GridView ID="GridView1" runat="server"
AllowSorting="True" AutoGenerateColumns="False" DataSourceID="SqlDataSource1">

                <Columns>

                    <asp:BoundField DataField="id" HeaderText="id" SortExpression="id" />

                    <asp:BoundField DataField="name" HeaderText="name"
SortExpression="name" />

                </Columns>

            </asp:GridView>

            <br />

            Data List:<asp:DataList ID="DataList1" runat="server"
DataSourceID="SqlDataSource1">

                <ItemTemplate>

                    id:

                    <asp:Label ID="idLabel" runat="server" Text='<%# Eval("id") %>' />

                    <br />

                </ItemTemplate>

            </asp:DataList>

        </div>

    </form>

</body>

</html>
```

```

        name:

        <asp:Label ID="nameLabel" runat="server" Text='< %# Eval("name") %>' />

        <br />

    <br />

    </ItemTemplate>

</asp:DataList>

<br />

Form View:<asp:FormView ID="FormView1" runat="server"
DataSourceID="SqlDataSource1">

    <EditItemTemplate>

        id:

        <asp:TextBox ID="idTextBox" runat="server" Text='< %# Bind("id") %>' />

        <br />

        name:

        <asp:TextBox ID="nameTextBox" runat="server" Text='< %# Bind("name")
%>' />

        <br />

        <asp:LinkButton ID="UpdateButton" runat="server"
CausesValidation="True" CommandName="Update" Text="Update" />

        &nbsp;<asp:LinkButton ID="UpdateCancelButton" runat="server"
CausesValidation="False" CommandName="Cancel" Text="Cancel" />

    </EditItemTemplate>

    <InsertItemTemplate>

        id:

        <asp:TextBox ID="idTextBox" runat="server" Text='< %# Bind("id") %>' />

        <br />

        name:

        <asp:TextBox ID="nameTextBox" runat="server" Text='< %# Bind("name")
%>' />

```

```

        <br />

        <asp:LinkButton ID="InsertButton" runat="server"
CausesValidation="True" CommandName="Insert" Text="Insert" />

        &nbsp;<asp:LinkButton ID="InsertCancelButton" runat="server"
CausesValidation="False" CommandName="Cancel" Text="Cancel" />

    </InsertItemTemplate>

    <ItemTemplate>

        id:

        <asp:Label ID="idLabel" runat="server" Text='<%# Bind("id") %>' />

        <br />

        name:

        <asp:Label ID="nameLabel" runat="server" Text='<%# Bind("name") %>'
/>

        <br />

    </ItemTemplate>

</asp:FormView>

<br />

Details View:<br />

    <asp:DetailsView ID="DetailsView1" runat="server"
AutoGenerateRows="False" DataSourceID="SqlDataSource1" Height="50px"
Width="125px">

        <Fields>

            <asp:BoundField DataField="id" HeaderText="id" SortExpression="id" />

            <asp:BoundField DataField="name" HeaderText="name"
SortExpression="name" />

        </Fields>

    </asp:DetailsView>

    <br />

```

```
<asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="<%%$ ConnectionStrings:NMITD_C22059ConnectionString %>"
ProviderName="<%%$
ConnectionStrings:NMITD_C22059ConnectionString.ProviderName %>"
SelectCommand="SELECT * FROM [student]"></asp:SqlDataSource>

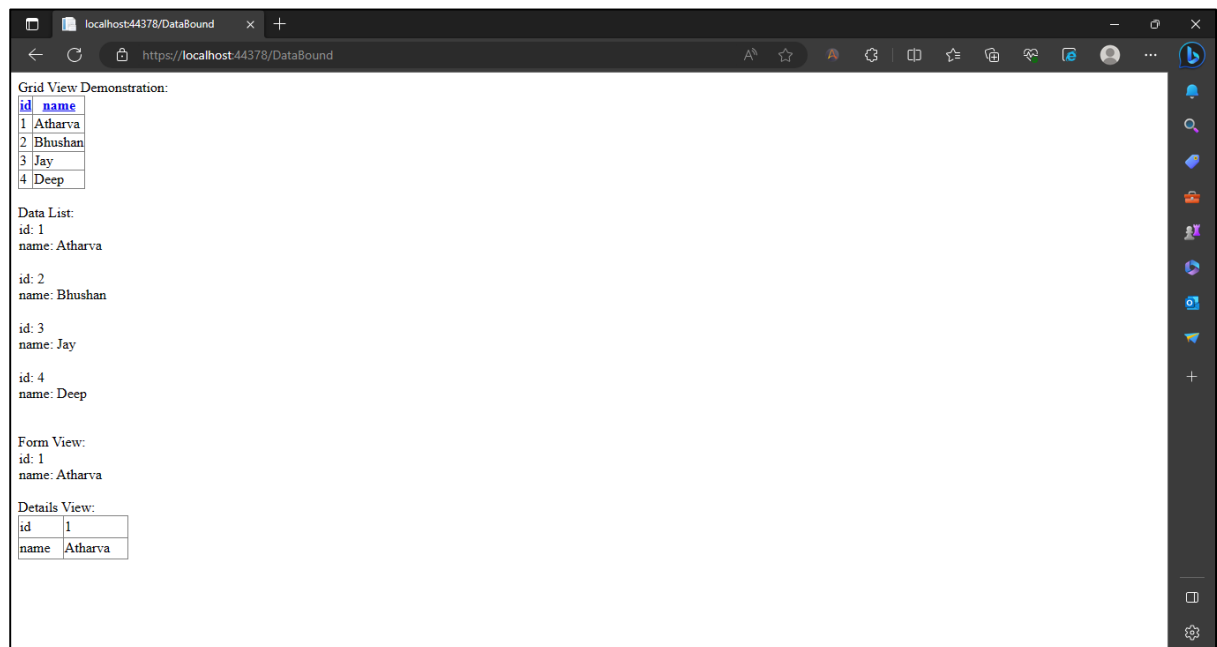
</div>

</form>

</body>

</html>
```

Output:



B. Design a webpage to demonstrate a connection oriented architecture.

Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data.SqlClient;

namespace Database_Connectivity

{

    public partial class Connected_Architecture : System.Web.UI.Page

    {

        SqlConnection myConn;

        SqlCommand myCmd;

        SqlDataReader myRdr;

        protected void Page_Load(object sender, EventArgs e)

        {

            myConn = new SqlConnection();

            String connStr = @"Data Source=DESKTOP-HR1RK6B;Initial

Catalog=NMITD_C22059;Integrated Security=True";

            myConn.ConnectionString= connStr;

            myConn.Open();

        }

        protected void Button1_Click(object sender, EventArgs e)

        {

            TextBox1.Text = null;

        }

    }

}
```

```

        TextBox2.Text = null;

        myCmd = new SqlCommand("select * from student",myConn);

        myRdr = myCmd.ExecuteReader();

        while(myRdr.Read())

        {

            string id = myRdr[0].ToString();

            string name = myRdr[1].ToString();

            TextBox1.Text += id + " " + Environment.NewLine;

            TextBox2.Text += name + " " + Environment.NewLine;

        }

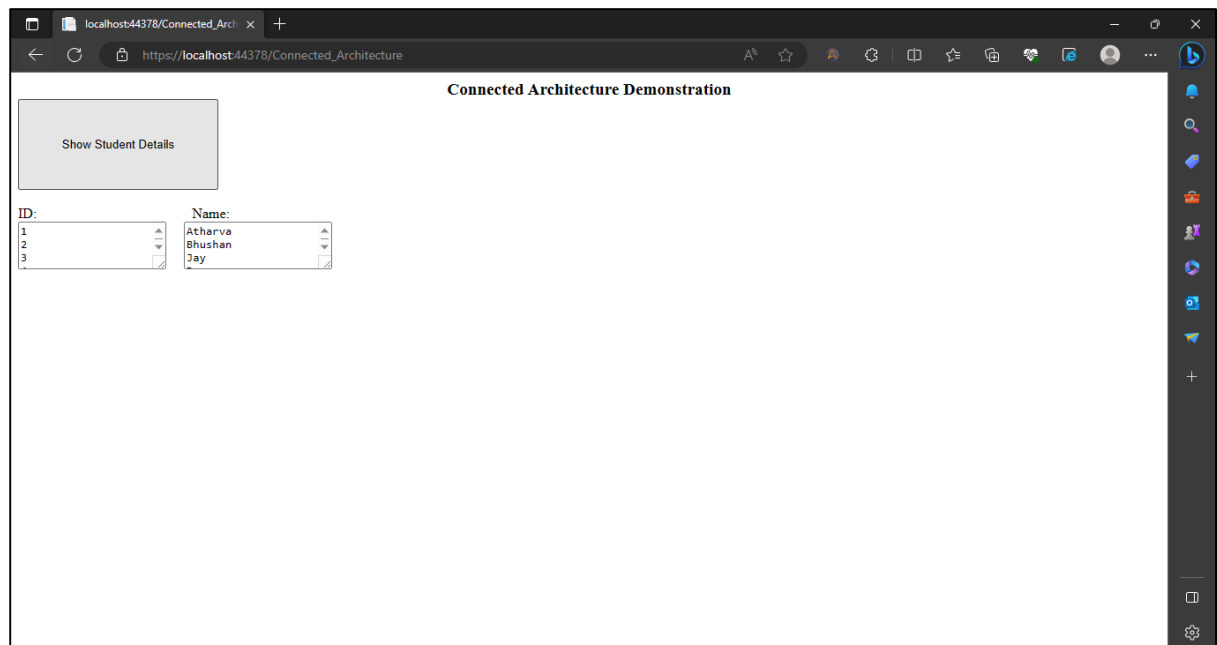
        myConn.Close();

    }

}

```

Output:



C. Design a webpage to demonstrate a disconnected architecture.

Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data.SqlClient;

using System.Data;

namespace Database_Connectivity
{
    public partial class Disconnected_Architecture : System.Web.UI.Page
    {
        SqlConnection myConn;

        SqlDataAdapter myAdapter;

        static int index;

        protected void Page_Load(object sender, EventArgs e)
        {
            myConn = new SqlConnection();

            String connStr = @"Data Source=DESKTOP-HR1RK6B;Initial
Catalog=NMITD_C22059;Integrated Security=True";

            myConn.ConnectionString = connStr;

            myConn.Open();

            String query = "select * from student";

            myAdapter = new SqlDataAdapter(query, myConn);

            DataSet ds = new DataSet();
```

```

        myAdapter.Fill(ds);

        GridView1.DataSource = ds;

        GridView1.DataBind();
    }

    protected void GridView1_SelectedIndexChanged(object sender, EventArgs e)
    {
        GridViewRow row = GridView1.SelectedRow;

        TextBox1.Text = row.Cells[0].Text;

        TextBox2.Text = row.Cells[1].Text;

        sindex = GridView1.SelectedIndex;
    }

    protected void GridView1_RowDataBound(object sender, GridViewRowEventArgs
e)
    {
        if(e.Row.RowType == DataControlRowType.DataRow)
        {
            e.Row.Attributes["onclick"] =
Page.ClientScript.GetPostBackClientHyperlink(GridView1, "select$" +
e.Row.RowIndex);

            e.Row.ToolTip = "Click to Select this Row";
        }
    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        String query = "select * from student";

        myAdapter = new SqlDataAdapter(query, myConn);

        DataSet ds = new DataSet();

        myAdapter.Fill(ds);
    }

```

```

        SqlCommandBuilder cmb = new SqlCommandBuilder(myAdapter);

        DataRow dr = ds.Tables[0].NewRow();

        dr["id"] = TextBox1.Text;

        dr["name"] = TextBox2.Text;

        ds.Tables[0].Rows.Add(dr);

        myAdapter.Update(ds);

        GridView1.DataSource = ds.Tables[0];

        GridView1.DataBind();
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        String query = "select * from student";

        myAdapter = new SqlDataAdapter(query, myConn);

        DataSet ds = new DataSet();

        myAdapter.Fill(ds);

        SqlCommandBuilder cmb = new SqlCommandBuilder(myAdapter);

        DataRow dr = ds.Tables[0].Rows[sindex];

        dr["id"] = Convert.ToInt32(TextBox1.Text);

        dr["name"] = TextBox2.Text;

        myAdapter.Update(ds);

        GridView1.DataSource = ds;

        GridView1.DataBind();
    }

    protected void Button3_Click(object sender, EventArgs e)
    {
        String query = "select * from student";

        myAdapter = new SqlDataAdapter(query, myConn);

```

```

        DataSet ds = new DataSet();

        myAdapter.Fill(ds);

        SqlCommandBuilder cmb = new SqlCommandBuilder(myAdapter);

        ds.Tables[0].Rows[sindex].Delete();

        myAdapter.Update(ds);

        GridView1.DataSource = ds;

        GridView1.DataBind();

    }

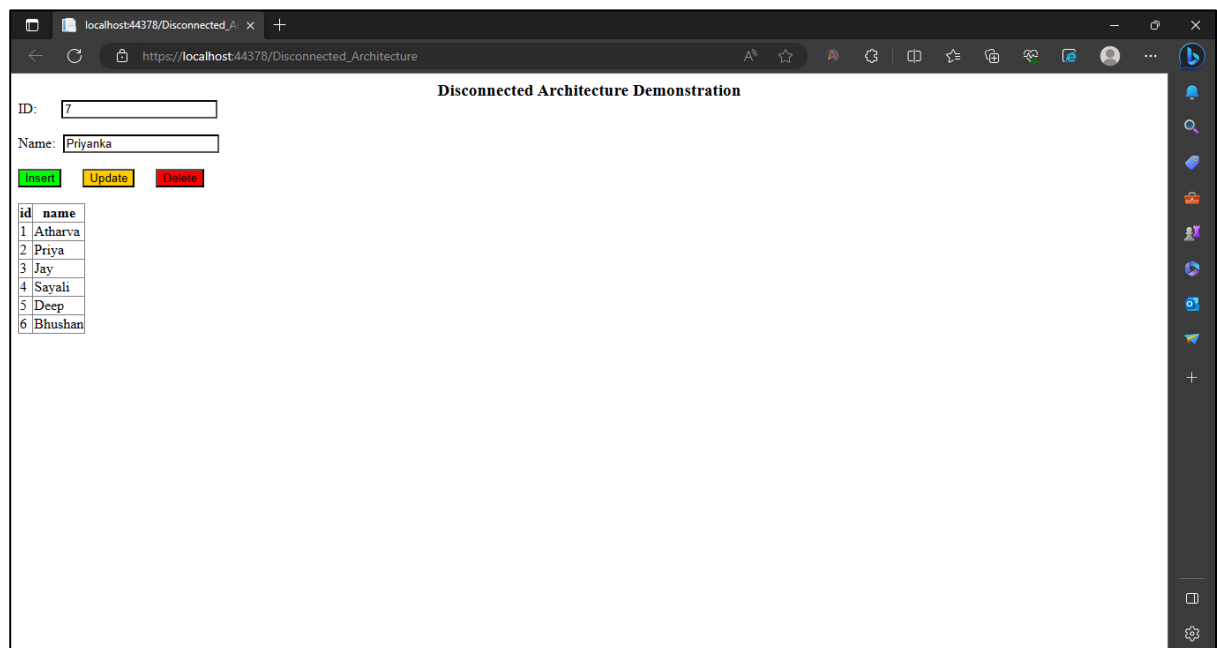
}

}

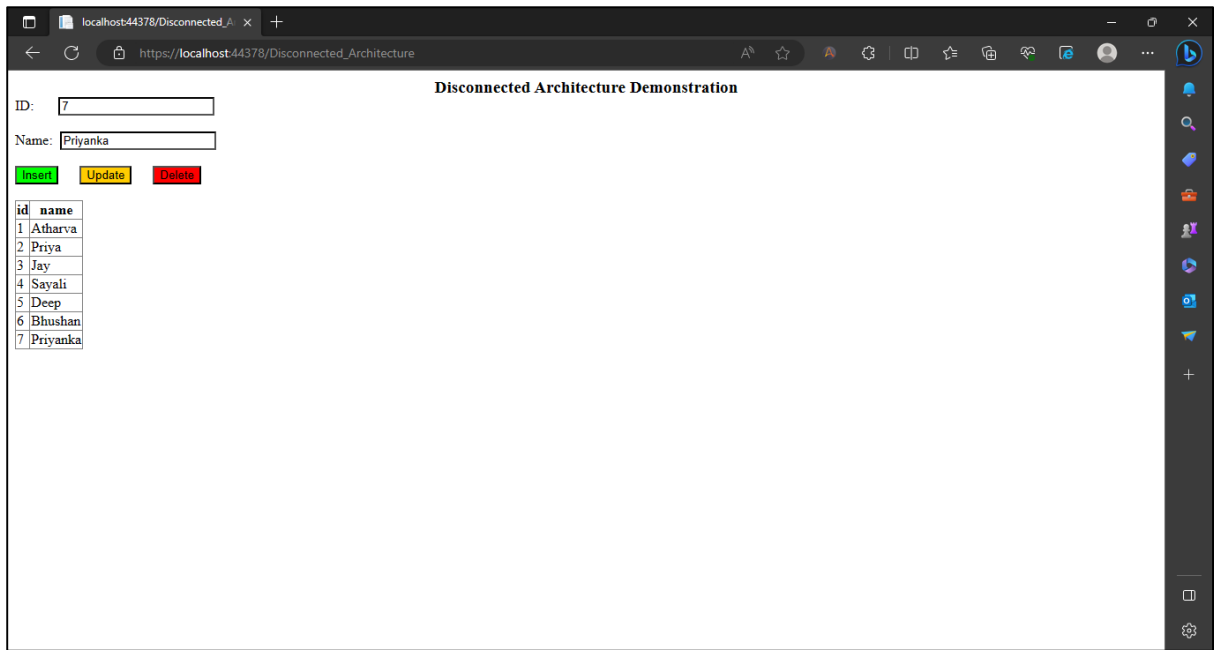
```

Output:

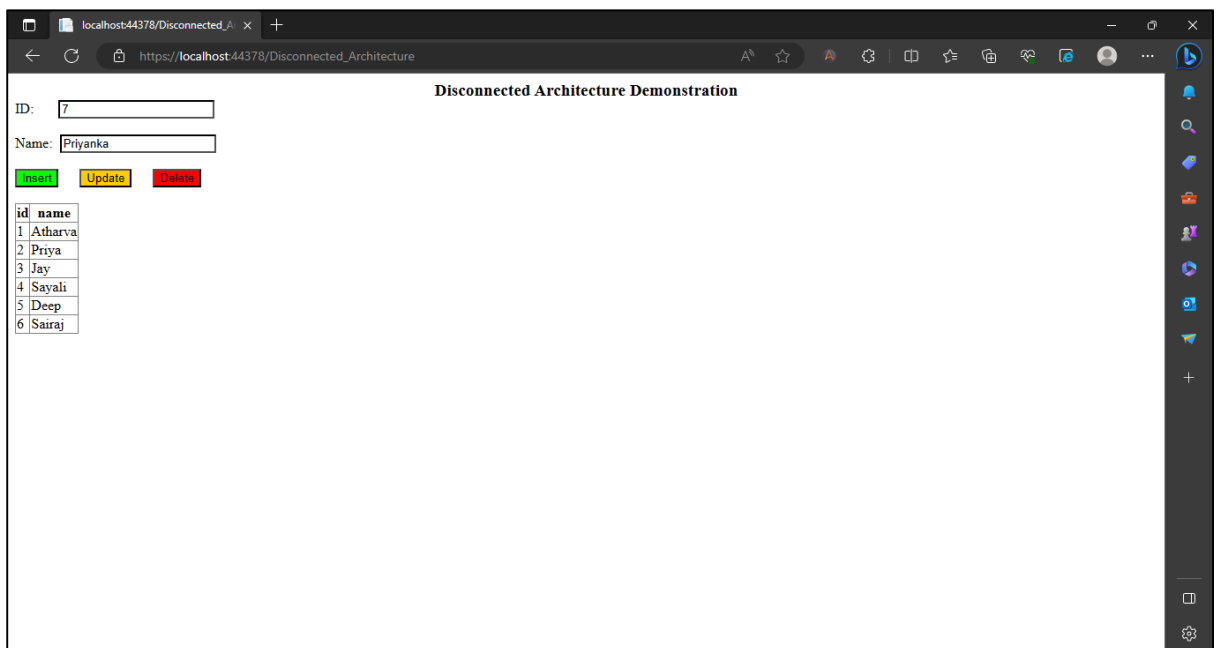
Before Inserting



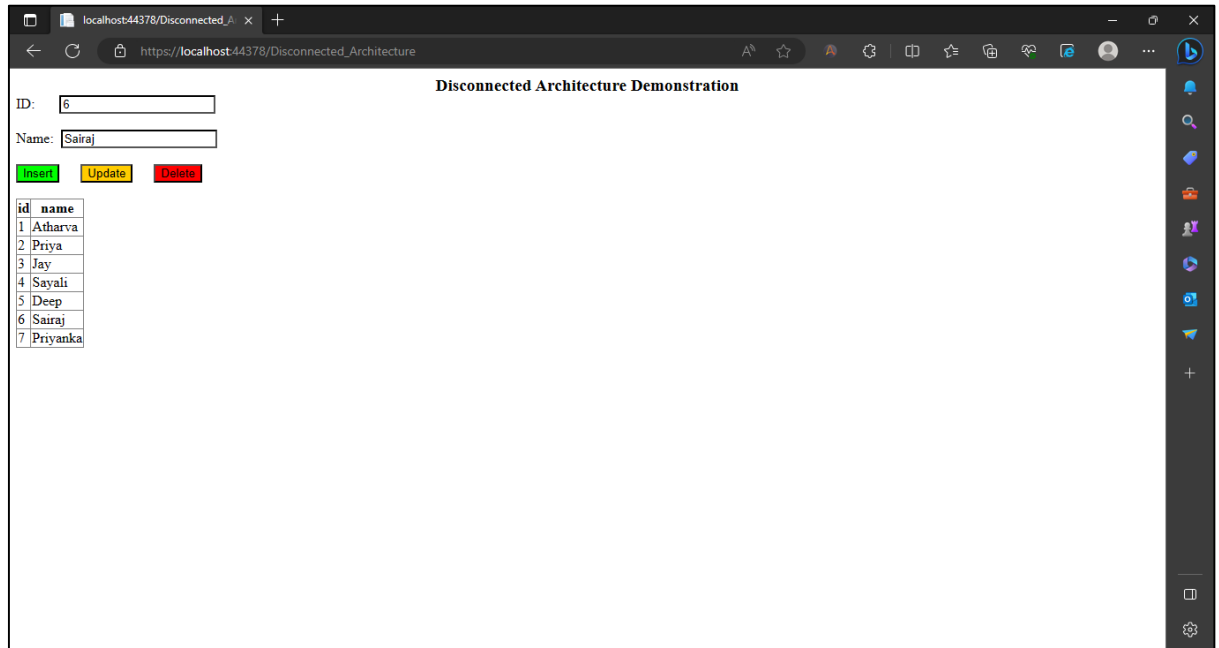
After Inserting



After Updating

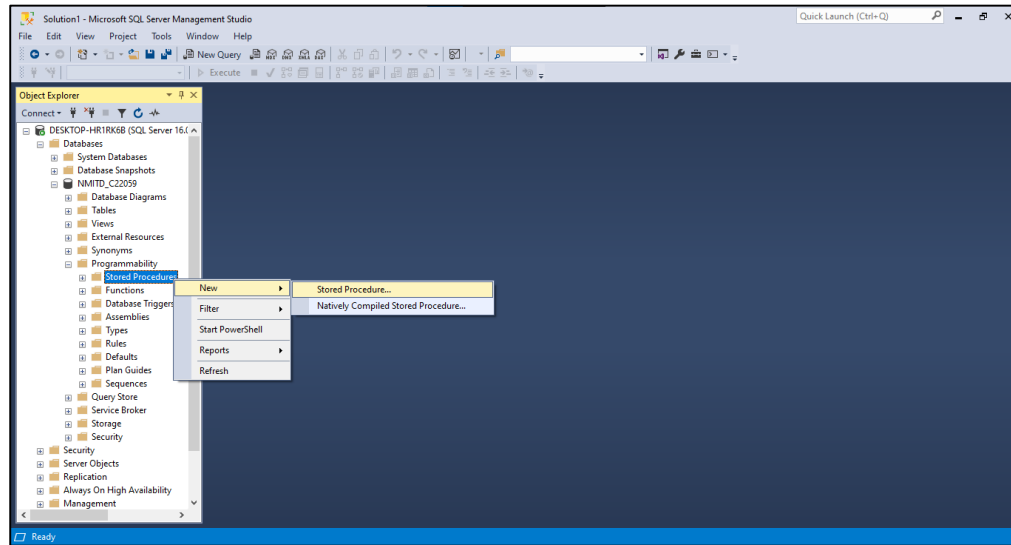


After Deleting Id : 7

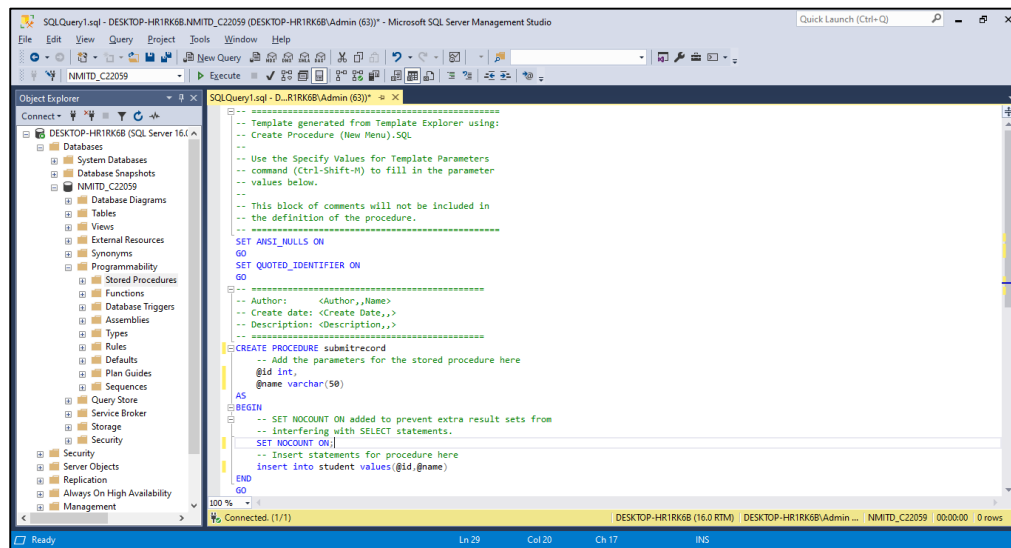


D. Design a webpage to demonstrate use of stored procedure.

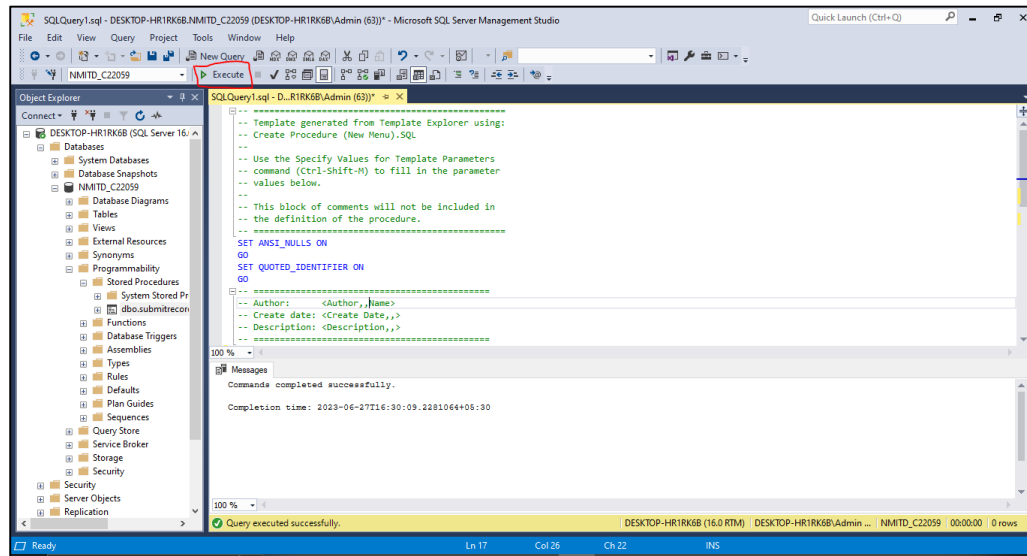
Steps:



Write the following code given below:



After Writing Code Click on Execute and then Refresh the Database



Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data.SqlClient;

using System.Data;

namespace Database_Connectivity
{
    public partial class Stored_Procedure : System.Web.UI.Page
    {
        SqlConnection myConn;

        SqlCommand myCmd;

        protected void Page_Load(object sender, EventArgs e)
        {
        }
    }
}
```



```

protected void Button1_Click(object sender, EventArgs e)
{
    myConn = new SqlConnection(@"Data Source=DESKTOP-HR1RK6B;Initial
Catalog=NMITD_C22059;Integrated Security=True");

    myConn.Open();

    myCmd = new SqlCommand("submitrecord", myConn);

    myCmd.CommandType = CommandType.StoredProcedure;

    SqlParameter param1 = myCmd.Parameters.Add("@id", SqlDbType.Int);

    param1.Value = TextBox1.Text;

    SqlParameter param2 = myCmd.Parameters.Add("@name", SqlDbType.VarChar);

    param2.Value = TextBox2.Text;

    myCmd.ExecuteNonQuery();

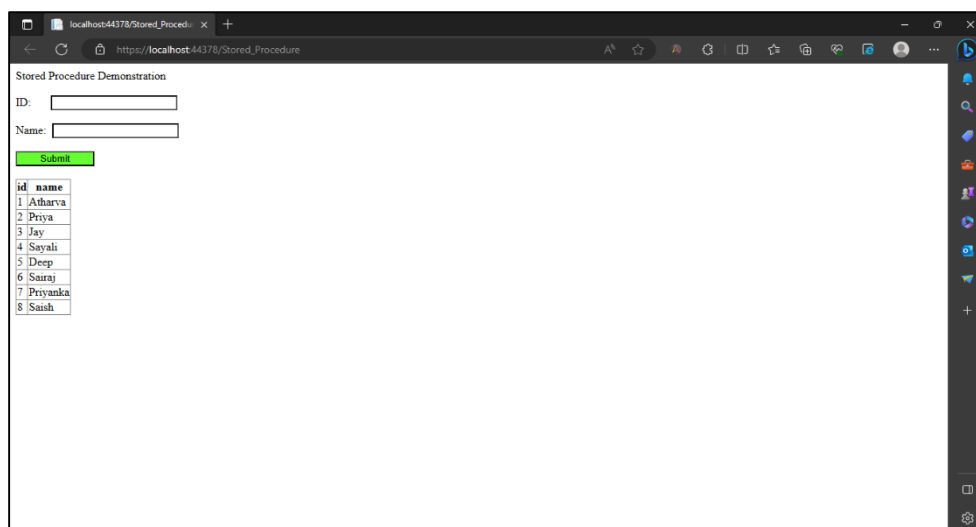
    GridView1.DataBind();

    myConn.Close();
}
}
}

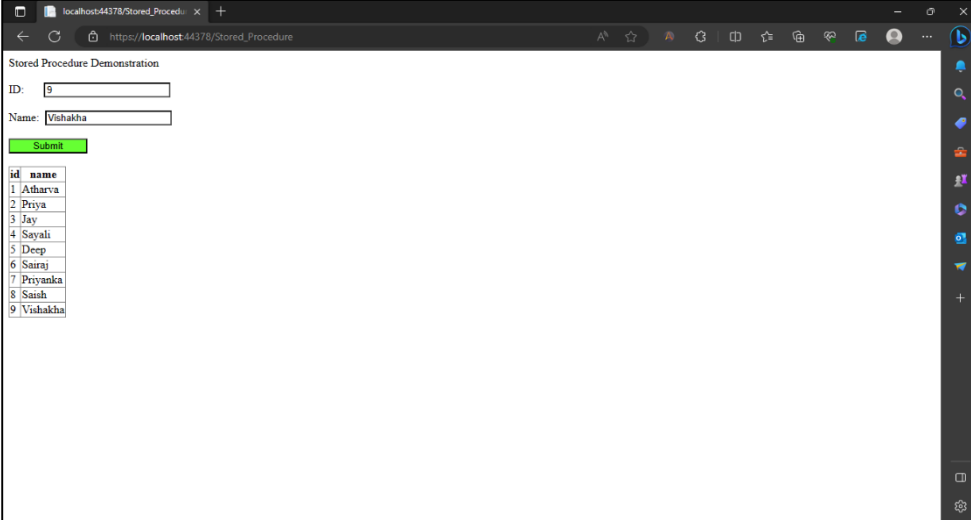
```

Output:

Before Entering Data



After Entering Data:



Stored Procedure Demonstration

ID:

Name:

id	name
1	Atharva
2	Priya
3	Jay
4	Sayali
5	Deep
6	Sairaj
7	Priyanka
8	Saish
9	Vishakha

Category 5: State Management Techniques

A. Design Web Applications using Client Side Session Managements Techniques

Code:

WebForm1.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Client_Side_State_Management

{

    public partial class WebForm1 : System.Web.UI.Page

    {

        int count = 0;

        protected void Page_Load(object sender, EventArgs e)

        {

            if (!IsPostBack)

            {

                TextBox1.Text = "0";

            }

        }

        protected void Button2_Click(object sender, EventArgs e)

        {

            count++;

            TextBox1.Text = count.ToString();

        }

    }

}
```

```

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        if (ViewState["click"] != null)
        {
            count = (int)ViewState["click"] + 1;
        }

        TextBox1.Text = count.ToString();

        ViewState["click"] = count;
    }
}

```

WebForm2.aspx.cs

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Client_Side_State_Management
{
    public partial class WebForm2 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }
    }
}

```

```

protected void Button1_Click(object sender, EventArgs e)
{
    HttpCookie cookie1 = new HttpCookie("Info");
    cookie1["Username"] = TextBox1.Text;
    cookie1["Password"] = TextBox2.Text;
    Response.Cookies.Add(cookie1);
    Response.Write("Created a Cookie");
}

protected void Button2_Click(object sender, EventArgs e)
{
    Response.Cookies["Info"].Value = null;
    Response.Cookies["Info"].Expires = DateTime.Now.AddDays(-1);
    Response.Write("Cookies Deleted!!");
}
}
}

```

WebForm3.aspx.cs

```

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

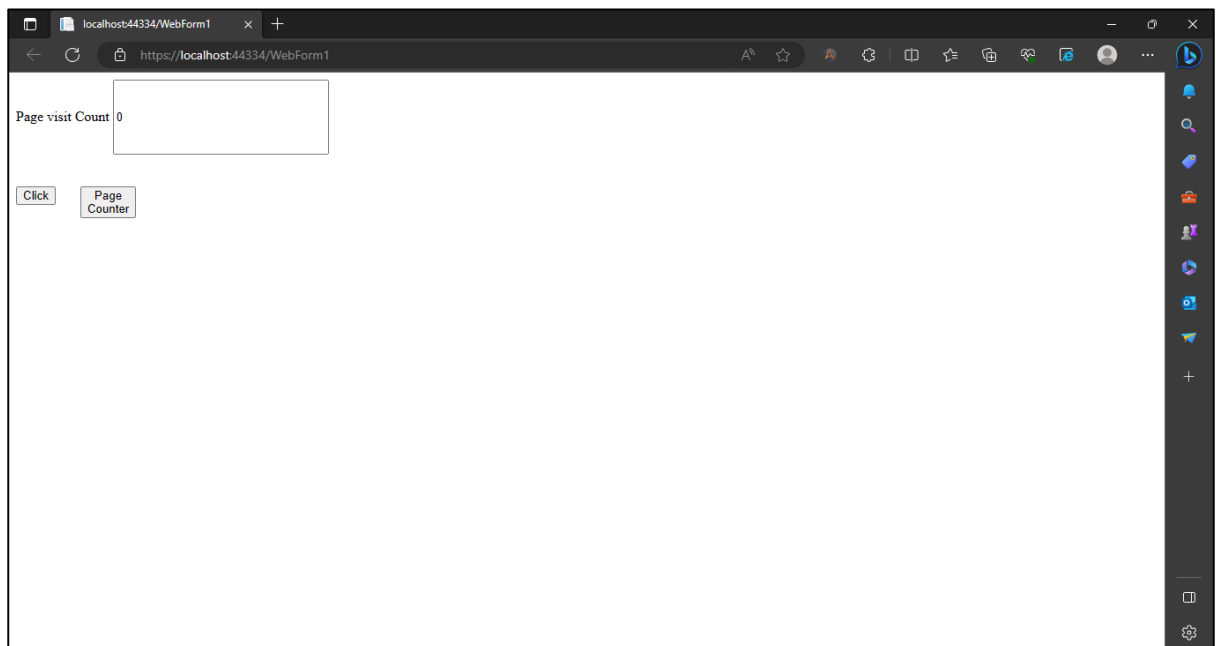
namespace Client_Side_State_Management
{
    public partial class WebForm3 : System.Web.UI.Page
    {

```

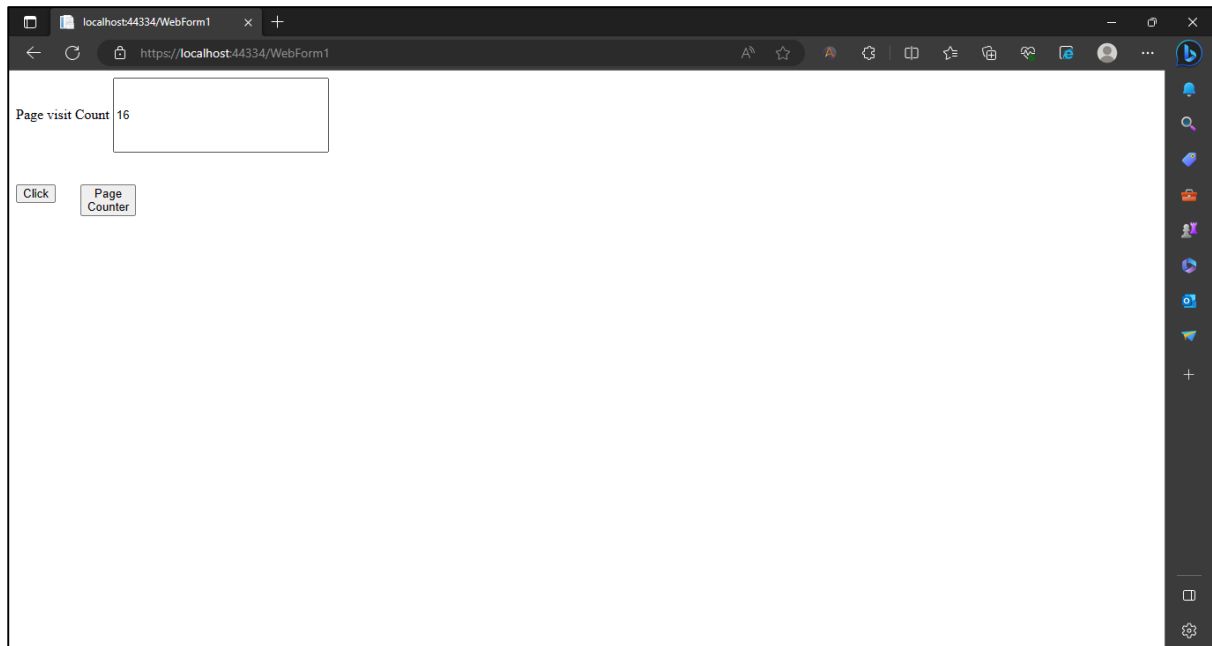
```
protected void Page_Load(object sender, EventArgs e)
{
    HttpCookie cookie1 = Request.Cookies["Info"];
    if (cookie1 != null)
    {
        Label1.Text = cookie1["Username"];
        Label2.Text = cookie1["Password"];
    }
}
}
```

Output:

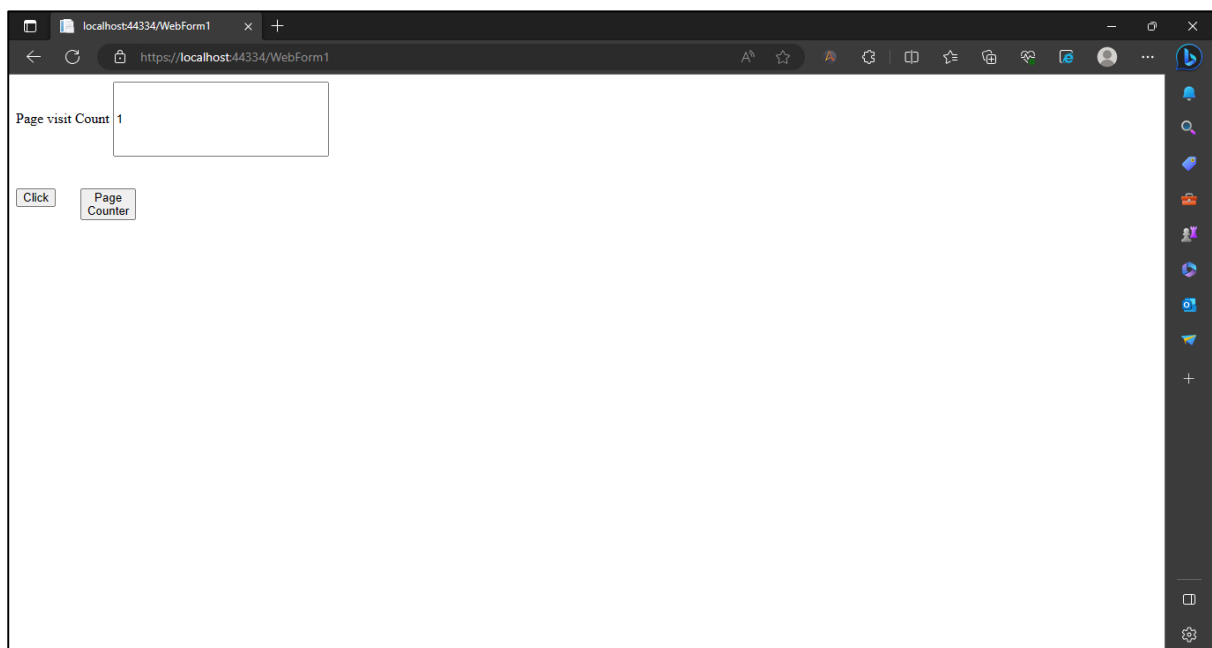
WebForm1.aspx



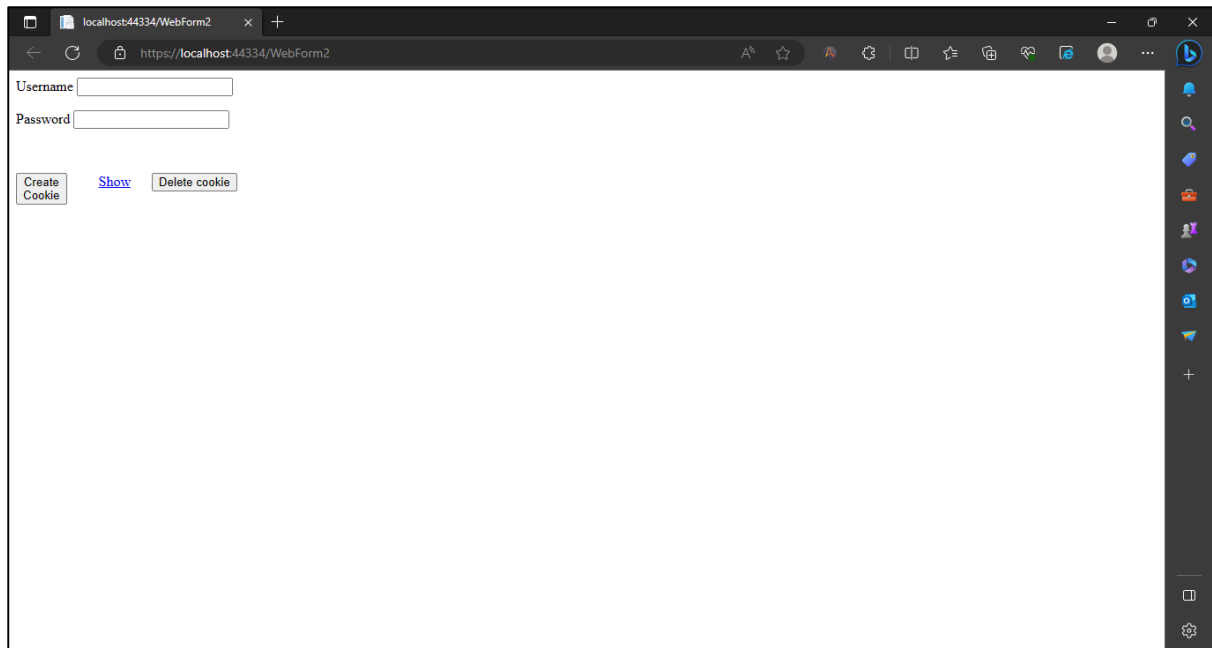
After Clicking on Click multiple times



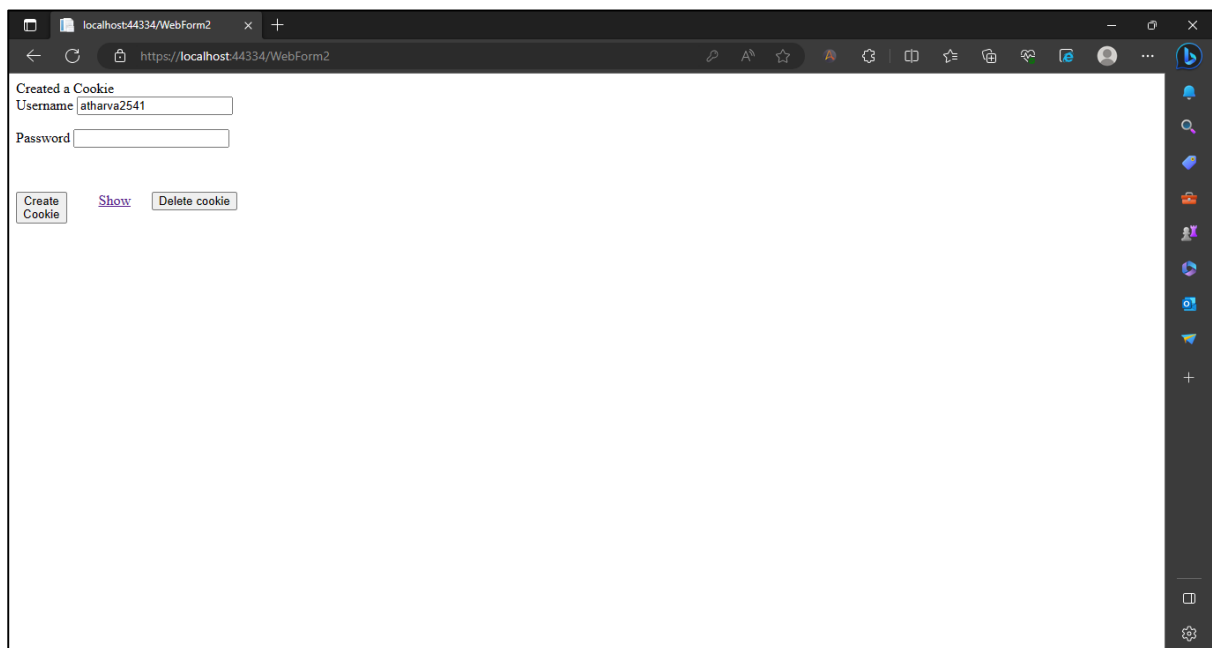
After Clicking on Page Counter



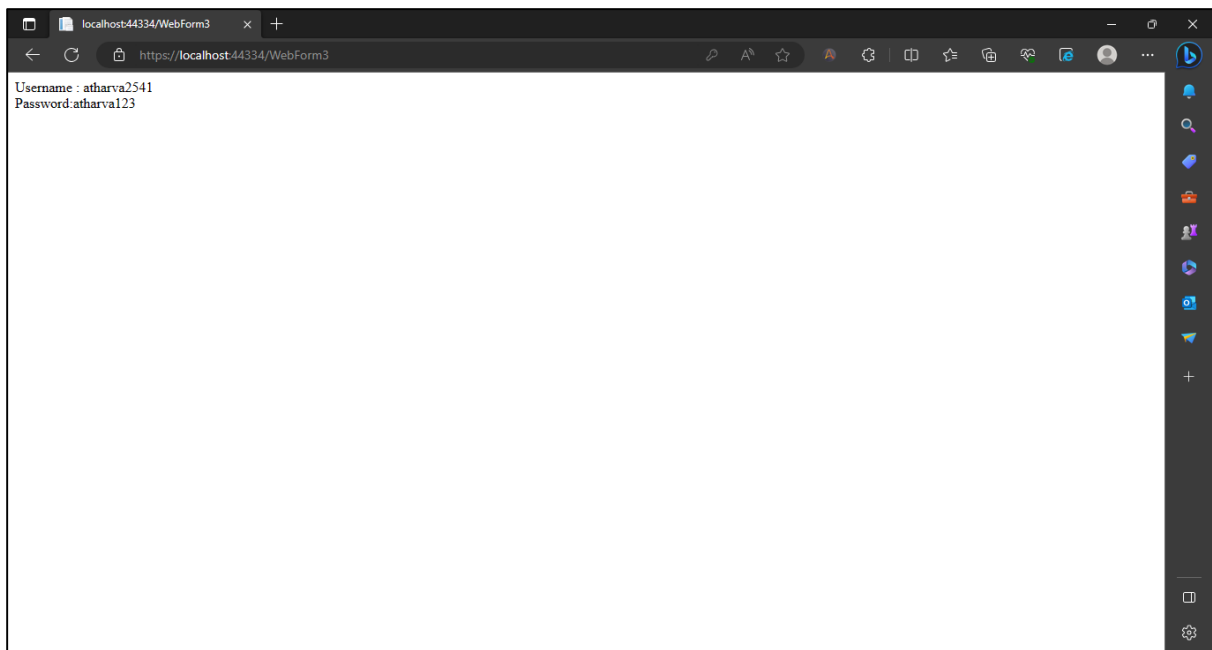
WebForm2.aspx



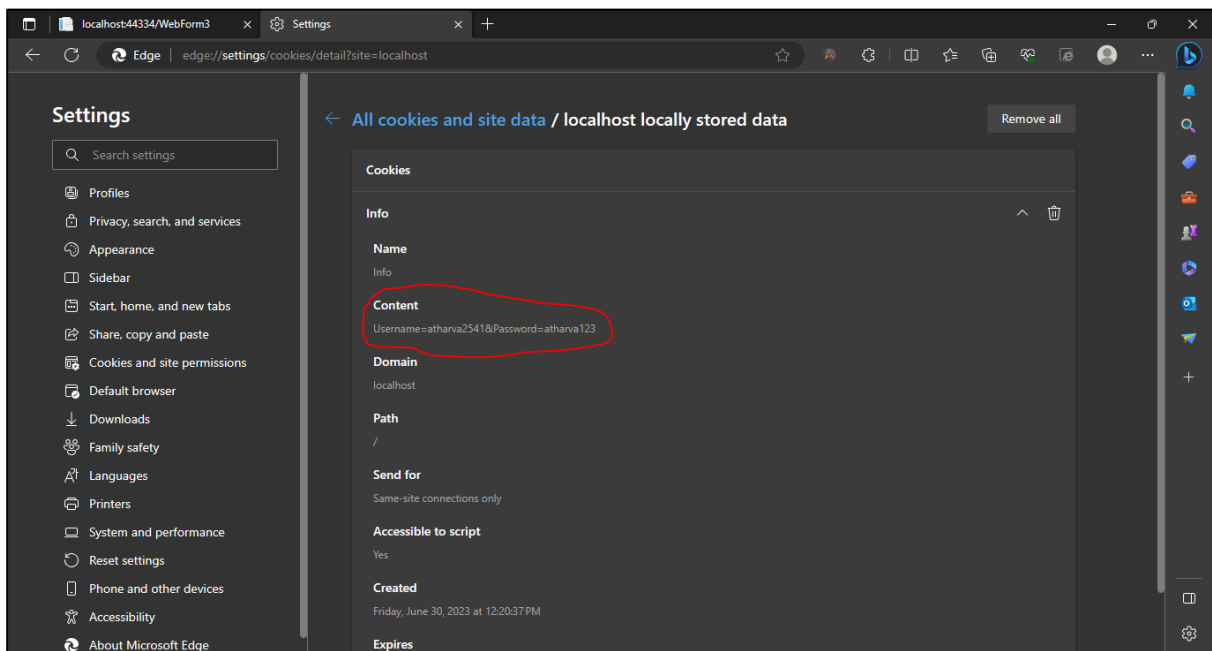
After Clicking on Create Cookie, A Cookie is created



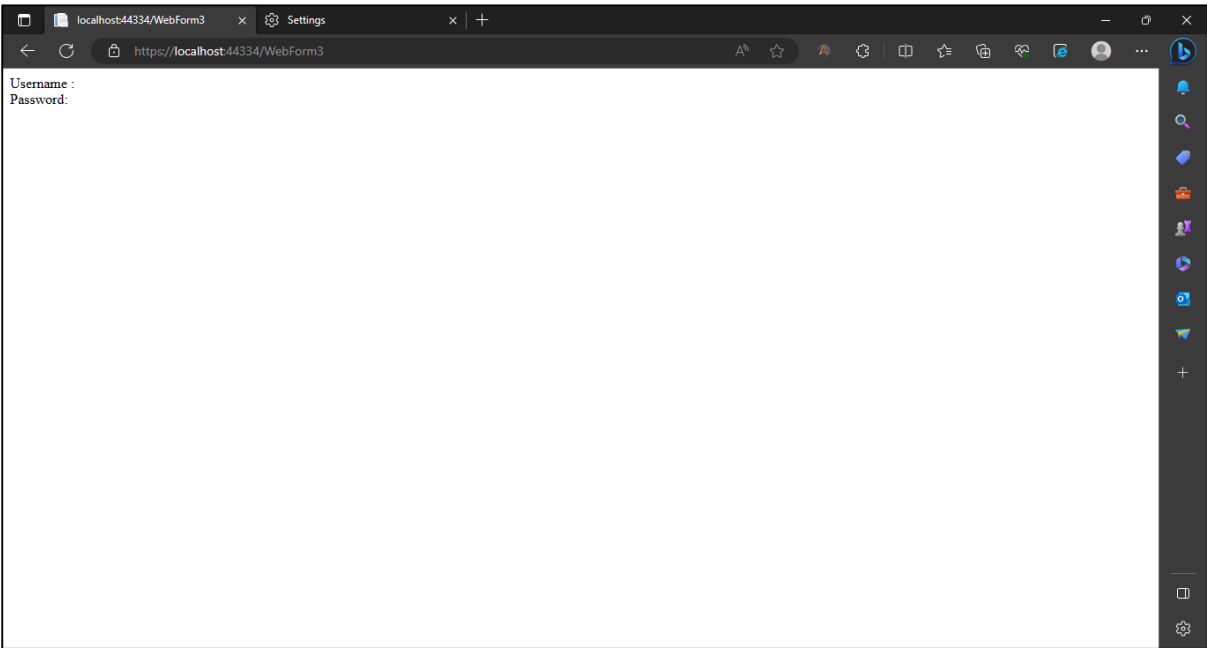
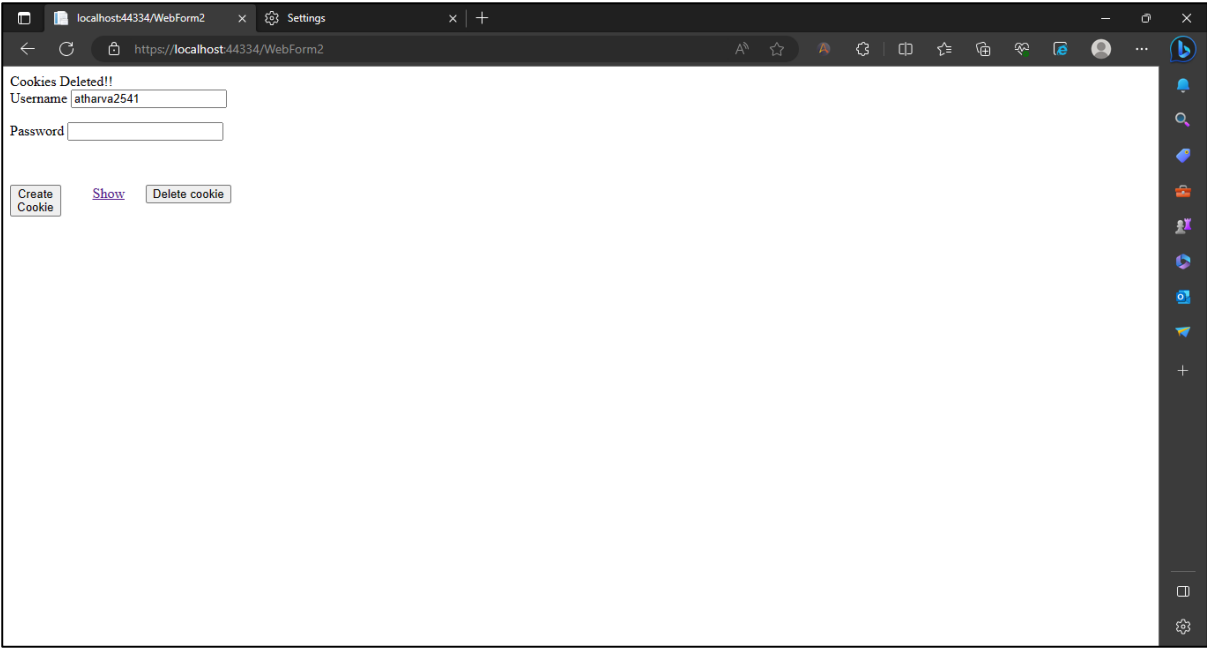
After Clicking on Show



You can see the cookies being stored in Browser



After clicking on Delete Cookie, the cookie gets deleted



B. Design Web Applications using Server Side Session Management Techniques

Code:

SessionState.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace Server_Side_State_Management

{

    public partial class SessionState : System.Web.UI.Page

    {

        protected void Page_Load(object sender, EventArgs e)

        {

        }

        protected void Button1_Click(object sender, EventArgs e)

        {

            Session["Name"] = TextBox1.Text;

            Response.Redirect("~/Home.aspx");

        }

    }

}
```

Home.aspx.cs

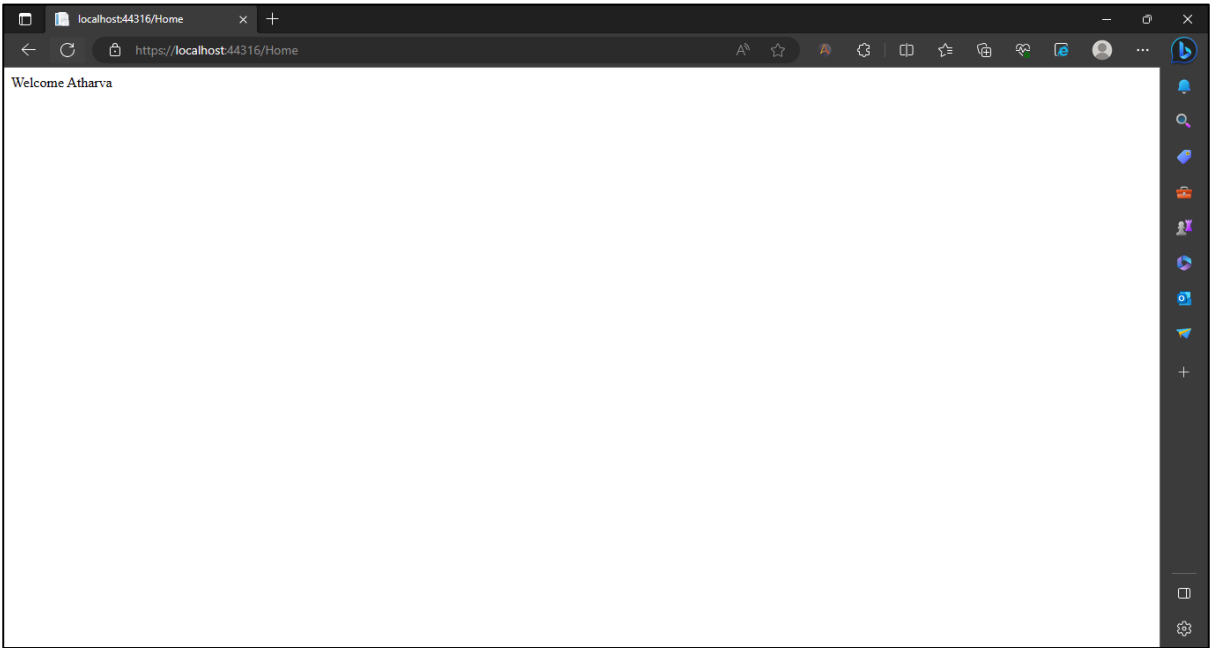
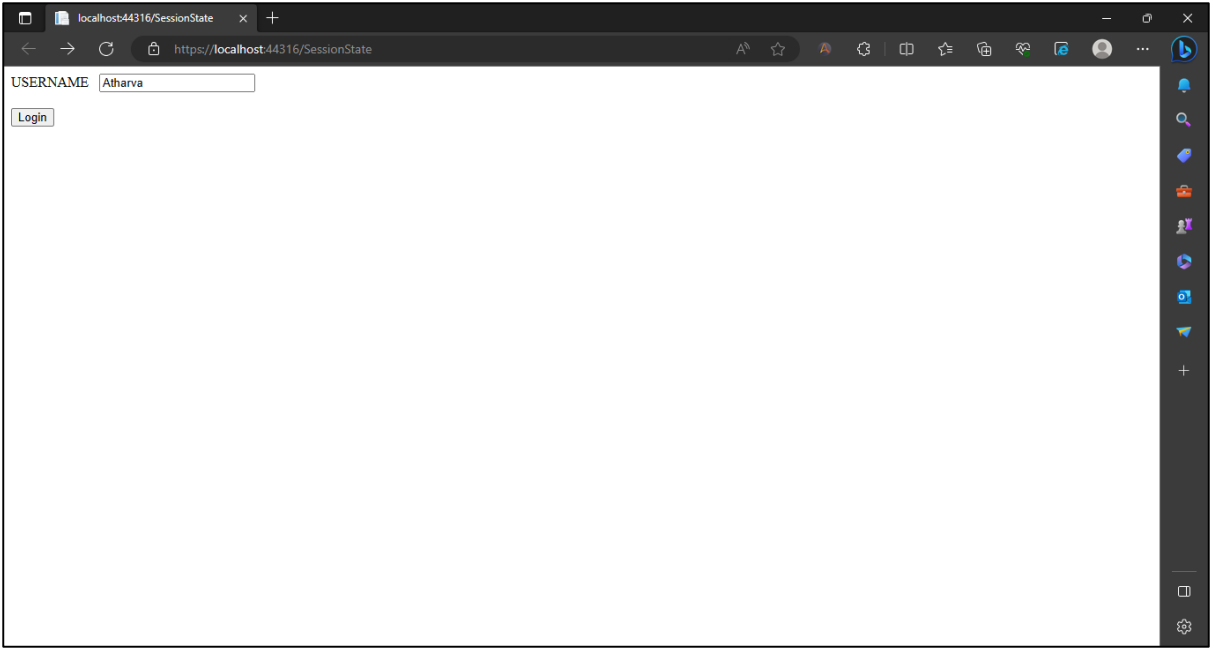
```
using System;

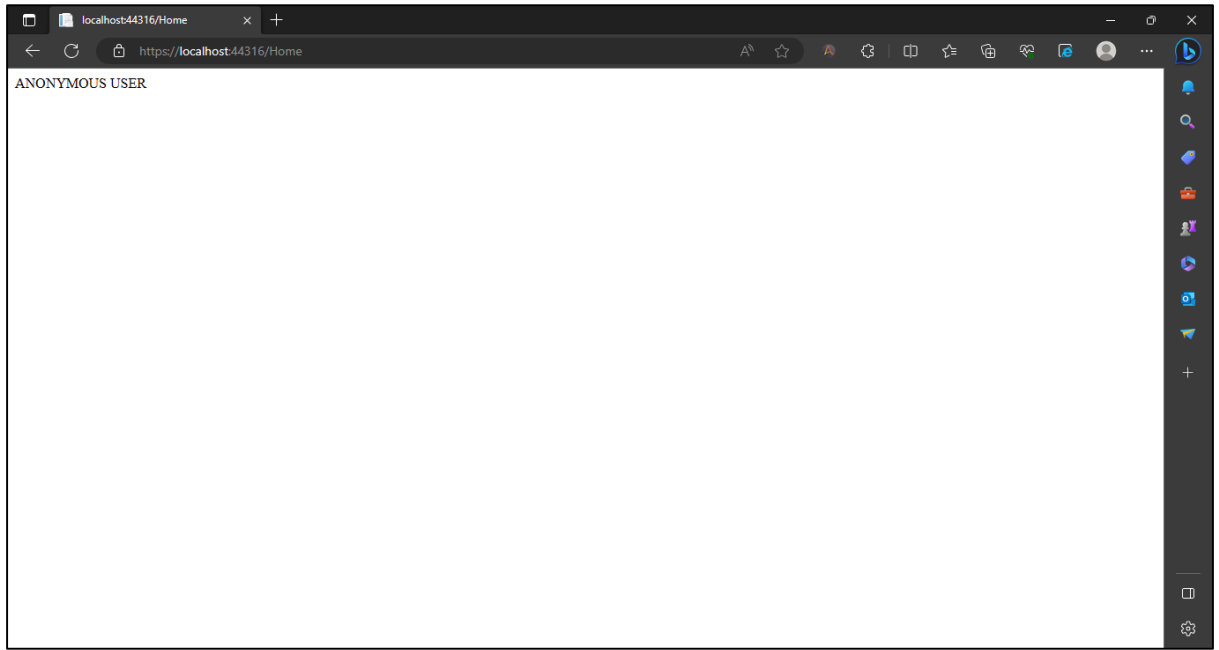
using System.Collections.Generic;
```

```
using System.Linq;
using System.Reflection.Emit;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace Server_Side_State_Management
{
    public partial class Home : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if (Session["Name"] != null && Session["Name"].ToString() != "")
            {
                Lbl1.Text = "Welcome "+Session["Name"].ToString();
            }
            else
            {
                Lbl1.Text = "ANONYMOUS USER";
            }
        }
    }
}
```

Output:



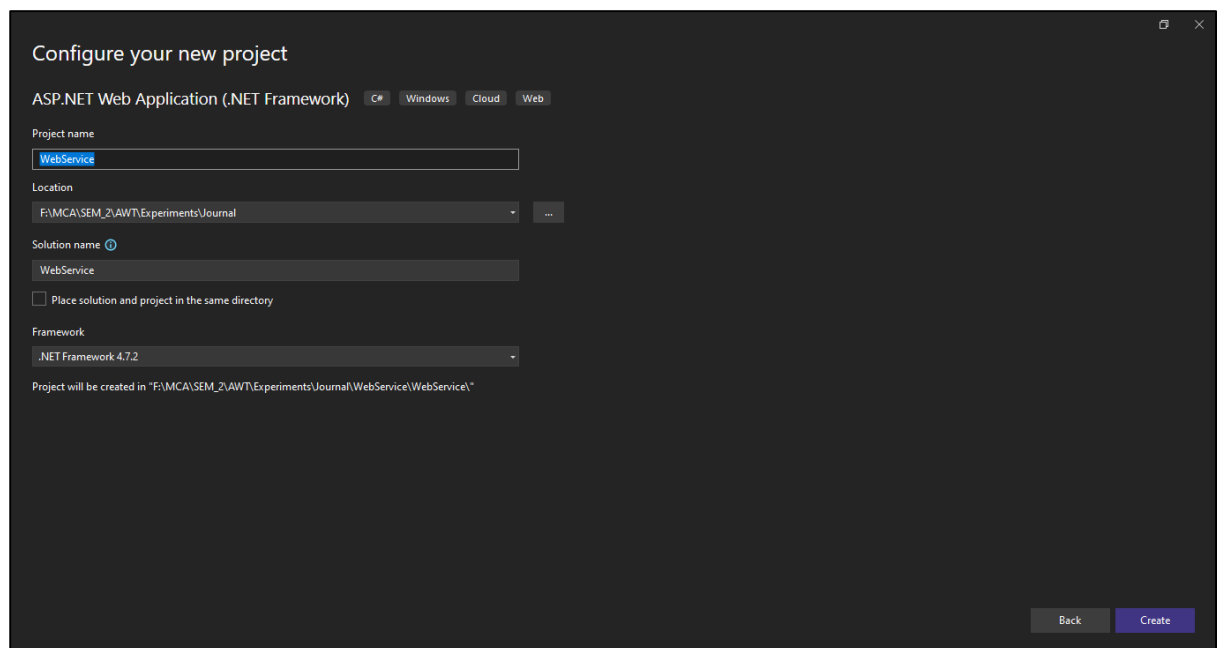
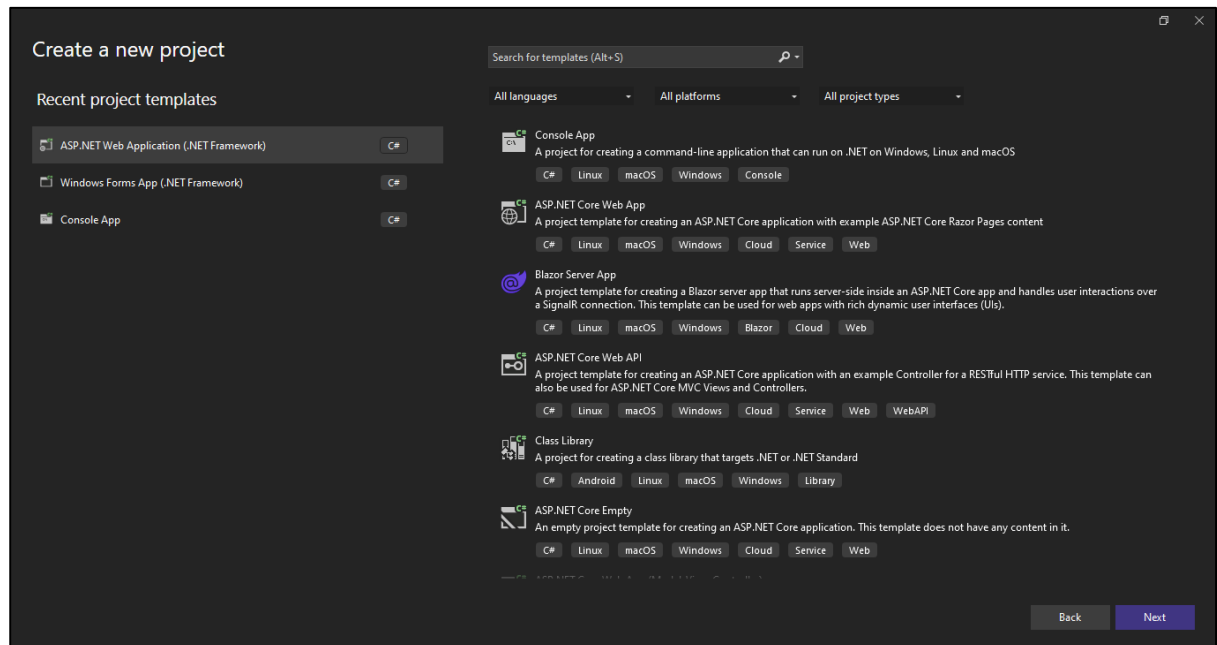


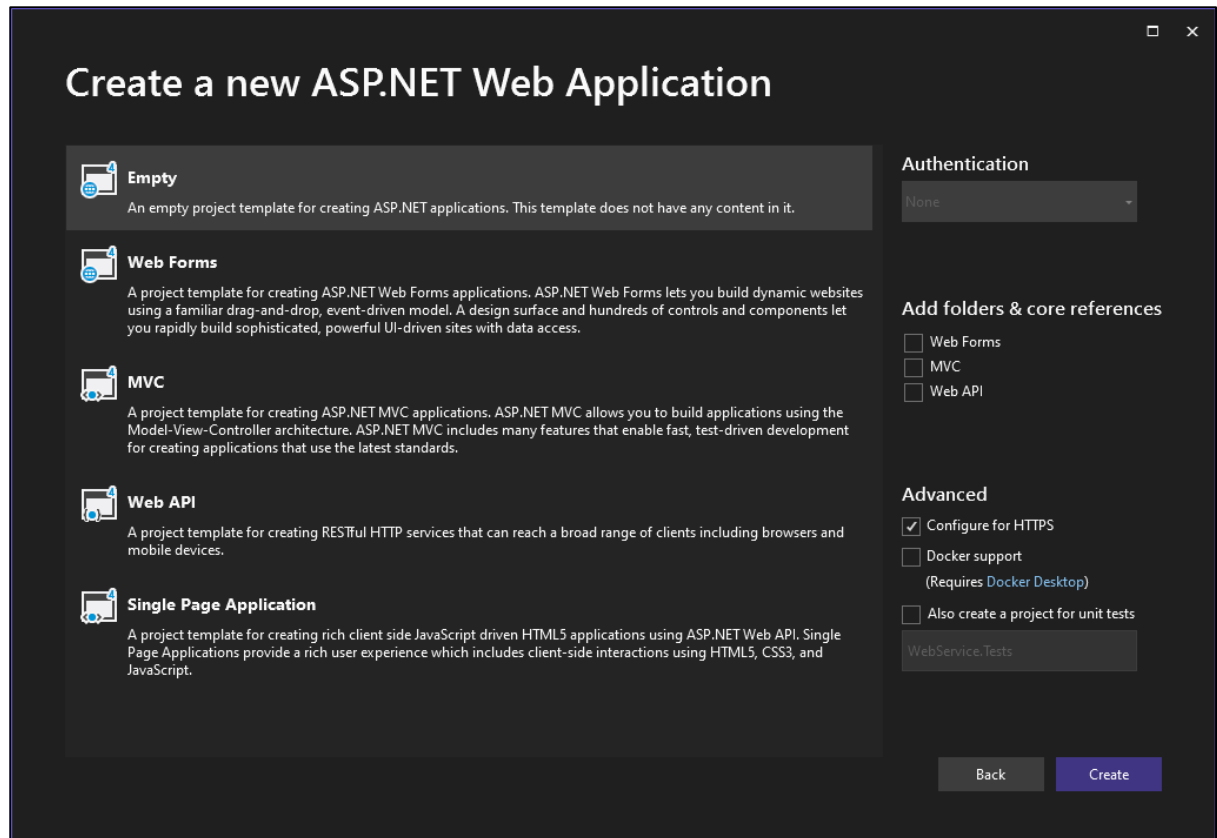
Category 6: Web Services and WCF Service

A. Design Web Application to produce and Consume a web service

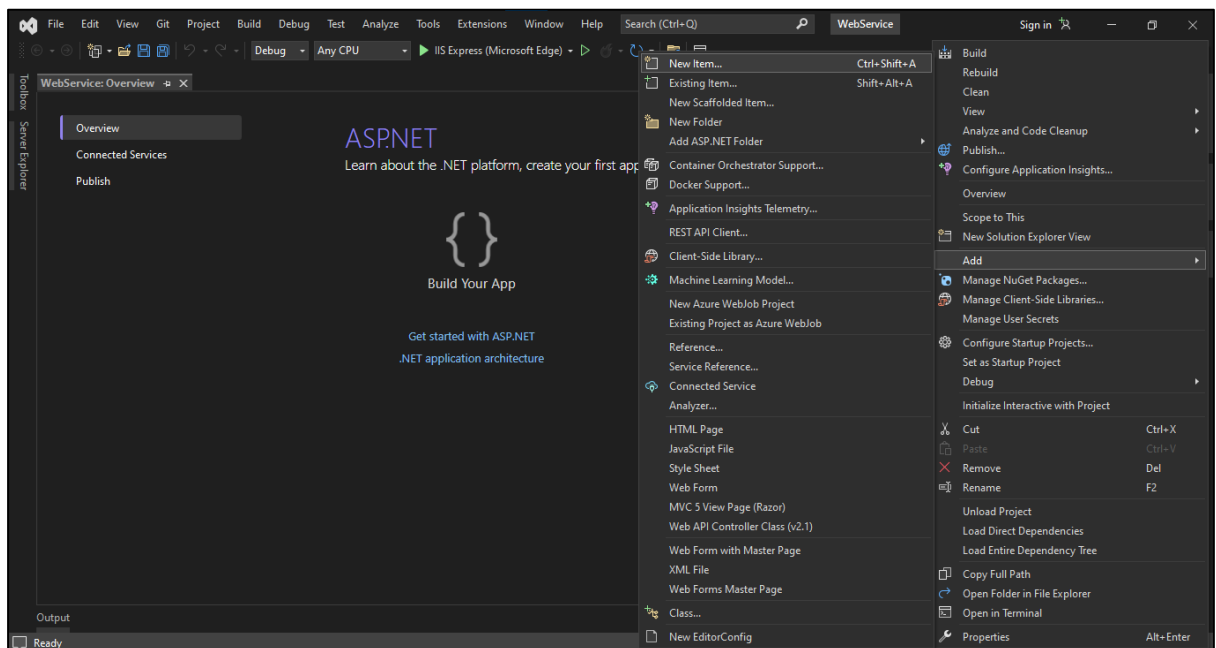
Steps:

Create an Empty ASP.NET Web Application (.NET Framework)

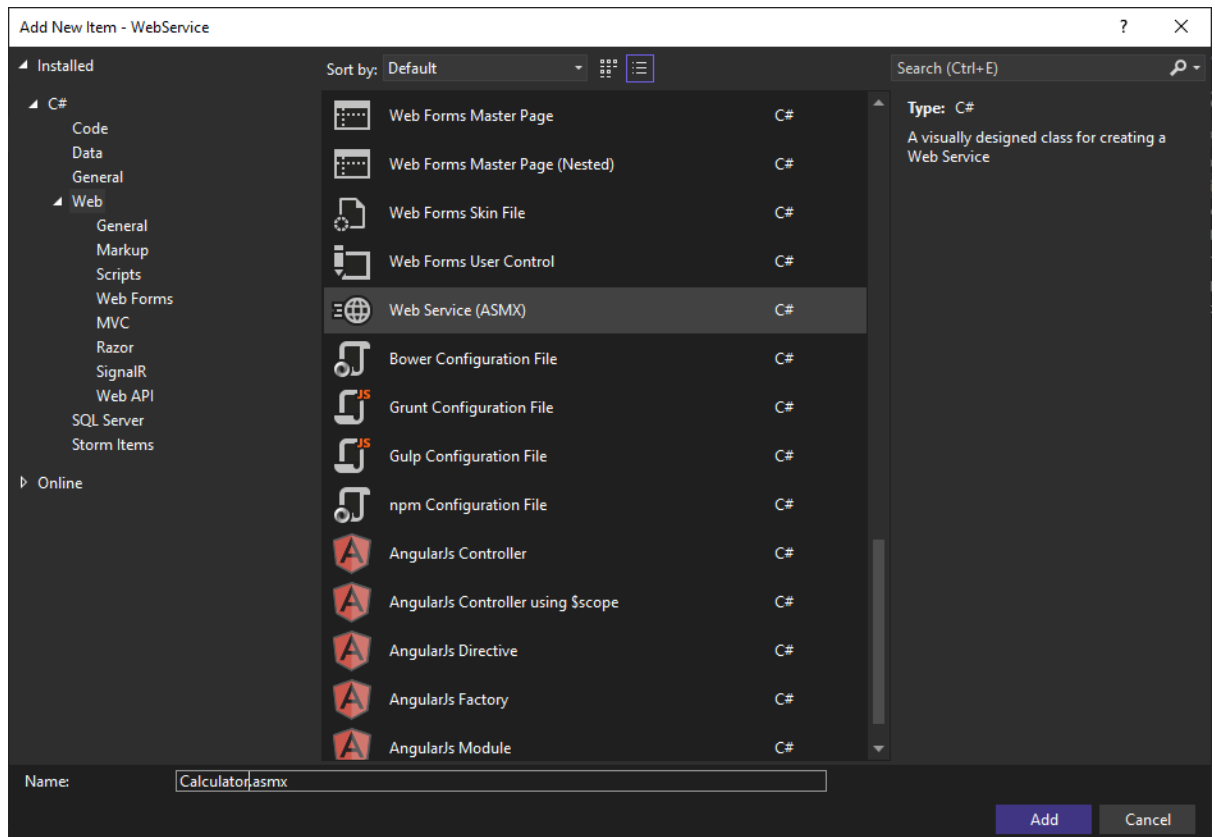




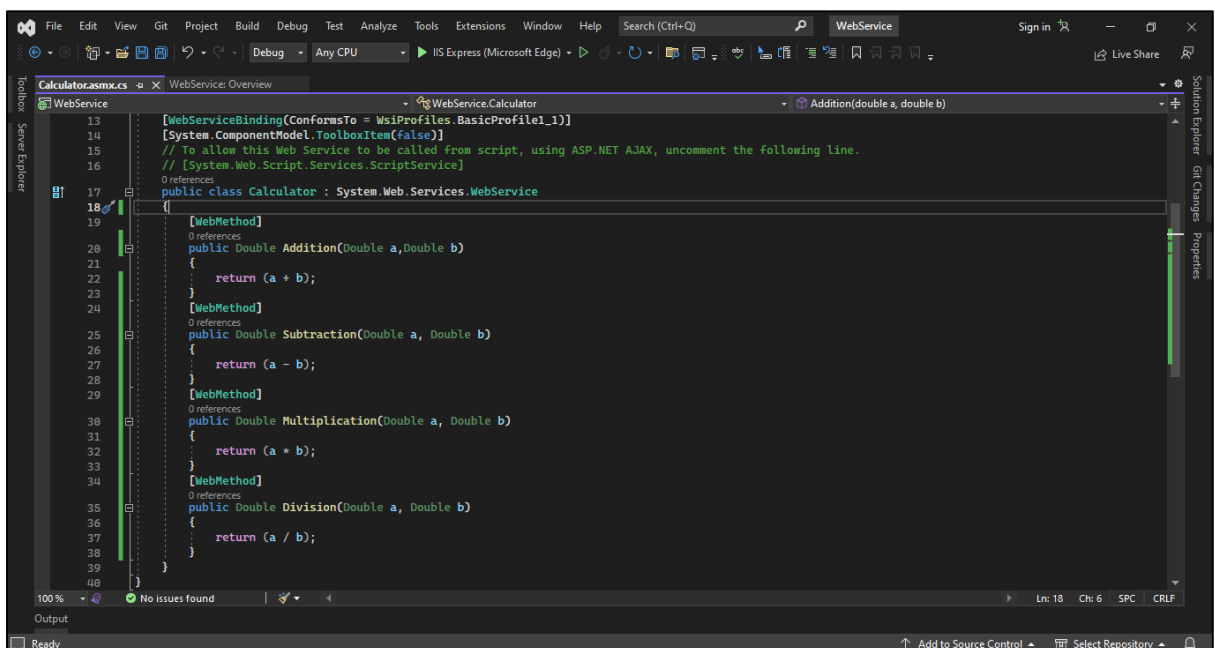
Right Click on Project -> Add New Item



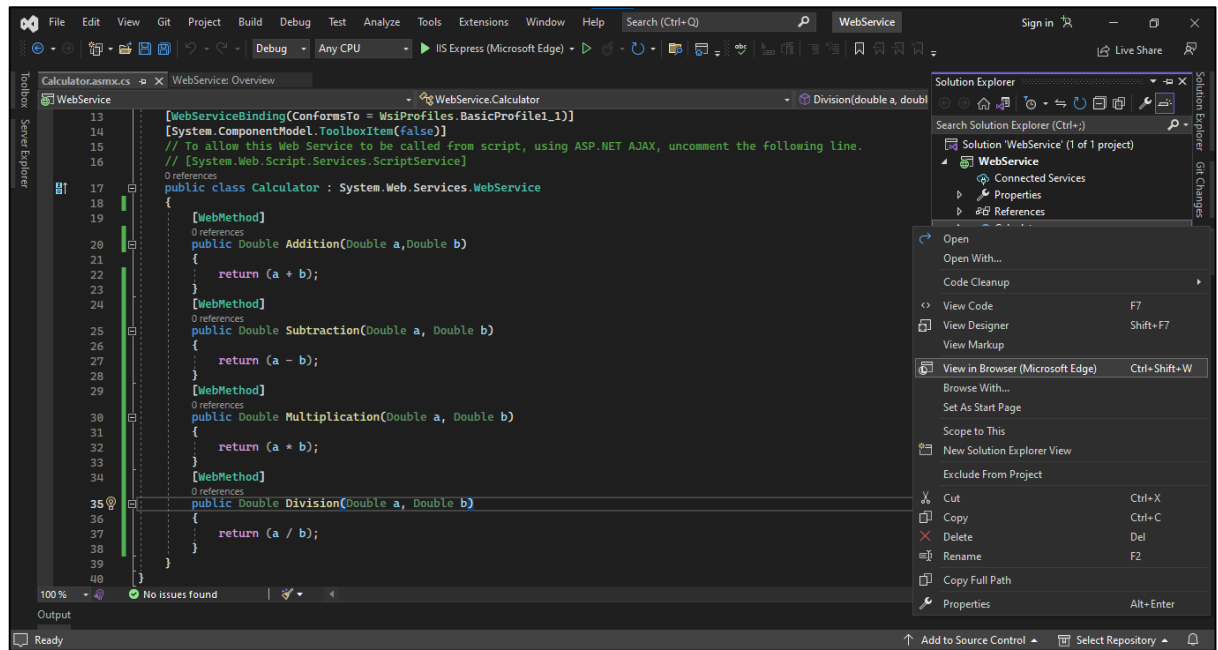
Select Web Service -> Click on Add



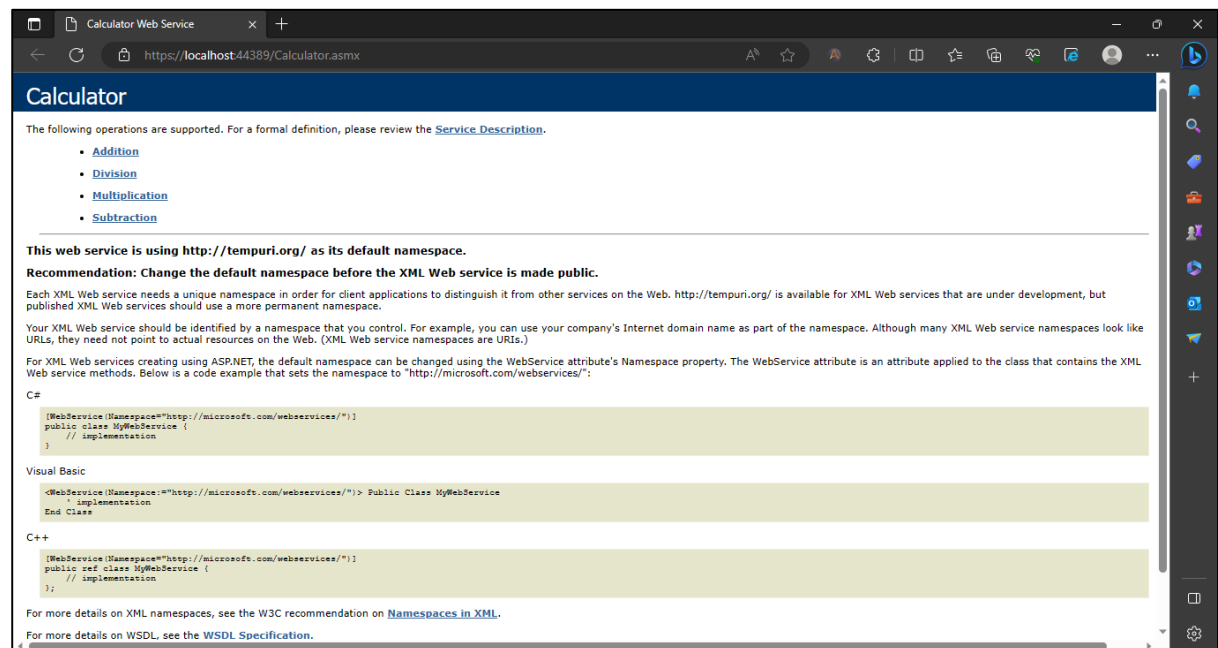
Write the following Code



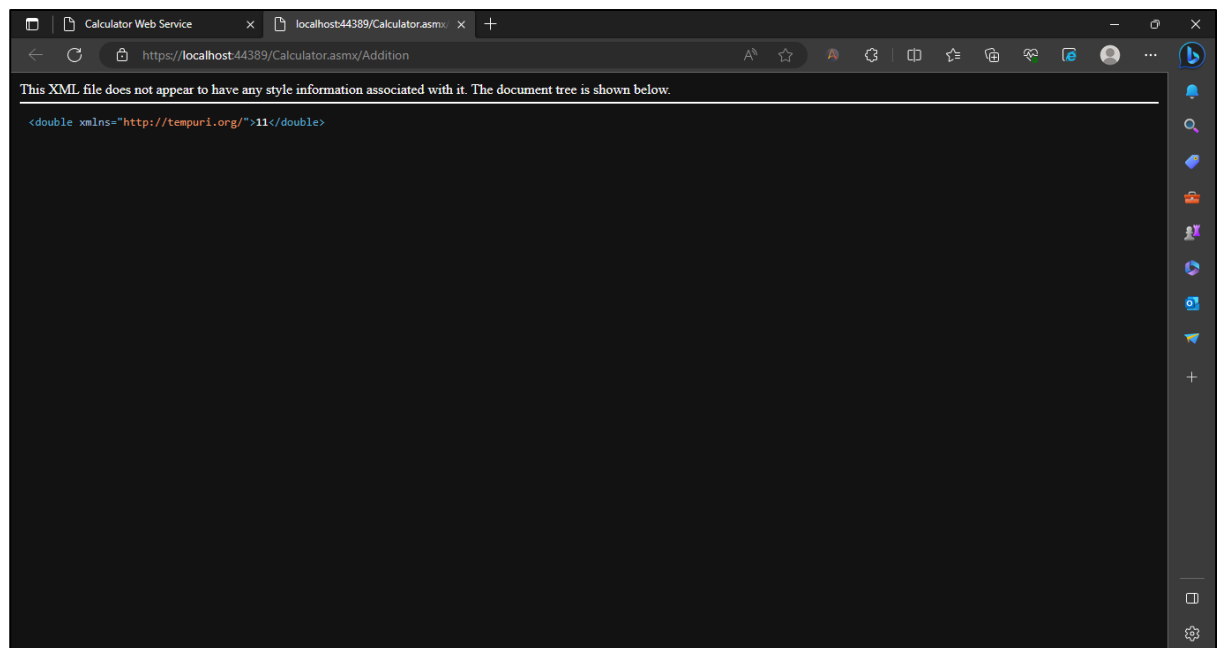
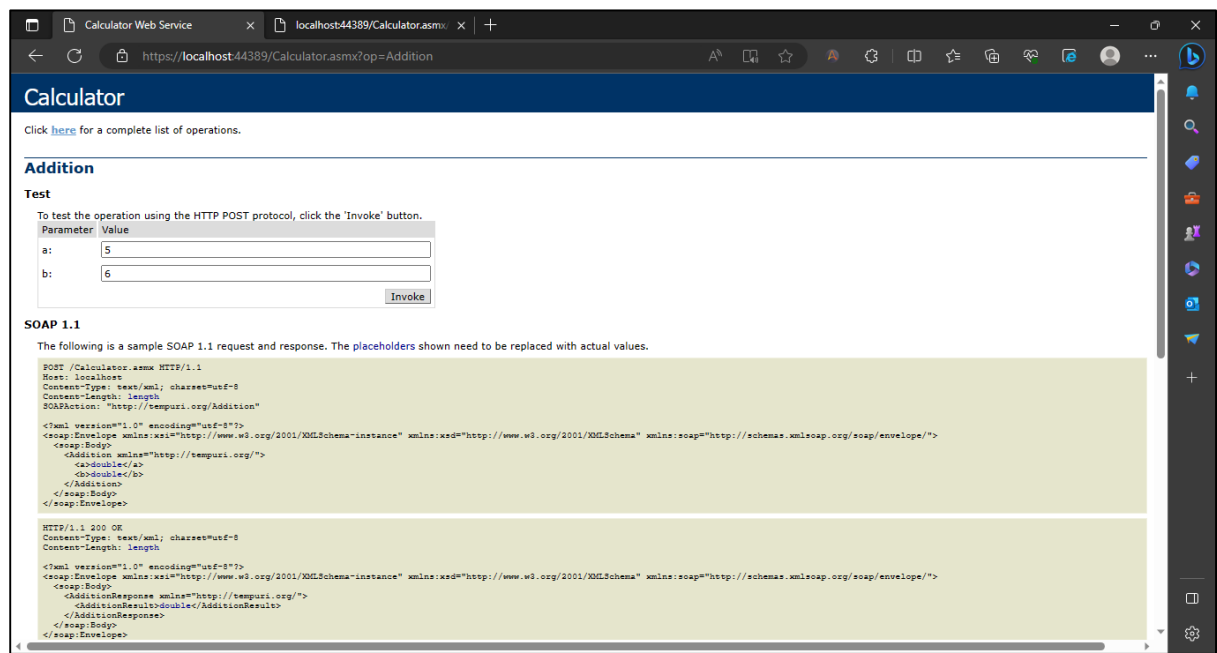
Right Click on Calculator.asmx -> View in Browser



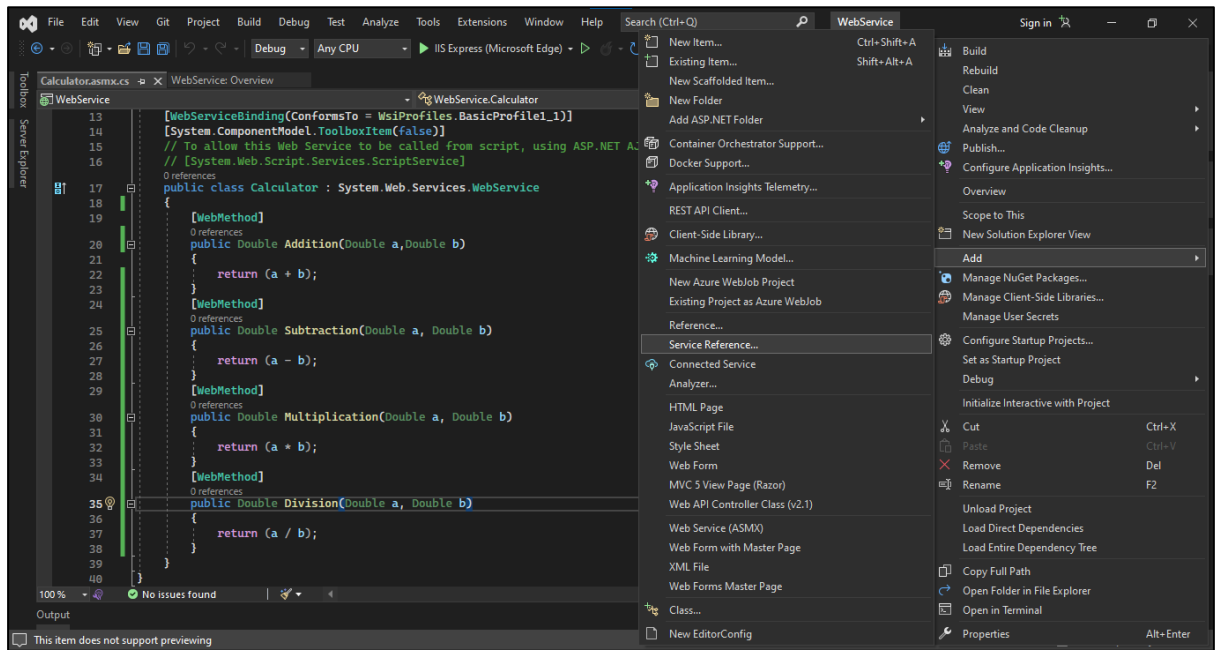
Check Each Method



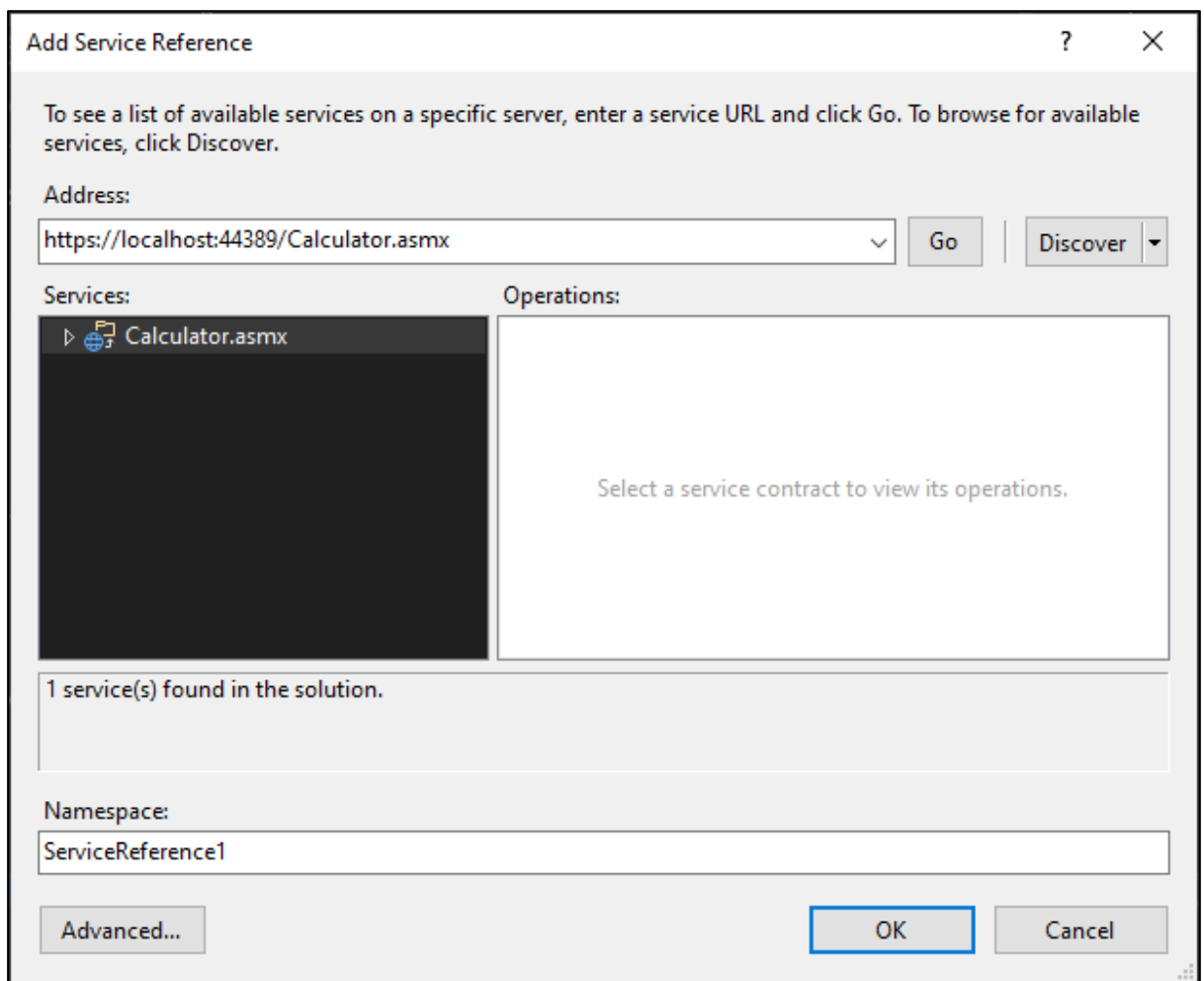
Enter Values as per your choice and Click on Invoke



Right Click on Project-> Add -> Service Reference



Click on Discover



Click on Advanced

Add Service Reference ? X

To see a list of available services on a specific server, enter a service URL and click Go. To browse for available services, click Discover.

Address:

Services: Operations:

Calculator.asmx

Select a service contract to view its operations.

1 service(s) found in the solution.

Namespace:

Click on Add Web Reference

Service Reference Settings

Client

Access level for generated classes: Public

☒ Allow generation of asynchronous operations

☒ Generate task-based operations

☐ Generate asynchronous operations

Data Type

☐ Always generate message contracts

Collection type: System.Array

Dictionary collection type: System.Collections.Generic.Dictionary

☒ Reuse types in referenced assemblies

☒ Reuse types in all referenced assemblies

☐ Reuse types in specified referenced assemblies:

- ☐ Microsoft.CodeDom.Providers.DotNetCompilerPlatform
- ☐ Microsoft.CSharp
- ☐ mscorlib
- ☐ System
- ☐ System.ComponentModel.DataAnnotations

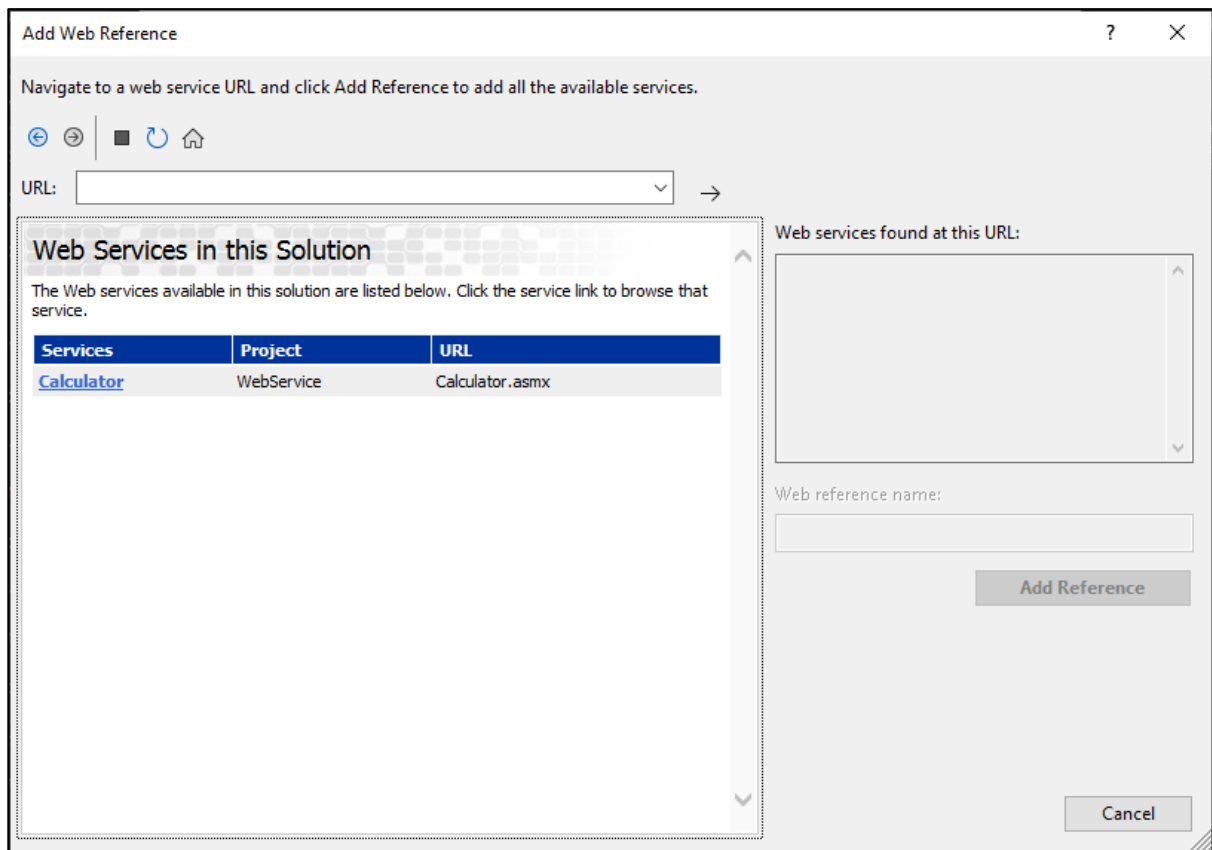
Compatibility

Add a Web Reference instead of a Service Reference. This will generate code based on .NET Framework 2.0 Web Services technology.

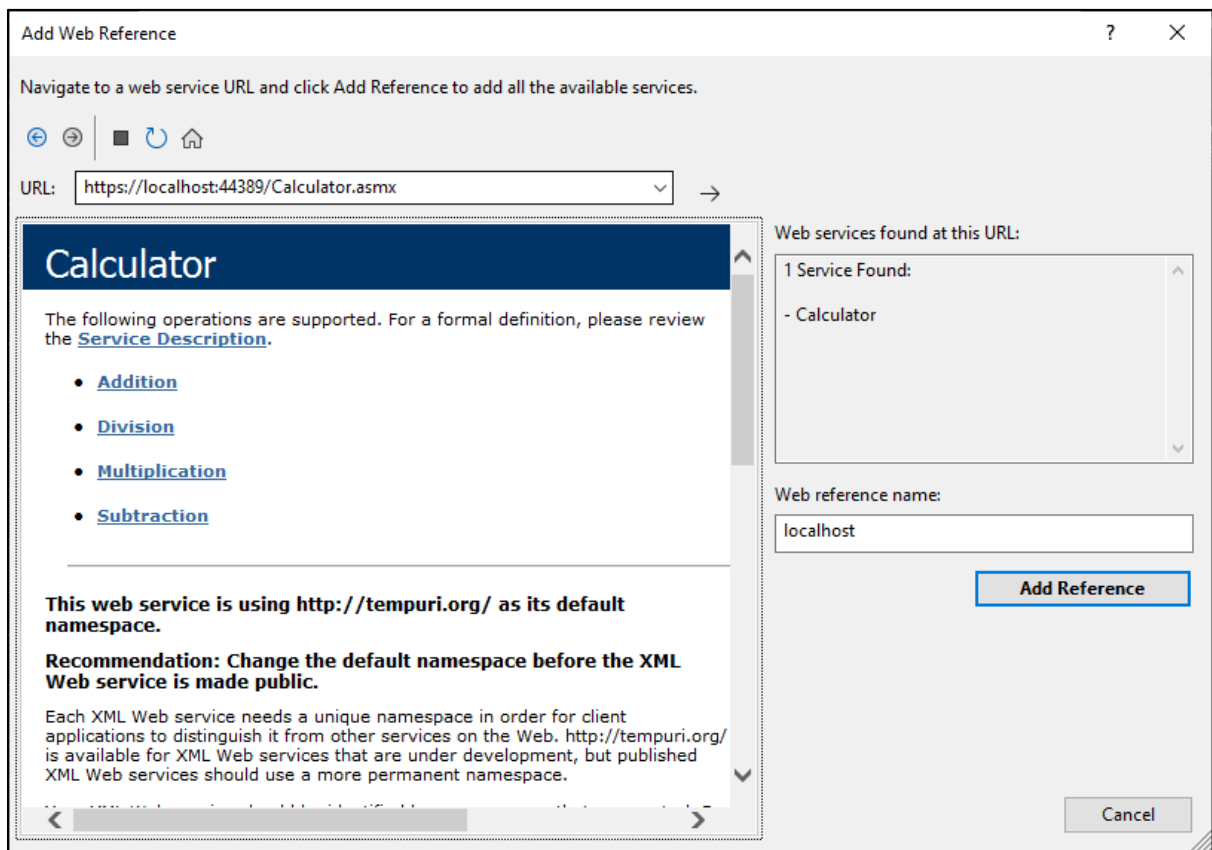
Add Web Reference...

OK Cancel

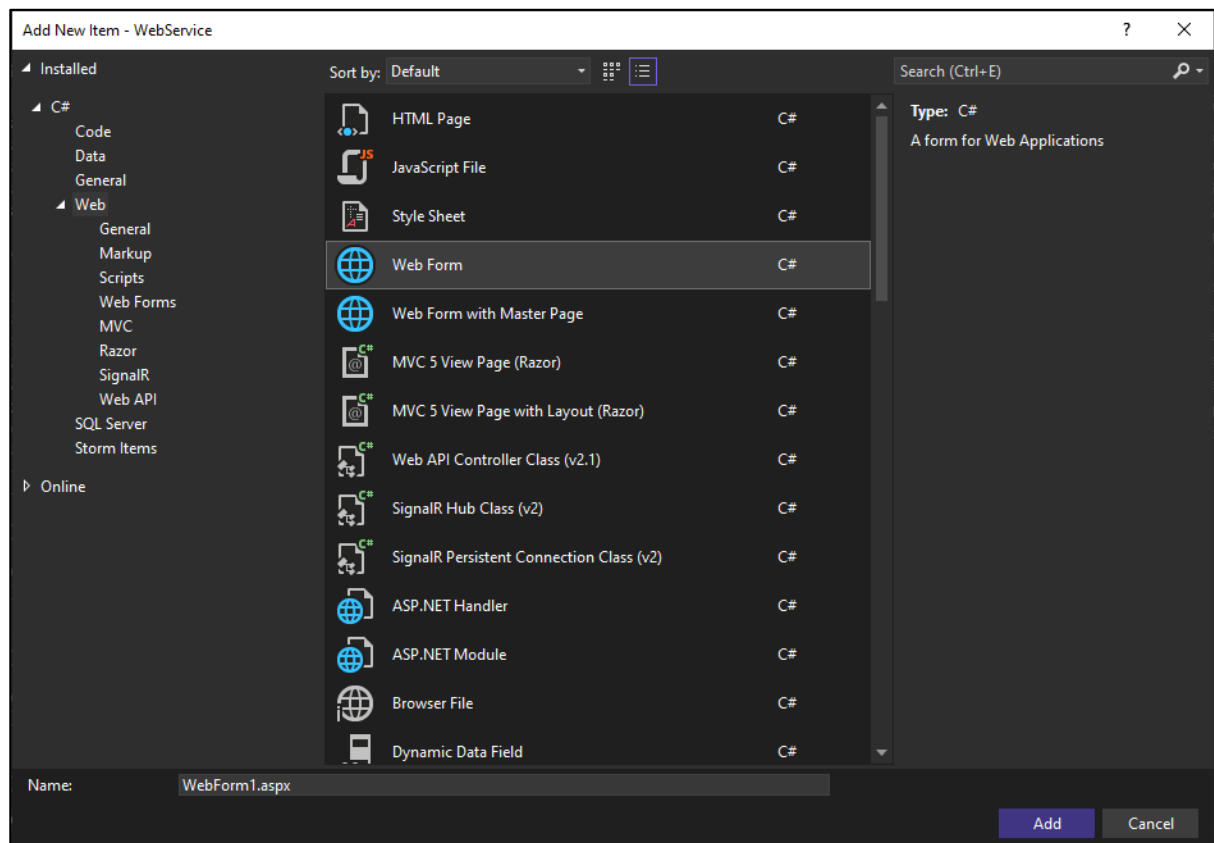
Click on Web Services in this Solution



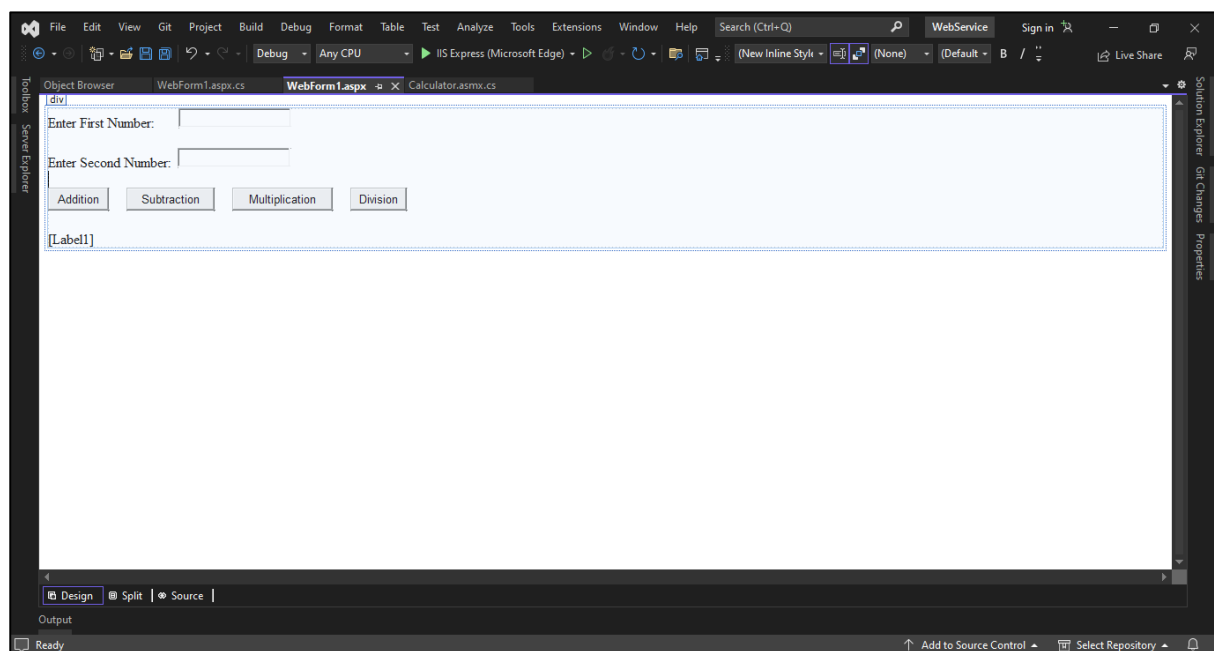
Click on Calculator -> Click on Add Reference



Right Click on Project -> Add New Item -> Select Web Form



Design given below:



Code:

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using WebService localhost;

namespace WebService

{

    public partial class WebForm1 : System.Web.UI.Page

    {

        protected void Page_Load(object sender, EventArgs e)

        {

        }

        protected void Button1_Click(object sender, EventArgs e)

        {

            localhost.Calculator Service1 = new localhost.Calculator();

            double a= Convert.ToDouble(TextBox1.Text);

            double b= Convert.ToDouble(TextBox2.Text);

            double result=Service1.Addition(a, b);

            Label1.Text = result.ToString();

        }

        protected void Button2_Click(object sender, EventArgs e)

        {

            localhost.Calculator Service1 = new localhost.Calculator();
```

```

        double a = Convert.ToDouble(TextBox1.Text);
        double b = Convert.ToDouble(TextBox2.Text);
        double result = Service1.Subtraction(a, b);
        Label1.Text = result.ToString();
    }
protected void Button3_Click(object sender, EventArgs e)
{
    localhost.Calculator Service1 = new localhost.Calculator();
    double a = Convert.ToDouble(TextBox1.Text);
    double b = Convert.ToDouble(TextBox2.Text);
    double result = Service1.Multiplication(a, b);
    Label1.Text = result.ToString();
}
protected void Button4_Click(object sender, EventArgs e)
{
    localhost.Calculator Service1 = new localhost.Calculator();
    double a = Convert.ToDouble(TextBox1.Text);
    double b = Convert.ToDouble(TextBox2.Text);
    double result = Service1.Division(a, b);
    Label1.Text = result.ToString();
}
}
}

```

Output:

localhost44389/WebForm1.aspx × +

← ↻ 🔒 https://localhost44389/WebForm1.aspx

Enter First Number:

Enter Second Number:

60

localhost44389/WebForm1.aspx × +

← ↻ 🔒 https://localhost44389/WebForm1.aspx

Enter First Number:

Enter Second Number:

40

localhost44389/WebForm1.aspx × +

← ↻ 🔒 https://localhost44389/WebForm1.aspx

Enter First Number:

Enter Second Number:

500

localhost44389/WebForm1.aspx × +

← ↻ 🔒 https://localhost44389/WebForm1.aspx

Enter First Number:

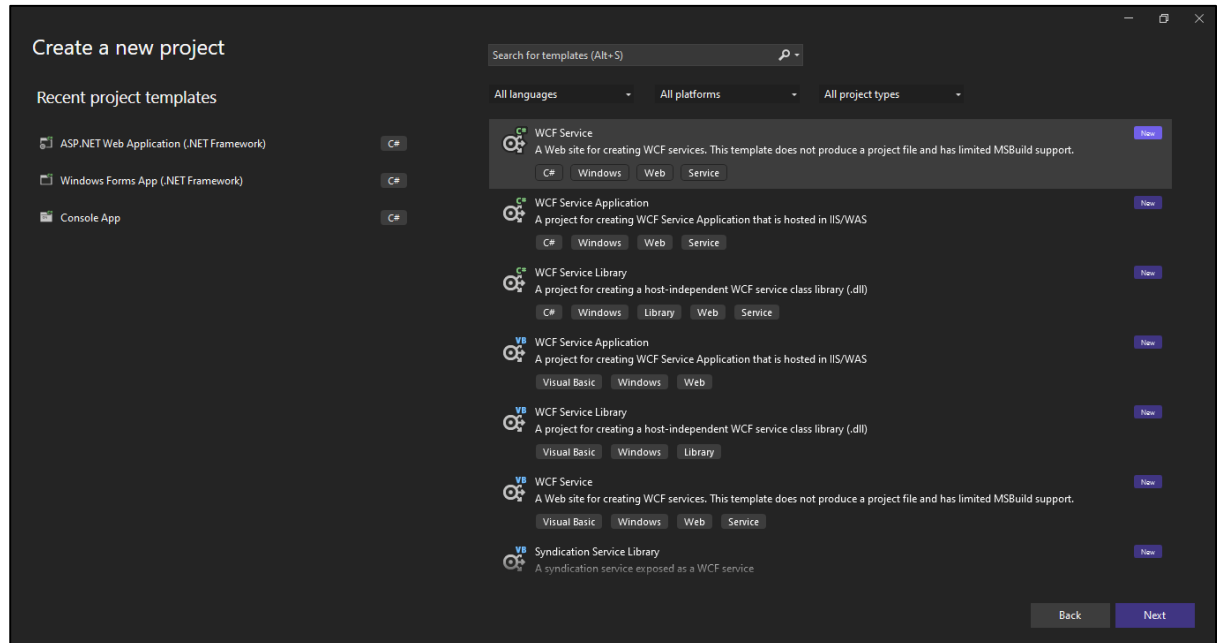
Enter Second Number:

5

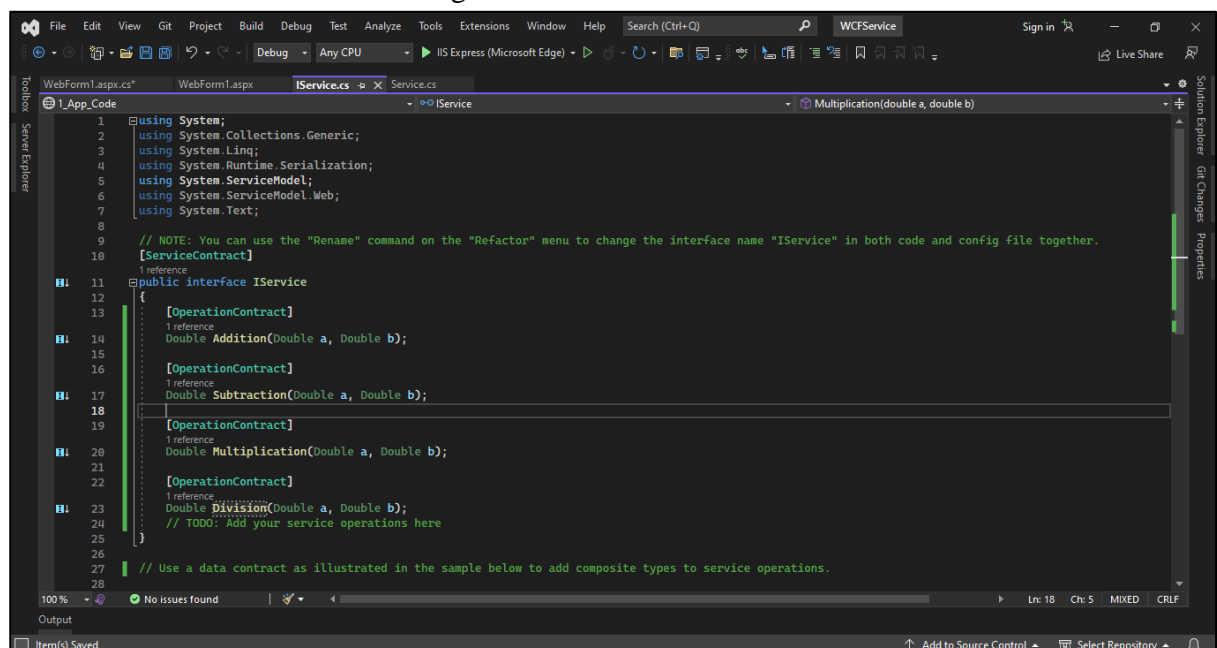
B. Design Web Application to produce and Consume a WCF Service

Steps:

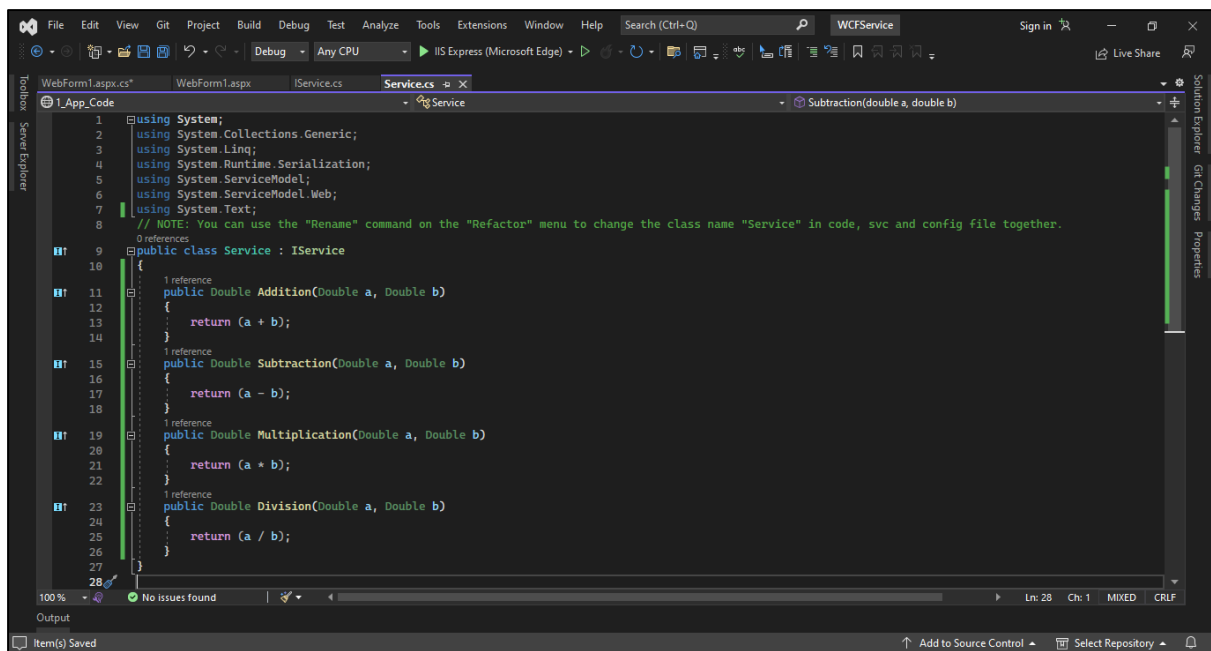
Create New Project -> Search for WCF Service -> Click on Next -> Enter Name As per your choice -> Click on Create



Inside IService.cs add the following code

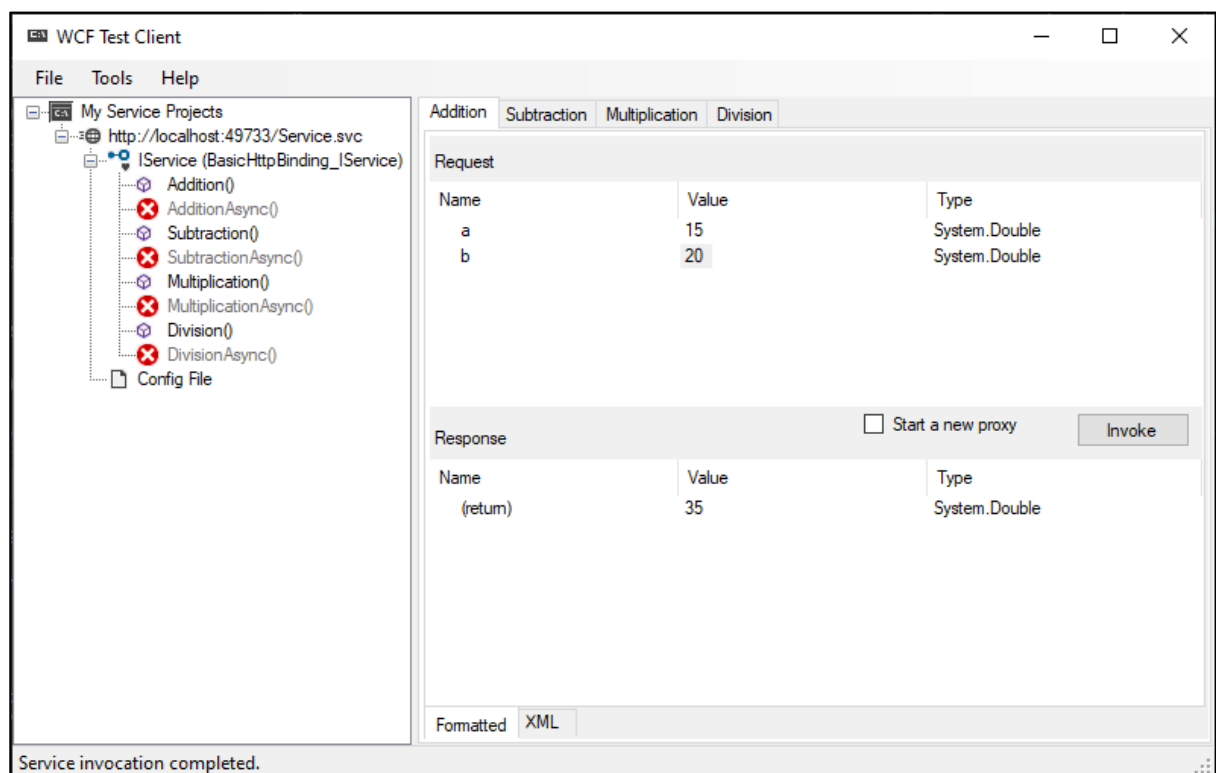


Inside Service.cs add the following code:

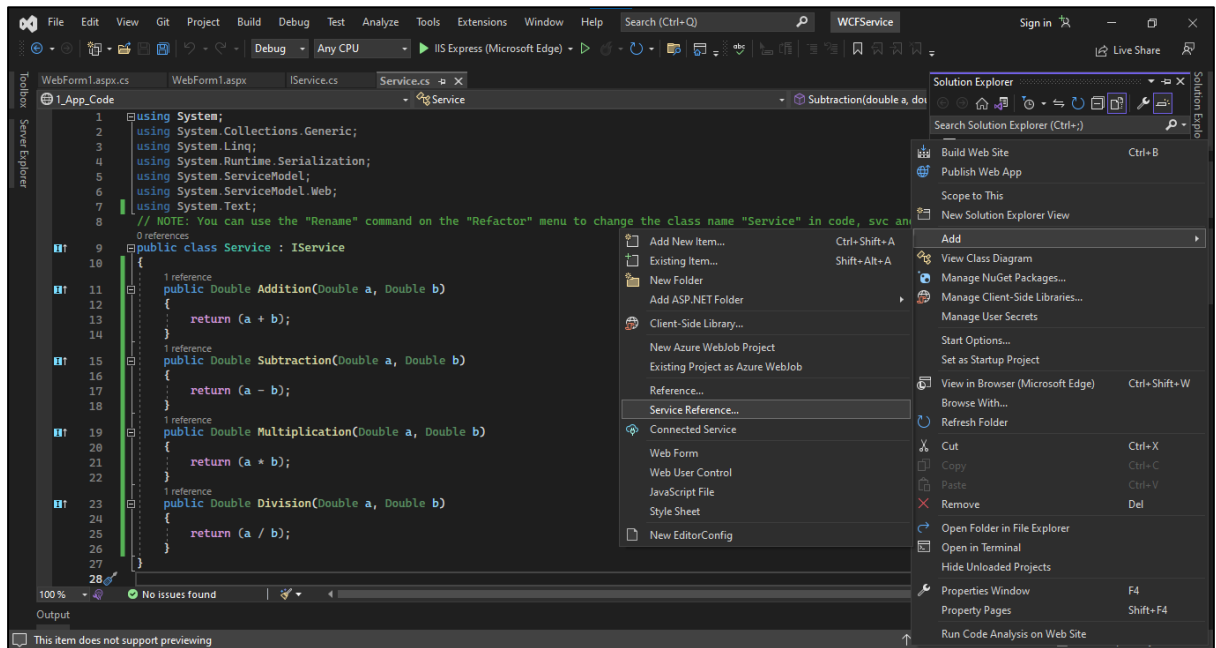


Run the Service.cs file

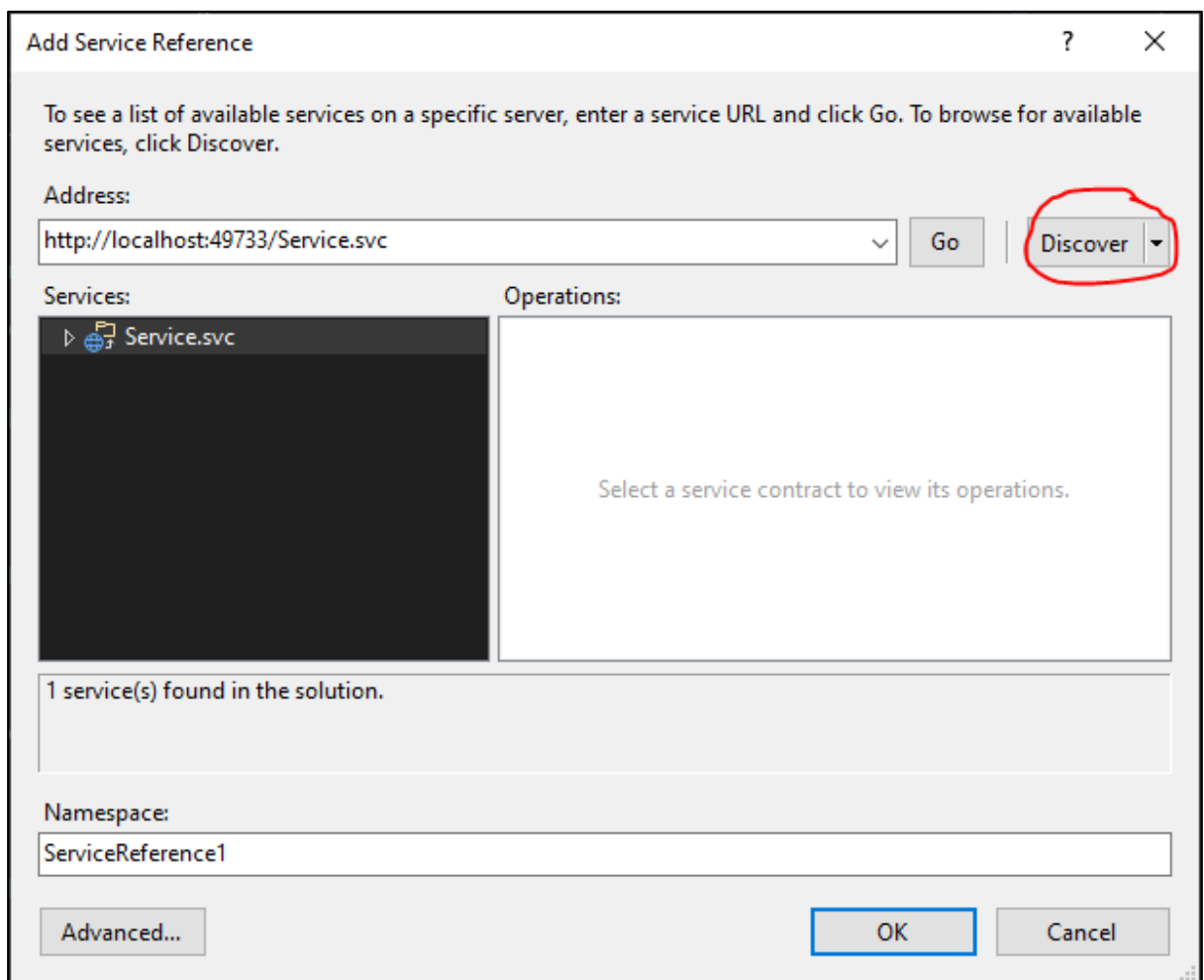
Check Whether All operations are working properly



Right Click on Project -> Click on Add -> Service Reference



Click on Discover -> Click on Ok



Create a new WebForm and add the following code

Code:

```
using System;
```

```
using System.Collections.Generic;
```

```
using System.Linq;
```

```
using System.Web;
```

```
using System.Web.UI;
```

```
using System.Web.UI.WebControls;
```

```
public partial class WebForm1 : System.Web.UI.Page
```

```
{
```

```
    protected void Page_Load(object sender, EventArgs e)
```

```
    {
```

```
    }
```

```
    protected void Button1_Click(object sender, EventArgs e)
```

```
    {
```

```
        ServiceReference1.ServiceClient svc=new ServiceReference1.ServiceClient();
```

```
        double a=Convert.ToDouble(TextBox1.Text);
```

```
        double b=Convert.ToDouble(TextBox2.Text);
```

```
        Label1.Text=svc.Addition(a,b).ToString();
```

```
    }
```

```
    protected void Button2_Click(object sender, EventArgs e)
```

```
    {
```

```
        ServiceReference1.ServiceClient svc = new ServiceReference1.ServiceClient();
```

```
double a = Convert.ToDouble(TextBox1.Text);  
double b = Convert.ToDouble(TextBox2.Text);  
Label1.Text = svc.Subtraction(a,b).ToString();  
}
```

```
protected void Button3_Click(object sender, EventArgs e)  
{  
    ServiceReference1.ServiceClient svc = new ServiceReference1.ServiceClient();  
    double a = Convert.ToDouble(TextBox1.Text);  
    double b = Convert.ToDouble(TextBox2.Text);  
    Label1.Text = svc.Multiplication(a,b).ToString();  
}
```

```
protected void Button4_Click(object sender, EventArgs e)  
{  
    ServiceReference1.ServiceClient svc = new ServiceReference1.ServiceClient();  
    double a = Convert.ToDouble(TextBox1.Text);  
    double b = Convert.ToDouble(TextBox2.Text);  
    Label1.Text = svc.Division(a,b).ToString();  
}  
}
```

Output:

localhost:49733/WebForm1.aspx

WCF

Enter First Number:

Enter Second Number:

56

localhost:49733/WebForm1.aspx

WCF

Enter First Number:

Enter Second Number:

52

localhost:49733/WebForm1.aspx

WCF

Enter First Number:

Enter Second Number:

108

localhost:49733/WebForm1.aspx

localhost:49733/WebForm1.aspx

WCF

Enter First Number:

Enter Second Number:

27

Category 7: ASP.NET MVC

A. Design MVC based Web applications.

Code:

HomeController.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.Mvc;

namespace MVC_Application.Controllers

{

    public class HomeController : Controller

    {

        public ActionResult Index()

        {

            return View();

        }

        public ActionResult RegsForm()

        {

            ViewBag.Message = "Your application Registration page.";

            return View();

        }

        public ActionResult About()

        {

            ViewBag.Message = "Your application description page.";

            return View();

        }

    }

}
```

```

        public ActionResult Contact()
        {
            ViewBag.Message = "Your contact page.";

            return View();
        }
    }
}

```

Index.cshtml

```

@{
    ViewBag.Title = "Home Page";
}

<main>

    <section class="row" aria-labelledby="aspnetTitle">

        <h1 id="title">Formula 1</h1>

        <p class="lead">The official Home of Formula 1© Racing.</p>

        <p><a href="~/Views/Home/RegsForm" class="btn btn-outline-danger
btnmd">Register &raquo;</a></p>

    </section>

    <br />

    <div class="row">

        <section class="col-md-4" aria-labelledby="gettingStartedTitle">

            <h2 id="gettingStartedTitle">Unlock the inside world of F1</h2>

            <p>

                With F1 Unlocked, get exclusive insider stories. Discover the latest

                action on and off the track, take a peek behind-the-scenes and dissect post-race

                analysis.

            </p>

```

<p>

<a class="btn btn-outline-danger"

href="https://www.formula1.com/en/page.discover-unlocked.html#skinnyregistration">Learn more »

</p>

</section>

<section class="col-md-4" aria-labelledby="librariesTitle">

<h2 id="librariesTitle">Unlock money-can't-buy competitions</h2>

<p>

It. Could. Be. You. Be in with a chance to win once-in-a-lifetime prizes. Like an all-expenses-paid trip to the Grand Prix weekend. Flights.

</p>

<p>

<a class="btn btn-outline-danger"

href="https://www.formula1.com/en/page.competition.html">Learn more »

</p>

</section>

<section class="col-md-4" aria-labelledby="hostingTitle">

<h2 id="hostingTitle">Unlock every detail with every race</h2>

<p>

Immerse yourself into every racing detail with free Live Timing data.

Track your favourites with a live leader board, sector performance and eavesdrop on

teams with radio.

</p>

<p>

<a class="btn btn-outline-danger"

[Learn more »](https://www.formula1.com/en/page.discover-unlocked.html#skinnyregistration)

</p>

</section>

</div>

</main>

About.cshtml

@{

ViewBag.Title = "About";

}

<main aria-labelledby="title">

<h3>@ViewBag.Message</h3>

<p>

F1 is a car race. It is named as Formula 1, because this race and the car for this race has certain formulas to follow.

</p>

</main>

Contact.cshtml

@{

ViewBag.Title = "Contact";

}

<main aria-labelledby="title">

<h2 id="title">@ViewBag.Title.</h2>

<h3>@ViewBag.Message</h3>

<address>

One Formula Way

England, WA 98052-6399


```
<abbr title="Phone">P:</abbr>
+1 (877) 772-1518
</address>
<address>
    <strong>General:</strong> <a
href="mailto:WebMaster@Formula1.com">WebMaster@Formula1.com</a><br />
    <strong>Customer Service:</strong> <a
href="mailto:customerservices@f1store.formula1.com">
        customerservices@f1store.formula1.c
        om
    </a>
</address>
</main>
```

RegsForm.cshtml

```
@ {
    ViewBag.Title = "Registration Form";
}
<!DOCTYPE html>
<html>
<head>
    <meta name="viewport" content="width=device-width" />
    <title></title>
</head>
<body>
    <h3>@ViewBag.Message</h3>
    <div>
        <form action="/" method="post">
            <div class="p-3 border border-danger" style="width:50%;">
```

```
<div class="d-flex justify-content-around">

  <div>

    Name: <br />

    <input type="text" name="name" value="" required />

  </div>

  <div>

    ID: <br />

    <input type="text" name="name" value="" required />

  </div>

</div><br />
```

```
<div class="d-flex justify-content-around">

  <div>

    Car Name: <br />

    <input type="text" name="name" value="" required />

  </div>

  <div>

    Car Model: <br />

    <input type="text" name="name" value="" required />

  </div>

</div><br />
```

```
<div class="d-flex justify-content-around">

  <div>

    Manufacturer Name: <br />

    <input type="text" name="name" value="" required />

  </div>

  <div>

    Manufacturer ID: <br />
```



```

        <input type="text" name="name" value="" required />

    </div>

</div><br />

<div class="d-flex justify-content-around">

    <asp:Button runat="server" Text="Button" class="btn btn-danger
btnlg">Race!</asp:Button>

</div>

</div>

</form>

</div>

</body>

</html>

```

__Layout.cshtml

```

<!DOCTYPE html>

<html>

<head>

    <meta charset="utf-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>@ViewBag.Title - My ASP.NET Application</title>

    @Styles.Render("~/Content/css")

    @Scripts.Render("~/bundles/modernizr")

</head>

<body>

    <nav class="navbar navbar-expand-sm navbar-toggleable-sm navbar-dark bg-dark">

        <div class="container">

            @Html.ActionLink("Application name", "Index", "Home", new { area = "" }, new
{ @class = "navbar-brand" })

```

```
<button type="button" class="navbar-toggler" data-bs-toggle="collapse" data-bs-target=".navbar-collapse" title="Toggle navigation" aria-controls="navbarSupportedContent"
```

```
aria-expanded="false" aria-label="Toggle navigation">
```

```
<span class="navbar-toggler-icon"></span>
```

```
</button>
```

```
<div class="collapse navbar-collapse d-sm-inline-flex justify-content-between">
```

```
<ul class="navbar-nav flex-grow-1">
```

```
<li>@Html.ActionLink("Home", "Index", "Home", new { area = "" }, new { @class = "nav-link" })</li>
```

```
<li>@Html.ActionLink("Registration Form", "RegsForm", "Home", new { area = "" }, new { @class = "nav-link" })</li>
```

```
<li>@Html.ActionLink("About", "About", "Home", new { area = "" }, new { @class = "nav-link" })</li>
```

```
<li>@Html.ActionLink("Contact", "Contact", "Home", new { area = "" }, new { @class = "nav-link" })</li>
```

```
</ul>
```

```
</div>
```

```
</div>
```

```
</nav>
```

```
<div class="container body-content">
```

```
@RenderBody()
```

```
<hr />
```

```
<footer>
```

```
<p>&copy; @DateTime.Now.Year - My ASP.NET Application</p>
```

```
</footer>
```

```
</div>
```

```
@Scripts.Render("~/bundles/jquery")
```

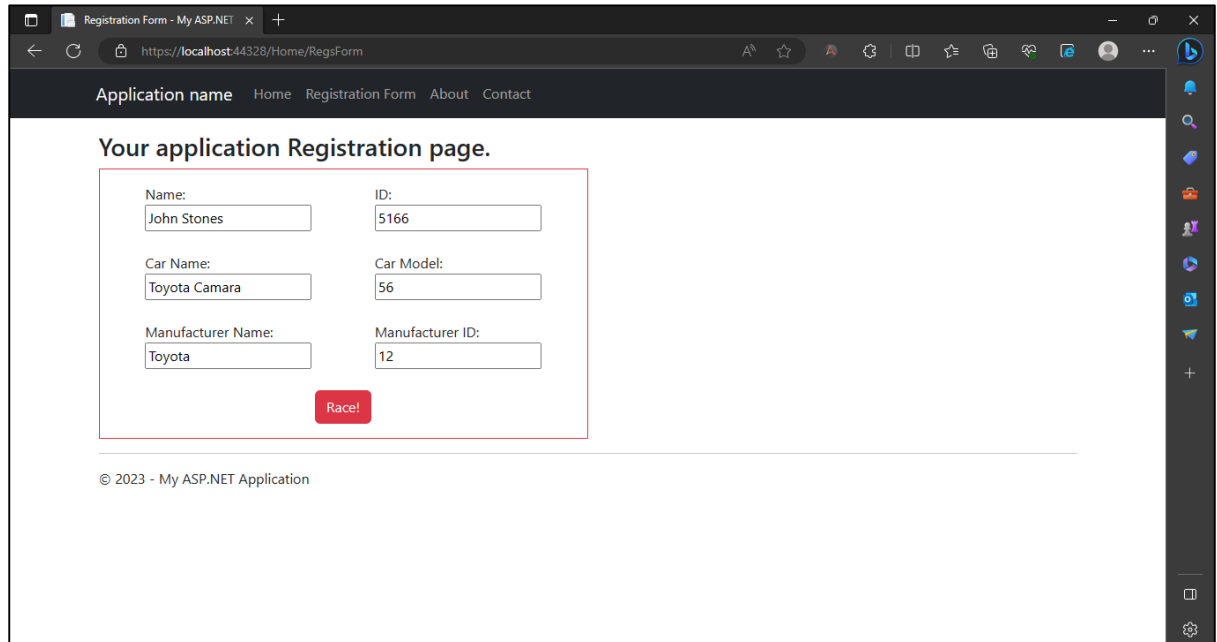
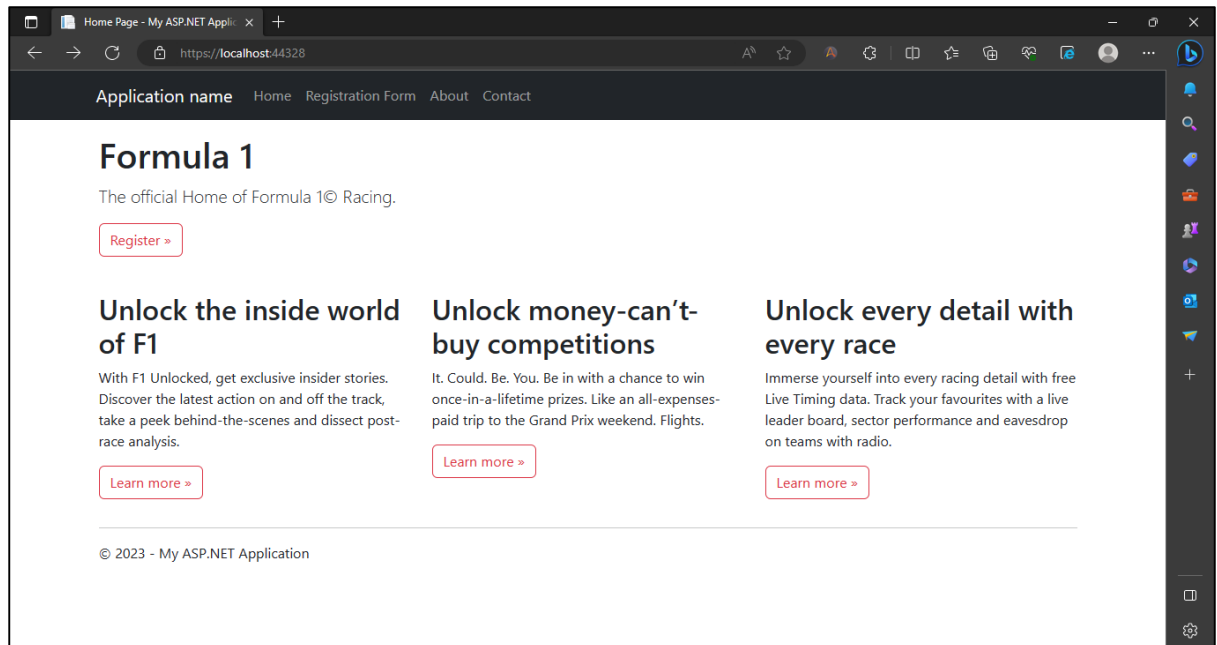
```
@Scripts.Render("~/bundles/bootstrap")
```

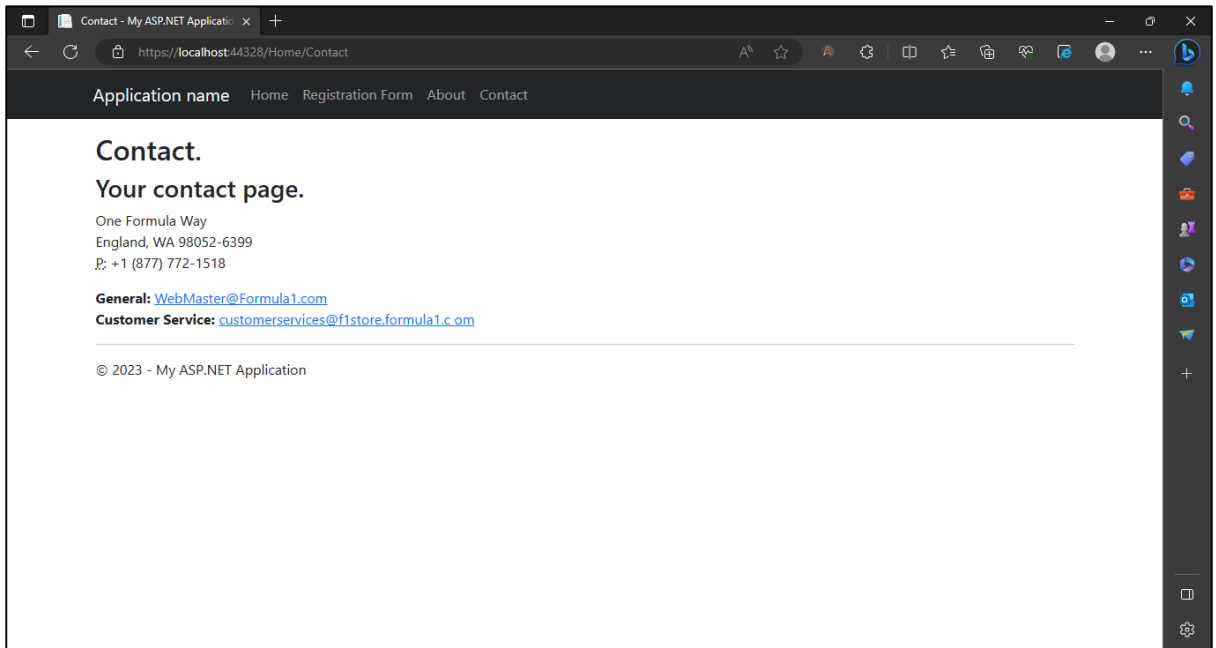
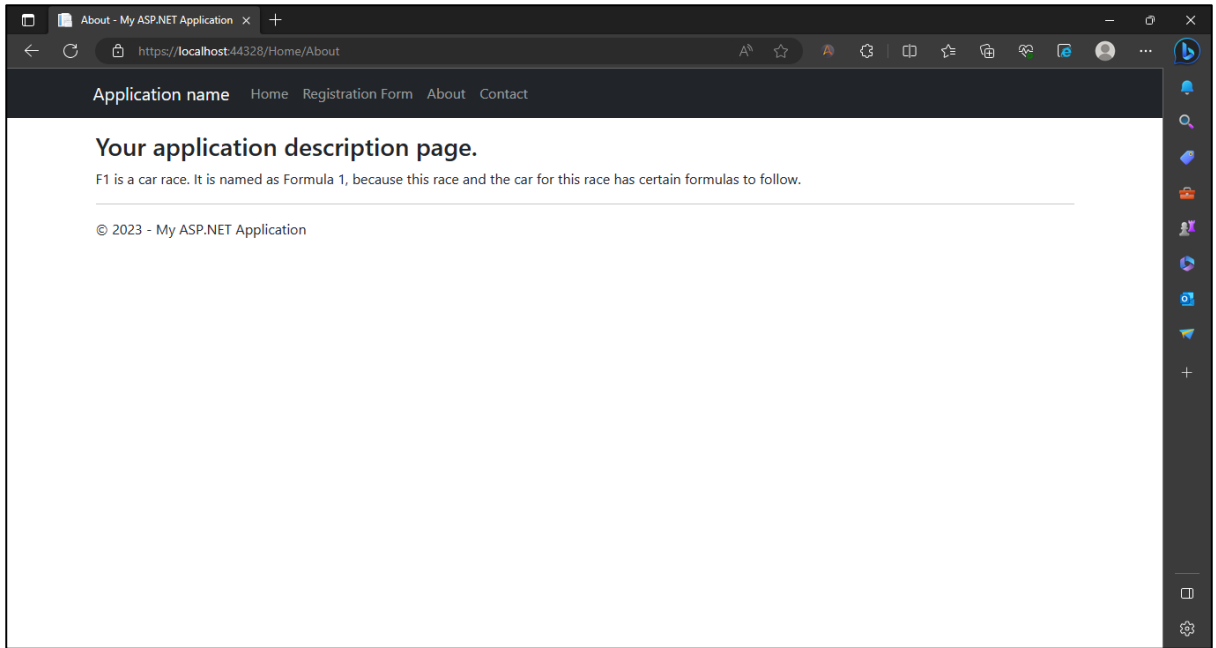
@RenderSection("scripts", required: false)

</body>

</html>

Output:





Category 8: LINQ

A. Design a webpage to display the use of LINQ.

Code:

Class1.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

namespace WebApplication_LINQ

{

    public class Books

    {

        public string ID { get; set; }

        public string Title { get; set; }

        public decimal Price { get; set; }

        public DateTime DateOfRelease { get; set; }

        public static List<Books> GetBooks()

        {

            List<Books> list = new List<Books>();

            list.Add(new Books

            {

                ID = "001",

                Title = "Programming in C#",

                Price = 634.76m,

                DateOfRelease = Convert.ToDateTime("2010-02-05")

            });

            list.Add(new Books
```

```
{
    ID = "002",
    Title = "Learn Java in 30 days",
    Price = 250.76m,
    DateOfRelease = Convert.ToDateTime("2011-08-15")
});
list.Add(new Books
{
    ID = "003",
    Title = "Programming in ASP.Net 4.0",
    Price = 700.00m,
    DateOfRelease = Convert.ToDateTime("2011-02-05")
});
list.Add(new Books
{
    ID = "004",
    Title = "VB.Net Made Easy",
    Price = 500.99m,
    DateOfRelease = Convert.ToDateTime("2011-12-31")
});
list.Add(new Books
{
    ID = "005",
    Title = "Programming in C",
    Price = 314.76m,
    DateOfRelease = Convert.ToDateTime("2010-02-05")
});
```

```

        list.Add(new Books
        {
            ID = "006",
            Title = "Programming in C++",
            Price = 456.76m,
            DateOfRelease = Convert.ToDateTime("2010-02-05")
        });
        list.Add(new Books
        {
            ID = "007",
            Title = "Datebase Developement",
            Price = 1000.76m,
            DateOfRelease = Convert.ToDateTime("2010-02-05")
        });
        return list;
    }
}

```

WebForm1.aspx

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
namespace WebApplication_LINQ
{

```

```
public partial class WebForm1 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        List<Books> books=Books.GetBooks();
        var booktitles=from book in books select book.Title;
        foreach (var title in booktitles)
            Label1.Text += String.Format("{0} <br/>",title);
    }
}
```

Output:

