Enterprise Programming – 1 Lab

LAB CODE: 14ITL602

DEPARTMENT OF INFORMATION TECHNOLOGY
BAPATLA ENGINEERING COLLEGE
(AUTONOMOUS)
BAPATLA - 522101

LAB COURSE DESCRIPTION

1. Course code: 14ITL602

2. Course Title: **Enterprise Programming - 1 Lab**

3. Core [√] Elective [ ]

4. Pre-requisites (if any): C, OOPS Concepts, C#, Web Technologies, SQL

5. Semester / year in which offered: 2016-2017: III Year II Sem

6. No. of weeks of Instruction: 15

7. No. of hours per week: 3

8. Course objective: The student will get the hands on experience in developing the ASP.NET applications using Web Controls, State Management, Validation controls, Rich controls, Master pages, ADO.NET & MVC concepts.

9. List of programs: separate sheet has been attached

10. Evaluation procedure:

Index	Description Evaluation	Total Marks
A	Marks allotted for day-to-day lab work	20 M
B	Marks allotted for record	5 M
C	Marks Awarded for Lab Exam	15 M
D	Continuous Internal Evaluation Marks (A+B+C)	40 M
E	Semester End Examination (Writeup:10M, Record:5M, Viva:15M, Experiment:30M)	60 M
	Total Marks	100 M

TABLE OF CONTENTS

System Requirements:

- Processor → 1GHz speed or above
- Architecture → 32 bit / 64 bit
- OS → Microsoft Windows 7 SP1/8/8.1 or above
- RAM → 1GB or above
- Hard disk → 10GB of available hard disk space or above

Lab Course Objectives:

Upon successful completion of this lab, student should be able to:

1. Develop ASP.NET applications using C# programming language.
2. Familiar with Visual Studio 2012 IDE for application development.
3. Develop ASP.NET applications using Web Controls & Validation Controls.
4. Develop Web applications with State Management & Master Pages concepts.
5. Develop Data driven ASP.NET Web applications using ADO.NET
6. Design ASP.NET MVC Web Pages application.

Lab Course Outcomes:

Upon successful completion of the lab course, student will be able to:

- Develop ASP.NET Web applications demonstrating Webform markup & Redirection, Web controls, View state, Cookies & Validation controls.
- Develop ASP.NET Web applications using Rich Controls & Master Pages.
- Develop data driven applications using ADO.NET concepts.
- Develop ASP.NET MVC application.

List of Programs:

Guidelines to Students:

1. Installing IIS
2. Installing Visual Studio 2012
3. How to run Website / Web Application.
4. Creating database using Server Explorer

1. Installing IIS (Internet Information Service)

IIS server is required to run the web applications. To install an IIS,

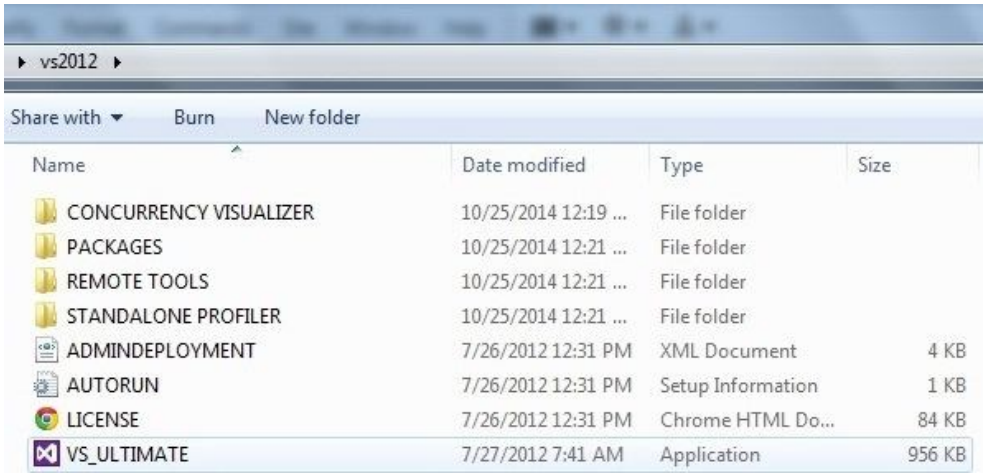
i. Insert Windows CD, in the CD-ROM drive. Launch the control panel and double click the 'Add or Remove Programs' icon. This will open the Add or Remove Programs Window.

ii. On the 'Add or Remove Programs' screen, click on the 'Add/Remove Windows Components' option to make the appearance of the Windows Components Wizard.

iii. On the Windows Components Wizard, checkmark the 'Internet Information Services' check box and click on the 'Next' button to complete the installation of IIS.

2. Installing visual studio 2012 ultimate

Step 1:



Step 2:

Step 3:

Step 4:


Visual Studio
Ultimate 2012
with Blend
Setup requires 8.53 GB in:
C:\Program Files\Microsoft Visual Studio 11.0
...
You must agree to the License Terms before you can install the product.
Visual Studio 2012 automatically sends information to Microsoft about your installation experience and notifies you when an update is available and connects you to content online. To learn more, see the Privacy Statement.
I agree to the License terms and conditions.
Join the Customer Experience Improvement Program to help improve the quality, reliability and performance of Visual Studio.

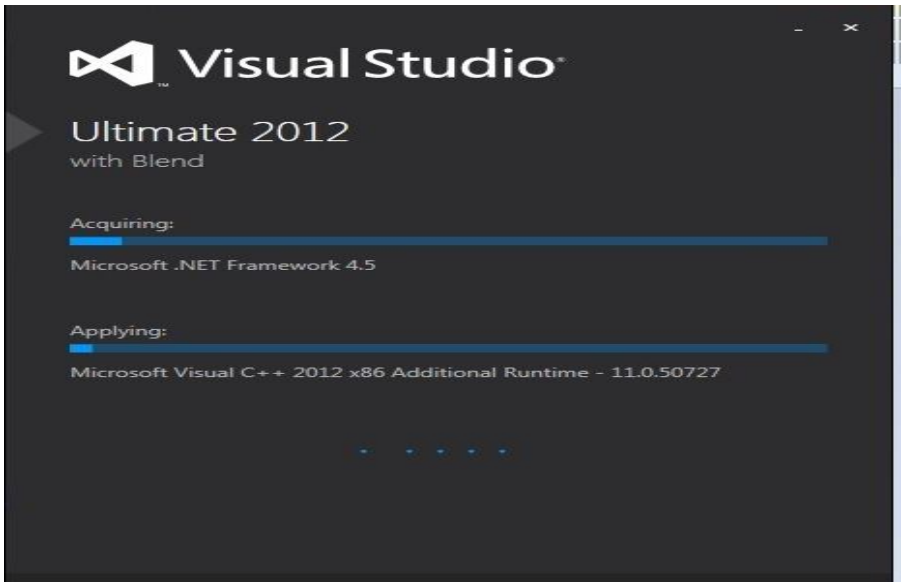
Step 5:


Visual Studio
Ultimate 2012
with Blend
Optional features to install:
Blend for Visual Studio
LightSwitch
Microsoft Foundation Classes for C++
Microsoft Office Developer Tools
Microsoft SharePoint Developer Tools
Microsoft SQL Server Data Tools
Silverlight Development Kits
Microsoft Web Developer Tools
Select All
Reset Defaults
Setup requires 8.53 GB on C:

Step 6:


Visual Studio
Ultimate 2012
with Blend
Optional features to install:
Blend for Visual Studio
LightSwitch
Microsoft Foundation Classes for C++
Microsoft Office Developer Tools
Microsoft SharePoint Developer Tools
Microsoft SQL Server Data Tools
Silverlight Development Kits
Microsoft Web Developer Tools
Select All
Reset Defaults
Setup requires 6.01 GB on C:

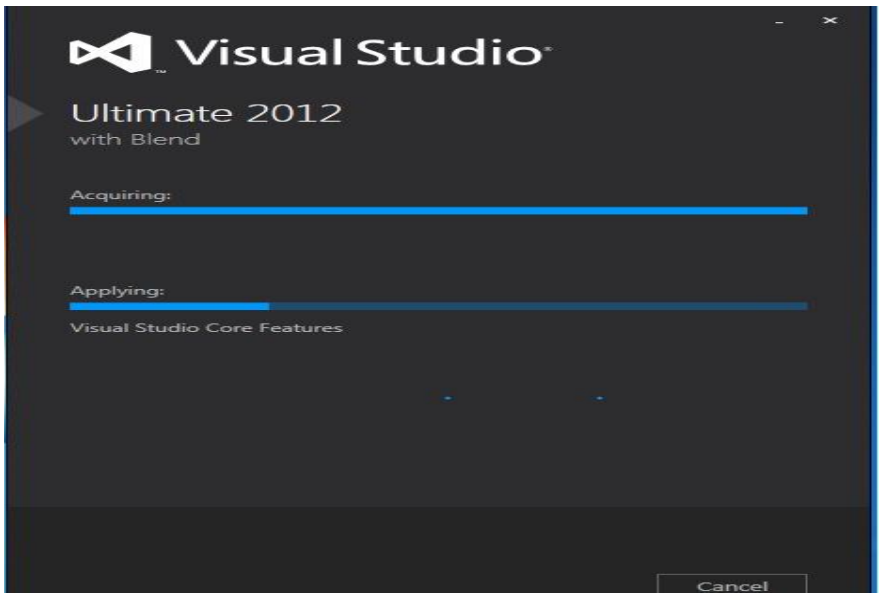
Step 7:


Visual Studio
Ultimate 2012
with Blend
Acquiring:
Microsoft .NET Framework 4.5
Applying:
Microsoft Visual C++ 2012 x86 Additional Runtime - 11.0.50727

Step 8:


Visual Studio
Ultimate 2012
with Blend
Restart required in order to complete setup.
The computer needs to be restarted before setup can continue. Restart the computer and setup will resume when you next log in.

Step 9:


Visual Studio
Ultimate 2012
with Blend
Acquiring:
Applying:
Visual Studio Core Features
Cancel

Step 10:

3. How to run Website / Web application

i. Click on 'Internet Explorer' button / green arrow button to build and run the Website / Web application. If no errors exist, website / web application will be deployed on the default IIS Express server.

ii. On successful deployment on the default IIS Express web server, default webpage (Default.aspx) will be rendered in the client browser (in this case internet explorer).

4. Using Server Explorer for database creation & manipulation

Steps:

a) For Creating Database:
In Visual Studio, select View → Server Explorer to open Server Explorer window (or press Ctrl + Alt + L shortcut keys).
In the Server Explorer window, right click on the 'Data Connections' → Add Connection → give 'database file name' for creating a new .mdf file or browse for the existing .mdf file for selecting existing .mdf file.

b) For creating a table: Right click on the 'Tables' tree item → 'Add New Table' → Give the table column details & click on 'Update' button → 'Update Database' to add table to the database.

c) **For viewing the records:** Right click on the table name → select 'Show Table Data'.
d) **For altering the table definition:** Right click on the table name → select 'Open Table Definition' & modify the table definition and click on Update button.

SOURCE CODE & OUTPUT:

1. Design an ASP.NET application to demonstrate Web Form markup and redirection.

Program:

Default.aspx: Design View:

fig 1.1: design view of Default.aspx

Default.aspx: Source code:

```
<%@Page Language="C#"AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default"%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body bgcolor="black" align="center">
<h2 style="color:aqua">SRI SRI</h2>
<form id="form1" runat="server">
<asp:ImageButton ID="ImageButton1" runat="server" ImageUrl="~/srisri-desibantu.png"
Height="425px" Width="747px" ImageAlign="Middle"/>
```

```
<h3><pstyle="color:aqua">Srirangam Srinivasa Rao (30 April 1910 – 15 June 1983),
popularly known as Sri Sri, was a Telugu poet and lyricist. He was a member of PEN INDIA,
Sahitya Academy, Vice-President of the South Indian Film Writers Association, Madras and
President of the revolutionary writers association of Andhra. He was also awarded the Soviet
Land Nehru Award of India.</p>
<br/>
<p>
 <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Next"/>
</p>
</form>
</body>
</html>
```

Default.aspx.cs 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_Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

     }
    protected void Button1_Click(object sender, EventArgs e)
    {
          Response.Redirect("~/Default2.aspx");
     }
}
```

Default2.aspx (Design View):

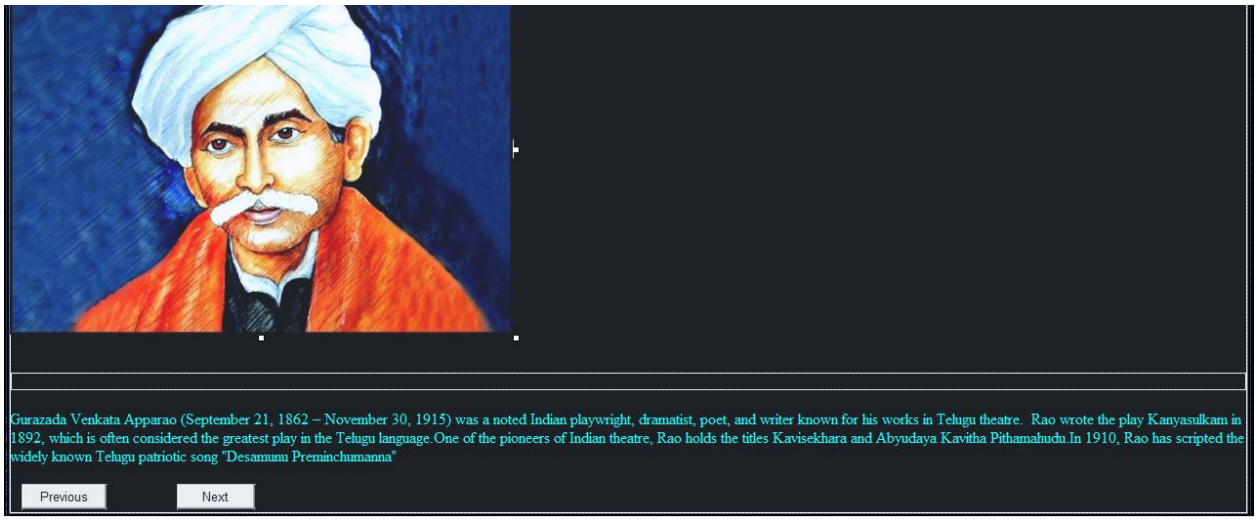


Fig 1.2: design view of Default2.aspx

Default2.aspx: Source code:

```
<%@Page Language="C#"AutoEventWireup="true" CodeFile="Default2.aspx.cs" Inherits="
Default2"%>

<!DOCTYPEhtml>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body bgcolor="black" align="CENTER">
<h2 style="color: red;">Gurajada Apparao</h2>
<form id="form1"runat="server">
<div>
<asp:ImageButton ID="ImageButton1" runat="server" Height="380px"
  ImageUrl="~/gurajada.jpg" ImageAlign="Middle"/>

<br/>
<br/>
<h3>
<p style="color: aqua">
            Gurazada Venkata Apparao (September 21, 1862 – November 30, 1915) was a
noted Indian playwright, dramatist, poet, and writer known for his works in Telugu
theatre.  Rao wrote the play Kanyasulkam in 1892, which is often considered the
greatest play in the Telugu language.One of the pioneers of Indian theatre, Rao holds the
titles Kavisekhara and Abyudaya Kavitha Pithamahudu.In 1910, Rao has scripted the widely
known Telugu patriotic song "Desamunu Preminchumanna"
</p>
  
<asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Previous"
Width="87px"/>
                 
<asp:Button ID="Button2" runat="server" OnClick="Button2_Click" style="margin-left:
0px" Text="Next" Width="80px"/>
</form>
</body>
</html>
```

Default2.aspx.cs source 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 Default2 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("~/Default.aspx");
    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        Response.Redirect("~/Default3.aspx");
    }
}
```

Default3.aspx (design view):

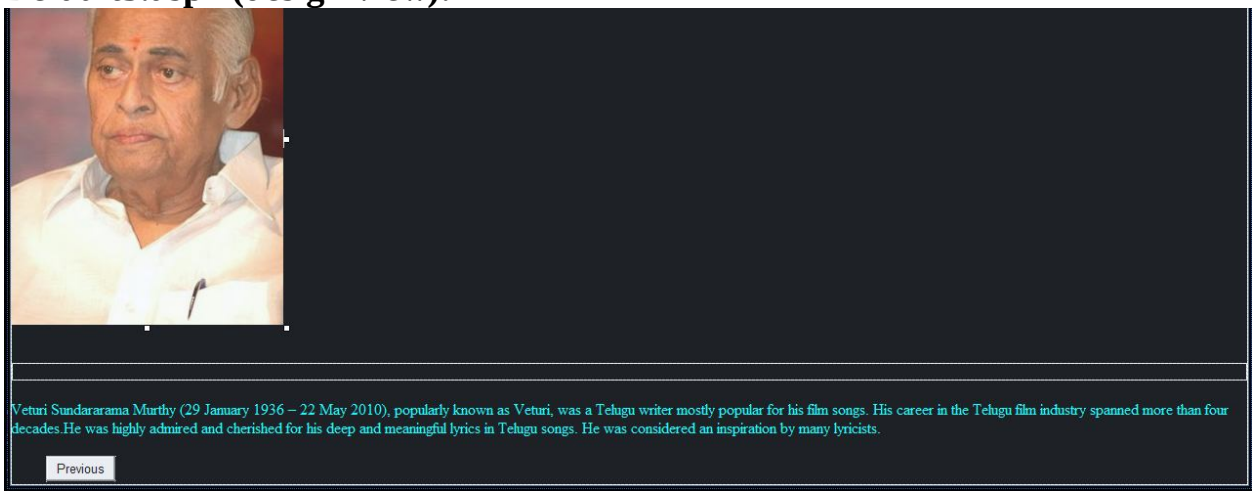


Fig 1.3: design view of Default3.aspx

Default3.aspx Source code:

```
<%@Page Language="C#" AutoEventWireup="true" CodeFile="Default3.aspx.cs"
Inherits="Default3"%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body bgcolor="black" align="CENTER">
<h2 style="color: red;">Veturi Sundararama Murthi</h2>
<form id="form1" runat="server">
<div>
<asp:ImageButton ID="ImageButton1" runat="server" Height="380px" ImageUrl="~/Veturi-
Sundararama-Murthy.jpg" ImageAlign="Middle"/>
<br/>
```

```
<br/>
<h3>
<p style="color: aqua">
            Veturi Sundararama Murthy (29 January 1936 – 22 May 2010), popularly known as Veturi, was a Telugu writer mostly popular for his film songs. His career in the Telugu film industry spanned more than four decades.He was highly admired and cherished for his deep and meaningful lyrics in Telugu songs. He was considered an inspiration by many lyricists.
</p>
        
<asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Previous"/>
</form>
</body>
</html>
```

Default3.aspx.cs 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 Default3 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("~/Default2.aspx");
     }
}
```

Output:

Fig 1.4: output for Default1.aspx

Fig 1.5: output for Default2.aspx

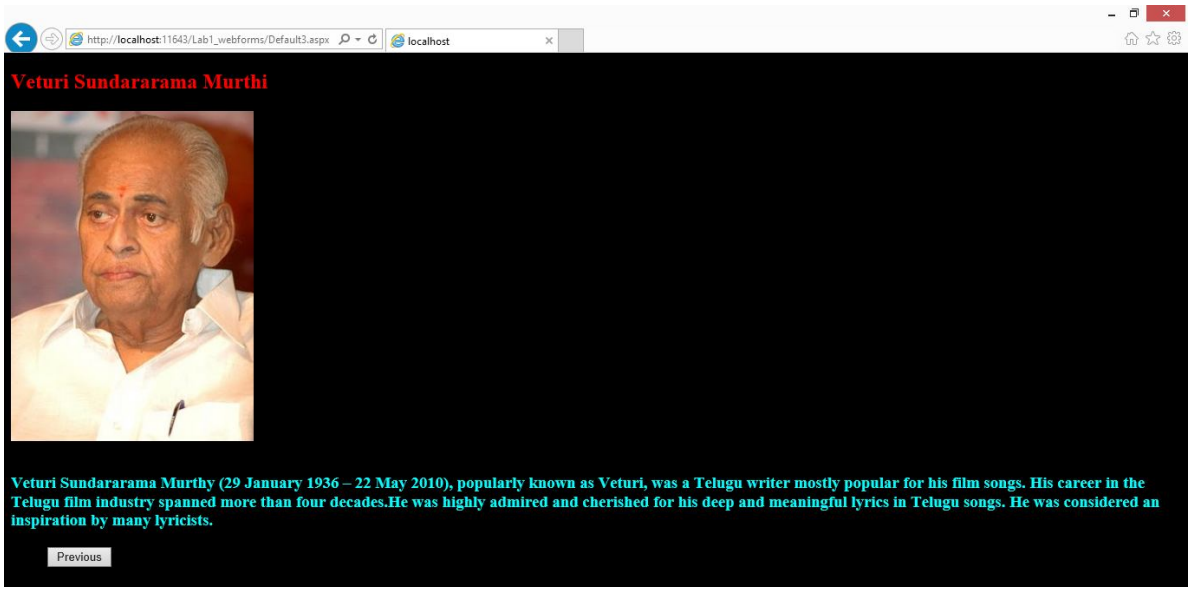


Fig 1.6: output for Default3.aspx

2. Design an ASP.NET application to demonstrate Web Controls.

Program:

Default.aspx: Design View:

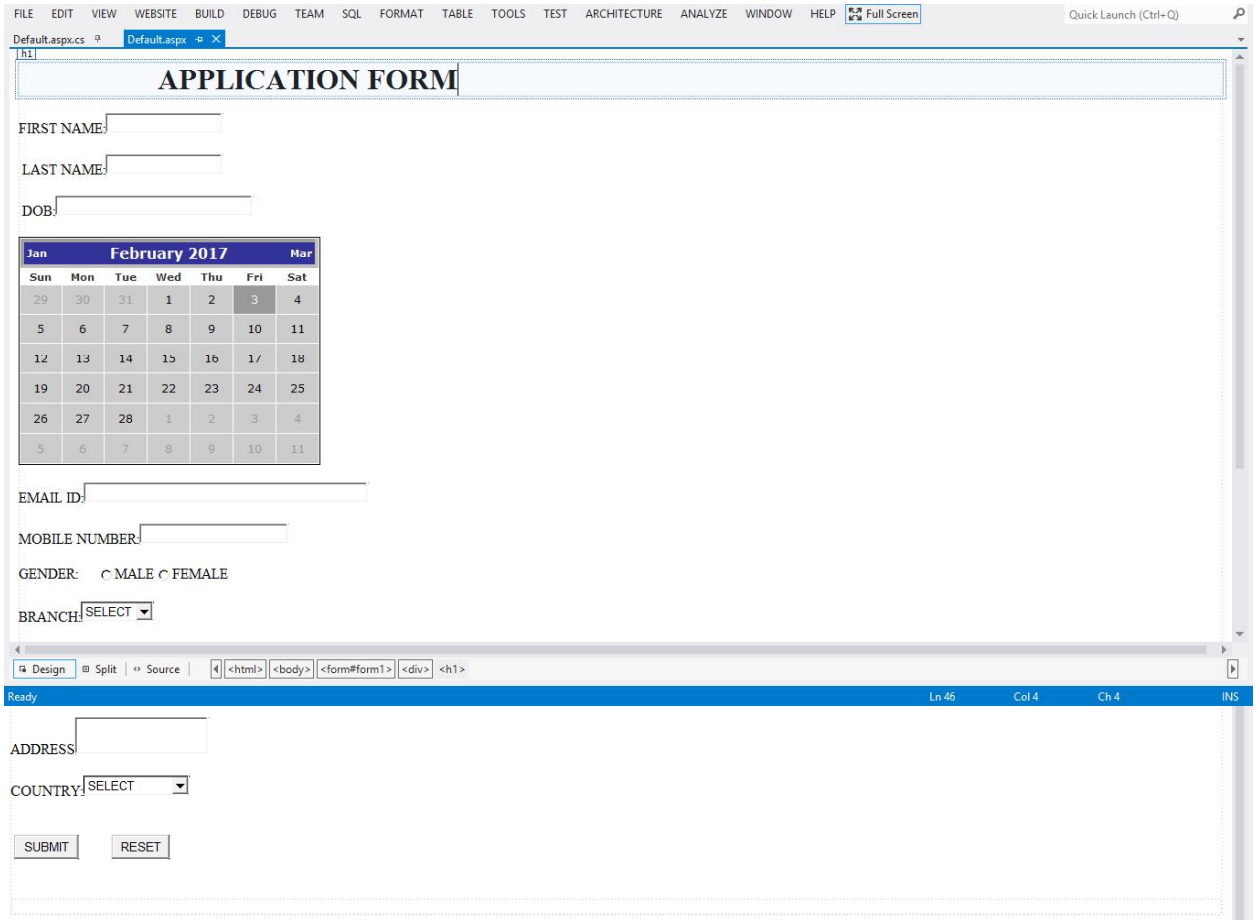


Fig 2.1 : Default.aspx: Design View

Default.aspx Source code:

```
<%@Page Language="C#"AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default"%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<body>
<formid="form1" runat="server">
<div>

<h1>            
        Student Details</h1>
<p/>
   First Name:<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
</p>
<p>
  Last Name:<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
</p>
<p>
  Date of Birth:<asp:TextBox ID="TextBox3" runat="server" Width="208px">
</asp:TextBox>
</p>
<asp:Calendar ID="Calendar1" runat="server" BackColor="White" BorderColor="Black"
Font-Names="Verdana" Font-Size="9pt" ForeColor="Black" Height="250px"
NextPrevFormat="ShortMonth" Width="330px"
OnSelectionChanged="Calendar1_SelectionChanged" BorderStyle="Solid"
CellSpacing="1">
<DayHeaderStyle Font-Bold="True" Font-Size="8pt"  ForeColor="#333333" Height="8pt"/>
<DayStyle BackColor="#CCCCCC"/>
<NextPrevStyle Font-Size="8pt" ForeColor="White" Font-Bold="True"/>
<OtherMonthDayStyle ForeColor="#999999"/>
<SelectedDayStyle BackColor="#333399" ForeColor="White"/>
<TitleStyle BackColor="#333399" Font-Bold="True" Font-Size="12pt" ForeColor="White"
Height="12pt" BorderStyle="Solid"/>
<TodayDayStyle BackColor="#999999" ForeColor="White"/>
</asp:Calendar>
<p>
 Email ID:<asp:TextBox ID="TextBox4" runat="server" Width="303px"> </asp:TextBox>
</p>
<p>
Mobile Number:<asp:TextBox ID="TextBox5" runat="server" Width="155px">
</asp:TextBox>
</p>
<p>
 Gender:    
```

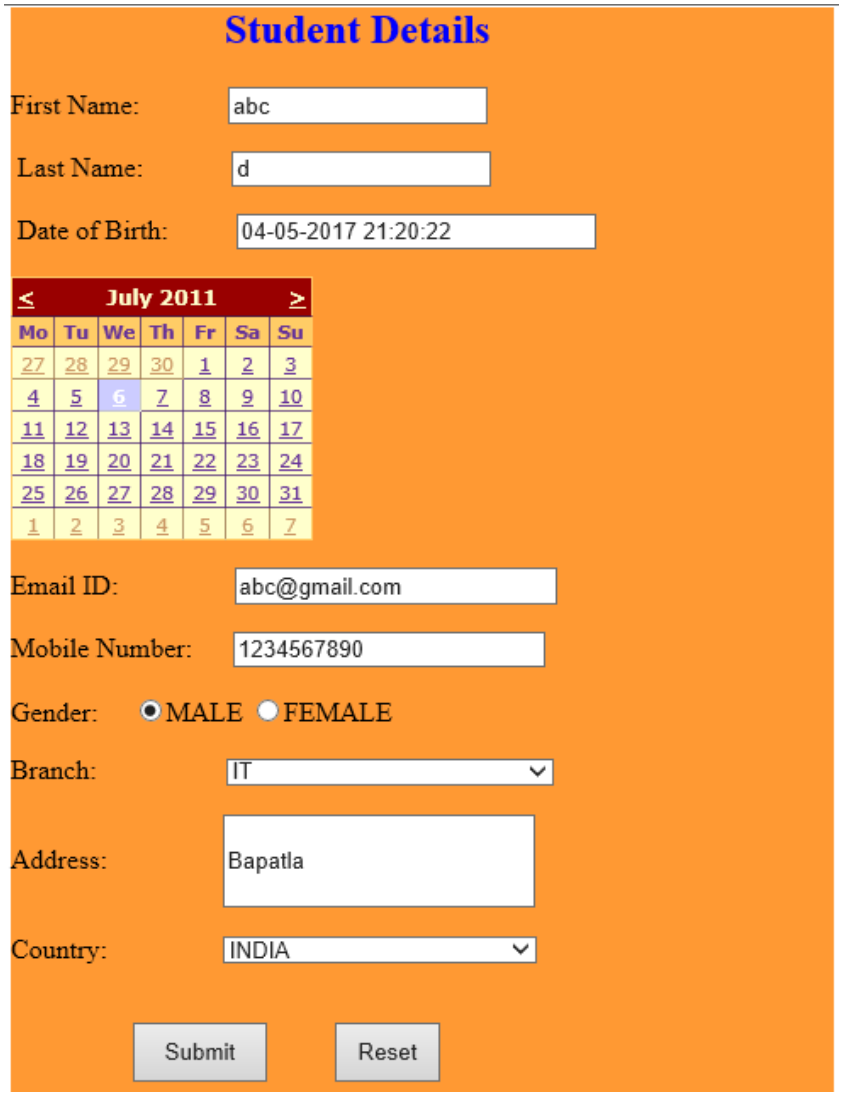
```
<asp:RadioButton ID="RadioButton1" runat="server" Text="MALE"
GroupName="Gender"/>
<asp:RadioButton ID="RadioButton2" runat="server" Text="FEMALE"
GroupName="Gender"/>
</p>
<p>
 Branch:<asp:DropDownList ID="DropDownList1" runat="server">
<asp:ListItem>Select</asp:ListItem>
<asp:ListItem>CSE</asp:ListItem>
<asp:ListItem>ECE</asp:ListItem>
<asp:ListItem>IT</asp:ListItem>
<asp:ListItem>Others</asp:ListItem>
</asp:DropDownList>
</p>
<p> Address<asp:TextBox ID="TextBox6" runat="server" Height="34px" Width="137px">
</asp:TextBox>
</p>
<p>
 Country:<asp:DropDownList ID="DropDownList2" runat="server">
<asp:ListItem>Select</asp:ListItem>
<asp:ListItem>INDIA</asp:ListItem>
<asp:ListItem>INDONESIA</asp:ListItem>
<asp:ListItem>AMERICA</asp:ListItem>
<asp:ListItem>NEPAL</asp:ListItem>
<asp:ListItem>BANGLADESH</asp:ListItem>
</asp:DropDownList>
</p>
    <br/>
 <asp:Button ID="Button2" runat="server" Text="SUBMIT"
OnClick="Button2_Click"/>
        
<asp:Button ID="Button1" runat="server" Text="RESET" OnClick="Button1_Click"/>
<br/>
<br/>
 <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
</div>
</form>
</body>
</html>
```

Default.aspx.cs code:

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

```
public partialclass_Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        string a = TextBox1.Text;
        string b = TextBox2.Text;
        string c = TextBox3.Text;
        string d = TextBox4.Text;
        string g = TextBox5.Text;
        string i = RadioButton1.Text;
        string i1 = RadioButton2.Text;
        string j = DropDownList1.Text;
        string f = TextBox6.Text;
        string k = DropDownList2.Text;
        Label1.Text = "Student Details:" + "<br/>" + a + "<br/>" + b + "<br/>" + c + "<br/>" +
        d + "<br/>" + g + "<br/>" + i + "<br/>" + i1 + "<br/>" + j + "<br/>" + f + "<br/>" + k;
    }
    protected void Calendar1_SelectionChanged(object sender, EventArgs e)
    {
          TextBox3.Text = DateTime.Now.ToString();
     }
    protected void Button1_Click(object sender, EventArgs e)
    {
          TextBox1.Text = null;
          TextBox2.Text = null;
          TextBox3.Text = null;
          TextBox4.Text = null;
          TextBox5.Text = null;
          TextBox6.Text = null;
          RadioButton1.Text = null;
          RadioButton2.Text = null;
          DropDownList1.Text = null;
          DropDownList2.Text = null;
    }
}
```

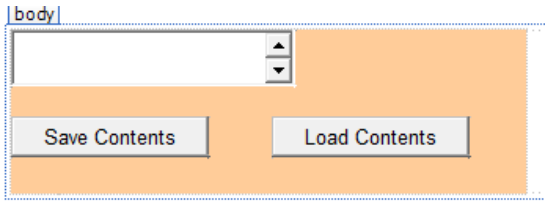
Output:



On clicking Submit button, the following output appears:

3. Design an ASP.NET application to demonstrate View State to transfer data in a web Page in between requests.

Default.aspx (Design View):



Default.aspx source code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div style="width: 328px; background-color: #FFCC99;">
      <asp:TextBox ID="TextBox1" runat="server" TextMode="MultiLine"></asp:TextBox>
      <br />
      <br />
      <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Save
Contents" />
         
      <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Load
Contents" />
          
 </div>
</form>
</body>
</html>
```

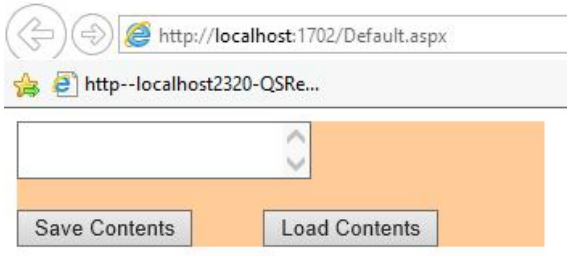
Default.aspx.cs code:

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

public partial class _Default : System.Web.UI.Page
{
   private string contents;
   protected void Page_Load(object sender, EventArgs e)
```

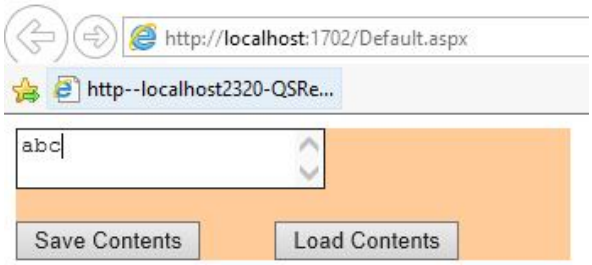
```
    {
        if (this.IsPostBack)
        {
            // Restore variables.
            contents = (string)ViewState["contents"];
        }
    }
    protected void Page_PreRender(Object sender, EventArgs e)
    {
        // Persist variables.
        ViewState["contents"] = contents;
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        //save
        // Transfer contents of text box to member variable.
        contents = TextBox1.Text;
        TextBox1.Text = "";
    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        //load
        // Restore contents of member variable to text box.
        TextBox1.Text = contents;
    }
}
```

Output:

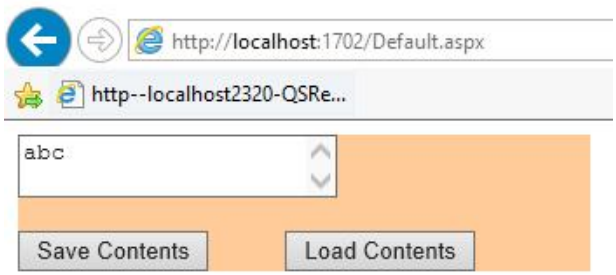
i) When you run the website, initially, the following screen appears:



ii) Enter some data in the textbox and click on 'Save Contents' to store data in View State.

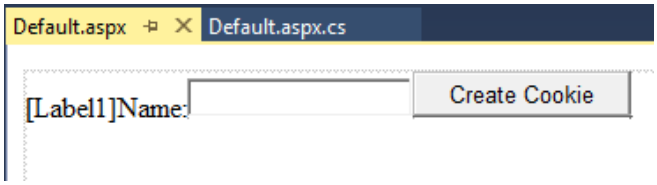


iii) Click on 'Load Contents' button to retrieve data from View State:



4. Design an ASP.NET application to demonstrate the use of Cookies.

Default.aspx (Design View):



Default.aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div style="height: 187px">
        <asp:Label ID="Label1" runat="server" Text=""></asp:Label>

        <asp:Label ID="Label2" runat="server" Text="Name:"></asp:Label>
        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
  <asp:Button ID="Button1" runat="server" Text="Create Cookie" OnClick="Button1_Click"
/>
 </div>
</form>
</body>
</html>
```

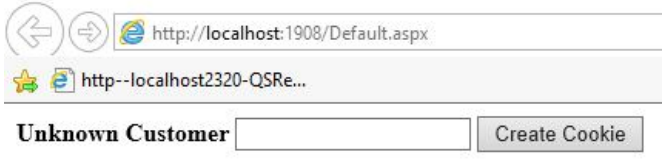
Default.aspx.cs code:

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

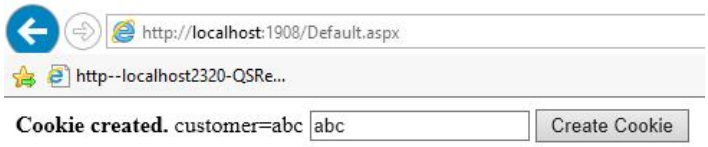
```
using System.Web.UI.WebControls;
using System.Net;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        HttpCookie cookie=Request.Cookies["Preferences"];
        if (cookie == null)
        {
            Label2.Text = "<b>Unknown Customer </b>";
        }
        else
        {
            Label2.Text = "<b> Customer found </b>";
            Label2.Text += cookie["Name"];
        }
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        HttpCookie cookie = Request.Cookies["Preferences"];
        if (cookie == null)
        {
            cookie = new HttpCookie("Preferences");
        }
        else Label2.Text = "<b> Customer found </b>";
        cookie["Name"] = TextBox1.Text;
        cookie.Expires = DateTime.Now.AddYears(1);
        Response.Cookies.Add(cookie);
        Label2.Text = "<b> Cookie created. </b>";
        Label2.Text += "customer="+cookie["Name"];
    }
}
```

Output:

Initially, when you run the program the following output appears:

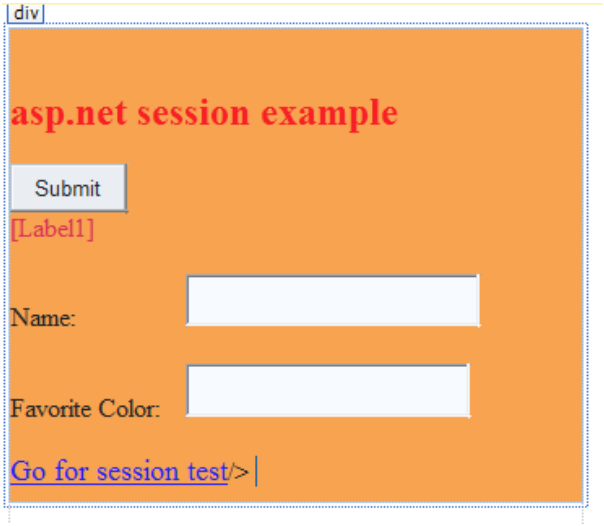


After entering customer name and clicking on 'Create Cookie', the following output appears:



5. Design an ASP.NET application to demonstrate Session State to transfer data between Web Pages.

Default.aspx (Design view):



Default.aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body style="width: 352px; height: 347px">
   <form id="form1" runat="server">
   <div style="background-color: #FF9933; height: 291px; width: 352px;">

            &nbs
p;            &n
bsp;  
          <h2 style="color:Red">asp.net session example</h2>
       <asp:Button ID="Button1" runat="server" Text="Submit" OnClick="Button1_Click"
Height="30px" Width="72px" />    <br />
       <asp:Label ID="Label1" runat="server" ForeColor="Crimson">
       </asp:Label>
       <br /><br />
       <asp:Label ID="Label2" runat="server" Text="Name">
       </asp:Label>
:            &nb
sp;   
       <asp:TextBox ID="TextBox1" runat="server" Height="26px"
Width="173px"></asp:TextBox>
```

```
        <br />
        <br />
        <asp:Label ID="Label3" runat="server" Text="Favorite Color">
        </asp:Label>
        :   
        <asp:TextBox ID="TextBox2" runat="server" Height="27px"
Width="167px"></asp:TextBox>
        <br /><br />
        <asp:HyperLink
            ID="HyperLink1"
            runat="server"
            Text="Go for session test"
            NavigateUrl="~/Default2.aspx" Font-Size="Large"></asp:HyperLink>
            />
    </div>
    </form>
</body>
</html>
```

Default2.aspx (Design view):

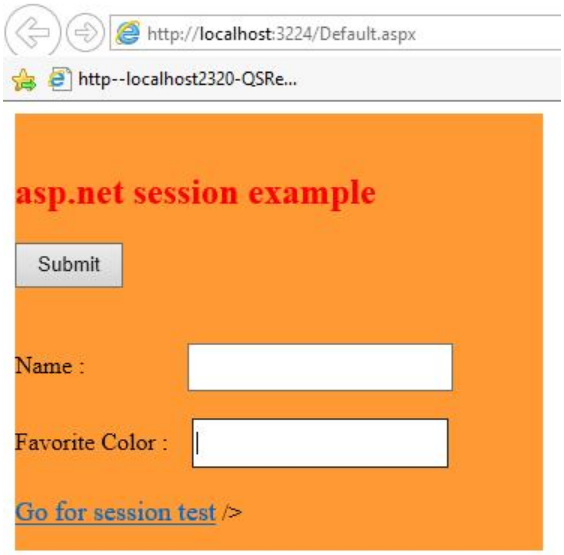
Default2.aspx.cs code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default2.aspx.cs"
Inherits="Default2" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div style="width: 338px; height: 215px; background-color: #FF9933;">
     <h2 style="color:Navy; width: 265px;">asp.net session example</h2>
        <asp:Label
            ID="label1"
            runat="server"
            Font-Size="Larger"
```

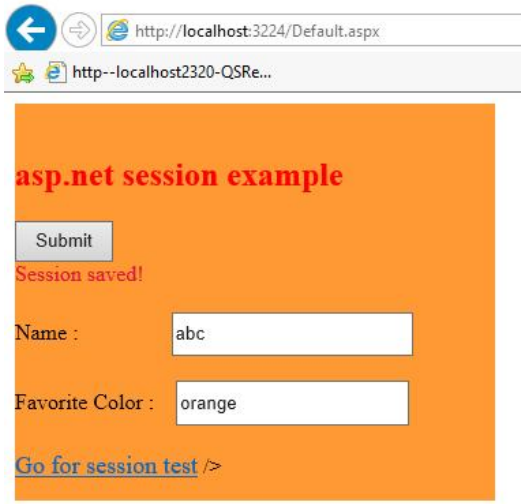
```
        ForeColor="SeaGreen">
    </asp:Label>
    <br /> <br />
    <asp:HyperLink
        ID="HyperLink1"
        runat="server"
        Text="Go session page"
        NavigateUrl="~/Default.aspx" Font-Size="Large"></asp:HyperLink>
  </div>    </form>
</body>
</html>
```

Output:

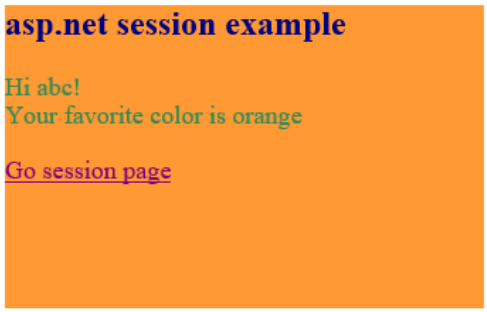
i) Initially when you run the application the following output appears:



ii) Enter 'Name' and 'Favourite Color' values and click on 'Submit', "Session saved!" message appears on the screen as shown below:

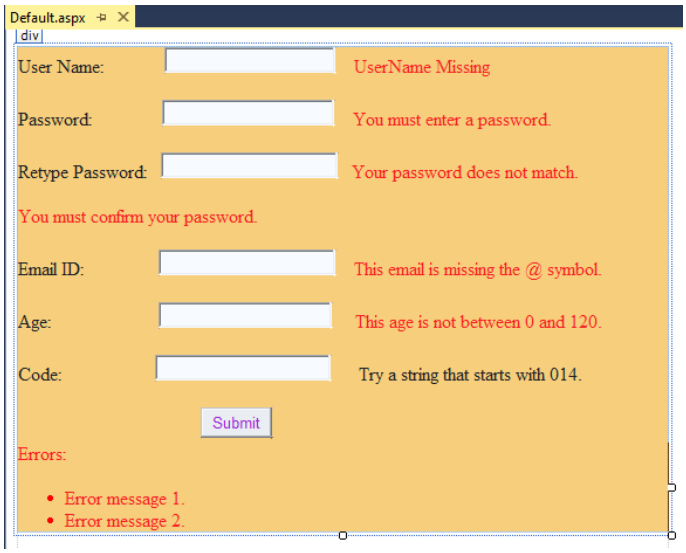


iii) click on the 'go for session test' hyperlink to navigate to the second webpage. The following is the output produced.



6. Design an ASP.NET application to demonstrate Validating ASP.NET Web Pages using Validation Controls.

Default.aspx (Design view):



Default.aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body style="width: 555px;">
   <form id="form1" runat="server">
   <div style="background-color: #FFCC66">
    <asp:Label ID="Label1" runat="server" Text="User Name:"></asp:Label>
                
    <asp:TextBox ID="txtUserName" runat="server" Width="138px"></asp:TextBox>
      
```

```
<asp:RequiredFieldValidator id="vldUserName" runat="server" ErrorMessage="You must
enter a user name." Text="UserName Missing"
ControlToValidate="txtUserName"   ForeColor="Red"></asp:RequiredFieldValidator>
   <br />   <br />
<asp:Label ID="Label2" runat="server" Text="Password: "></asp:Label>
             
<asp:TextBox ID="txtPassword" runat="server" TextMode="Password"
OnTextChanged="txtPassword_TextChanged" Width="139px"></asp:TextBox>
   
<asp:RequiredFieldValidator id="vldPassword" runat="server" ErrorMessage="You must
enter a password."
ControlToValidate="txtPassword" ForeColor="Red"/>
   <br />   <br />
   <asp:Label ID="Label3" runat="server" Text="Retype Password: "></asp:Label>
    
   <asp:TextBox ID="txtRetype" runat="server" TextMode="Password"
Width="143px"></asp:TextBox>
  
<asp:CompareValidator id="vldRetype" runat="server" ErrorMessage="Your password
does not match."
ControlToCompare="txtPassword" ControlToValidate="txtRetype" ForeColor="Red"/>
   <br />   <br />
<asp:RequiredFieldValidator id="vldRetypeRequired" runat="server" ErrorMessage="You
must confirm your password."
ControlToValidate="txtRetype"  ForeColor="Red"/>
   <br />   <br />
   <asp:Label ID="Label4" runat="server" Text="Email ID: "></asp:Label>
              
   <asp:TextBox ID="txtEmail" runat="server" Width="143px"></asp:TextBox>
   
<asp:RegularExpressionValidator id="vldEmail" runat="server" ErrorMessage="This
email is missing the @ symbol."
ValidationExpression=".+@.+" ControlToValidate="txtEmail" ForeColor="Red"/>
   <br />   <br />
   <asp:Label ID="Label5" runat="server" Text="Age:"></asp:Label>
                       
<asp:TextBox ID="txtAge" runat="server" OnTextChanged="txtAge_TextChanged"
Width="140px"></asp:TextBox>
    
<asp:RangeValidator id="vldAge" runat="server" ErrorMessage="This age is not between
0 and 120." Type="Integer"
MinimumValue="0" MaximumValue="120" ControlToValidate="txtAge"
ForeColor="Red"/>
   <br />   <br />
   <asp:Label ID="Label6" runat="server" Text="Code: "></asp:Label>
                       
```

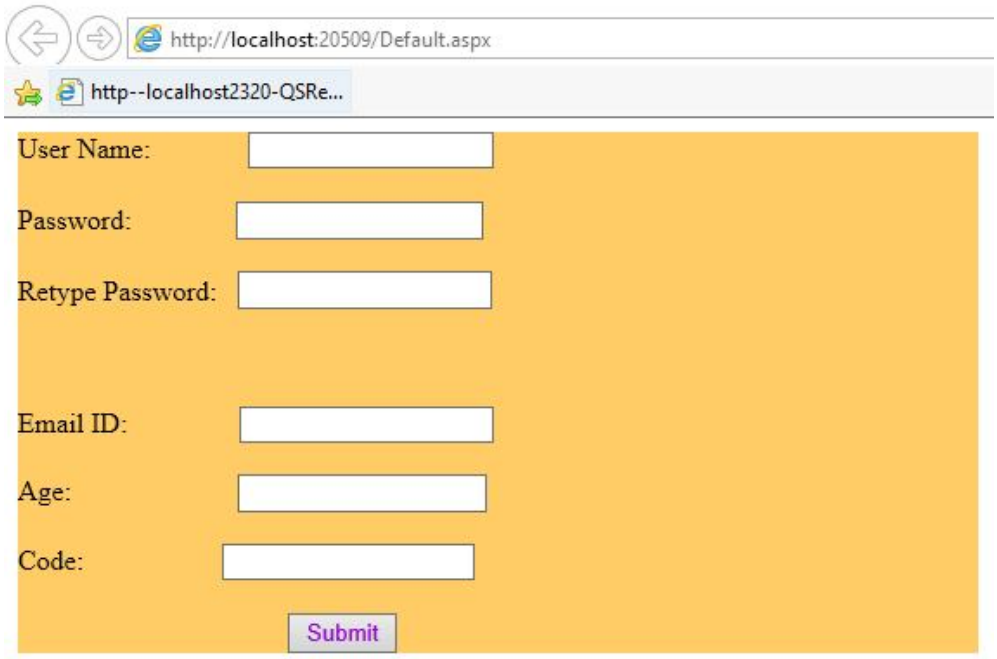
```
        <asp:TextBox ID="txtCode" runat="server" Width="142px"></asp:TextBox>
       
     
    <asp:CustomValidator id="vldCode" runat="server" ErrorMessage="Try a string that starts
with 014."
    ValidateEmptyText="False" ControlToValidate="txtCode" />
      
        <br />
            &nbs
p;            &n
bsp;   
        <br />
            &nbs
p;            &n
bsp;            
    <asp:Button ID="Button1" runat="server" Text="Submit"  OnClick="Button1_Click"
ForeColor="DarkViolet"/>
    <asp:ValidationSummary ID="ValidationSummary1" runat="server"
DisplayMode="BulletList" ShowSummary="true"
    HeaderText="Errors:" ForeColor="Red"/>
    </div>
    </form>
</body>
</html>
```

Default.aspx.cs code:

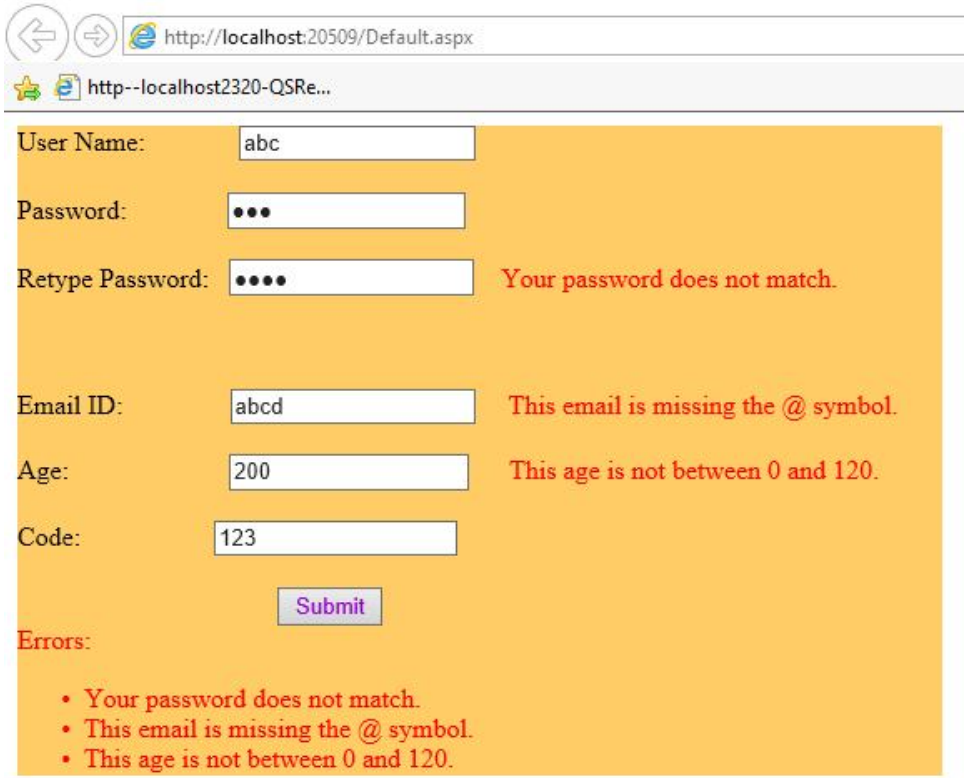
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
    }
    protected void txtPassword_TextChanged(object sender, EventArgs e)
    {
    }
    protected void txtAge_TextChanged(object sender, EventArgs e)
    {
    }
}
```

Output:

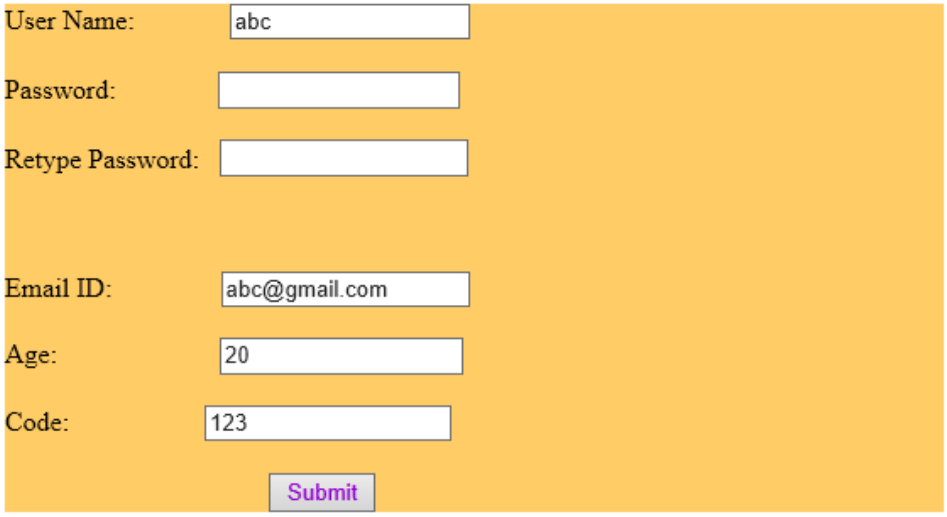
i) Initially when you run the website, the following output appears:



ii) Fill the form with some invalid input and click on Submit button, the following output appears:

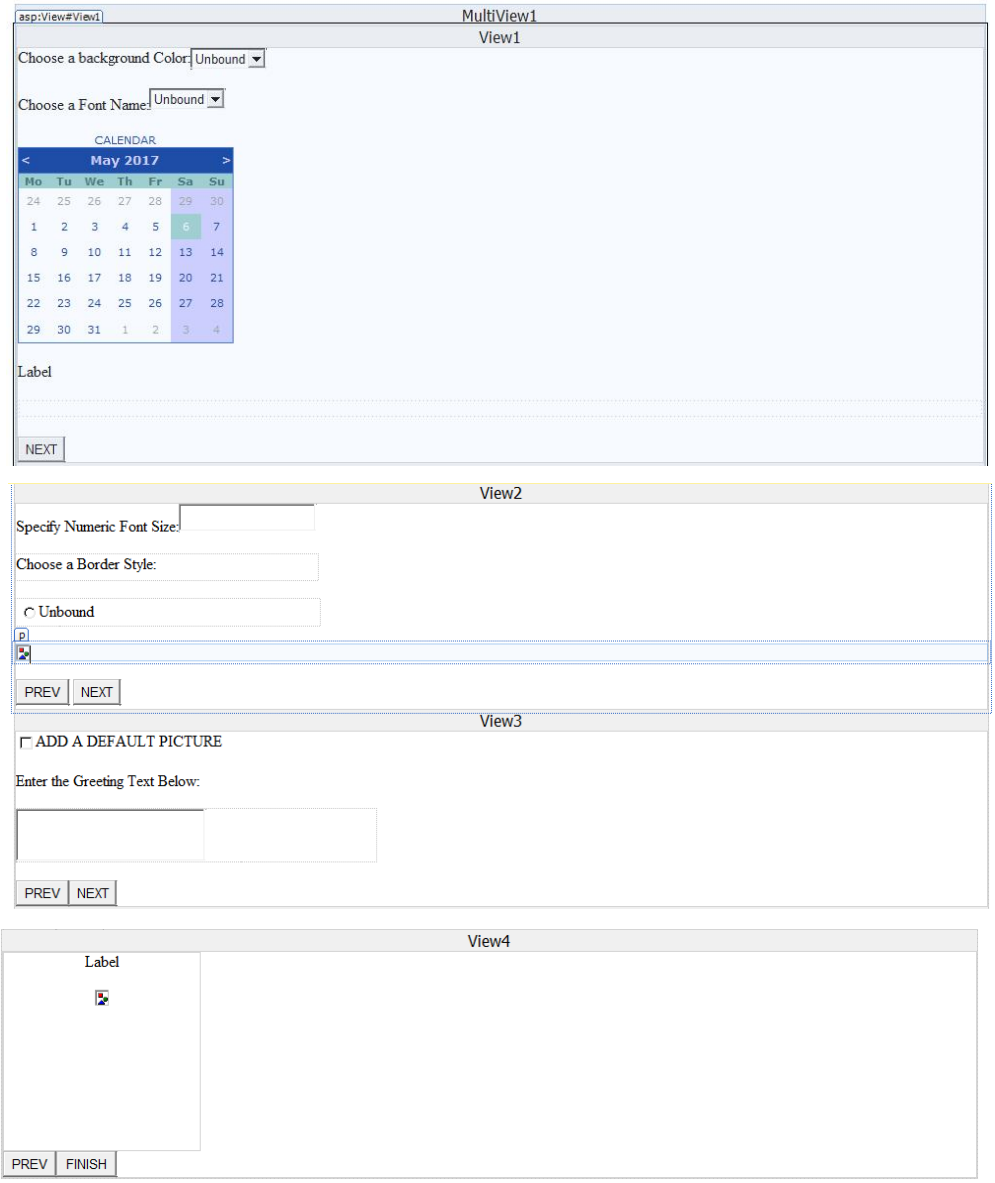


iii) Fill the form with correct values and click on Submit button, the following output appears:



7. Design an ASP.NET application to demonstrate Rich Controls.

Default.aspx (Design view):



Default.aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
    Inherits="_Default" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
```

```
   <form id="form1" runat="server">
   <div>
   <asp:MultiView runat="server" ID="MultiView1">
<asp:View runat="server" ID="View1">
        Choose a background Color:<asp:DropDownList ID="DropDownList1"
    runat="server" style="margin-bottom: 0px" AutoPostBack="True">
</asp:DropDownList>
   <p>
     Choose a Font Name:<asp:DropDownList ID="DropDownList2" runat="server"
    Style="margin-bottom: 0px" AutoPostBack="True">
     </asp:DropDownList>
   </p>

   <asp:Calendar ID="Calendar1" runat="server" BackColor="White"
    BorderColor="#3366CC" BorderWidth="1px"
     Caption="CALENDAR" CellPadding="1" DayNameFormat="Shortest" Font-
    Names="Verdana"
     Font-Size="8pt" ForeColor="#003399" Height="200px"
    OnDayRender="Calendar1_DayRender"
     OnSelectionChanged="Calendar1_SelectionChanged" Width="220px">
     <DayHeaderStyle BackColor="#99CCCC" ForeColor="#336666" Height="1px" />
     <NextPrevStyle Font-Size="8pt" ForeColor="#CCCCFF" />
     <OtherMonthDayStyle ForeColor="#999999" />
     <SelectedDayStyle BackColor="#009999" Font-Bold="True" ForeColor="#CCFF99" />
     <SelectorStyle BackColor="#99CCCC" ForeColor="#336666" />
     <TitleStyle BackColor="#003399" BorderColor="#3366CC" BorderWidth="1px" Font-
    Bold="True" Font-Size="10pt"
          ForeColor="#CCCCFF" Height="25px" />
     <TodayDayStyle BackColor="#99CCCC" ForeColor="White" />
     <WeekendDayStyle BackColor="#CCCCFF" />
   </asp:Calendar>
<br/>
<asp:Label ID="Label1" runat="server" Text="Label"> </asp:Label>
</p>  <p>
<asp:Button ID="Button1" runat="server" Text="NEXT" OnClick="Button1_Click"/>
</p>
</asp:View>
<asp:View runat="server" ID="View2">
<p>
        Specify Numeric Font Size:<asp:TextBox ID="TextBox1" runat="server"
    Height="22px" Width="131px"></asp:TextBox>
</p>
<p style="width: 306px; height: 26px">
        Choose a Border Style:</p>
<p style="height: 0px; width: 308px">
<asp:RadioButtonList ID="RadioButtonList1" runat="server">
</asp:RadioButtonList>
</p>  <p>
<asp:AdRotator ID="AdRotator1" runat="server" AdvertisementFile="~/Ads.xml"
    Target="_blank"/>
```

```
</p>  <p>
<asp:Button ID="Button2" runat="server" Text="PREV" OnClick="Button2_Click"/>
 <asp:Button ID="Button3" runat="server" Text="NEXT"
    OnClick="Button3_Click"/>
</p>
</asp:View>
      <asp:View runat="server" ID="View3">
        <p>
          <asp:CheckBox ID="CheckBox1" runat="server" Text="ADD A DEFAULT
    PICTURE" />
        </p>  <p>
          Enter the Greeting Text Below:
        </p>
        <p style="width: 365px">
          <asp:TextBox ID="TextBox2" runat="server" Height="47px"
    Width="184px"></asp:TextBox>
        </p>  <p>
          <asp:Button ID="Button4" runat="server" Text="PREV"
    OnClick="Button4_Click" />
          <asp:Button ID="Button5" runat="server" OnClick="Button5_Click"
    Text="NEXT" />
        </p>
      </asp:View>
<asp:View runat="server" ID="View4">
  <asp:Panel ID="Panel1" runat="server" Height="200px" Width="200px"
    HorizontalAlign="Center">
    <asp:Label ID="Lblgreeting" runat="server" Text="Label"></asp:Label>
    <br />  <br />
    <asp:Image ID="Image1" runat="server" />
  </asp:Panel>
<asp:Button ID="Button6" Text="PREV" runat="server" OnClick="Button6_Click"/>
<asp:Button ID="Button7" runat="server" OnClick="Button7_Click" Text="FINISH"/>
</asp:View>
</asp:MultiView>
  </div>
  </form>
</body>
</html>
```

Default.aspx.cs code:

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

```
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            MultiView1.ActiveViewIndex = 0;
            DropDownList1.Items.Add("Blue");
            DropDownList1.Items.Add("Green");
            DropDownList1.Items.Add("Red");
            DropDownList1.Items.Add("Yellow");
            DropDownList1.Items.Add("ThreeDShadow");

            DropDownList2.Items.Add("Arail");
            DropDownList2.Items.Add("Tahoma");
            DropDownList2.Items.Add("Verdana");
            DropDownList2.Items.Add("Times New Roman");

            ListItem li = new ListItem();
            li.Text = BorderStyle.None.ToString();
            li.Value = ((int)BorderStyle.None).ToString();
            RadioButtonList1.Items.Add(li);

            li = new ListItem();
            li.Text = BorderStyle.Double.ToString();
            li.Value = ((int)BorderStyle.Double).ToString();
            RadioButtonList1.Items.Add(li);

            li = new ListItem();
            li.Text = BorderStyle.Solid.ToString();
            li.Value = ((int)BorderStyle.Solid).ToString();
            RadioButtonList1.Items.Add(li);

            li = new ListItem();
            li.Text = BorderStyle.Outset.ToString();
            li.Value = ((int)BorderStyle.Outset).ToString();
            RadioButtonList1.Items.Add(li);
            RadioButtonList1.SelectedIndex = 0;
            Image1.ImageUrl = "~/Images/images.jpg";
            Image1.Visible = false;
        }
    }
    protected void Calendar1_SelectionChanged(object sender, EventArgs e)
    {
        Label1.Text = "You Selected these dates:<br/>";
        foreach (DateTime dt in Calendar1.SelectedDates)
        {
            Label1.Text += dt.ToLongDateString() + "<br/>";
        }
    }
```

```
protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
{
   if (e.Day.Date.Day == 15 && e.Day.Date.Month == 5)
   {
      e.Cell.BackColor = System.Drawing.Color.Violet;
      Label lbl = new Label();
      lbl.Text = "<br/>My Birthday!";
      e.Cell.Controls.Add(lbl);
   }
}
protected void Button1_Click(object sender, EventArgs e)
{
   MultiView1.ActiveViewIndex = 1;
}
protected void Button2_Click(object sender, EventArgs e)
{
   MultiView1.ActiveViewIndex = 0;
}
protected void Button3_Click(object sender, EventArgs e)
{
   MultiView1.ActiveViewIndex = 2;
}
protected void Button4_Click(object sender, EventArgs e)
{
   MultiView1.ActiveViewIndex = 1;
}
protected void Button5_Click(object sender, EventArgs e)
{
   MultiView1.ActiveViewIndex = 3;
   Panel1.BackColor = Color.FromName(DropDownList1.SelectedItem.Text);
   Lblgreeting.Font.Name = DropDownList2.SelectedItem.Text;
   if (int.Parse(TextBox1.Text) > 0)
   {
      Lblgreeting.Font.Size = FontUnit.Point(int.Parse(TextBox1.Text));
   }
   int bordervalue = int.Parse(RadioButtonList1.SelectedItem.Value);
   Panel1.BorderStyle = (BorderStyle)bordervalue;


if (CheckBox1.Checked)
   {
      Image1.Visible = true;
   }
   else
   {
      Image1.Visible = false;
   }
   Lblgreeting.Text = TextBox2.Text;

}
```

```
    protected void Button6_Click(object sender, EventArgs e)
    {
        MultiView1.ActiveViewIndex = 2;
    }
    protected void Button7_Click(object sender, EventArgs e)
    {
        Response.Write("Thank You");
    }
}
```

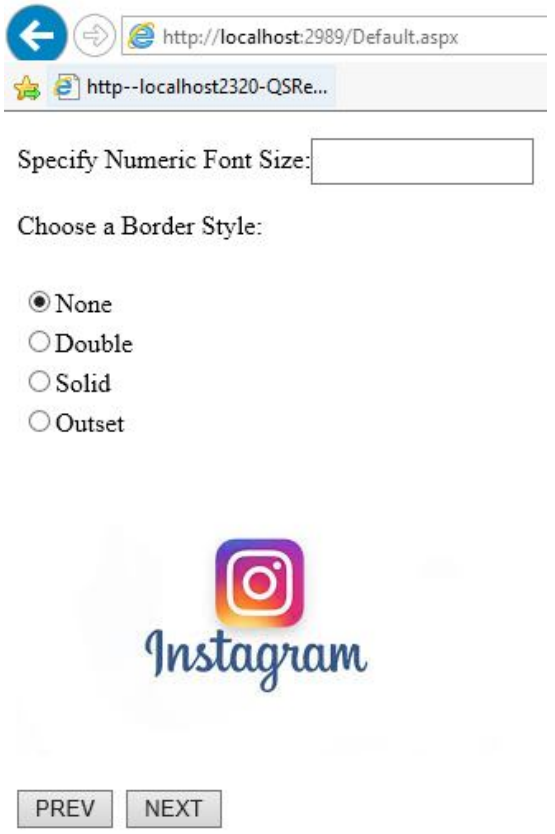
Ads.xml:

```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
<Ad>
<ImageUrl>~/Images/Google.png</ImageUrl>
<NavigateUrl>http://www.google.com</NavigateUrl>
<AlternateText>Please Visit http://www.google.com</AlternateText>
<Impressions>10</Impressions>
<Keyword>Google</Keyword>
</Ad>
<Ad>
<ImageUrl>~/Images/Instagram.png</ImageUrl>
<NavigateUrl>http://www.Instagram.com</NavigateUrl>
<AlternateText>Please Visit http://www.Instagram.com</AlternateText>
<Impressions>15</Impressions>
<Keyword>Facebook</Keyword>
</Ad>
<Ad>
<ImageUrl>~/Images/Whatsapp.png</ImageUrl>
<NavigateUrl>http://www.whatsapp.com</NavigateUrl>
<AlternateText>Please Visit http://www.whatsapp.com</AlternateText>
<Impressions>10</Impressions>
<Keyword>Facebook</Keyword>
</Ad>
</Advertisements>
```

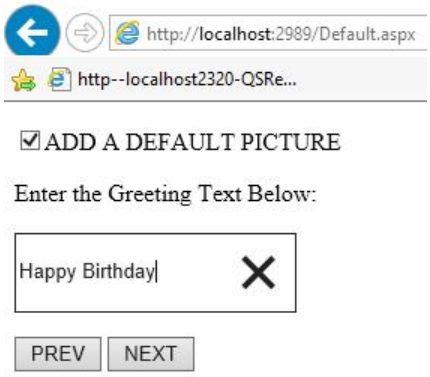
Output:

i) Initially when you run the program, the following output appears:

ii) When you clicked on 'Next' button,



iii) When you specified font size, border style and clicked on Next button,



iv) select check box and enter greeting text and click on NEXT button, the following output appears:

8. Design an ASP.NET Web Site with Master Pages.

MasterPage (Design View):

MasterPage source code:

```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="MasterPage.master.cs"
Inherits="MasterPage" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder id="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
    <div>
        <asp:Panel ID="Panel1" runat="server">
            <img src="beclogo.jpg" runat="server" style="height: 64px; width: 67px"/>

            &nbs
p;  

            &nbs
p;  

            &nbs
p;  
                    
            <asp:Label ID="Label1" runat="server" Text="Bapatla Engineering College" Font-
Names="Old English Text MT"
```

```
            Font-Size="XX-Large" ForeColor="Blue" Font-Bold="True"></asp:Label>
          <br>

               
```

Default.aspx (Design view):

Default.aspx code:

```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="MasterPage.master.cs"
    Inherits="MasterPage" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
   <asp:ContentPlaceHolder id="head" runat="server">
   </asp:ContentPlaceHolder>
</head>
<body>
   <form id="form1" runat="server">
   <div>
      <asp:Panel ID="Panel1" runat="server">
          <img src="beclogo.jpg" runat="server" style="height: 64px; width: 67px"/>

                &
    nbsp;           &n
    bsp;           &nb
    sp;           
        
         <asp:Label ID="Label1" runat="server" Text="Bapatla Engineering College" Font-
    Names="Old English Text MT" Font-Size="XX-Large" ForeColor="Blue" Font-
    Bold="True"></asp:Label>
```

```
            <br>

                  &
      nbsp;           &n
      bsp;           &nb
      sp;           &nbs
      p;            
                  &
      nbsp;           &n
      bsp;           &nb
      sp;        <asp:Label ID="Label2"
      runat="server" Font-Bold="True" Font-Size="Larger" ForeColor="Blue"
      Text="(Autonomous)"></asp:Label>

                  &
      nbsp; 
            <img src="becimg.jpg" runat="server"/>
            <br>
            <br>
            <br></br>
            <br></br>
            </br>
            </br>
        </asp:Panel>
        <asp:ContentPlaceHolder id="ContentPlaceHolder1" runat="server">
          <p>
             </p>
          <p>
             </p>
          <p>
             </p>
          <p>
            <br />
          </p>
        </asp:ContentPlaceHolder>
    </div>
    </form>
</body>
</html>
```

Default.aspx.cs 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 _Default : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {

   }
   protected void Button1_Click(object sender, EventArgs e)
   {
      if (TextBox1.Text.Equals("abc") && TextBox2.Text.Equals("abc"))
      {
         Response.Redirect("~/Default2.aspx");
      }
      else Label3.Text = "Sorry Invalid Login. Try again.";
   }
}
```

Default2.aspx (Design view):

Default2.aspx code:

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
AutoEventWireup="true" CodeFile="Default2.aspx.cs" Inherits="Default2" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
Runat="Server">

               

               
```

```
               
                <asp:Label
ID="Label1" runat="server"
       Text="Welcome to Bapatla Engg. College." Font-Bold="True" Font-Size="XX-Large"
ForeColor="#00CC00"></asp:Label>
</asp:Content>
```

Default2.aspx.cs 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 Default2 : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {

   }
}
```

Output:

i) Initially when you run the program:

ii) Enter correct UserID and Password, it navigates you to the next page:

On clicking Submit button,

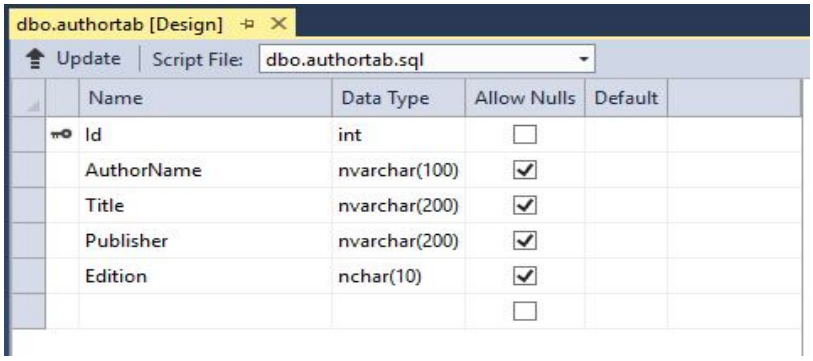
Welcome to Bapatla Engg. College.

iii) Enter incorrect UserID and Password, asks you to try again:

9. Design an ASP.NET application to work with SQL Server Database using ADO.NET and Data Controls.

Database used: AuthorsDB.mdf
Table used: authortab

authortab table structure:



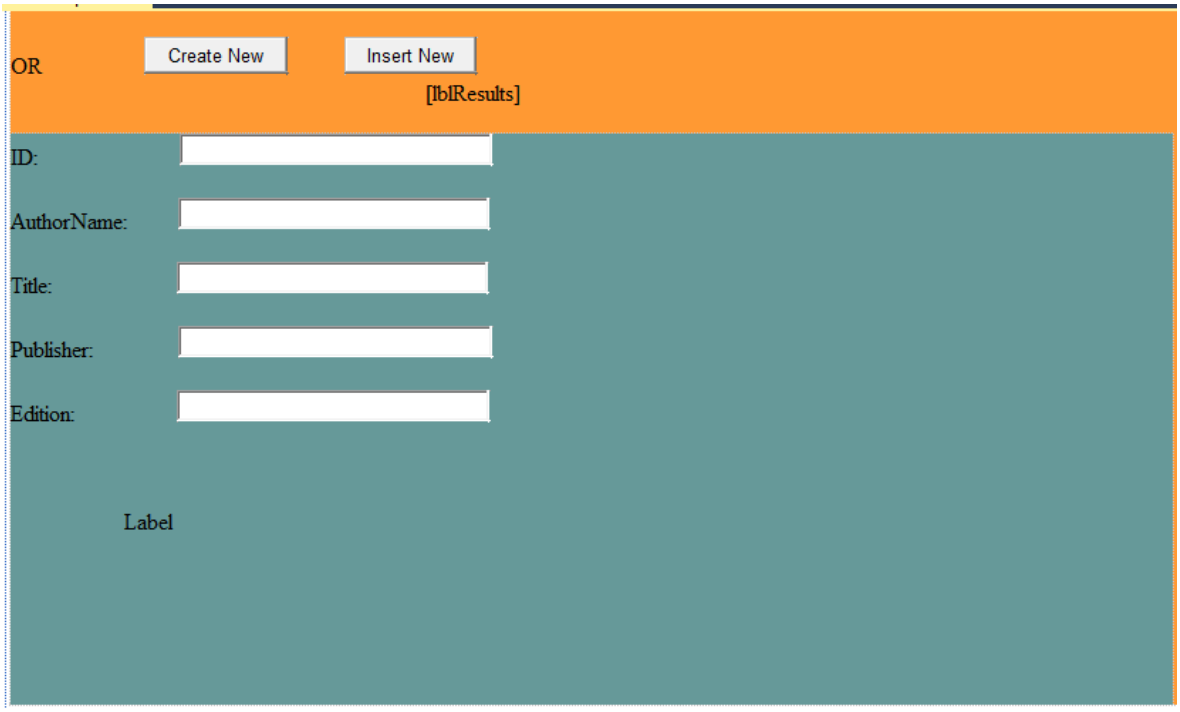
authortab table data:

dbo.authortab [Data]

Max Rows: 1000

Id	AuthorName	Title	Publisher	Edition
1	Herbert Schildt	The Complete ...	TMH	9th
2	Roger Pressman	Software Engin...	THM	4th
3	Wev Meng Lee	Beginning Andr...	PHI	4th
4	Herbert Schildt	Operating Syste...	TMH	6th
5	Herbert Schildt	C# Complete R...	TMH	5th
6	Sehiller	Wireless Netwo...	Pearson Edu.	2nd
NULL	*NULL*	*NULL*	*NULL*	*NULL*

Default.aspx (Design view):



Default.aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div style="font-size: medium; background-color: #FF9933; width: 821px;" >  <br />
      <asp:Label ID="Label1" runat="server" Text="Select Author:"></asp:Label>
```

```
         
        <asp:DropDownList ID="lstAuthors" runat="server" Height="36px" Width="228px"
AutoPostBack="True" OnSelectedIndexChanged="lstAuthors_SelectedIndexChanged">
        </asp:DropDownList>
              
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Update"
style="margin-left: 0px" Width="86px" />
         
        <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Delete"
Width="73px" />
            
        <br />
        <br />
        <asp:Label ID="Label2" runat="server" Text="OR"></asp:Label>

            &nbs
p;    
        <asp:Button ID="Button3" runat="server" OnClick="Button3_Click" Text="Create
New" />
         
        <asp:Button ID="Button4" runat="server" OnClick="Button4_Click" Text="Insert
New" />
        <br />
            &nbs
p;            &n
bsp;            
            &nbs
p;            &n
bsp;        
        <asp:Label ID="lblResults" runat="server" Text=""></asp:Label>
        <br />   <br />
        <div style="font-size: medium; color: #000000; background-color: #669999; height:
401px; width: 818px;">
        <asp:Label ID="Label3" runat="server" Text="ID:"></asp:Label>
            &nbs
p;           
           <asp:TextBox ID="IDTxtBox" runat="server" Width="212px" style="text-align:
left"></asp:TextBox>
           <br />    <br />
           <asp:Label ID="Label4" runat="server" Text="AuthorName:"></asp:Label>
         <asp:TextBox
ID="AuthorNameTxtBox" runat="server" Width="211px"></asp:TextBox>
           <br />       <br />
           <asp:Label ID="Label5" runat="server" Text="Title:"></asp:Label>
            &nbs
p;        
           <asp:TextBox ID="TitleTxtBox" runat="server" Width="211px"></asp:TextBox>
           <br />       <br />
           <asp:Label ID="Label7" runat="server" Text="Publisher:"></asp:Label>
```

```
         
    
        <asp:TextBox ID="PublisherTxtBox" runat="server"
Width="213px"></asp:TextBox>
        <br />  <br />
        <asp:Label ID="Label8" runat="server" Text="Edition:"></asp:Label>
                 
        <asp:TextBox ID="EditionTxtBox" runat="server" Width="212px"></asp:TextBox>
        <br />    <br />
  
        <br />   <br />
                    
        <asp:Label ID="ResultstLbl" runat="server" Text="Label"></asp:Label>
        <br />   <br />   <br />   <br />  <br />  <br />   <br />
      </div>
   </form>
</body>
</html>
```

Default.aspx.cs 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;
using System.Data.SqlClient;
using System.Web.Configuration;
using System.Text;
public partial class _Default : System.Web.UI.Page
{
   string connectionString = null;
   //SqlConnection myConnection = null;
   protected void Page_Load(object sender, EventArgs e)
   {
      if (!this.IsPostBack)
      {
         FillAuthorList();
      }
   }
```

```
 protected void Button1_Click(object sender, EventArgs e)
  {
     //update
     //UPDATE Authors SET phone='408 496-2222' WHERE au_id='172-32-1176'
     //delete

connectionString =
    WebConfigurationManager.ConnectionStrings["Pubs"].ConnectionString;
     // Define ADO.NET objects.
     string nameToChange = null;
     string updateSQL;
     nameToChange = lstAuthors.SelectedItem.ToString();
     updateSQL = "UPDATE AuthorTab SET AuthorName= '";
     updateSQL += AuthorNameTxtBox.Text;
     updateSQL += "'";
     updateSQL += " WHERE AuthorName='";
     updateSQL += nameToChange;
     updateSQL += "'";
     SqlConnection con = new SqlConnection(connectionString);
     SqlCommand cmd = new SqlCommand(updateSQL, con);
     // Try to open the database and execute the update cmd.
     int updated = 0;
     try
     {
        con.Open();
        updated = cmd.ExecuteNonQuery();
        ResultstLbl.Text = updated.ToString() + " records updated.";
     }
     catch (Exception err)
     {
        ResultstLbl.Text = "Error updating record. ";
        ResultstLbl.Text += err.Message;
     }
     finally
     {
        con.Close();
     }
     // If the update succeeded, refresh the author list.
     if (updated > 0)
     {
        FillAuthorList();
     }
  }
  protected void Button2_Click(object sender, EventArgs e)
  {
     //delete
     connectionString =
    WebConfigurationManager.ConnectionStrings["Pubs"].ConnectionString;
     // Define ADO.NET objects.
     string nametemp=null;
```

```
    string deleteSQL;
    deleteSQL = "DELETE FROM AuthorTab WHERE AuthorName = '";
    deleteSQL += AuthorNameTxtBox.Text;
    deleteSQL += "'";

    SqlConnection con = new SqlConnection(connectionString);
    SqlCommand cmd = new SqlCommand(deleteSQL, con);
    // Try to open the database and execute the delete cmd.
    int deleted = 0;
    try
    {
       con.Open();
       deleted = cmd.ExecuteNonQuery();
       ResultstLbl.Text = deleted.ToString() + " records deleted.";
    }
    catch (Exception err)
    {
       ResultstLbl.Text = "Error deleting record. ";
       ResultstLbl.Text += err.Message;
    }
  finally
    {
       con.Close();
    }
    // If the delete succeeded, refresh the author list.
    if (deleted > 0)
    {
       FillAuthorList();
    }
    //clear current data in the display
    IDTxtBox.Text = "";
    AuthorNameTxtBox.Text = "";
    TitleTxtBox.Text = "";
    PublisherTxtBox.Text = "";
    EditionTxtBox.Text = "";
}
protected void Button3_Click(object sender, EventArgs e)
{
    //create new
    IDTxtBox.Text = "";
    AuthorNameTxtBox.Text = "";
    TitleTxtBox.Text = "";
    PublisherTxtBox.Text = "";
    EditionTxtBox.Text = "";
    lblResults.Text ="Click Insert New to add the completed record.";
}
```

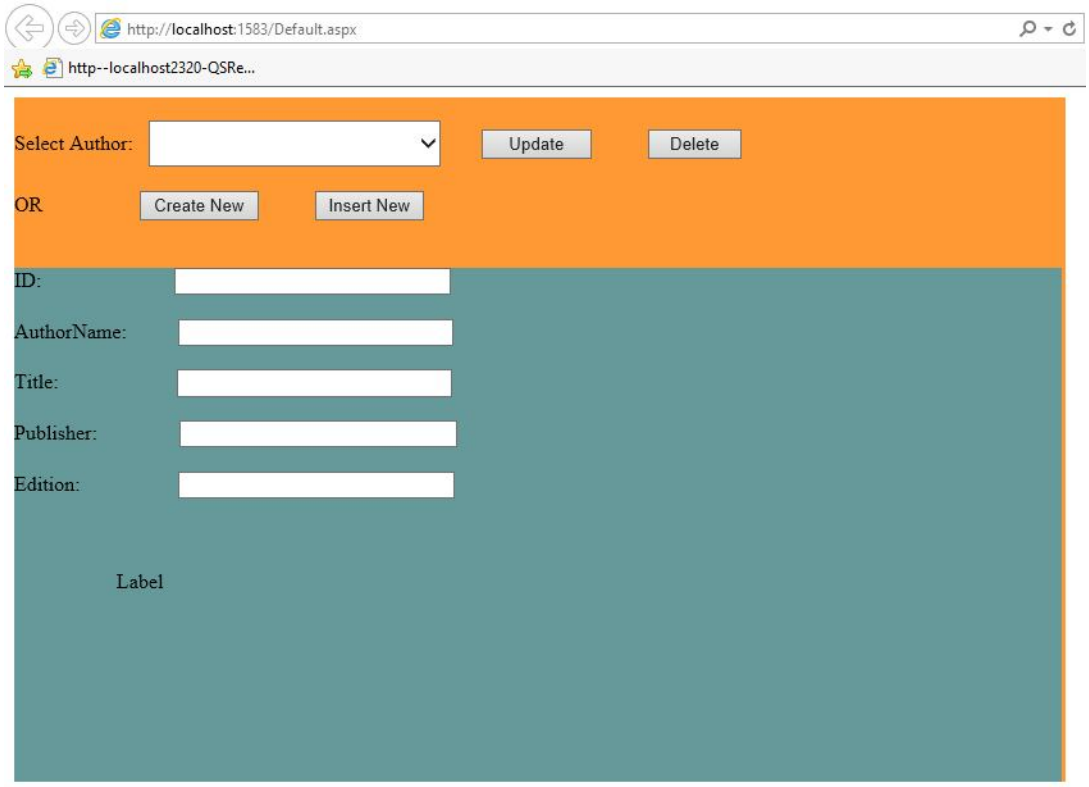
```
protected void Button4_Click(object sender, EventArgs e)
   {
      //insert new
      // Perform user-defined checks.
      // Alternatively, you could use RequiredFieldValidator controls.
      connectionString =
      WebConfigurationManager.ConnectionStrings["Pubs"].ConnectionString;
      if (IDTxtBox.Text.Equals("") || TitleTxtBox.Text.Equals("")  ||
         EditionTxtBox.Text.Equals("") )
      {
         ResultstLbl.Text = "Required fields missing.";
         return;
      }
      // Define ADO.NET objects.
      string insertSQL;
      insertSQL = "INSERT INTO AuthorTab(Id, AuthorName, Title, Publisher, Edition)";
      insertSQL += " VALUES('";
      insertSQL += IDTxtBox.Text + "', '";
      insertSQL += AuthorNameTxtBox.Text + "', '";
      insertSQL += TitleTxtBox.Text + "', '";
      insertSQL += PublisherTxtBox.Text + "', '";
      insertSQL += EditionTxtBox.Text;
      insertSQL += "')";
      SqlConnection con = new SqlConnection(connectionString);
      SqlCommand cmd = new SqlCommand(insertSQL, con);
      // Try to open the database and execute the update.
      int added = 0;
      try
      {
         con.Open();
         added = cmd.ExecuteNonQuery();
         ResultstLbl.Text = added.ToString() + " records inserted.";
      }
      catch (Exception err)
      {
         ResultstLbl.Text = "Error inserting record. ";
         ResultstLbl.Text += err.Message;
      }


    finally
      {
         con.Close();
      }
      // If the insert succeeded, refresh the author list.
      if (added > 0)
      {
         FillAuthorList();
      }
   }
```

```
private void FillAuthorList()
{
   connectionString =
      WebConfigurationManager.ConnectionStrings["Pubs"].ConnectionString;
   lstAuthors.Items.Clear();
   // Define the Select statement.
   // Three pieces of information are needed: the unique id
   // and the first and last name.
   string selectSQL = "SELECT AuthorName FROM AuthorTab";
   // Define the ADO.NET objects.
   SqlConnection con = new SqlConnection(connectionString);
   SqlCommand cmd = new SqlCommand(selectSQL, con);
   SqlDataReader reader;
   // Try to open database and read information.
   try
   {
      con.Open();
      reader = cmd.ExecuteReader();
      // For each item, add the author name to the displayed
      // list box text, and store the unique ID in the Value property.
      while (reader.Read())
      {
               ListItem newItem = new ListItem();
               newItem.Text = reader["AuthorName"].ToString();
               newItem.Value = reader["AuthorName"].ToString();
               lstAuthors.Items.Add(newItem);
      }
      reader.Close();
   }
   catch (Exception err)
   {
      lblResults.Text = "Error reading list of names. ";
      lblResults.Text += err.Message;
   }
   finally
   {
      con.Close();
   }
   }
protected void lstAuthors_SelectedIndexChanged(object sender, EventArgs e)
{
   connectionString =
      WebConfigurationManager.ConnectionStrings["Pubs"].ConnectionString;
   // Create a Select statement that searches for a record
   // matching the specific author ID from the Value property.
   string selectSQL;
   selectSQL = "SELECT * FROM AuthorTab ";
   selectSQL += "WHERE AuthorName='" + lstAuthors.SelectedItem.Value + "'";
```

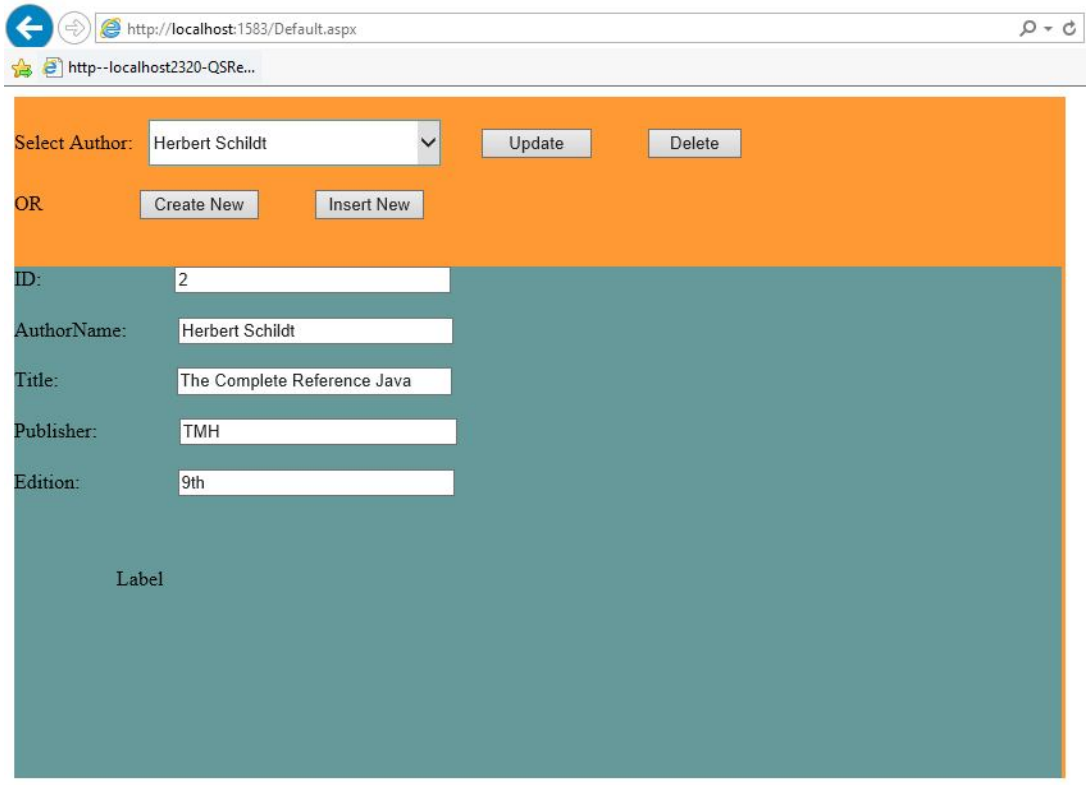
```
  // Define the ADO.NET objects.
    SqlConnection con = new SqlConnection(connectionString);
    SqlCommand cmd = new SqlCommand(selectSQL, con);
    SqlDataReader reader;
    // Try to open database and read information.
    try
    {
          con.Open();
          reader = cmd.ExecuteReader();
          reader.Read();
          // Build a string with the record information,
          // and display that in a label.
          IDTxtBox.Text = reader["Id"].ToString();
          AuthorNameTxtBox.Text= reader["AuthorName"].ToString();
          TitleTxtBox.Text = reader["Title"].ToString();
          PublisherTxtBox.Text=reader["Publisher"].ToString();
          EditionTxtBox.Text=reader["Edition"].ToString();
          reader.Close();
    }
    catch (Exception err)
    {
       lblResults.Text = "Error getting author. ";
       lblResults.Text += err.Message;
    }

 finally
    {
       con.Close();
    }
  }
}
```

Output:

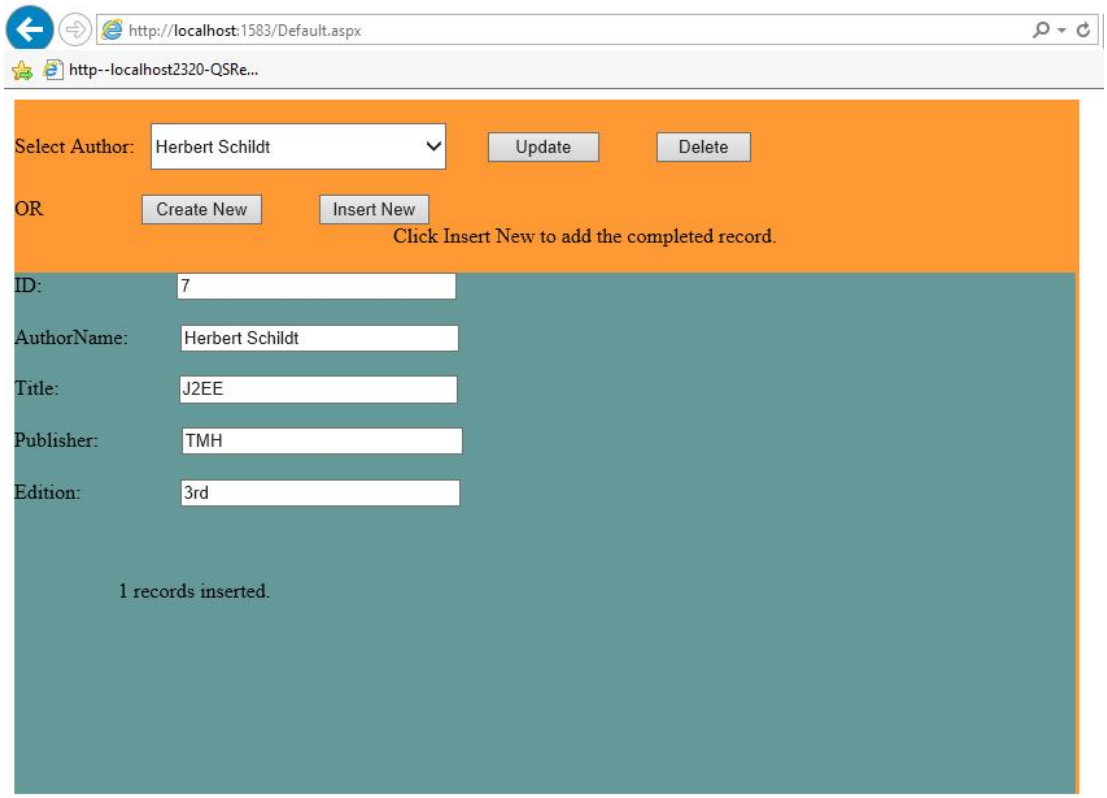
i) Initially, when you run the program:



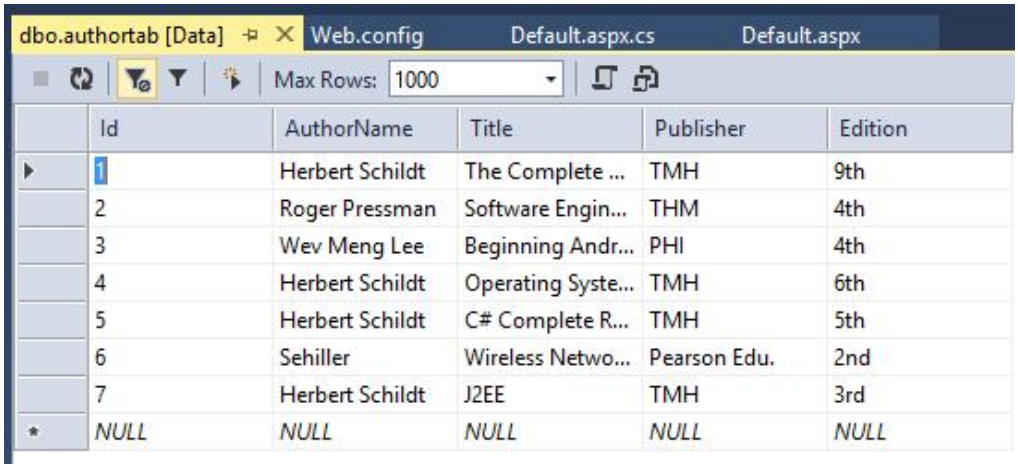
ii) Select: On selecting 'Herbert Schildt' option from the Author list, the following output appears:



iii) Insert New: On clicking 'Create New' option, it allows you to add new record. Enter values and click on 'Insert New' to insert the new record.

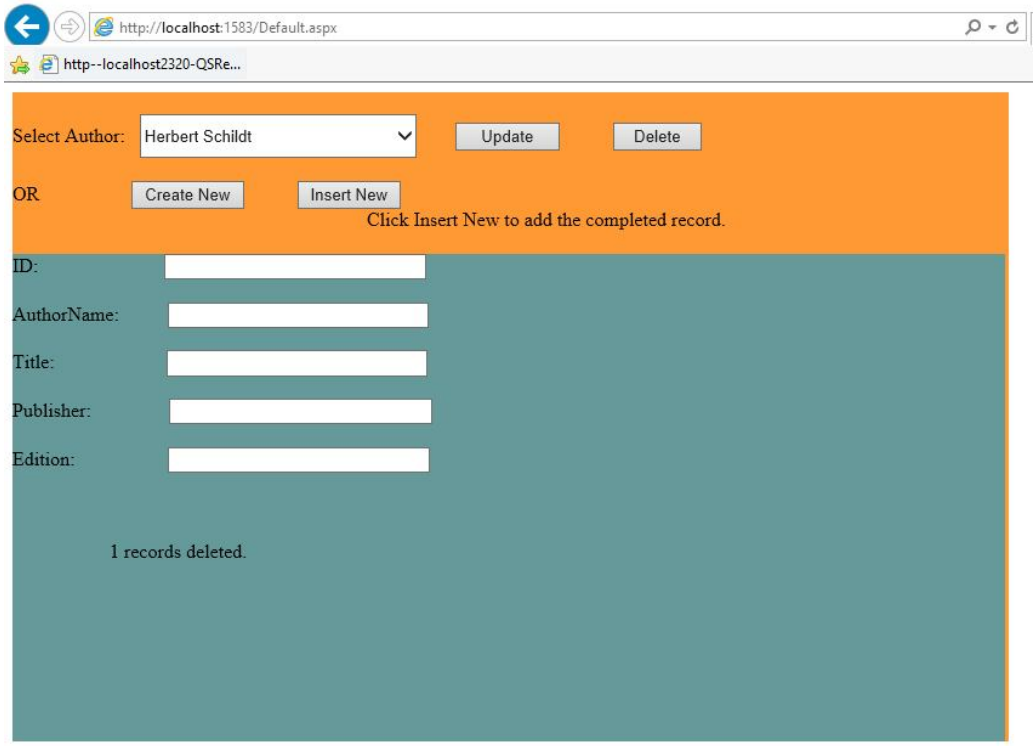


You can check the added record in the authortab table by opening it manually in Server Explorer window.

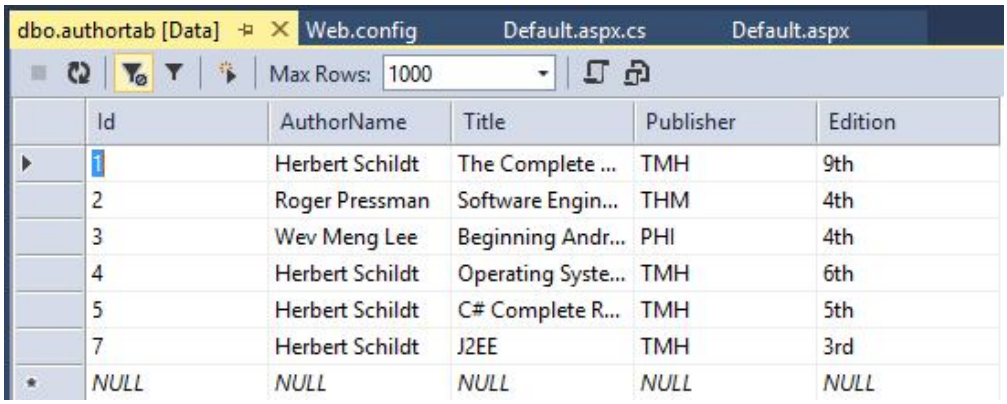


Id	AuthorName	Title	Publisher	Edition
1	Herbert Schildt	The Complete ...	TMH	9th
2	Roger Pressman	Software Engin...	THM	4th
3	Wev Meng Lee	Beginning Andr...	PHI	4th
4	Herbert Schildt	Operating Syste...	TMH	6th
5	Herbert Schildt	C# Complete R...	TMH	5th
6	Sehiller	Wireless Netwo...	Pearson Edu.	2nd
7	Herbert Schildt	J2EE	TMH	3rd
NULL	*NULL*	*NULL*	*NULL*	*NULL*

iv) Delete: Select Author from the List and click on 'Delete' button to delete all the records of the author you selected.

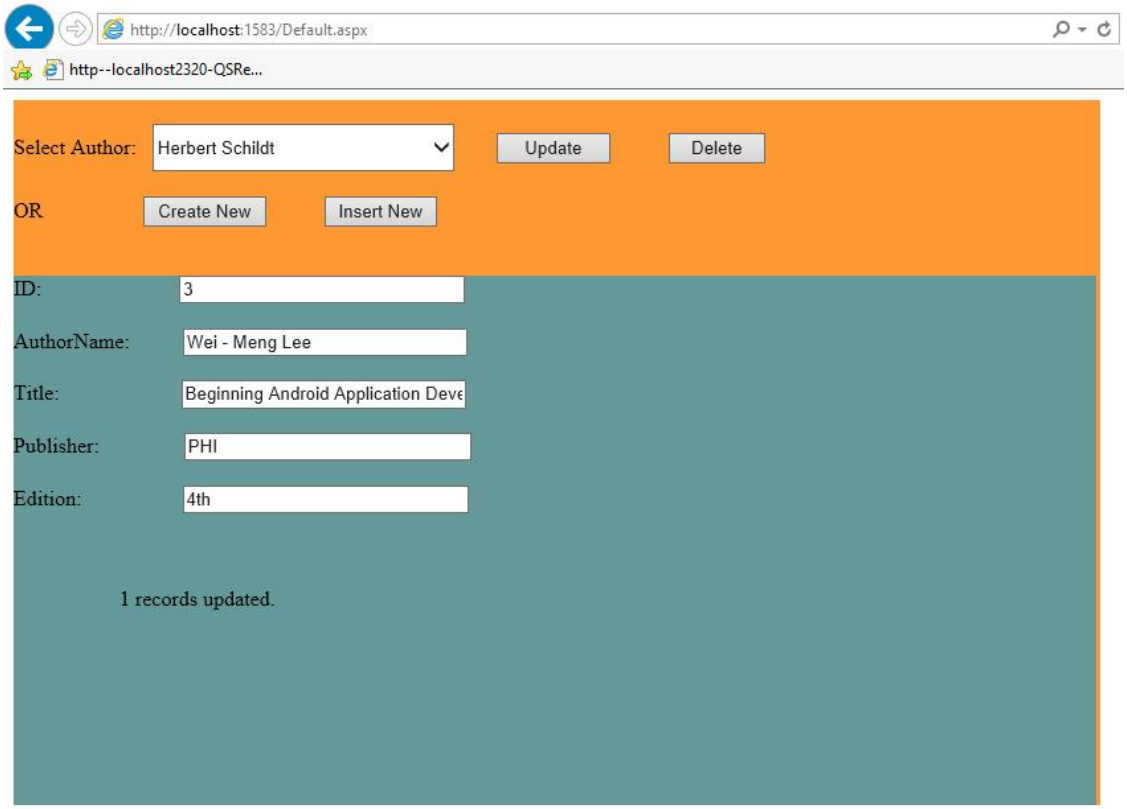


You can check the deleted record(s) in the authortab table by opening it manually in Server Explorer window.

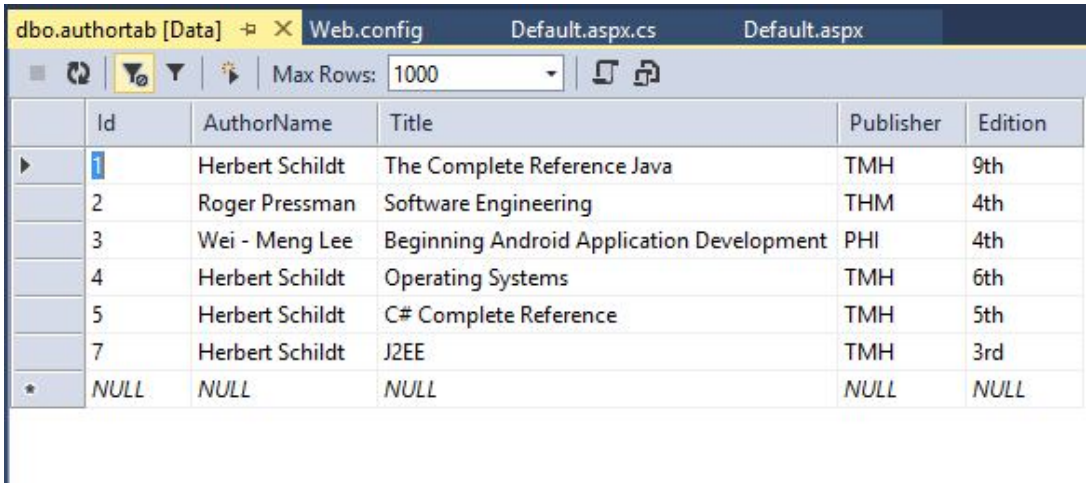


	Id	AuthorName	Title	Publisher	Edition
▶	1	Herbert Schildt	The Complete ...	TMH	9th
	2	Roger Pressman	Software Engin...	THM	4th
	3	Wev Meng Lee	Beginning Andr...	PHI	4th
	4	Herbert Schildt	Operating Syste...	TMH	6th
	5	Herbert Schildt	C# Complete R...	TMH	5th
	7	Herbert Schildt	J2EE	TMH	3rd
*	NULL	NULL	NULL	NULL	NULL

v) Update: select an Author and update the record of it and click on 'Update' button to update the record(s) of the selected author.



You can check the updated record(s) in the authortab table by opening it manually in Server Explorer window.



Id	AuthorName	Title	Publisher	Edition
1	Herbert Schildt	The Complete Reference Java	TMH	9th
2	Roger Pressman	Software Engineering	THM	4th
3	Wei - Meng Lee	Beginning Android Application Development	PHI	4th
4	Herbert Schildt	Operating Systems	TMH	6th
5	Herbert Schildt	C# Complete Reference	TMH	5th
7	Herbert Schildt	J2EE	TMH	3rd
NULL	*NULL*	*NULL*	*NULL*	*NULL*

10. Design a Simple MVC Web Pages Application.

HomeController.cs code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Mvc;
using PartyInvites.Models;
namespace PartyInvites.Controllers
{
   public class HomeController : Controller
   {
      // GET: Home
      public ViewResult Index()
      {
         int hour = DateTime.Now.Hour;
         ViewBag.Greeting = hour < 12 ? "Good Morning" : "Good Afternoon";
         return View();
      }
      [HttpGet]
      public ViewResult RsvpForm()
      {
         return View();
      }
      [HttpPost]
      public ViewResult RsvpForm(GuestResponse guestResponse)
      {
         // TODO: Email response to the party organizer
         if (ModelState.IsValid)
         {
            return View("Thanks", guestResponse);
         }
         else
         {
            // there is a validation error
            return View();
         }
      }
   }
}
```

Models:

GuestResponse.cs code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.ComponentModel.DataAnnotations;
namespace PartyInvites.Models
{
   public class GuestResponse
   {
      [Required(ErrorMessage = "Please enter your name")]
      public string Name { get; set; }
      [Required(ErrorMessage = "Please enter your email address")]
      [RegularExpression(".+\\@.+\\..+",
      ErrorMessage = "Please enter a valid email address")]
      public string Email { get; set; }
      [Required(ErrorMessage = "Please enter your phone number")]
      public string Phone { get; set; }
      [Required(ErrorMessage = "Please specify whether you'll attend")]
      public bool? WillAttend { get; set; }
   }
}
```

Views:

Index.cshtml code:

```
@{
   Layout = null;
}

<!DOCTYPE html>

<html>
<head>
   <meta name="viewport" content="width=device-width" />
   <title>Index</title>
</head>
<body>
   <div>
      @ViewBag.Greeting World ( from view)
      <p>
         We're going to have an exciting party.<br />
         (To do: sell it better. Add pictures or something.)
```

```
        </p>
        @Html.ActionLink("RSVP Now", "RsvpForm")
    </div>
</body>
</html>
```

RsvpForm.cshtml code:

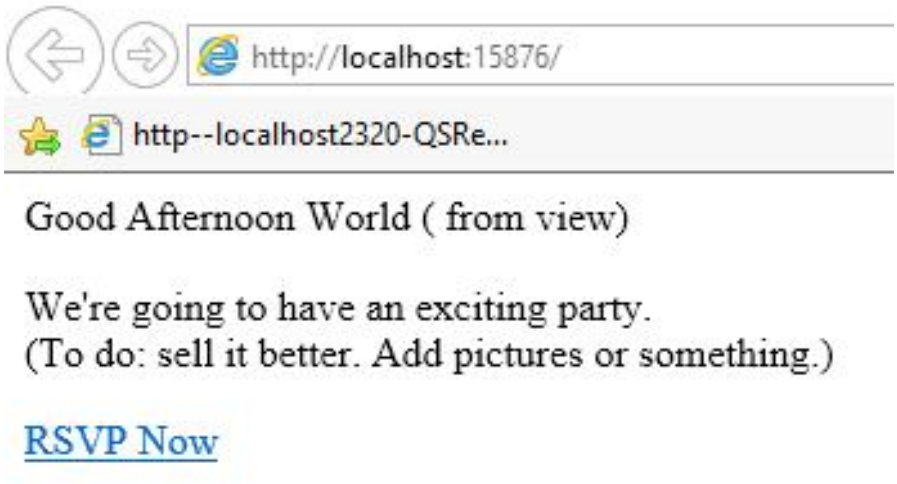
```
@model PartyInvites.Models.GuestResponse

@{
    Layout = null;
}

<!DOCTYPE html>

<html>
<head>
    <meta name="viewport" content="width=device-width" />
    <link rel="stylesheet" type="text/css" href="~/Content/Styles2.css" />
    <title>RsvpForm</title>

</head>
<body>
    <div>
        @using (Html.BeginForm()) {
            @Html.ValidationSummary()
            <p>Your name: @Html.TextBoxFor(x => x.Name) </p>
            <p>Your email: @Html.TextBoxFor(x => x.Email)</p>
            <p>Your phone: @Html.TextBoxFor(x => x.Phone)</p>
        <p>
            Will you attend?
            @Html.DropDownListFor(x => x.WillAttend, new[] {
    new SelectListItem() {
    Text = "Yes, I'll be there",
    Value = bool.TrueString},
    new SelectListItem() {Text = "No, I can't come",
    Value = bool.FalseString}
    }, "Choose an option")
        </p>
        <input type="submit" value="Submit RSVP" />
        }
</div>
</body>
</html>
```

Thanks.cshtml code:

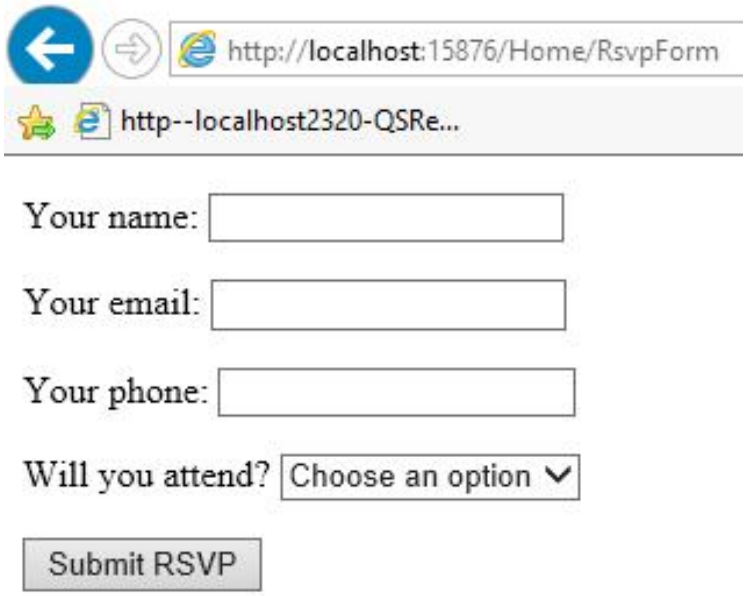
```
@model PartyInvites.Models.GuestResponse

@{
   Layout = null;
}
<!DOCTYPE html>
<html>
<head>
   <meta name="viewport" content="width=device-width" />
   <title>Thanks</title>
</head>
<body>
   <div>
<h1>Thank you, @Model.Name!</h1>
@if (Model.WillAttend == true) {
   @:It's great that you're coming. The drinks are already in the fridge!
} else {
   @:Sorry to hear that you can't make it, but thanks for letting us know.
}
   </div>
</body>
</html>
```

Output:

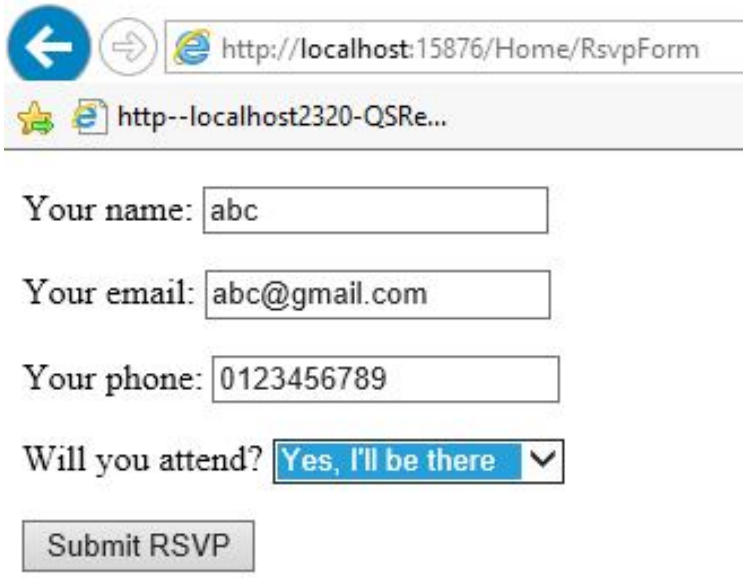
i) Initially, when you run the program, the following screen appears:



ii) On clicking 'RSVP Now' hyperlink,



iii) Fill the RSVPForm and click on 'Submit RSVP' button:



You will get the following output