Practical No: 1

Aim: Design UI based applications using basic Windows forms Controls.

i.Temperature Conversion

Code:

WebFrom1.asp

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_8.WebForm1" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
<style type="text/css">
.auto-style1 {width: 100%;}
.auto-style2 {width: 159px;}
.auto-style3 {width: 159px;text-align: center;}
</style>
</head>
<body>
<form id="form1" runat="server">
<div>
<table class="auto-style1">
<tr>
<td class="auto-style2">Tempreature Conversion</td>
<td></td>
</tr>
<tr>
<td class="auto-style3">Enter Value</td>
<td>
<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
</td>
</tr>
<tr>
<td class="auto-style2">
<asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="C to F" />
<asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="F to C" Width="75px"
/>
</td>
<td>
<asp:Button ID="Button3" runat="server" OnClick="Button3_Click" Text="Reset" />
</td>
</tr>
</table>
</div>
<asp:Label ID="Label1" runat="server"></asp:Label>
<br />
<asp:Label ID="Label2" runat="server"></asp:Label>
</form>
</body>
</html>
```

WebFrom1.aspx.cs

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

  namespace Practical_8
  {
     public partial class WebForm1 : System.Web.UI.Page
     {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {

           double c, f; c = int.Parse(TextBox1.Text);
           f = c * 9 / 5 + 32;
           Label1.Text = string.Format("Temperature in Fahrenheit is(°F) : " + f);
        }

        protected void Button2_Click(object sender, EventArgs e)
        {
           {
              double c, f; f = int.Parse(TextBox1.Text);
              c = (f - 32) * 5 / 9;
              Label2.Text = string.Format("Temperature in Celsius is(°C) : " + c);
        }
     }

        protected void Button3_Click(object sender, EventArgs e)
        {
           TextBox1.Text = "";
           Label1.Text = "";
           Label2.Text = "";
        }
     }
  }
```

Output:

Tempreature Conversion

Enter Value 31

C to F | F to C | Reset

Temperature in Fahrenheit is(°F) : 87.8
Temperature in Celsius is(°C) : -0.555555555555556

Tempreature Conversion

Enter Value 45

C to F | F to C | Reset

Temperature in Fahrenheit is(°F) : 113
Temperature in Celsius is(°C) : -0.555555555555556

Tempreature Conversion

Enter Value 45

C to F | F to C | Reset

Temperature in Fahrenheit is(°F) : 113
Temperature in Celsius is(°C) : 7.22222222222222

ii.Simple Interest

Code:

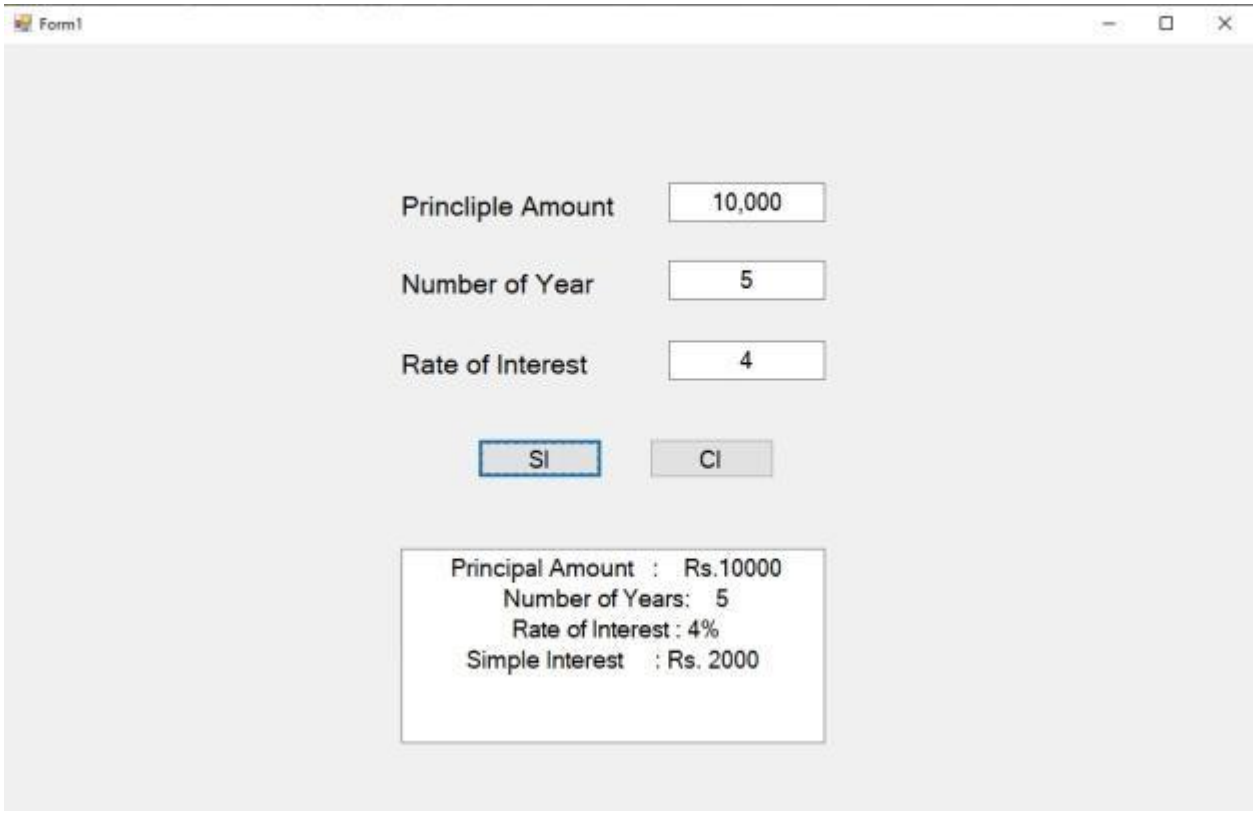
WindowForm1.aspx.cs

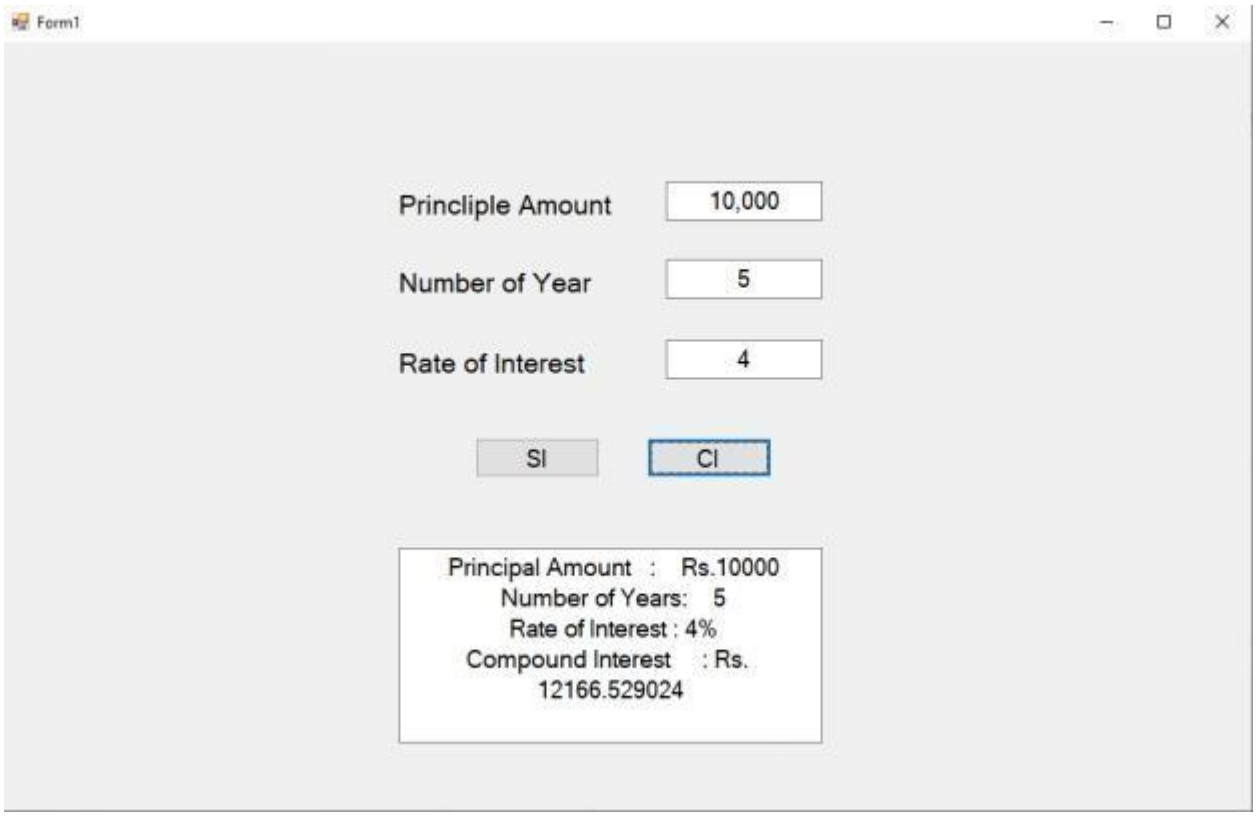
```
using System;
usingSystem.Collections.Generic;
usingSystem.ComponentModel;
usingSystem.Data;
usingSystem.Drawing;
usingSystem.Linq;
usingSystem.Text;
usingSystem.Threading.Tasks;
usingSystem.Windows.Forms;
namespaceCalculateInterest
{
classMyInterest
{
public Double SI, CI;
public Double P, R;
publicint N;
public Double Principal
{
get { return P; }
set { P = value; }
}
publicintNumOfYears
{
get { return N; }
set { N = value; }
}
public Double ROI
{
```

```
get { return R; }
set { R = value; }
}
public void calculateSI()
{
SI = (Principal * NumOfYears * ROI) / 100;
}
public void calculateCI()
{
CI = 1;
for (inti = 1; i<= NumOfYears; i++)
{
CI = CI * (1 + (ROI / 100));
}
CI = CI * Principal;
}
}
public partial class Form1 : Form
{
MyInterest m = new MyInterest();
void display(Boolean flag)
{
textBox4.Text = " Principal Amount : Rs." + m.Principal +"\r\n";
textBox4.Text += " Number of Years: " + m.NumOfYears +"\r\n";
textBox4.Text += " Rate of Interest: Rs." + m.ROI + "%";
if (flag)
{
textBox4.Text += "Simple Interest : Rs. " + m.SI.ToString();
}
else
{
```

```
textBox4.Text += "Compound Interest : Rs. " +
m.CI.ToString();
}
}
void setup()
{
m.Principal = Convert.ToDouble(textBox1.Text);
m.NumOfYears = Convert.ToInt32(textBox2.Text);
m.ROI = Convert.ToDouble(textBox3.Text);
}
public Form1()
{
InitializeComponent();
}
private void Form1_Load(object sender, EventArgs e)
{
}
private void button1_Click(object sender, EventArgs e)
{
setup();
m.calculateSI();
display(true);
}
private void button2_Click(object sender, EventArgs e)
{
setup();
m.calculateCI();
display(false);
}
}
}
```

Output:


Form1
Princliple Amount
10,000
Number of Year
5
Rate of Interest
4
SI
CI
Principal Amount : Rs.10000
Number of Years: 5
Rate of Interest : 4%
Simple Interest : Rs. 2000


Form1
Princliple Amount
10,000
Number of Year
5
Rate of Interest
4
SI
CI
Principal Amount : Rs.10000
Number of Years: 5
Rate of Interest : 4%
Compound Interest : Rs.
12166.529024

ROLL NO: 30
FYMCA DIV: A

iii. MDI Parent Form

Code:

Form1 design

```
namespace ClassProgram
{
   partial class Form1
   {
      /// <summary>
      /// Required designer variable.
      /// </summary>
      private System.ComponentModel.IContainer components = null;

      /// <summary>
      /// Clean up any resources being used.
      /// </summary>
      /// <param name="disposing">true if managed resources should be disposed; otherwise,
false.</param>
      protected override void Dispose(bool disposing)
      {
         if (disposing && (components != null))
         {
            components.Dispose();
         }
         base.Dispose(disposing);
      }

      #region Windows Form Designer generated code

      /// <summary>
      /// Required method for Designer support - do not modify
      /// the contents of this method with the code editor.
      /// </summary>
      private void InitializeComponent()
      {
         this.textBox1 = new System.Windows.Forms.TextBox();
         this.textBox2 = new System.Windows.Forms.TextBox();
         this.textBox3 = new System.Windows.Forms.TextBox();
         this.textBox4 = new System.Windows.Forms.TextBox();
         this.button1 = new System.Windows.Forms.Button();
         this.button2 = new System.Windows.Forms.Button();
         this.SuspendLayout();
         //
         // textBox1
         //
         this.textBox1.Location = new System.Drawing.Point(444, 48);
         this.textBox1.Name = "textBox1";
         this.textBox1.Size = new System.Drawing.Size(100, 20);
         this.textBox1.TabIndex = 0;
         //
```

```
// textBox2
//
this.textBox2.Location = new System.Drawing.Point(444, 90);
this.textBox2.Name = "textBox2";
this.textBox2.Size = new System.Drawing.Size(100, 20);
this.textBox2.TabIndex = 1;
//
// textBox3
//
this.textBox3.Location = new System.Drawing.Point(444, 135);
this.textBox3.Name = "textBox3";
this.textBox3.Size = new System.Drawing.Size(100, 20);
this.textBox3.TabIndex = 2;
//
// textBox4
//
this.textBox4.Location = new System.Drawing.Point(301, 229);
this.textBox4.Multiline = true;
this.textBox4.Name = "textBox4";
this.textBox4.Size = new System.Drawing.Size(278, 92);
this.textBox4.TabIndex = 3;
//
// button1
//
this.button1.Location = new System.Drawing.Point(240, 178);
this.button1.Name = "button1";
this.button1.Size = new System.Drawing.Size(75, 23);
this.button1.TabIndex = 4;
this.button1.Text = "button1";
this.button1.UseVisualStyleBackColor = true;
this.button1.Click += new System.EventHandler(this.button1_Click);
//
// button2
//
this.button2.Location = new System.Drawing.Point(429, 178);
this.button2.Name = "button2";
this.button2.Size = new System.Drawing.Size(75, 23);
this.button2.TabIndex = 5;
this.button2.Text = "button2";
this.button2.UseVisualStyleBackColor = true;
this.button2.Click += new System.EventHandler(this.button2_Click);
//
// Form1
//
this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
this.ClientSize = new System.Drawing.Size(800, 450);
this.Controls.Add(this.button2);
this.Controls.Add(this.button1);
this.Controls.Add(this.textBox4);
this.Controls.Add(this.textBox3);
this.Controls.Add(this.textBox2);
```

```
            this.Controls.Add(this.textBox1);
            this.Name = "Form1";
            this.Text = "Form1";
            this.Load += new System.EventHandler(this.Form1_Load);
            this.ResumeLayout(false);
            this.PerformLayout();

        }

        #endregion

        private System.Windows.Forms.TextBox textBox1;
        private System.Windows.Forms.TextBox textBox2;
        private System.Windows.Forms.TextBox textBox3;
        private System.Windows.Forms.TextBox textBox4;
        private System.Windows.Forms.Button button1;
        private System.Windows.Forms.Button button2;
    }
}
```

Program.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace ClassProgram
{
    internal static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new MDIParent1());
        }
    }
}
```

Class

```
namespace ClassProgram
{
    partial class MDIParent1
```

```
    {
        /// <summary>
        /// Required designer variable.
        /// </summary>
        private System.ComponentModel.IContainer components = null;

        /// <summary>
        /// Clean up any resources being used.
        /// </summary>
        /// <param name="disposing">true if managed resources should be disposed; otherwise,
false.</param>
        protected override void Dispose(bool disposing)
        {
            if (disposing && (components != null))
            {
                components.Dispose();
            }
            base.Dispose(disposing);
        }

        #region Windows Form Designer generated code

        /// <summary>
        /// Required method for Designer support - do not modify
        /// the contents of this method with the code editor.
        /// </summary>
        private void InitializeComponent()
        {
            this.components = new System.ComponentModel.Container();
            this.statusStrip = new System.Windows.Forms.StatusStrip();
            this.toolStripStatusLabel = new System.Windows.Forms.ToolStripStatusLabel();
            this.toolTip = new System.Windows.Forms.ToolTip(this.components);
            this.menuStrip1 = new System.Windows.Forms.MenuStrip();
            this.menuToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.classesToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.temperatureToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.uIControlsToolStripMenuItem = new System.Windows.Forms.ToolStripMenuItem();
            this.statusStrip.SuspendLayout();
            this.menuStrip1.SuspendLayout();
            this.SuspendLayout();
            //
            // statusStrip
            //
            this.statusStrip.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {
            this.toolStripStatusLabel});
            this.statusStrip.Location = new System.Drawing.Point(0, 431);
            this.statusStrip.Name = "statusStrip";
            this.statusStrip.Size = new System.Drawing.Size(632, 22);
            this.statusStrip.TabIndex = 2;
            this.statusStrip.Text = "StatusStrip";
            //
            // toolStripStatusLabel
```

```
        //
        this.toolStripStatusLabel.Name = "toolStripStatusLabel";
        this.toolStripStatusLabel.Size = new System.Drawing.Size(39, 17);
        this.toolStripStatusLabel.Text = "Status";
        //
        // menuStrip1
        //
        this.menuStrip1.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {
        this.menuToolStripMenuItem});
        this.menuStrip1.Location = new System.Drawing.Point(0, 0);
        this.menuStrip1.Name = "menuStrip1";
        this.menuStrip1.Size = new System.Drawing.Size(632, 24);
        this.menuStrip1.TabIndex = 4;
        this.menuStrip1.Text = "menuStrip1";
        //
        // menuToolStripMenuItem
        //
        this.menuToolStripMenuItem.DropDownItems.AddRange(new
System.Windows.Forms.ToolStripItem[] {
        this.classesToolStripMenuItem,
        this.temperatureToolStripMenuItem,
        this.uIControlsToolStripMenuItem});
        this.menuToolStripMenuItem.Name = "menuToolStripMenuItem";
        this.menuToolStripMenuItem.Size = new System.Drawing.Size(50, 20);
        this.menuToolStripMenuItem.Text = "Menu";
        //
        // classesToolStripMenuItem
        //
        this.classesToolStripMenuItem.Name = "classesToolStripMenuItem";
        this.classesToolStripMenuItem.Size = new System.Drawing.Size(180, 22);
        this.classesToolStripMenuItem.Text = "Classes";
        this.classesToolStripMenuItem.Click += new
System.EventHandler(this.classesToolStripMenuItem_Click);
        //
        // temperatureToolStripMenuItem
        //
        this.temperatureToolStripMenuItem.Name = "temperatureToolStripMenuItem";
        this.temperatureToolStripMenuItem.Size = new System.Drawing.Size(180, 22);
        this.temperatureToolStripMenuItem.Text = "Temperature";
        //
        // uIControlsToolStripMenuItem
        //
        this.uIControlsToolStripMenuItem.Name = "uIControlsToolStripMenuItem";
        this.uIControlsToolStripMenuItem.Size = new System.Drawing.Size(180, 22);
        this.uIControlsToolStripMenuItem.Text = "UIControls";
        //
        // MDIParent1
        //
        this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
        this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
        this.ClientSize = new System.Drawing.Size(632, 453);
        this.Controls.Add(this.statusStrip);
```

```
            this.Controls.Add(this.menuStrip1);
            this.IsMdiContainer = true;
            this.Name = "MDIParent1";
            this.Text = "MDIParent1";
            this.statusStrip.ResumeLayout(false);
            this.statusStrip.PerformLayout();
            this.menuStrip1.ResumeLayout(false);
            this.menuStrip1.PerformLayout();
            this.ResumeLayout(false);
            this.PerformLayout();

        }
        #endregion
        private System.Windows.Forms.StatusStrip statusStrip;
        private System.Windows.Forms.ToolStripStatusLabel toolStripStatusLabel;
        private System.Windows.Forms.ToolTip toolTip;
        private System.Windows.Forms.MenuStrip menuStrip1;
        private System.Windows.Forms.ToolStripMenuItem menuToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem classesToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem temperatureToolStripMenuItem;
        private System.Windows.Forms.ToolStripMenuItem uIControlsToolStripMenuItem;
    }
}
```

MDIparent.cs

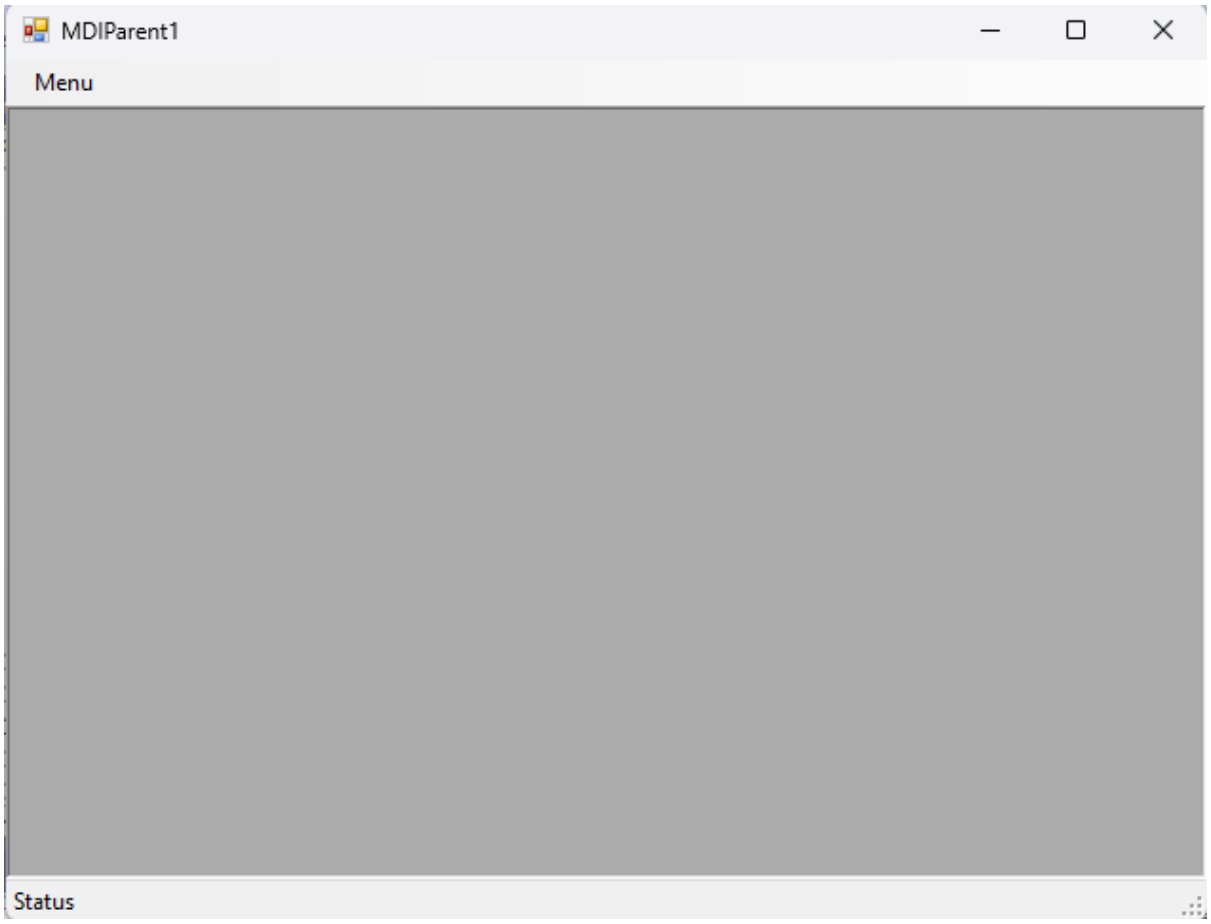
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace ClassProgram
{
    public partial class MDIParent1 : Form
    {
        private int childFormNumber = 0;

        public MDIParent1()
        {
            InitializeComponent();
        }

        private void ShowNewForm(object sender, EventArgs e)
        {
            Form childForm = new Form();
            childForm.MdiParent = this;
```

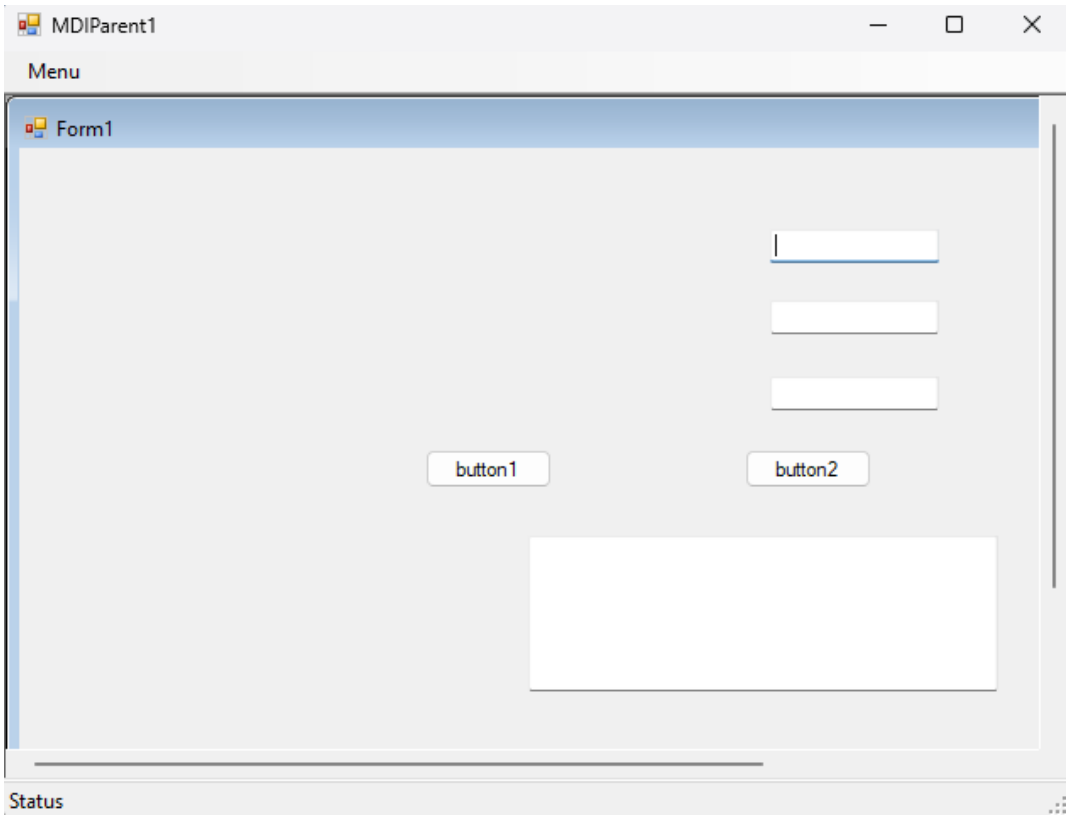
```
            childForm.Text = "Window " + childFormNumber++;
            childForm.Show();
        }

        private void OpenFile(object sender, EventArgs e)
        {
            OpenFileDialog openFileDialog = new OpenFileDialog();
            openFileDialog.InitialDirectory =
Environment.GetFolderPath(Environment.SpecialFolder.Personal);
            openFileDialog.Filter = "Text Files (*.txt)|*.txt|All Files (*.*)|*.*";
            if (openFileDialog.ShowDialog(this) == DialogResult.OK)
            {
                string FileName = openFileDialog.FileName;
            }
        }

        private void SaveAsToolStripMenuItem_Click(object sender, EventArgs e)
        {
            SaveFileDialog saveFileDialog = new SaveFileDialog();
            saveFileDialog.InitialDirectory =
Environment.GetFolderPath(Environment.SpecialFolder.Personal);
            saveFileDialog.Filter = "Text Files (*.txt)|*.txt|All Files (*.*)|*.*";
            if (saveFileDialog.ShowDialog(this) == DialogResult.OK)
            {
                string FileName = saveFileDialog.FileName;
            }
        }

        private void ExitToolsStripMenuItem_Click(object sender, EventArgs e)
        {
            this.Close();
        }

        private void CutToolStripMenuItem_Click(object sender, EventArgs e)
        {
        }

        private void CopyToolStripMenuItem_Click(object sender, EventArgs e)
        {
        }

        private void PasteToolStripMenuItem_Click(object sender, EventArgs e)
        {
        }

        private void ToolBarToolStripMenuItem_Click(object sender, EventArgs e)
        {
            //toolStrip.Visible = toolBarToolStripMenuItem.Checked;
        }

        private void StatusBarToolStripMenuItem_Click(object sender, EventArgs e)
        {
```

```
        //statusStrip.Visible = statusBarToolStripMenuItem.Checked;
    }

    private void CascadeToolStripMenuItem_Click(object sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.Cascade);
    }

    private void TileVerticalToolStripMenuItem_Click(object sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.TileVertical);
    }

    private void TileHorizontalToolStripMenuItem_Click(object sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.TileHorizontal);
    }

    private void ArrangeIconsToolStripMenuItem_Click(object sender, EventArgs e)
    {
        LayoutMdi(MdiLayout.ArrangeIcons);
    }

    private void CloseAllToolStripMenuItem_Click(object sender, EventArgs e)
    {
        foreach (Form childForm in MdiChildren)
        {
            childForm.Close();
        }
    }

    private void classesToolStripMenuItem_Click(object sender, EventArgs e)
    {
        Form chfrm = new Form1();
        chfrm.MdiParent = this;
        chfrm.Show();
    }
  }
}
```

Output:

ROLL NO: 30
FYMCA DIV: A





iv. Applications using Classes and Objects.

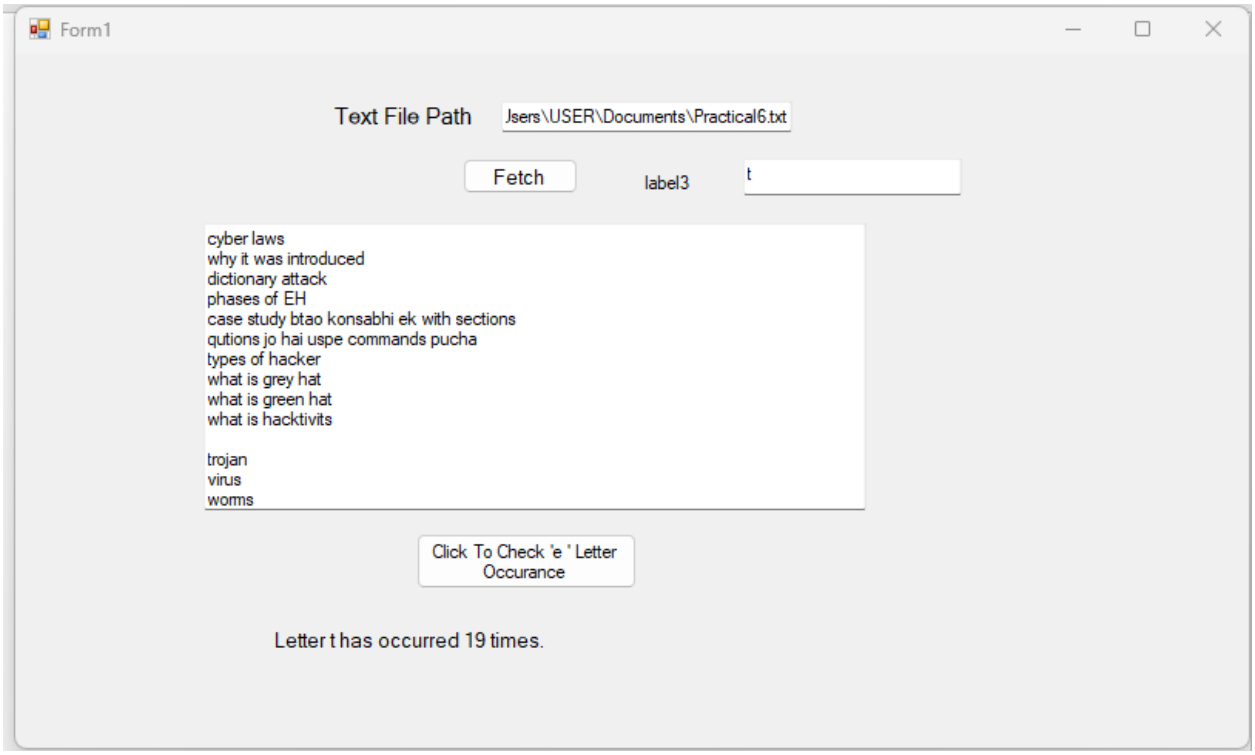
Code:

Form1.cs

```
using System;
usingSystem.Collections.Generic;
usingSystem.ComponentModel;
usingSystem.Data;
usingSystem.Drawing;
usingSystem.Linq; usingSystem.Text;
usingSystem.Threading.Tasks;
usingSystem.Windows.Forms;
using System.IO;
    namespace Practical_6
    {
        public partial class Form1 : Form
        {
            public Form1()
            {
                InitializeComponent();
            }

            private void textBox2_TextChanged(object sender, EventArgs e)
            {

            }

            private void button1_Click(object sender, EventArgs e)
            {
                {
                    string path = textBox1.Text;
                    StreamReader stream = new StreamReader(path);
                    string filedata = stream.ReadToEnd();
                    textBox2.Text = filedata.ToString();
                    stream.Close();
                }
```

```
    }

    private void button2_Click(object sender, EventArgs e)
    {
        String str = textBox2.Text;
        Char c =Convert.ToChar(textBox3.Text);
        var count = str.Count(x => x == c);
        label2.Text = "Letter "+c+" has occurred " + count.ToString() + " times.";
    }
  }
}
```

Output:



Practical No: 2
Design a WebForm showing Personal Information

Code:
Webform1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_7.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            height: 28px;
        }
        .auto-style2 {
            height: 28px;
            width: 244px;
        }
        .auto-style3 {
            width: 244px;
        }
        .auto-style4 {
            width: 244px;
            height: 32px;
        }
        .auto-style5 {
            height: 32px;
        }
    </style>
</head>
<body style="height: 674px">
    <form id="form1" runat="server">
        <div>
        </div>
        <asp:Label ID="Label1" runat="server" Text="PERSONAL INFORMATION"></asp:Label>
        <table style="width: 100%; height: 249px;">
            <tr>
                <td class="auto-style2">StudentID :</td>
                <td class="auto-style1">
                    <asp:TextBox ID="TextBox1" runat="server" Width="270px"></asp:TextBox>
                </td>
            </tr>
            <tr>
                <td class="auto-style4">StudentName :</td>
                <td class="auto-style5">
                    <asp:TextBox ID="TextBox2" runat="server" Width="269px"></asp:TextBox>
                </td>
```

```
</tr>
<tr>
   <td class="auto-style4">CourseName :</td>
   <td class="auto-style5">
      <asp:DropDownList ID="DropDownList1" runat="server">
         <asp:ListItem>MCA</asp:ListItem>
         <asp:ListItem>MMS</asp:ListItem>
         <asp:ListItem>MBA</asp:ListItem>
      </asp:DropDownList>
   </td>
</tr>
 <tr>
   <td class="auto-style3">DateofBirth :</td>
   <td>
      <asp:Calendar ID="Calendar1" runat="server"></asp:Calendar>
    </td>
</tr>
<tr>
   <td class="auto-style3">MobileNumber :</td>
   <td>
      <asp:TextBox ID="TextBox3" runat="server" Width="250px"></asp:TextBox>
   </td>
</tr>
<tr>
   <td class="auto-style3">
      <asp:Button ID="Button1" runat="server" Text="Submit" OnClick="Button1_Click" />
   </td>
   <td>
      <asp:Button ID="Button2" runat="server" Text="Reset" OnClick="Button2_Click" />
   </td>
</tr>
 <tr>
   <td>
      <asp:Label ID="Label2" runat="server" Text="Label"></asp:Label>
    </td>
   <td> </td>
</tr>
 <tr>
   <td>
      <asp:Label ID="Label3" runat="server" Text="Label"></asp:Label>
    </td>
   <td> </td>
</tr>
 <tr>
   <td>
      <asp:Label ID="Label4" runat="server" Text="Label"></asp:Label>
    </td>
   <td> </td>
</tr>
 <tr>
   <td>
      <asp:Label ID="Label5" runat="server" Text="Label"></asp:Label>
```

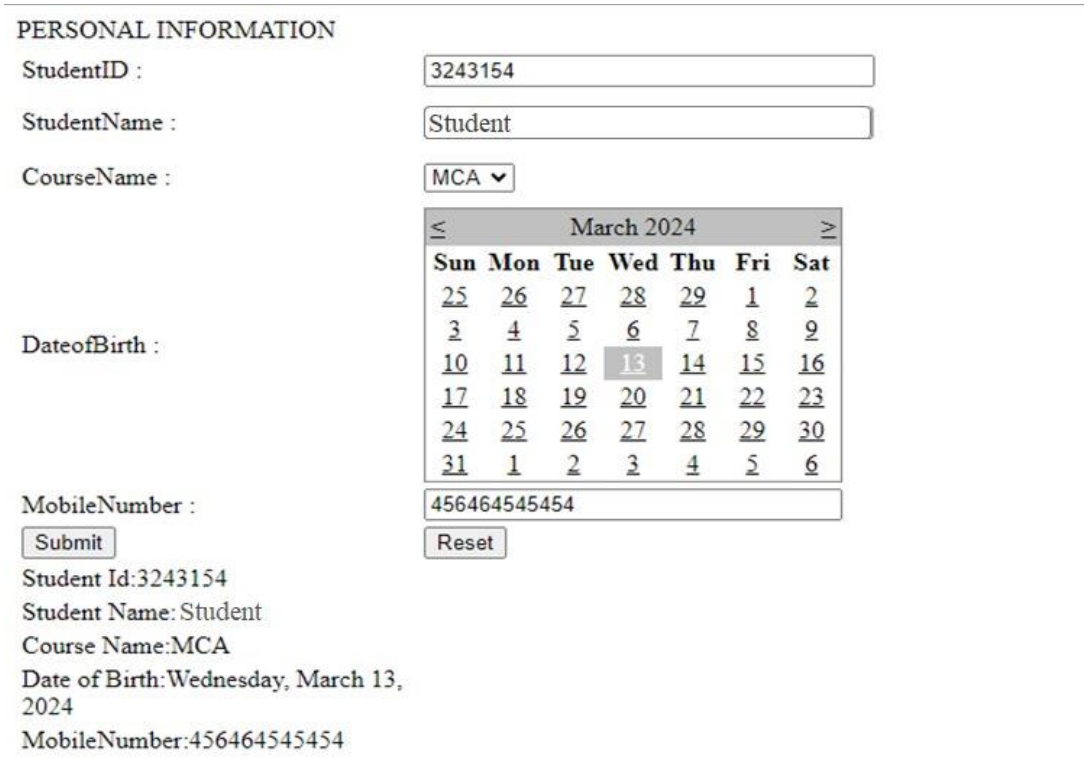
```
            </td>
            <td> </td>
          </tr>
          <tr>
            <td>
              <asp:Label ID="Label6" runat="server" Text="Label"></asp:Label>
            </td>
            <td> </td>
          </tr>
        </table>
    </form>
</body>
</html>
```

Webfrom1.aspx.cs

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

  namespace Practical_7
  {
    public partial class WebForm1 : System.Web.UI.Page
    {
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void Button1_Click(object sender, EventArgs e)
      {
        Label2.Text = "Student Id:" + TextBox1.Text;
        Label3.Text = "Student Name:" + TextBox2.Text;
        Label4.Text = "Course Name:" + DropDownList1.Text;
        Label5.Text = "Date of Birth:" + Calendar1.SelectedDate.ToLongDateString();
        Label6.Text = "MobileNumber:" + TextBox3.Text;
      }

      protected void Button2_Click(object sender, EventArgs e)
      {
        Label2.Text = "";
        Label3.Text = "";
        Label4.Text = "";
        Label5.Text = "";
        Label6.Text = "";
        TextBox1.Text = "";
        TextBox2.Text = "";
        DropDownList1.Text = "";
```

```
            Calendar1.SelectedDate.ToLongDateString();
            TextBox3.Text = "";
        }
    }
}
```

Output:



Practical No: 3

Design Applications using Inheritance and Abstract Classes

i. Single Inheritance

Code:

single.aspx

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="single.aspx.cs"Inherits="p
rac2b.single"%>

<!DOCTYPEhtml>

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

    <headrunat="server">

        <title></title>

        <styletype="text/css">

            .auto-style1 {width: 100%;}

            .auto-style2 {width: 124px;}

        </style>

    </head>

    <body>

        <formid="form1"runat="server">

            <tableclass="auto-style1">

                <tr>

                <tdclass="auto-style2">Single Inheritance</td>

                <td> </td>

                </tr>

                <tr>

                <tdclass="auto-style2">Enter Number :</td>

                <td>

                <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>

                </td>

                </tr>

                 <tr>

                 <tdclass="auto-style2">

                 <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text= "Button"/>
```

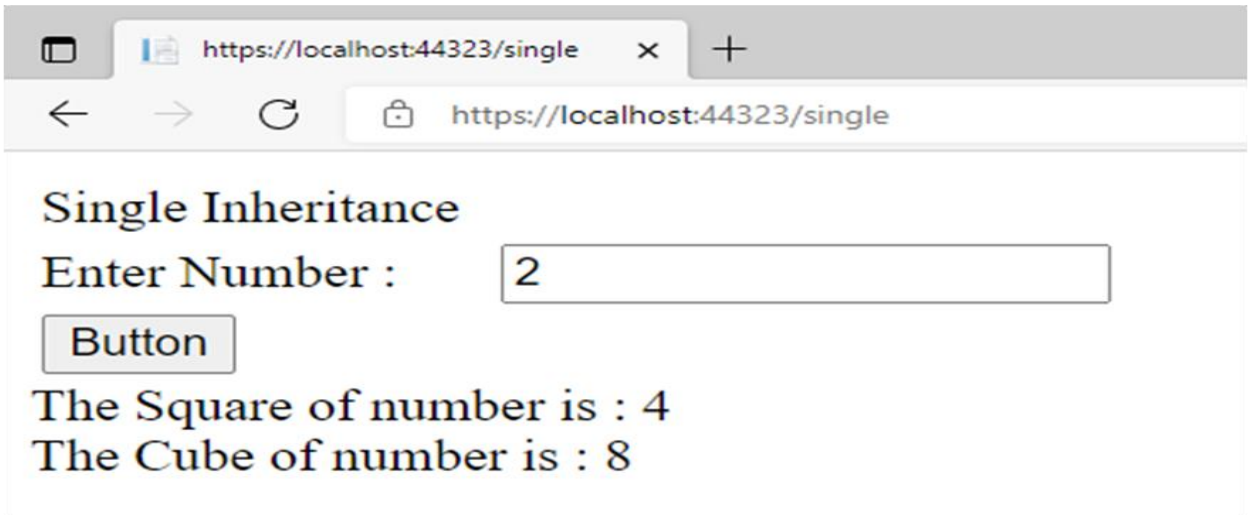
```
                </td>
                <td> </td>
                </tr>
              </table>
            <asp:LabelID="Label1"runat="server"></asp:Label>
            <br/>
            <asp:LabelID="Label2"runat="server"></asp:Label> </form>
      </body>
</html>
```

Single.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
namespace practical7
      { publicpartialclasssingle : System.Web.UI.Page
            { protectedvoid Page_Load(object sender, EventArgs e)
                {
                 }
              protectedvoid Button1_Click(object sender, EventArgs e)
                {
                   B s = new B();
                   int n = int.Parse(TextBox1.Text); int
                   x = s.sqr(n); int y = s.cub(n);
                   Label1.Text = string.Format("The Square of number is : " + x.ToString());
                            Label2.Text = string.Format("The Cube of number is : " + y.ToString());
                 } publicclassA
                 { publicint sqr(int val1)
                     { return val1 * val1;
                      }
```

```
        }
    publicclassB : A
      { publicint cub(int val1)
          { int v1 = sqr(val1);
            return v1 * val1;
          }
      }
  }
}
```

Output:



ii. Multilevel Inheritance

Code:

Mulrilevel.aspx

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="Multilevel.aspx.cs"Inherit
s="prac2b.Multilevel"%>

<!DOCTYPEhtml>

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

    <headrunat="server">

        <title></title>

    </head>

    <body>

        <formid="form1"runat="server">

            <div>

                <strong>Multilevel Inheritance</strong><br/>

                Enter Number : 

                <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>

                <br/>

                <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text=

                "Submit"/>

                <br/>

                <asp:LabelID="Label1"runat="server"></asp:Label> <br/>

                <asp:LabelID="Label2"runat="server"></asp:Label> <br/>

                <asp:LabelID="Label3"runat="server"></asp:Label> </div>

        </form>

    </body>

</html>
```

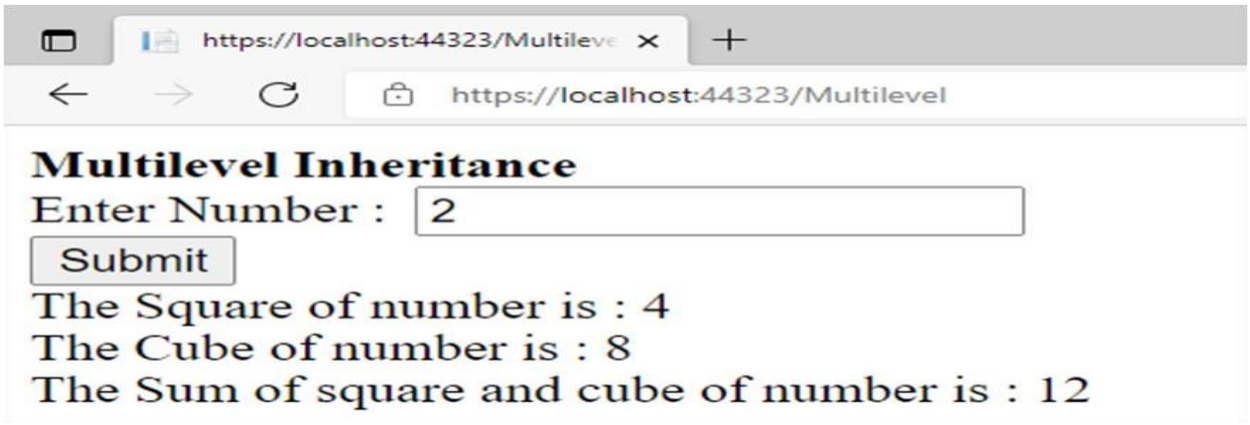
Mulrilevel.aspx.cs

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

```
using System.Web.UI;
using System.Web.UI.WebControls;
namespace prac2b
        { publicpartialclassMultilevel : System.Web.UI.Page
                { protectedvoid Page_Load(object sender, EventArgs e)
                      {
                       } protectedvoid Button1_Click(object sender, EventArgs e)
                      {
                         C s = new C();
                         int n = int.Parse(TextBox1.Text); int x =
                         s.sqr(n);
                         int y = s.cub(n); int z = s.sqr(n) + s.cub(n);
                         Label1.Text = string.Format("The Square of number is : " + x.ToString());
                         Label2.Text = string.Format("The Cube of number is : " + y.ToString());
                         Label3.Text = string.Format("The Sum of square and cube of number is : " +
                         z.ToString());
                       } publicclassA
                       { publicint sqr(int val1)
                             { return val1 * val1;
                              }
                        } publicclassB :
                      A
                        { publicint cub(int val1)
                             { int v1 = sqr(val1);
                               return v1 * val1;
                              }
                        }
                      publicclassC : B
                        { publicint add(int val1, int a, int v1)
                             { a = val1 + v1; return a;
                              }
                         }
                }
        }
```

Output :

ROLL NO: 30
FYMCA DIV: A



iii.Hierarchical Inheritance

Code:

Hierarchical.aspx

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="Hierarchical.aspx.cs"Inhe
rits="prac2b.WebForm2"%>

<!DOCTYPEhtml>

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

    <headrunat="server">

        <title></title>

    </head>

    <body>

        <formid="form1"runat="server">

            <div>

                <spanstyle="font-size:12.0pt;mso-bidi-font-size:11.0pt;line-
                  height:103%;fontfamily:&amp;quot;Times New Roman&amp;quot;,serif;mso-fareast-
                  fontfamily:&amp;quot;Times New Roman&amp;quot;;color:black; mso-ansi-language:EN-
                  IN;mso-fareast-language:EN-IN;mso-bidilanguage:EN-IN">

                    <bstyle="mso-bidi-font-weight:normal">Hierarchical Inheritance<br/>

                    </b><spanstyle="mso-bidi-font-weight:normal">Enter value of A :&amp;nbsp;

                    <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>

                    <br/>

                        Enter value of B :&amp;nbsp;

                    <asp:TextBoxID="TextBox2"runat="server"></asp:TextBox>

                    <br/>

                    <asp:ButtonID="Button1"runat="server"Text="Result"/>

                    </span></span><spanstyle="mso-bidi-font-weight:normal">

                    <br/>

                    <asp:LabelID="Label1"runat="server"></asp:Label>

                    <br/>

                    <asp:LabelID="Label2"runat="server"></asp:Label> </span>

            </div>

        </form>

    </body>
```

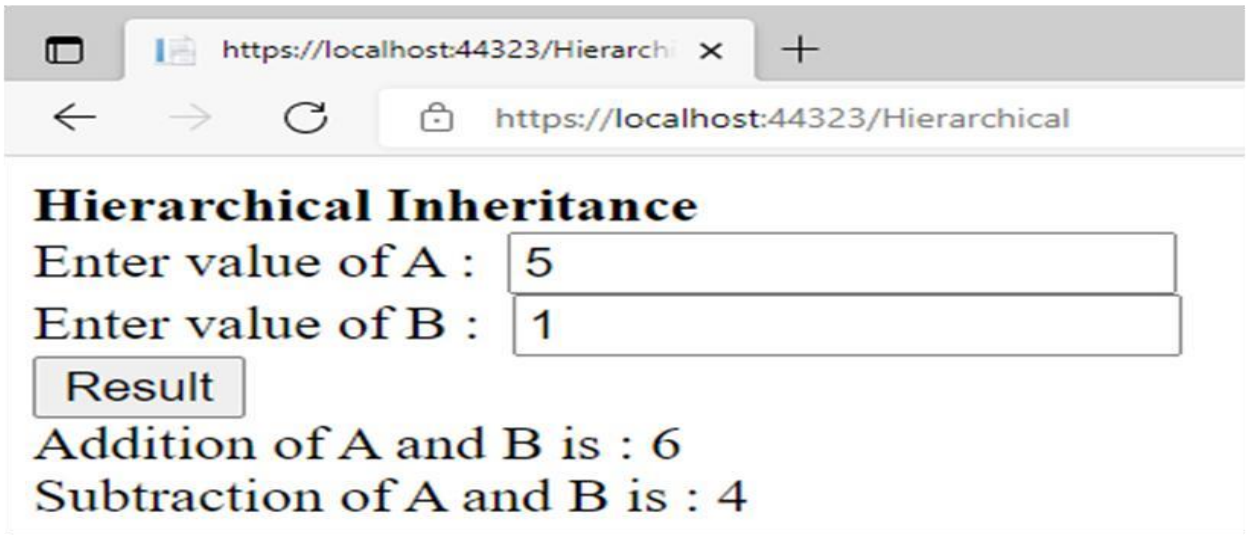
```
</html>
```

Hierarchical.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
namespace prac2b

    { publicpartialclassWebForm2 : System.Web.UI.Page

        { publicclassA

            { publicint a; publicint b;

             } publicclassB :
          A

            { publicint add(int val1, int val2)

                 { a = val1; b = val2; return a + b;

                  }

             } publicclassC :
          A

            { publicint sub(int val1, int val2)

                 { a = val1; b = val2; return a - b;

                  }

             }

            protectedvoid Page_Load(object sender, EventArgs e)

                 {

                  } protectedvoid Button1_Click(object sender, EventArgs
          e)

                 {

                    B s1 = new B();
                    C s2 = new C();
                    int m = int.Parse(TextBox1.Text); int
                    n = int.Parse(TextBox2.Text); int x =
                    s1.add(m, n); int y = s2.sub(m, n);

                              Label1.Text = string.Format("Addition of A and B is : " + x.ToString());
                      Label2.Text = string.Format("Subtraction of A and B is : " + y.ToString()); }
```

```
    }
}
```

Output:


https://localhost:44323/Hierarch
https://localhost:44323/Hierarchical
Hierarchical Inheritance
Enter value of A : 5
Enter value of B : 1
Result
Addition of A and B is : 6
Subtraction of A and B is : 4

Practical No: 4

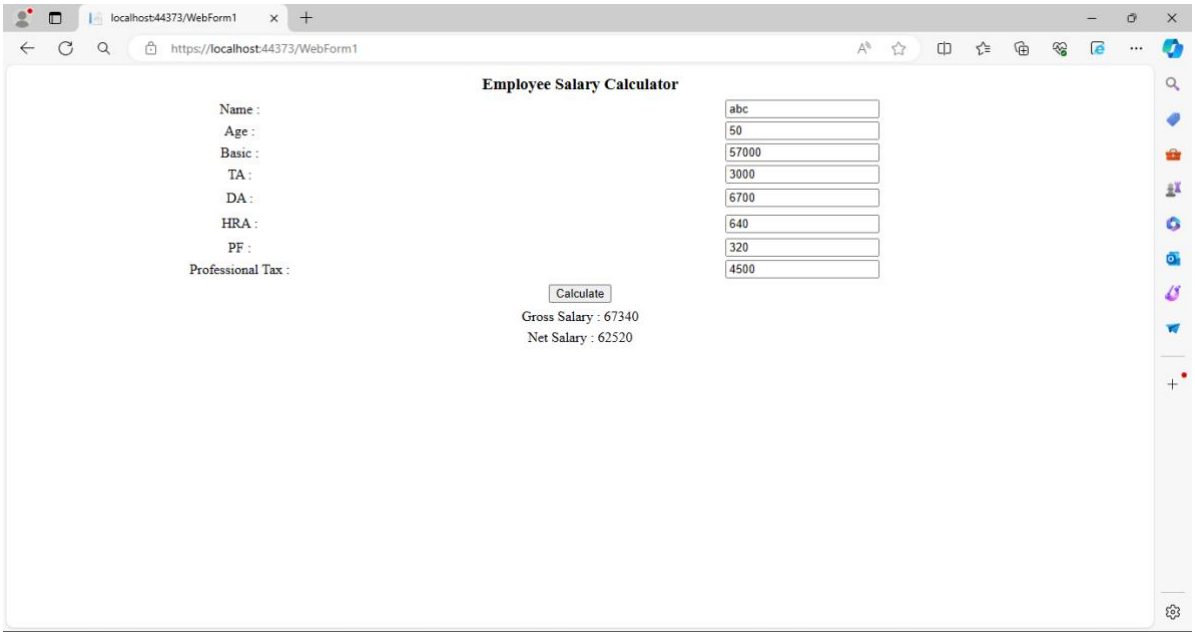
Design a Web Application for an Organization with Registration forms and advanced controls.

Code:

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

namespace Practical_4
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void Button1_Click(object sender, EventArgs e)
      {
         string name = TextBox1.Text;
         int age = Convert.ToInt32(TextBox2.Text);
         decimal basic = Convert.ToDecimal(TextBox3.Text);
         decimal ta = Convert.ToDecimal(TextBox4.Text);
         decimal da = Convert.ToDecimal(TextBox5.Text);
         decimal hra = Convert.ToDecimal(TextBox6.Text);
         decimal pf = Convert.ToDecimal(TextBox7.Text);
         decimal professionalTax = Convert.ToDecimal(TextBox8.Text);

         decimal GrossSalary = basic + ta + da + hra;//calculate gross salary
         decimal deduction = pf + professionalTax;//calculate net salary after deduction
         decimal netSalary = GrossSalary - deduction;
         Label12.Text = GrossSalary.ToString("F2");//display result
         Label13.Text = netSalary.ToString("F2");
      }
   }
}
```

ROLL NO: 30
FYMCA DIV: A

Output:



Practical No: 5

Create website using master page concept.

Code:

MasterPage.Master

```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="Master Page.Master.cs"
Inherits="Master.Site1" %>
<!DOCTYPE html>
<html>
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder ID="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body><form id="form1" runat="server">
        <div>
            <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
            </asp:ContentPlaceHolder>
            <h1>
            **Welcome to NCRD Sterling**
        </h1>
        <p>
            <asp:Button ID="Button1" runat="server" PostBackUrl="~/Home.aspx" Text="Home" />
            <asp:Button ID="Button2" runat="server" PostBackUrl="~/Aboutus.aspx" Text="About Us" />
            <asp:Button ID="Button3" runat="server" PostBackUrl="~/Create_account.aspx" Text="Create
Account" />
            <asp:Button ID="Button4" runat="server" PostBackUrl="~/Login.aspx"  Text="Login" />
            <asp:Button ID="Button5" runat="server" PostBackUrl="~/Contactus.aspx" Text="Contact Us"
/>
        </p>
         <div id="footer">
            Your Footer Content
        </div>
         <style>
            #footer{position:absolute;bottom:0;width:100%;height:60px;background:#6cf;text-align:center;}
        </style>
        </div>
    </form>
</body>
</html>
```

Home.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="Master Page.Master" AutoEventWireup="true"
CodeBehind="Home.aspx.cs" Inherits="Master.WebForm2" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
```

```
 <p>
HEY! This is NCRD Home Page!!
</p>
<p>
Glad you visited here :)
   </p>
</asp:Content>
```

Aboutus.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="Master Page.Master" AutoEventWireup="true"
CodeBehind="Aboutus.aspx.cs" Inherits="Master.WebForm3" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
   <p>WELCOME TO NCRD. We HAVE A GREAT ROASTER
FOR DOING BEST IN OUR INSTITUITE!</p>
</asp:Content>
```

Create_account.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="Master Page.Master" AutoEventWireup="true"
CodeBehind="Create_account.aspx.cs" Inherits="Master.WebForm4" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <p>
      IGN:<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
   </p>
   <p>
      IGN ID:<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
   </p>
   <p>
      Password:<asp:TextBox ID="TextBox3" runat="server" TextMode="Password"></asp:TextBox>
   </p>
   <p>
      <asp:Button ID="Button7" runat="server" Text="Submit"></asp:Button>
   </p>
   <p>
      <asp:Label ID="Label1" runat="server"></asp:Label>
   </p>
</asp:Content>
```

Login.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="Master Page.Master" AutoEventWireup="true"
CodeBehind="Login.aspx.cs" Inherits="Master.WebForm5" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <p>Login :</p>
<p>
Username :<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
</p>
<p>
Password :<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
</p>
<p>
<asp:CheckBox ID="CheckBox1" runat="server" Text="Remeber me next time" />
</p>
<p>
<asp:Button ID="Button6" runat="server" Text="Login" OnClientClick = "return confirm('Ok i Will
remember?');" />
</p>
</asp:Content>
```

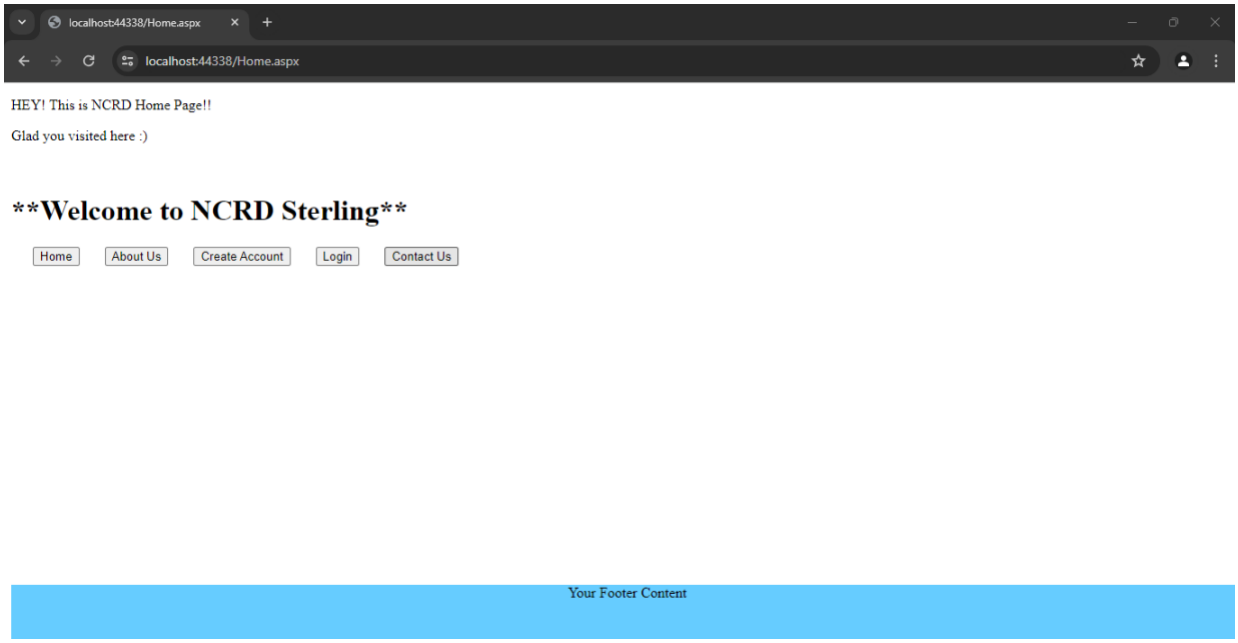
Contactus.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="Master Page.Master" AutoEventWireup="true"
   CodeBehind="Contactus.aspx.cs" Inherits="Master.WebForm6" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
<h3>Our Contact page.</h3>
<address>
PANVEL<br />
NEW PANVEL,NAVI-MUMBAI 410206<br />
<abbr title="Phone">Phone:</abbr>
123-456-789
</address>
FYMCA
Roll No: 007
<address>
<strong>Support:</strong><a href="https://discord.gg/6Tnynq6Y">
support@ncrdsims.edu.in</a><br />
</address>
</asp:Content>
```

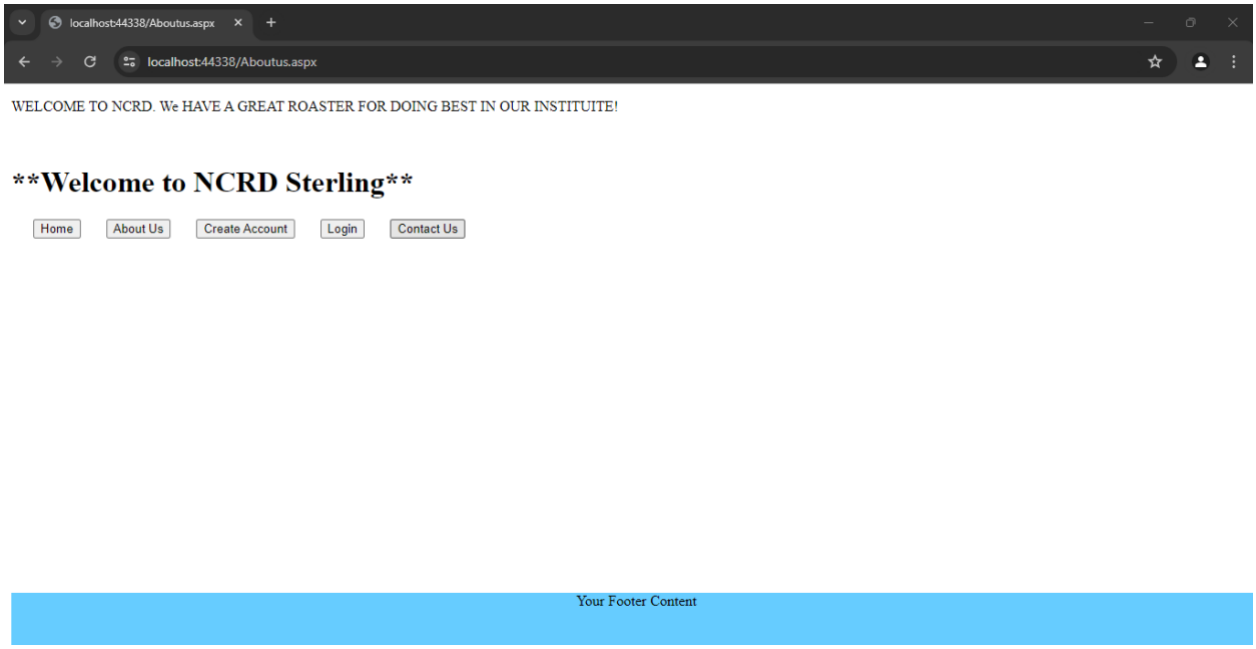
Output:

ROLL NO: 30
FYMCA DIV: A

Home

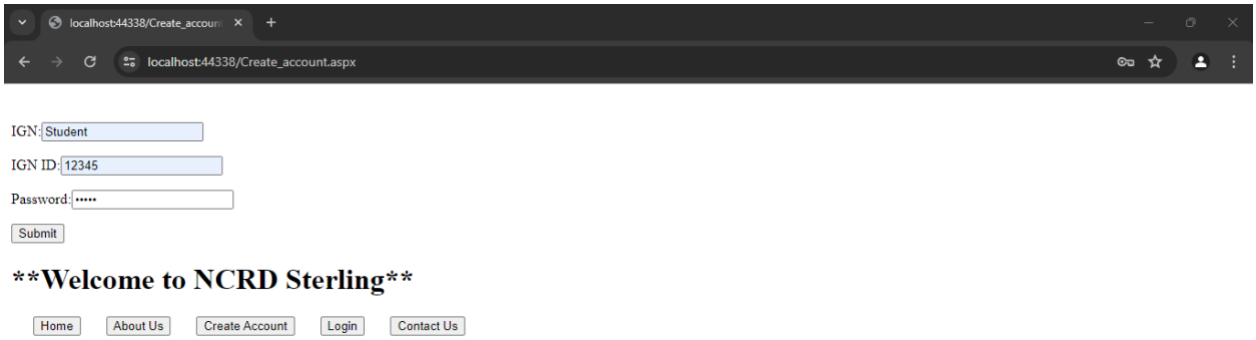


Aboutus

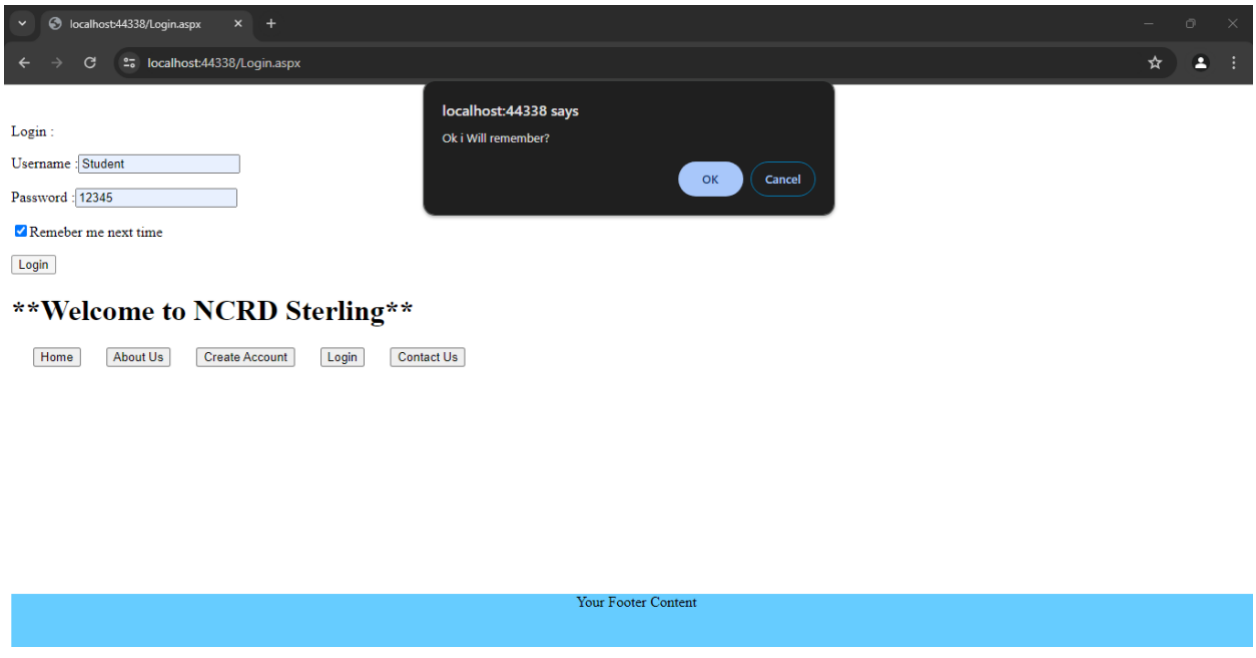


ROLL NO: 30
FYMCA DIV: A

Createaccount

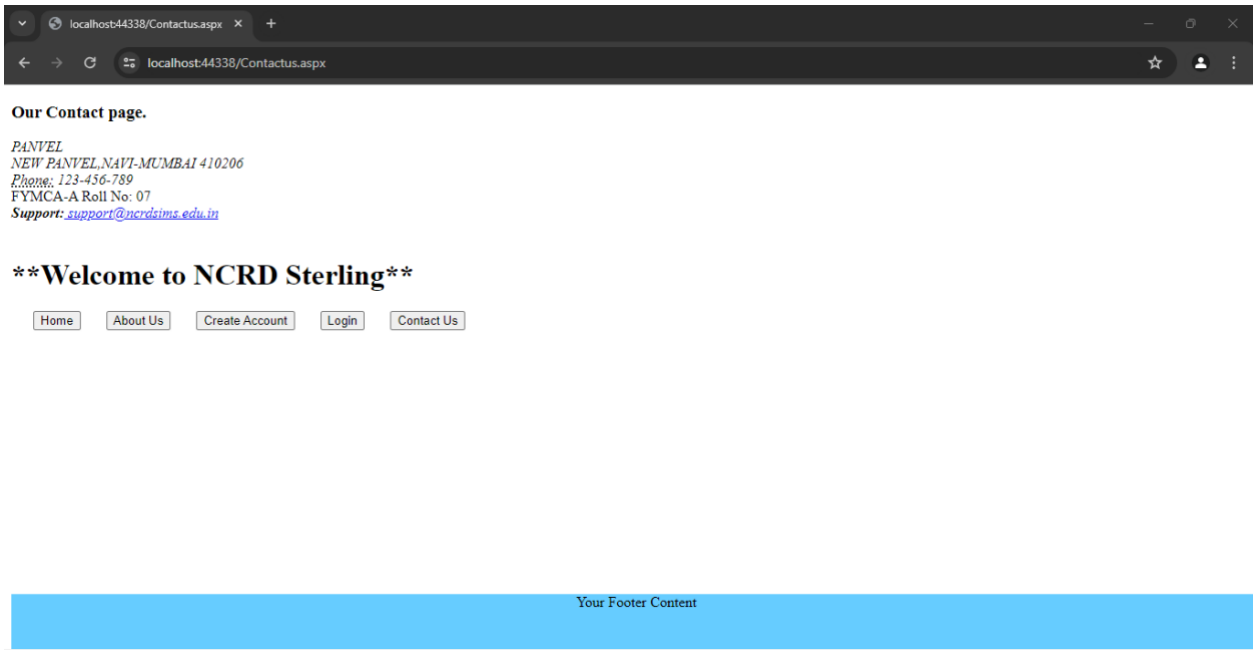


Login



ROLL NO: 30
FYMCA DIV: A

Contact



ROLL NO: 30
FYMCA DIV: A

Practical No: 6

Build an angular web application.

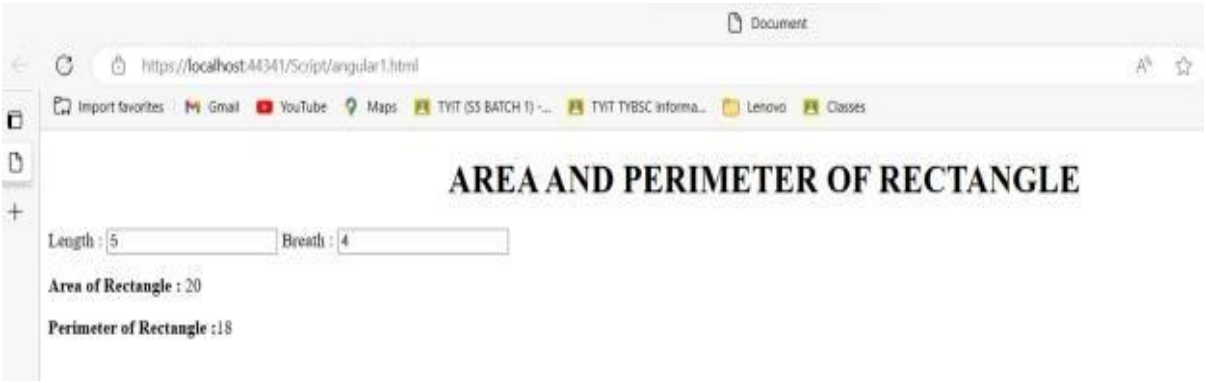
Code:

HTML

```
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Document</title>
        <scriptsrc="angular.min.js"></script>
    </head>
    <body ng-app="">
    <h1 style="text-align: center"> AREA AND PERIMETER OF RECTANGLE</h1>
         Length : <input type="number" ng-model="num1">
         Breath : <input type="number" ng-model="num2">
    <P><strong>Area of Rectangle :</strong>{{num1*num2}}</P>
    <P><strong>Perimeter of Rectangle :</strong>{{num1+num2+num1+num2}}</P> </body>
</html>
```

Output:

ROLL NO: 30
FYMCA DIV: A



Practical No: 7

Design a webpage to demonstrate a connection oriented architecture.

Code:

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_15.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
   <style type="text/css">
      .auto-style1 {
         height: 335px;
      }
   </style>
   </head>
<body>
   <form id="form1" runat="server">
      <div class="auto-style1">

         <asp:GridView ID="GridView1" runat="server" Height="157px" Width="254px">
         </asp:GridView>

         <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConnectionString="<%$
ConnectionStrings:ConnectionString %>" ProviderName="<%$
ConnectionStrings:ConnectionString.ProviderName %>" SelectCommand="SELECT * FROM
[employee]"></asp:SqlDataSource>
         <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Connected" />
         <asp:Button ID="Button1" runat="server" Text="Disconnected" OnClick="Button1_Click"
/>

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

WebForm1.aspx.cs

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

```
namespace Practical_15
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      String StrSQL = "";
      String StrConnection = "";
      protected void Page_Load(object sender, EventArgs e)
      {
         StrSQL = "SELECT * FROM employee";
         StrConnection = "Data
Source=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=|DataDirectory|\\Database1.mdf;Integrate
d Security=True";
      }

      protected void Button2_Click(object sender, EventArgs e)
      {
         using (SqlConnection objConn = new SqlConnection(StrConnection))
         {
            SqlCommand Objcmd = new SqlCommand(StrSQL, objConn);
            Objcmd.CommandType = CommandType.Text;
            objConn.Open();
            SqlDataReader objDr = Objcmd.ExecuteReader();
            GridView1.DataSource = objDr;
            GridView1.DataBind();
            objConn.Close();
         }
      }

      protected void Button1_Click(object sender, EventArgs e)
      {
         SqlDataAdapter objDa = new SqlDataAdapter();
         DataSet objDs = new DataSet();
         using (SqlConnection objConn = new SqlConnection(StrConnection))
         {
            SqlCommand Objcmd = new SqlCommand(StrSQL, objConn);
            Objcmd.CommandType = CommandType.Text;
            objDa.SelectCommand = Objcmd;
            objDa.Fill(objDs, "employee");
            GridView1.DataSource = objDs.Tables[0];
            GridView1.DataBind();

         }
      }
   }
}
```

Output:

ROLL NO: 30
FYMCA DIV: A

Connected Disconnected

div.auto-style1

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

SqlDataSource - SqlDataSource1

Connected Disconnected

ID	ename	contact	address
1	abc	1234567	dfgjhnsa
2	abc	1234867	daghtfag
3	pqr	1296567	hyfdrtsyh
4	axyz	1894567	gagtysjet

Connected Disconnected

Practical No: 8

Design a webpage to demonstrate a disconnected architecture.

Code:

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_15.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            height: 335px;
        }
    </style>
    </head>
<body>
    <form id="form1" runat="server">
        <div class="auto-style1">

            <asp:GridView ID="GridView1" runat="server" Height="157px" Width="254px">
            </asp:GridView>

            <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConnectionString="<%$
ConnectionStrings:ConnectionString %>" ProviderName="<%$
ConnectionStrings:ConnectionString.ProviderName %>" SelectCommand="SELECT * FROM
[employee]"></asp:SqlDataSource>
            <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Connected" />
            <asp:Button ID="Button1" runat="server" Text="Disconnected" OnClick="Button1_Click"
/>

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

WebForm1.aspx.cs

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

```
namespace Practical_15
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      String StrSQL = "";
      String StrConnection = "";
      protected void Page_Load(object sender, EventArgs e)
      {
         StrSQL = "SELECT * FROM employee";
         StrConnection = "Data
Source=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=|DataDirectory|\\Database1.mdf;Integrate
d Security=True";
      }

      protected void Button2_Click(object sender, EventArgs e)
      {
         using (SqlConnection objConn = new SqlConnection(StrConnection))
         {
            SqlCommand Objcmd = new SqlCommand(StrSQL, objConn);
            Objcmd.CommandType = CommandType.Text;
            objConn.Open();
            SqlDataReader objDr = Objcmd.ExecuteReader();
            GridView1.DataSource = objDr;
            GridView1.DataBind();
            objConn.Close();
         }
      }

      protected void Button1_Click(object sender, EventArgs e)
      {
         SqlDataAdapter objDa = new SqlDataAdapter();
         DataSet objDs = new DataSet();
         using (SqlConnection objConn = new SqlConnection(StrConnection))
         {
            SqlCommand Objcmd = new SqlCommand(StrSQL, objConn);
            Objcmd.CommandType = CommandType.Text;
            objDa.SelectCommand = Objcmd;
            objDa.Fill(objDs, "employee");
            GridView1.DataSource = objDs.Tables[0];
            GridView1.DataBind();

         }
      }
   }
}
```

Output:

ROLL NO: 30
FYMCA DIV: A

Connected Disconnected

div.auto-style1

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

SqlDataSource - SqlDataSource1

Connected Disconnected

ID	ename	contact	address
1	abc	1234567	dfgjhnsa
2	abc	1234867	daghtfag
3	pqr	1296567	hyfdrtsyh
4	axyz	1894567	gagtysjet

Connected Disconnected

Practical No: 9

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

Code:

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_16.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 56%;
            height: 78px;
        }
        .auto-style3 {
            width: 112px;
        }
        .auto-style4 {
            width: 181px;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <table class="auto-style1">
                <tr>
                    <td colspan="2" align="center">Employee</td>
                </tr>
                <tr>
                    <td class="auto-style3">
                        <asp:Label ID="Label1" runat="server" Text="Employee Id"></asp:Label>
                    </td>
                    <td class="auto-style4">
                        <asp:TextBox ID="TextBox1" runat="server" Width="209px"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style3">
                        <asp:Label ID="Label2" runat="server" Text="Employee Name"></asp:Label>
                    </td>
                    <td class="auto-style4">
                        <asp:TextBox ID="TextBox2" runat="server" Width="209px"></asp:TextBox>
                    </td>
```

```
            </tr>
            <tr>
               <td class="auto-style3">
                  <asp:Label ID="Label3" runat="server" Text="Employee City"></asp:Label>
               </td>
               <td class="auto-style4">
                  <asp:TextBox ID="TextBox3" runat="server" Width="209px"></asp:TextBox>
               </td>
            </tr>
            <tr>
               <td></td>
               <td>
                  <asp:Button ID="Button1" runat="server" Text="Insert" OnClick="Button1_Click"
Width="76px" />
                  <asp:Button ID="Button2" runat="server" Text="Delete" OnClick="Button2_Click" />
               </td>
            </tr>
         </table>
      </div>
      <asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
DataKeyNames="Empid" DataSourceID="SqlDataSource1"
OnSelectedIndexChanged="GridView1_SelectedIndexChanged" Width="301px">
         <Columns>
            <asp:BoundField DataField="Empid" HeaderText="Empid" ReadOnly="True"
SortExpression="Empid" />
            <asp:BoundField DataField="Empname" HeaderText="Empname"
SortExpression="Empname" />
            <asp:BoundField DataField="Empcity" HeaderText="Empcity" SortExpression="Empcity" />
         </Columns>
      </asp:GridView>
      <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConnectionString="<%$
ConnectionStrings:ConnectionString %>" ProviderName="<%$
ConnectionStrings:ConnectionString.ProviderName %>" SelectCommand="SELECT * FROM
[Emp]"></asp:SqlDataSource>
   </form>
</body>
</html>
```

WebFrom1.aspx.cs

```
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.Drawing;
using System.Net;
```

```
using System.Reflection.Emit;
using System.Security.Policy;
using System.Web.Services.Description;
using System.Xml.Linq;
using System.Security.Cryptography;

namespace Practical_16
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      SqlConnection con = new SqlConnection("Data Source = (LocalDB)\\MSSQLLocalDB;
AttachDbFilename=|DataDirectory|\\Database1.mdf;Integrated Security = True");
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void Button1_Click(object sender, EventArgs e)
      {
         string connectionString = "Data
Source=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=|DataDirectory|\\Database1.mdf;Integrated
Security=True";
         SqlConnection con = new SqlConnection(connectionString);
         con.Open();
         string Empid = TextBox1.Text;
         string Empname = TextBox2.Text;
         string Empcity = TextBox3.Text;
         string query = "Insert into Emp(Empid,Empname,Empcity) values('" + Empid + "','" + Empname
+ "','" + Empcity + "')";
         SqlCommand cmd = new SqlCommand(query, con);
         cmd.ExecuteNonQuery();
         con.Close();
         ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Record inserted') ;",
true);
      }

      protected void GridView1_SelectedIndexChanged(object sender, EventArgs e)
      {

      }

      protected void Button2_Click(object sender, EventArgs e)
      {

      }
   }
}
```

Output:

Employee

Employee Id

Employee Name

Employee City

Insert Delete

Empid	Empname	Empcity
0	abc	abc
1	abc	abc
2	abc	abc
3	abc	abc
4	abc	abc

SqlDataSource - SqlDataSource1

Employee

Employee Id

Employee Name

Employee City

Insert Delete

Empid	Empname	Empcity
1	siddharth	mumbai
2	nishant	moscow
3	shreyas	pune
4	sen	kurla

Practical No: 10

Design a webpage to demonstrate the working of a simple store procedure.

Code:

WebFrom.apsx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Practical_16.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 56%;
            height: 78px;
        }
        .auto-style3 {
            width: 112px;
        }
        .auto-style4 {
            width: 181px;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <table class="auto-style1">
                <tr>
                    <td colspan="2" align="center">Employee</td>
                </tr>
                <tr>
                    <td class="auto-style3">
                        <asp:Label ID="Label1" runat="server" Text="Employee Id"></asp:Label>
                    </td>
                    <td class="auto-style4">
                        <asp:TextBox ID="TextBox1" runat="server" Width="209px"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style3">
                        <asp:Label ID="Label2" runat="server" Text="Employee Name"></asp:Label>
                    </td>
                    <td class="auto-style4">
                        <asp:TextBox ID="TextBox2" runat="server" Width="209px"></asp:TextBox>
                    </td>
                </tr>
                <tr>
```

```
            <td class="auto-style3">
                <asp:Label ID="Label3" runat="server" Text="Employee City"></asp:Label>
            </td>
            <td class="auto-style4">
                <asp:TextBox ID="TextBox3" runat="server" Width="209px"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <td></td>
            <td>
                <asp:Button ID="Button1" runat="server" Text="Insert" OnClick="Button1_Click"
Width="76px" />
                <asp:Button ID="Button2" runat="server" Text="Delete" OnClick="Button2_Click"
Width="60px" />
            </td>
        </tr>
    </table>
    </div>
    <asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
DataKeyNames="Empid" DataSourceID="SqlDataSource1"
OnSelectedIndexChanged="GridView1_SelectedIndexChanged" Width="301px">
        <Columns>
            <asp:BoundField DataField="Empid" HeaderText="Empid" ReadOnly="True"
SortExpression="Empid" />
            <asp:BoundField DataField="Empname" HeaderText="Empname"
SortExpression="Empname" />
            <asp:BoundField DataField="Empcity" HeaderText="Empcity" SortExpression="Empcity" />
        </Columns>
    </asp:GridView>
    <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConnectionString="<%$
ConnectionStrings:EmpConnectionString %>" ProviderName="<%$
ConnectionStrings:EmpConnectionString.ProviderName %>" SelectCommand="SELECT * FROM
[Emp1]"></asp:SqlDataSource>
  </form>
</body>
</html>
```

WebForm1.aspx.cs

```
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.Drawing;
using System.Net;
```

```
using System.Reflection.Emit;
using System.Security.Policy;
using System.Web.Services.Description;
using System.Xml.Linq;
using System.Security.Cryptography;

namespace Practical_16
{
   public partial class WebForm1 : System.Web.UI.Page
   {
      string StrSql = "";
      // SqlConnection con = new SqlConnection("Data Source = (LocalDB)\\MSSQLLocalDB;
AttachDbFilename=|DataDirectory|\\Database1.mdf;Integrated Security = True");
      //SqlConnection con = new SqlConnection("Data Source=.\SQLEXPRESS;Initial
Catalog=emp;Integrated Security=True");
      SqlConnection con = new SqlConnection("Data Source=DESKTOP-3GH50V5\\SQLEXPRESS;Initial
Catalog=Emp;Integrated Security=True");
      protected void Page_Load(object sender, EventArgs e)
      {

      }

      protected void Button1_Click(object sender, EventArgs e)
      {
         StrSql = "SELECT * from Emp1";
         string connectionString = "Data Source=DESKTOP-3GH50V5\\SQLEXPRESS;Initial
Catalog=Emp;Integrated Security=True";
         SqlConnection con = new SqlConnection(connectionString);
         con.Open();
         string Empid = TextBox1.Text;
         string Empname = TextBox2.Text;
         string Empcity = TextBox3.Text;
         string query = "Insert into Emp1(Empid,Empname,Empcity) values('" + Empid + "','" +
Empname + "','" + Empcity + "')";
         SqlCommand cmd = new SqlCommand(query, con);
         cmd.ExecuteNonQuery();
         con.Close();
         ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Record inserted') ;",
true);
      }

      protected void GridView1_SelectedIndexChanged(object sender, EventArgs e)
      {

      }

      protected void Button2_Click(object sender, EventArgs e)
      {

      }
   }
}
```

SQL Query：

```
create database Emp;
use Emp;
create table Emp1
(
 [Empid]   INT          NOT NULL,
    [Empname] CHAR (50)    NULL,
    [Empcity] VARCHAR (50) NULL,
    CONSTRAINT [PK_Emp] PRIMARY KEY CLUSTERED ([Empid] ASC)
);


SELECT TOP (1000) [Empid]
      ,[Empname]
      ,[Empcity]
  FROM [Emp].[dbo].[Emp1]

  create proc insertionEmp @Empid int, @Empname char(50), @Empcity varchar(50)
            as begin
            insert into Emp1 values(@Empid, @Empname, @Empcity);
            end

            exec insertionEmp  6, 'manav','asangaon'

            select * from Emp1;



        CREATE PROCEDURE GetAllEmployee
        AS
        BEGIN
        Select ROW_NUMBER()over(order by EmpId desc) as SrNo,
        EmpId,
        EmpName,
        EmpCity
        from Employee
        END
        GO


        CREATE PROCEDURE AddEmployee
        @EmpName varchar(50) = null,
```

```
@EmpCity varchar(50)= null
AS
BEGIN
 insert into Employee
(EmpName,EmpCity)
values
(
@EmpName,
@EmpCity
)
End
GO

CREATE PROCEDURE DeleteEmployee
@EmpId int
    AS
BEGIN
    Delete from Employee where EmpId=@EmpId;
End
GO



CREATE PROCEDURE UpdateEmployee
@EmpId int = null,
@EmpName varchar(50)= null,
@EmpCity varchar(50)= null
AS
BEGIN
if exists(select top(1)1 from Employee Where EmpId = @EmpId )
begin
update Employee set
EmpName = @EmpName,
EmpCity = @EmpCity
where EmpId = @EmpId
End
END
GO
```

Output:

ROLL NO: 30
FYMCA DIV: A

Column Name	Data Type	Allow Nulls
EmpId	int	☑
EmpName	nchar(10)	☑
EmpCity	nchar(10)	☑
EmpAge	int	☑
		☐

Employee

Employee Id: 7

Employee Name: anirudh

Employee City: moscow

Insert Delete

Empid	Empname	Empcity
1	siddharth	mumbai
2	sen	mumbai
3	omkar1	mumbai
4	shreyas	pune
5	harsh	pune
6	manav	asangaon

Practical No: 11

Design a webpage to demonstrate the working of parameterized stored procedure.

Code:

MYSQL

```
use practical_63;
create table author
(author_id integer primary key, authorName varchar(30), email varchar(25), gender varchar(6));
create table book
(BookId integer not null unique, ISBN integer primary key, book_name varchar(30)not null,
author integer, ed_num integer, price integer, pages integer,
foreign key(author) references author(author_id) on delete cascade);
```

Inserting values into them:

```
insert into author values (1, "Kraig Muller", "Wordnewton@gmail.com", "Male");
insert into author values (2, "Karrie Nicolette", "karrie23@gmail.com", "Female");
insert into book values (1,001, "Glimpses of the past", 1, 1,650,396);
insert into book values (2,002, "Beyond The Horizons of Venus", 1, 1,650,396);
insert into book values (3,003, "Ultrasonic Aquaculture", 2, 1,799,500);
insert into book values (4,004, "Cryogenic Engines", 2, 1, 499, 330);

DELIMITER $$

create procedure display_book()
BEGIN
select * from book;
END $$
call display_book();
```

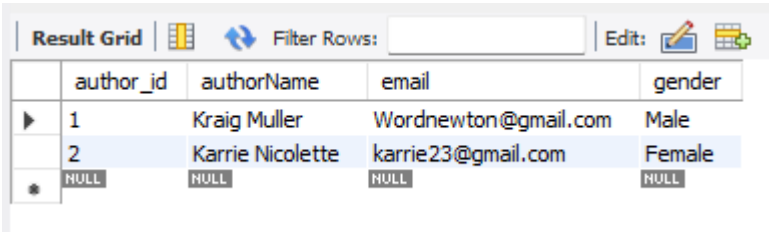
Procedure with IN parameter:

```
DELIMITER $$

create procedure update_price(IN temp_ISBN varchar(10), IN new_price integer)
BEGIN
update book set price=new_price where ISBN=temp_ISBN;
END$$
call update_price(001,750);
```

Procedure with OUT parameter:

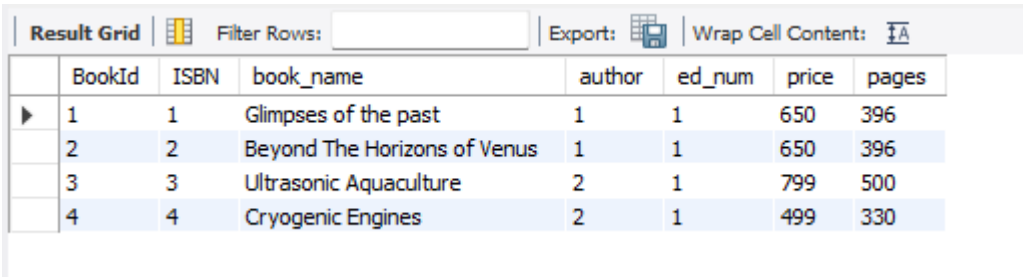
```
DELIMITER $$
create procedure disp_max(OUT highestprice integer)
BEGIN
select max(price) into highestprice from book;
END$$
call disp_max(@M);
select @M;
```

Output:



Result Grid | Filter Rows: | Edit:

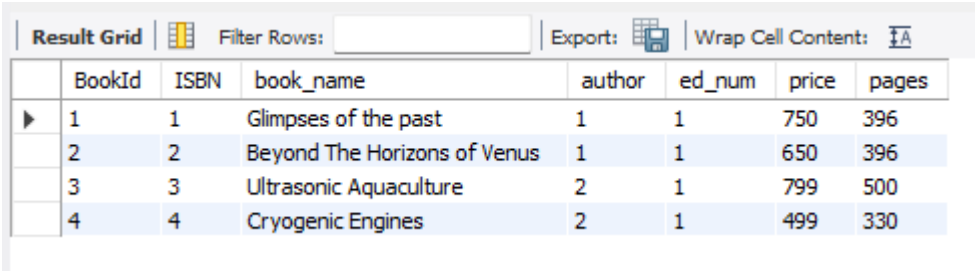
author_id	authorName	email	gender
1	Kraig Muller	Wordnewton@gmail.com	Male
2	Karrie Nicolette	karrie23@gmail.com	Female
NULL	NULL	NULL	NULL



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

BookId	ISBN	book_name	author	ed_num	price	pages
1	1	Glimpses of the past	1	1	650	396
2	2	Beyond The Horizons of Venus	1	1	650	396
3	3	Ultrasonic Aquaculture	2	1	799	500
4	4	Cryogenic Engines	2	1	499	330

Procedure with In parameter:

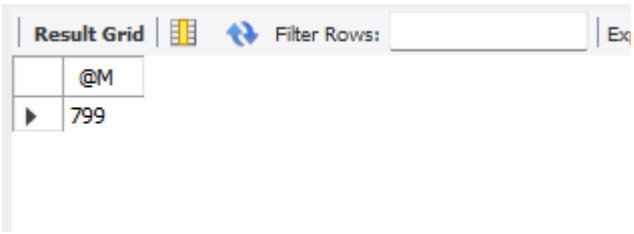


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

BookId	ISBN	book_name	author	ed_num	price	pages
1	1	Glimpses of the past	1	1	750	396
2	2	Beyond The Horizons of Venus	1	1	650	396
3	3	Ultrasonic Aquaculture	2	1	799	500
4	4	Cryogenic Engines	2	1	499	330

Procedure with OUT parameter:

ROLL NO: 30
FYMCA DIV: A



Practical No: 12

Build websites to demonstrate the working of entity framework in dot net.

Code:

Student.cs

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

namespace Practical_18_mvc.Models
{
   public class Student
   {
      public int Id { get; set; }
      public string Name { get; set; }
      public string Email { get; set; }
      public string Course { get; set; }
      public string Contact { get; set; }

   }
         }
```

RecordContex.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using Practical_18_mvc.Models;
using System.Data.Entity;
using System.Data.Entity.ModelConfiguration.Conventions;

namespace Practical_18_mvc.Models
{
   public class RecordContext:DbContext
   {
      public RecordContext() : base("RecordContext")
      {
      }
      public DbSet<Student>Students { get; set; }
   protected override void OnModelCreating(DbModelBuilder modelBuilder)

   {
      modelBuilder.Conventions.Remove <PluralizingTableNameConvention>();
   }
}
         }
```

Configuration.cs

```
namespace Practical_18_mvc.Migrations
{
    using Practical_18_mvc.Models;
    using System;
    using System.Collections.Generic;
    using System.Data.Entity;
    using System.Data.Entity.Migrations;
    using System.Linq;

    internal sealed class Configuration :
DbMigrationsConfiguration<Practical_18_mvc.Models.RecordContext>
    {
        public Configuration()
        {
            AutomaticMigrationsEnabled = false;
        }

        protected override void Seed(Practical_18_mvc.Models.RecordContext context)
        {
            //  This method will be called after migrating to the latest version.

            //  You can use the DbSet<T>.AddOrUpdate() helper extension method
            //  to avoid creating duplicate seed data.
            var students = new List<Student>
            {
                new Student{Name="Mohan",Email="Samuai@example.com",Course="Java
Technology", Contact="+25-258628"},
                new Student{Name="Rohan",Email="Sam@example.com",Course=".NET Technology",
Contact="+25-258694"},
                new Student{Name="John",Email="Max@example.com",Course="Java Technology",
Contact="+25-258999"},
                new Student{Name="Saba",Email="saba@example.com",Course="Linux
Administration", Contact="+25-258111"},
             };
            students.ForEach(s => context.Students.Add(s));
            context.SaveChanges();
        }
    }
}
```

202405090911327_initial.cs

```
namespace Practical_18_mvc.Migrations
{
    using System;
    using System.Data.Entity.Migrations;

    public partial class initial : DbMigration
```

```
    {
        public override void Up()
        {
            CreateTable(
                "dbo.Student",
                c => new
                    {
                        Id = c.Int(nullable: false, identity: true),
                        Name = c.String(),
                        Email = c.String(),
                        Course = c.String(),
                        Contact = c.String(),
                    })
                .PrimaryKey(t => t.Id);

        }

        public override void Down()
        {
            DropTable("dbo.Student");
        }
    }
}
```

Index.cshtml

```
@model IEnumerable<Practical_18_mvc.Models.Student>

@{
    ViewBag.Title = "Index";
}

<h2>Index</h2>

<p>
    @Html.ActionLink("Create New", "Create")
</p>
<table class="table">
    <tr>
        <th>
            @Html.DisplayNameFor(model => model.Name)
        </th>
        <th>
            @Html.DisplayNameFor(model => model.Email)
        </th>
        <th>
            @Html.DisplayNameFor(model => model.Course)
        </th>
        <th>
            @Html.DisplayNameFor(model => model.Contact)
        </th>
```

```
            <th></th>
        </tr>

    @foreach (var item in Model) {
        <tr>
            <td>
                @Html.DisplayFor(modelItem => item.Name)
            </td>
            <td>
                @Html.DisplayFor(modelItem => item.Email)
            </td>
            <td>
                @Html.DisplayFor(modelItem => item.Course)
            </td>
            <td>
                @Html.DisplayFor(modelItem => item.Contact)
            </td>
            <td>
                @Html.ActionLink("Edit", "Edit", new { id=item.Id }) |
                @Html.ActionLink("Details", "Details", new { id=item.Id }) |
                @Html.ActionLink("Delete", "Delete", new { id=item.Id })
            </td>
        </tr>
    }

    </table>
```

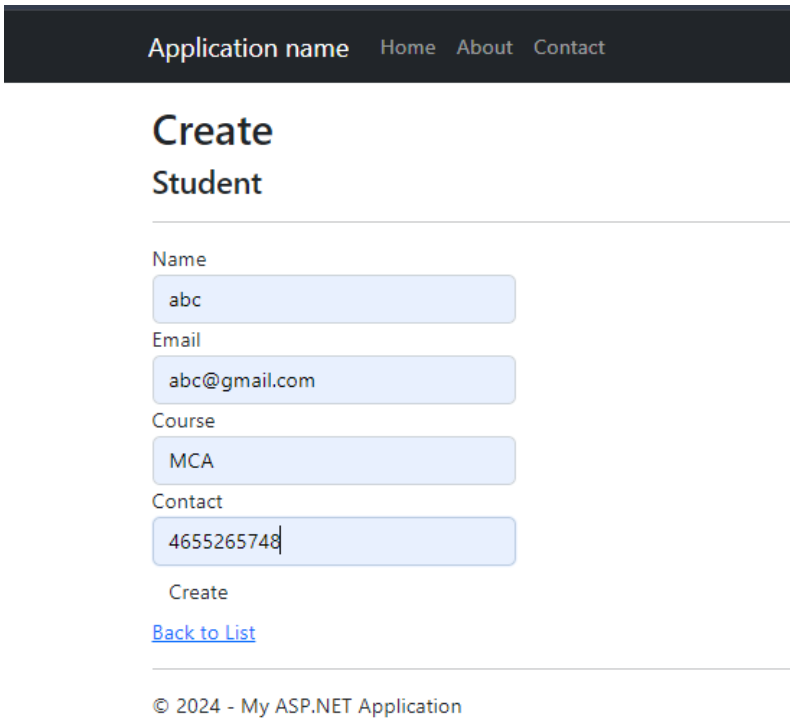
Output:

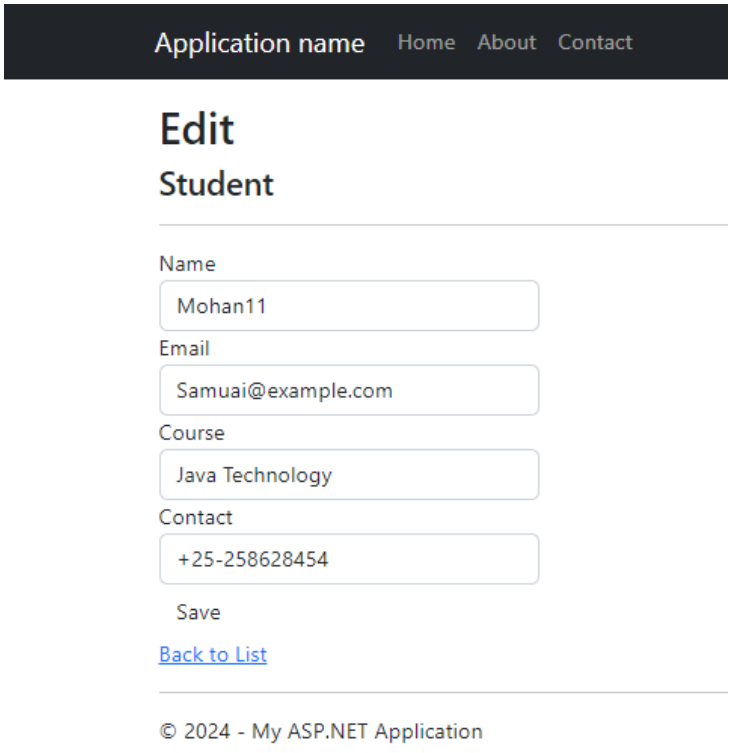
Index

Create New

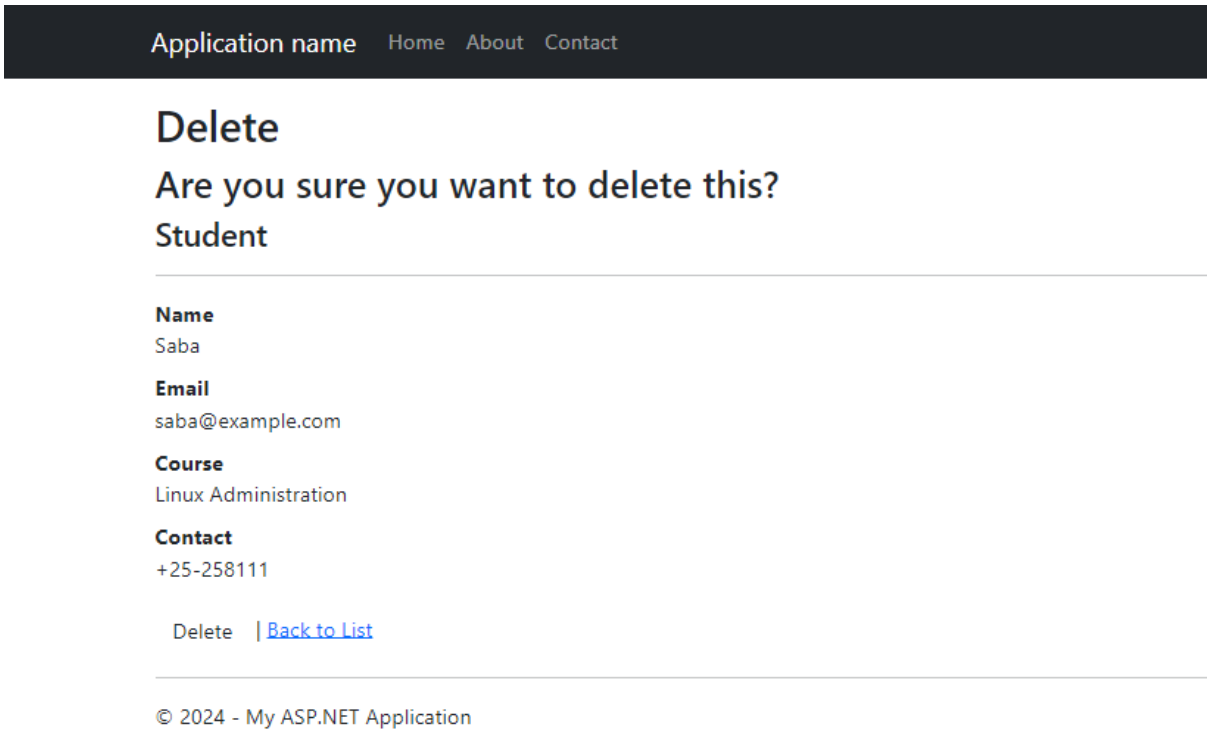
Name	Email	Course	Contact	
Mohan	Samuai@example.com	Java Technology	+25-258628	Edit | Details | Delete
Rohan	Sam@example.com	.NET Technology	+25-258694	Edit | Details | Delete
John	Max@example.com	Java Technology	+25-258999	Edit | Details | Delete
Saba	saba@example.com	Linux Administration	+25-258111	Edit | Details | Delete

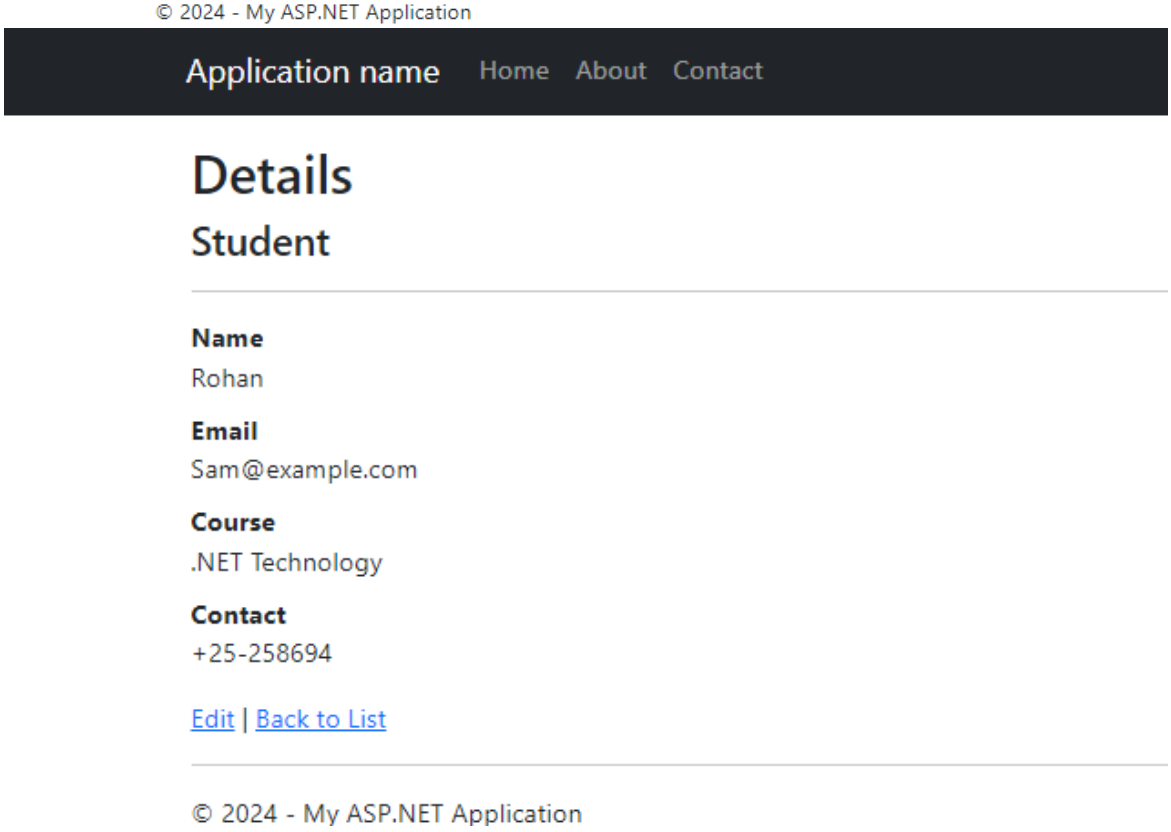
ROLL NO: 30
FYMCA DIV: A





ROLL NO: 30
FYMCA DIV: A





Practical No: 13

Design Web Applications using Client Side Session Management

1) Hidden Field:

Code:

WebForm1.aspx

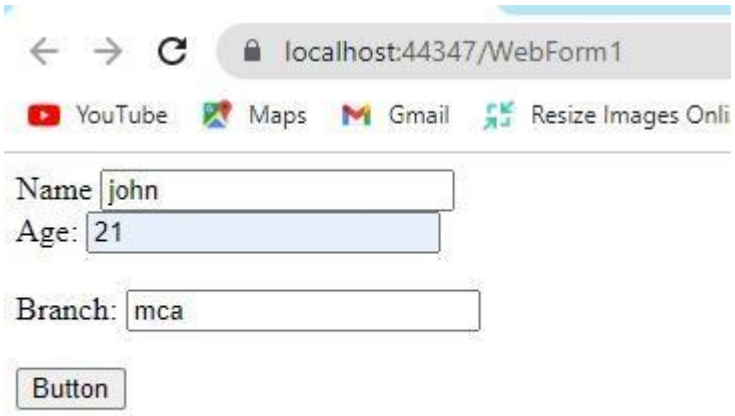
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs"
Inherits="Hidden_Field.WebForm2" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
    <head runat="server">
        <title></title>
    </head>
        <body>
            <form id="form1" runat="server">
                <div>
                    <asp:Label ID="Label1" runat="server" Text="Name"></asp:Label>
                    <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                    <br />
                    <asp:Label ID="Label2" runat="server" Text="Age:"></asp:Label>
                    <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                    <br />
                    <br />
                    <asp:Label ID="Label3" runat="server" Text="Branch:"></asp:Label>
                    <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
                    <br />
                    <br />
                    <asp:Button ID="Button2" runat="server" OnClick="Button2_Click"
                    Text="Button"/>
                    <br />
                    <br />
                    <asp:Label ID="Label4" runat="server" Text="Label"></asp:Label>
                         
                    <asp:Label ID="Label5" runat="server" Text="Label"></asp:Label>
                          
                    <asp:Label ID="Label6" runat="server" Text="Label"></asp:Label>
                    <br />
                    <asp:HiddenField ID="HiddenField1" runat="server" />
                    <asp:HiddenField ID="HiddenField2" runat="server" />
                    <asp:HiddenField ID="HiddenField3" runat="server" /> <br />
                </div>
            </form>
        </body>
</html>
```

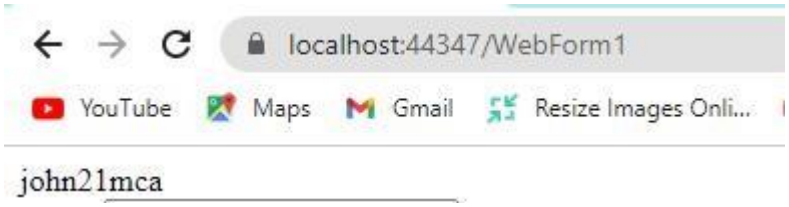
WebForm1.aspx.cs

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

namespace Hidden_Field
 { public partial class WebForm1 : System.Web.UI.Page
      { protected void Page_Load(object sender, EventArgs e)
           {
              String value1 = Request.Form["HiddenField1"];
              String value2 = Request.Form["HiddenField2"];
              String value3 = Request.Form["HiddenField3"];
              Label4.Text = value1;
              Label5.Text = value2;
              Label6.Text = value3; }

                 protected void Button2_Click(object sender, EventArgs e)
           {
              HiddenField1.Value = TextBox1.Text;
              HiddenField2.Value = TextBox2.Text;
              HiddenField3.Value = TextBox3.Text;
              Response.Write(HiddenField1.Value);
              Response.Write(HiddenField2.Value);
              Response.Write(HiddenField3.Value);
           }
      }
 }
```

Output:

ROLL NO: 30
FYMCA DIV: A





2) Cookies:

Code:

WebForm3.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm3.aspx.cs"
Inherits="Hidden_Field.WebForm3" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
   <head runat="server">
   <title></title>
   </head>
      <body>
         <form id="form1" runat="server">
           <div>
               <asp:Label ID="Label1" runat="server" Text="Name:"></asp:Label>
               <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
               <br />
               <br />
               <asp:Label ID="Label2" runat="server" Text="Age:"></asp:Label>
               <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
               <br />
               <br />
               <asp:Label ID="Label3" runat="server" Text="Branch:"></asp:Label>
               <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
               <br />
               <br />
               <asp:Button ID="Button1" runat="server" OnClick="Button1_Click"
               Text="Submit" style="height: 26px"
               />
           </div>
         </form>
      </body>
</html>
```

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 Hidden_Field
```

```
{ public partial class WebForm3 : System.Web.UI.Page
    { protected void Page_Load(object sender, EventArgs e)
        {
        }
        protected void Button1_Click(object sender, EventArgs e)
        {
            HttpCookie cookie = new HttpCookie("userinformation");
            cookie["Name"] = TextBox1.Text; cookie["Age"] =
            TextBox2.Text; cookie["Branch"] = TextBox3.Text;
            Response.Cookies.Add(cookie);
            Response.Redirect("WebForm4.aspx");
        }
    }
}
```

WebForm4.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm4.aspx.cs"
Inherits="Hidden_Field.WebForm4" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
  <head runat="server">
  <title></title>
  </head>
  <body>
    <form id="form1" runat="server">
      <div>
        <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        <br />
        <br />
        <asp:Label ID="Label2" runat="server" Text="Label"></asp:Label>
        <br />
        <br />
        <asp:Label ID="Label3" runat="server" Text="Label"></asp:Label> </div>
    </form>
  </body>
</html>
```

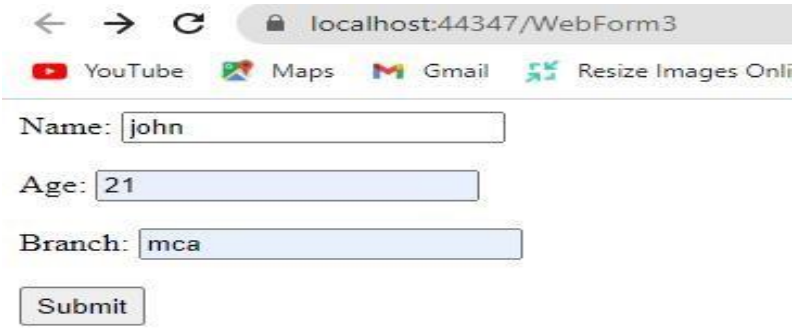
WebForm4.aspx.cs

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

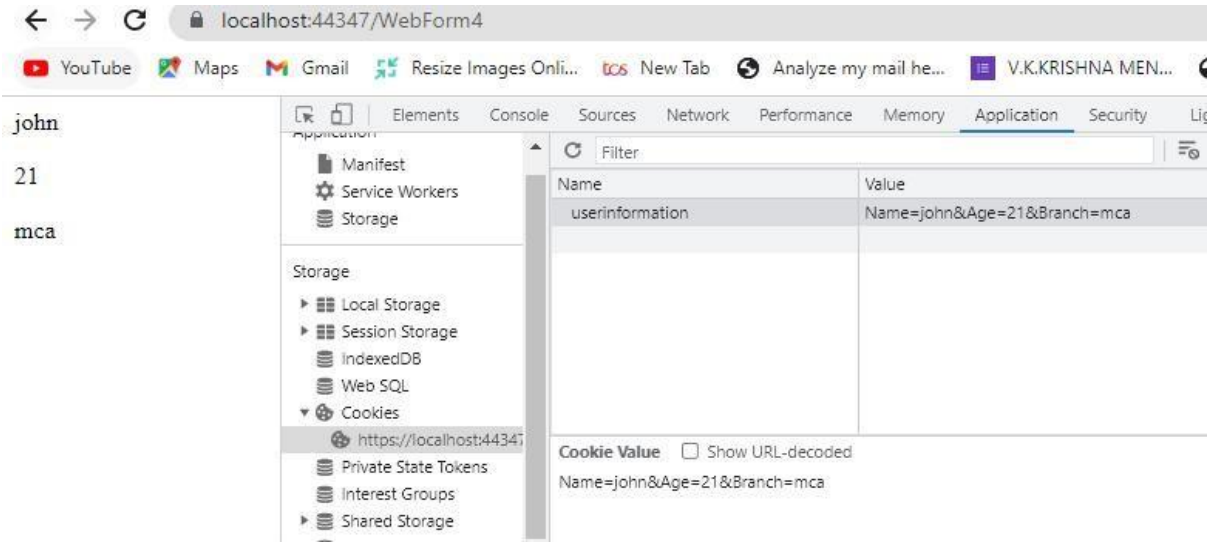
```
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
namespace Hidden_Field
  { publicpartialclassWebForm4 : System.Web.UI.Page {
            protectedvoid Page_Load(object sender, EventArgs e)
          {
                    HttpCookie cookie1 = Request.Cookies["userinformation"];
              Label1.Text = cookie1["Name"];
              Label2.Text = cookie1["Age"];
              Label3.Text = cookie1["Branch"];
          }
      }
   }
```

Output:

Before Submitting:



After Submitting:
Cookies Generated



3) Query Strings:

Code:

WebForm5.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm5.aspx.cs"
Inherits="Hidden_Field.WebForm5" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
    <head runat="server">
    <title></title>
    </head>
    <body>
        <form id="form1" runat="server">
            <div>
                <asp:Label ID="Label1" runat="server" Text="Name:"></asp:Label>
                <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label2" runat="server" Text="Age:"></asp:Label>
                <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label3" runat="server" Text="Branch:"></asp:Label>
                <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit"/>
            </div>
        </form>
    </body>
</html>
```

WebForm5.aspx.cs

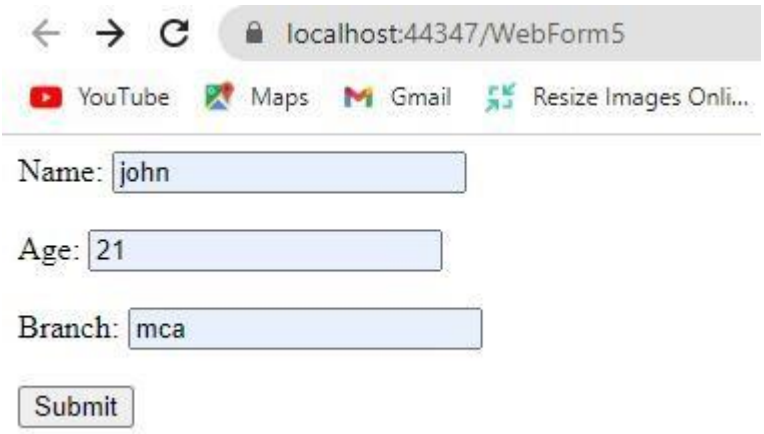
```
using System;
using System.Collections.Generic; using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace Hidden_Field
 { public partial class WebForm5 : System.Web.UI.Page
       { protected void Page_Load(object sender, EventArgs e)
            {
            }
          protected void Button1_Click(object sender, EventArgs e)
           {
             Response.Redirect("WebForm6.aspx?Name=" + TextBox1.Text + "&Age="
             +TextBox2.Text + "&Branch=" + TextBox3.Text); }
       }
 }
```

WebForm6.aspx.cs

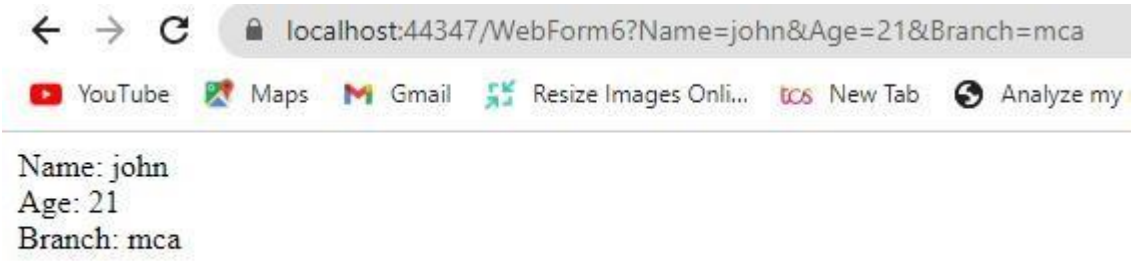
```
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace Hidden_Field
   { public partial class WebForm6 : System.Web.UI.Page
        { protected void Page_Load(object sender, EventArgs e)
            {
               String Name = Request.QueryString["Name"]; int Age
               = int.Parse(Request.QueryString["Age"]);
               String Branch = Request.QueryString["Branch"];
               Response.Write("Name: " + Name + "</br> Age: " + Age + "</br> Branch: " +Branch);
            }
        }
   }
```

Output:

Before Submitting:



After Submitting:



4) ViewState:

Code:

ViewState.aspx

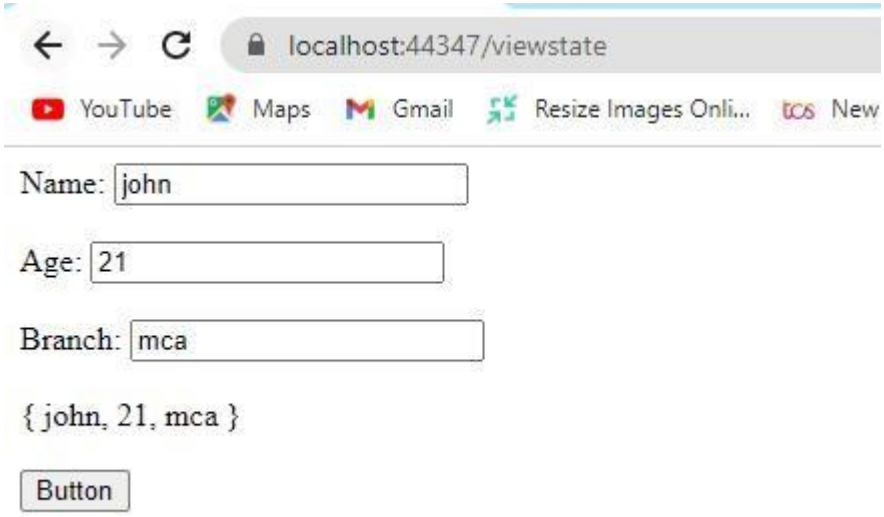
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="viewstate.aspx.cs"
Inherits="Hidden_Field.viewstate" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
    <head runat="server">
    <title></title>
    </head>
    <body>
        <form id="form1" runat="server">
            <div>
                <asp:Label ID="Label1" runat="server" Text="Name:"></asp:Label>
                <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label2" runat="server" Text="Age:"></asp:Label>
                <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label3" runat="server" Text="Branch:"></asp:Label>
                <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label4" runat="server"></asp:Label>
                <br />
                <br />
                <asp:Button ID="Button1" runat="server" OnClick="Button1_Click"
             Text="Button"
                />
            </div>
      </form>
    </body>
</html>
```

ViewState.aspx.cs

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

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

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

          protected void Button1_Click(object sender, EventArgs e)
            {
               ViewState["Name"] = TextBox1.Text;
               ViewState["Age"] = TextBox2.Text;
               ViewState["Branch"] = TextBox3.Text;
                    Label4.Text += "{ " + (String)ViewState["Name"] + ", " +
               (String)ViewState["Age"] + ", " + (String)ViewState["Branch"] + " }"; }
       }
  }
```

Output:



Practical No: 14

Design Web Applications using Server Side Session Management Techniques.

1) Session State:

Code:

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Server.WebForm1" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
   <head runat="server">
   <title></title>
   </head>
   <body>
       <form id="form1" runat="server">
          <div>
                <asp:Label ID="Label1" runat="server" Text="Name:"></asp:Label>
                <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label2" runat="server" Text="Age:"></asp:Label>
                <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Label ID="Label3" runat="server" Text="Branch:"></asp:Label>
                <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
                <br />
                <br />
                <asp:Button ID="Button1" runat="server" OnClick="Button1_Click"
             Text="Submit"
                />
          </div>
      </form>
   </body>
</html>
```

WebForm1.aspx.cs

```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq; usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls; namespace
Server
{ public partial class WebForm1 : System.Web.UI.Page
```

```
    { protected void Page_Load(object sender, EventArgs e)
        {
         }
       protected void Button1_Click(object sender, EventArgs e)
        {
            Session["Name"] = TextBox1.Text;
            Session["Age"] = TextBox2.Text;
            Session["Branch"] = TextBox3.Text;
            Response.Redirect("WebForm2.aspx");
        }
    }
}
```

WebForm2.aspx

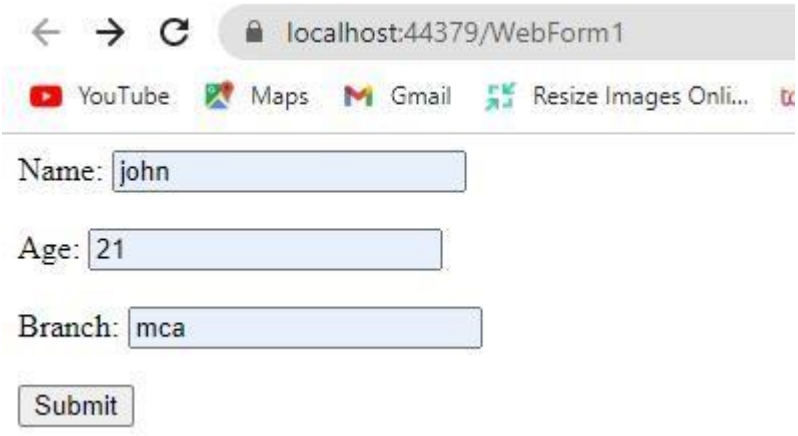
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs"
Inherits="Server.WebForm2" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
    <head runat="server">
    <title></title>
    </head>
    <body>
       <form id="form1" runat="server">
         <div>
                <asp:Label ID="Label1" runat="server"></asp:Label>
                <br />
                <br />
                <asp:Label ID="Label2" runat="server"></asp:Label>
                <br />
                <br />
                <asp:Label ID="Label3" runat="server"></asp:Label> </div>
     </form>
    </body>
</html>
```

WebForm2.aspx.cs

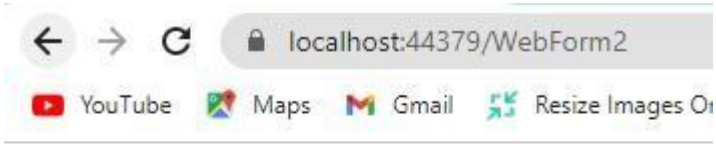
```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq; usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;

namespace Server
{ public partial class WebForm2 : System.Web.UI.Page
    { protected void Page_Load(object sender, EventArgs e)
        { if (Session["Name"] != null || Session["Branch"] != null || Session["Age"] !=null)
            {
                Label1.Text = "Name: " + Session["Name"].ToString();
                Label2.Text = "Age: " + Session["Age"].ToString();
                Label3.Text = "Branch: " + Session["Branch"].ToString(); }
        }
    }
}
```

Output:

Before Submitting:



After Submitting:



Name: john

Age: 21

Branch: mca

2) Application State:

Code:

WebForm3.aspx:

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="WebForm3.aspx.cs"Inheri
ts="Server.WebForm3"%>
<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml">
    <headrunat="server">
    <title></title>
    </head>
    <body>
        <form id="form1"runat="server"> 6
            <div>
                <asp:LabelID="Label1"runat="server"Text="Name:"></asp:Label>
                <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>
                <br/>
                <br/>
                <asp:LabelID="Label2"runat="server"Text="Age:"></asp:Label>
                <asp:TextBoxID="TextBox2"runat="server"></asp:TextBox>
                <br/>
                <br/>
                <asp:LabelID="Label3"runat="server"Text="Branch"></asp:Label>
                <asp:TextBoxID="TextBox3"runat="server"></asp:TextBox>
                <br/>
                <br/>
                <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text= "Submit"/>
            </div>
        </form>
    </body>
</html>
```

WebForm3.aspx.cs

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

```
namespace Server
{ publicpartialclassWebForm3 : System.Web.UI.Page
    { protectedvoidPage_Load(object sender, EventArgs e) {
        }
      protectedvoid Button1_Click(object sender, EventArgs e)
       {
          Application["Name"] = TextBox1.Text;
          Application["Age"] = TextBox2.Text;
          Application["Branch"] = TextBox3.Text;
          Response.Redirect("WebForm2.aspx");
       }
   }
}
```

WebForm4.aspx

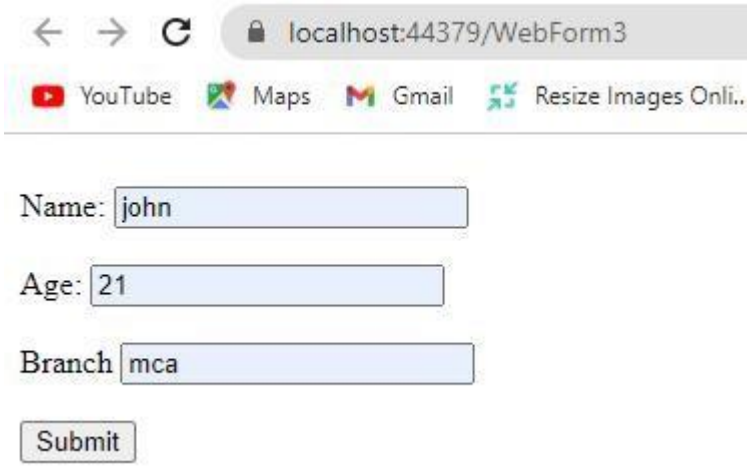
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="WebForm4.aspx.cs"Inheri
ts="Server.WebForm4"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
    <headrunat="server">
    <title></title>
    </head>
    <body>
        <form id="form1"runat="server">
            <div>
                <asp:LabelID="Label1"runat="server"></asp:Label>
                <br/>
                <br/>
```

```
                <asp:LabelID="Label2"runat="server"></asp:Label>
                <br/>
                <br/>
                <asp:LabelID="Label3"runat="server"></asp:Label> </div>
      </form>
    </body>
</html>
```

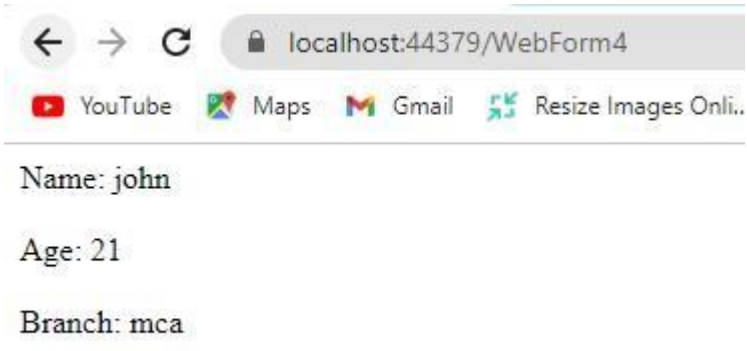
WebForm4.aspx.cs:

```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq; usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;
namespace Server
{ publicpartialclassWebForm4 : System.Web.UI.Page {
      protectedvoidPage_Load(object sender, EventArgs e)
        {
            Label1.Text = "Name: " + Application["Name"].ToString();
            Label2.Text = "Age: " + Application["Age"].ToString();
            Label3.Text = "Branch: " + Application["Branch"].ToString(); }
    }
}
```

Output:
Before Submitting:



After Submitting:



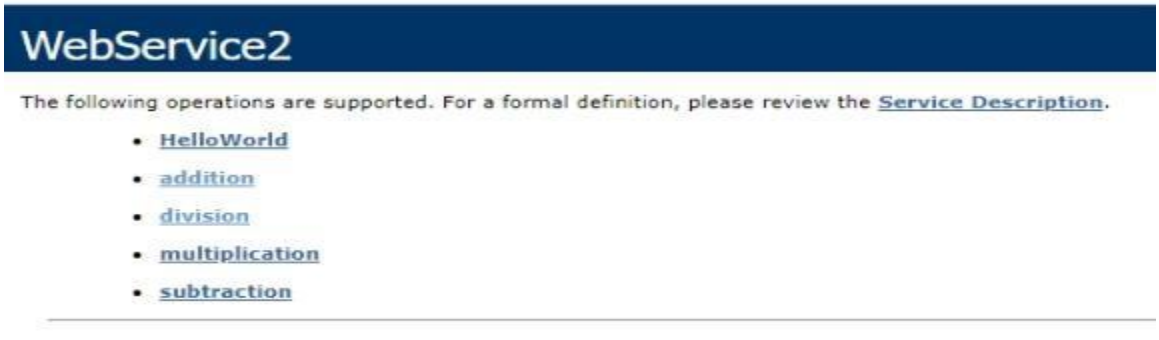
Practical No: 15

Design Web Application to produce and Consume a web Service.

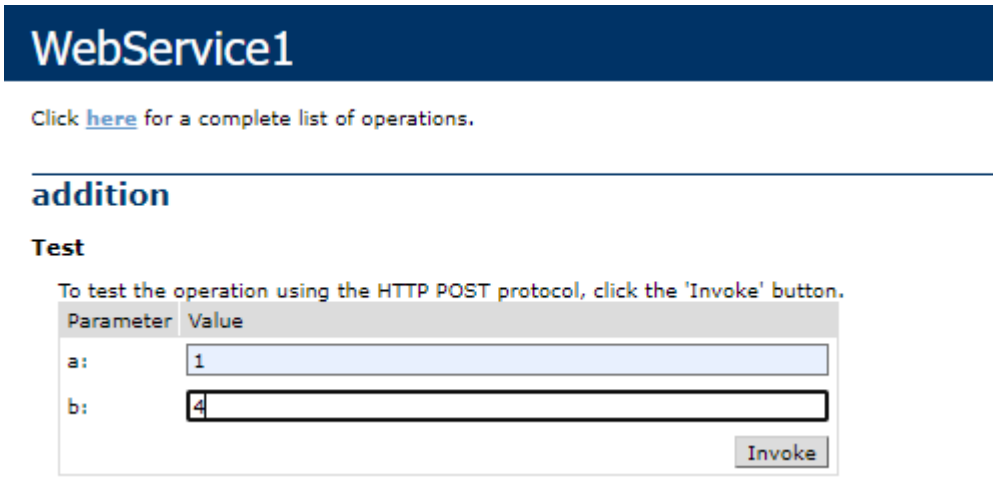
Code:

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

namespace Practical_21
{
    /// <summary>
    /// Summary description for WebService1
    /// </summary>
    [WebService(Namespace = "http://tempuri.org/")]
    [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
    [System.ComponentModel.ToolboxItem(false)]
    // To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
following line.
    // [System.Web.Script.Services.ScriptService]
    public class WebService1 : System.Web.Services.WebService
    {

        [WebMethod]
        public string HelloWorld()
        {
            return "Hello World";
        }
        [WebMethod]
        public double addition(double a, double b)
        { return a + b; }
        [WebMethod]
        public double subtraction(double a, double b)
        { return a - b; }
        [WebMethod]
        public double multiplication(double a, double b)
        { return a * b; }
        [WebMethod]
        public double division(double a, double b)
        { return a / b; }

    }
}
```

Output:


WebService2
The following operations are supported. For a formal definition, please review the Service Description.
HelloWorld
addition
division
multiplication
subtraction


WebService1 Web Service
localhost:44356/WebService1.a
localhost:44356/WebService1.asmx/addition
This XML file does not appear to have any style information associated with it. The document tree is shown below.
<double xmlns="http://tempuri.org/">5</double>


WebService1
Click here for a complete list of operations.
addition
Test
To test the operation using the HTTP POST protocol, click the 'Invoke' button.
Parameter
Value
a:
1
b:
4
Invoke

Practical No: 16

Design Web Application to produce and Consume a WCF Service.

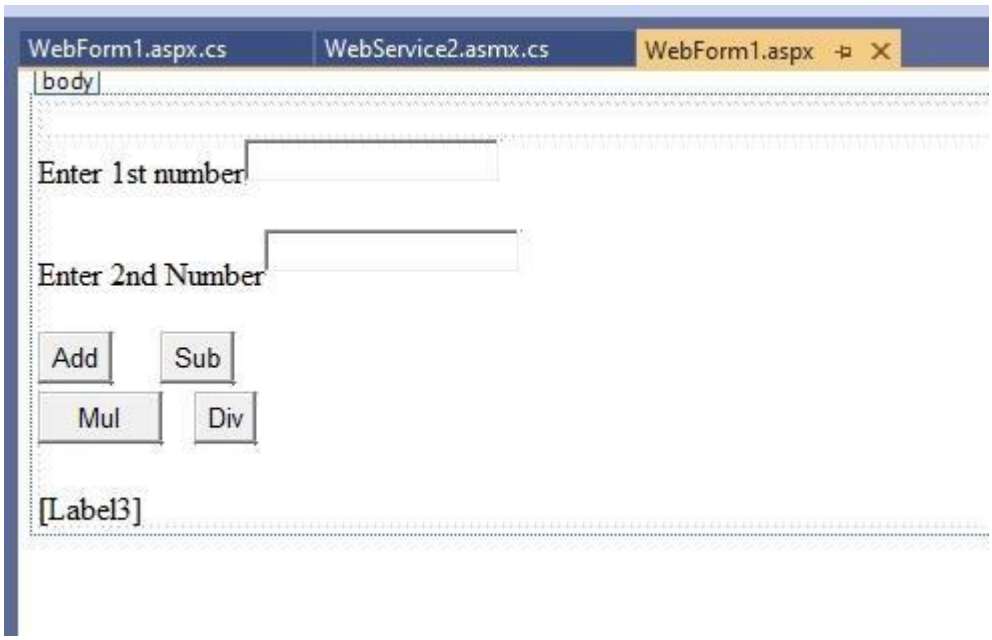
Code:

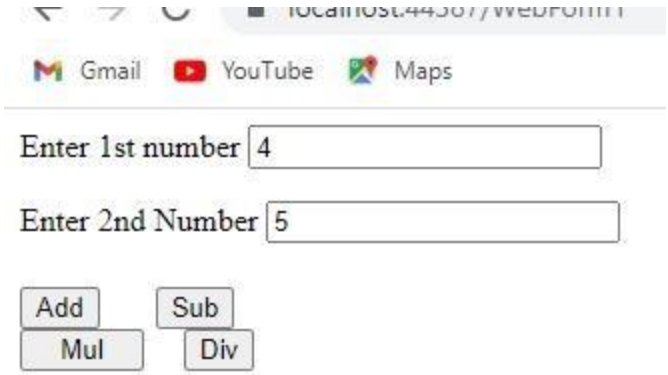
WebForm1.aspx.cs

```
using System;
usingSystem.Collections.Generic; usingSystem.Linq;
usingSystem.Web; usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;
namespace WCF {
   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.WebService2SoapClient obj = new
                  ServiceReference1.WebService2SoapClient(); double a =
                  Convert.ToDouble(TextBox1.Text); double b =
                  Convert.ToDouble(TextBox2.Text); doubleans = obj.addition(a, b);
                           Label3.Text = "Result:" + ans.ToString();
         } protected void Button2_Click(object sender, EventArgs e) {
                  ServiceReference1.WebService2SoapClient obj = new
                  ServiceReference1.WebService2SoapClient(); double a =
                  Convert.ToDouble(TextBox1.Text); double b =
                  Convert.ToDouble(TextBox2.Text); doubleans = obj.subtraction(a, b);
                  Label3.Text = "Result:" + ans.ToString();
           } protected void Button3_Click(object sender, EventArgs e)
           {
                   ServiceReference1.WebService2SoapClient obj = new
                   ServiceReference1.WebService2SoapClient(); double a =
                   Convert.ToDouble(TextBox1.Text); double b =
                   Convert.ToDouble(TextBox2.Text); doubleans = obj.multiplication(a, b);
                   Label3.Text = "Result:" + ans.ToString();
           } protected void Button4_Click(object sender, EventArgs e)
           {
                    ServiceReference1.WebService2SoapClient obj = new
                    ServiceReference1.WebService2SoapClient(); double a =
                    Convert.ToDouble(TextBox1.Text); double b =
                    Convert.ToDouble(TextBox2.Text); doubleans = obj.division(a, b);
                    Label3.Text = "Result:" + ans.ToString();
           }
         }
   }
```

Output:

ROLL NO: 30
FYMCA DIV: A





Practical No: 17
Design MVC based Web applications.

Code:

Class

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

namespace Practical_22.Models
{
    public class Class1
    {
        public string Name { get; set; }
        public string Address { get; set; }
        public int Age { get; set;}
    }
            }
```

Index

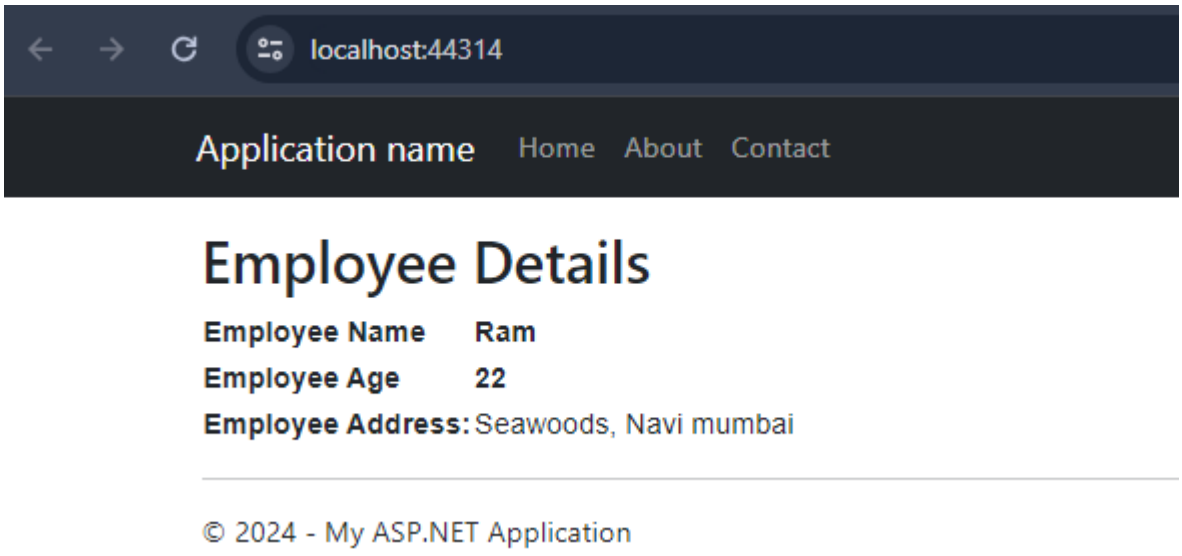
```
@{
    ViewBag.Title = "Home Page";
}

<h2>Employee Details</h2>
<table style="font-family:Arial">
    <tr>
        <td>
            <b>Employee Name</b>
        </td>
        <td>
            <b>@Model.Name</b>
        </td>
    </tr>
    <tr>
        <td>
            <b>Employee Age</b>
        </td>
        <td>
            <b>@Model.Age</b>
        </td>
    </tr>
    <tr>
        <td><b>Employee Address:</b></td>
        <td>@Model.Address</td>
```

```
        </tr>
            </table>
```

HomeController

```
using Practical_22.Models;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Net.Sockets;
using System.Web;
using System.Web.Mvc;

namespace Practical_22.Controllers
{
    public class HomeController : Controller
    {
        public ActionResult Index()
        {
            Class1 emp = new Class1()
            {
                Address = "Seawoods, Navi mumbai",
                Name = "Ram",
                Age = 22
            };
            return View(emp);
        }

        public ActionResult About()
        {
            ViewBag.Message = "Your application description page.";

            return View();
        }

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

            return View();
        }
    }
          }
```

Output:


localhost:44314
Application name
Home
About
Contact
Employee Details
Employee Name Ram
Employee Age 22
Employee Address: Seawoods, Navi mumbai
© 2024 - My ASP.NET Application

ROLL NO: 30
FYMCA DIV: A