Practical 1.a

Aim: Create an application to print on screen the output of adding, subtracting, multiplying and dividing two numbers entered by the user in C#.

Code:

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace NewPract1a
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.Write("NAME : SANDESH \n\n");
            // Prompt the user to enter the first number
            Console.Write("Enter the first number: ");
            double num1 = Convert.ToDouble(Console.ReadLine());

            // Prompt the user to enter the second number
            Console.Write("Enter the second number: ");
            double num2 = Convert.ToDouble(Console.ReadLine());

            // Perform the operations
            double addition = num1 + num2;
            double subtraction = num1 - num2;
            double multiplication = num1 * num2;
            double division = num2 != 0 ? num1 / num2 : double.NaN;

            // Display the results
            Console.WriteLine($"\nResults:");
            Console.WriteLine($"Addition: {num1} + {num2} = {addition}");
            Console.WriteLine($"Subtraction: {num1} - {num2} = {subtraction}");
            Console.WriteLine($"Multiplication: {num1} * {num2} = {multiplication}");
            if (num2 != 0)
            {
                Console.WriteLine($"Division: {num1} / {num2} = {division}");
            }
            else
            {
                Console.WriteLine("Division: Cannot divide by zero.");
            }
            Console.ReadKey();
        }
    }
}
```

Output:

```
NAME : SANDESH

Enter the first number: 20
Enter the second number: 5

Results:
Addition: 20 + 5 = 25
Subtraction: 20 - 5 = 15
Multiplication: 20 * 5 = 100
Division: 20 / 5 = 4
```

Practical 1.b

Aim: Create an application to print Floyd's triangle till n rows in C#.

Code:

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace newPract1b
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.Write("NAME :Sandesh \n\n");
            // Prompt the user to enter the number of rows for Floyd's triangle
            Console.Write("Enter the number of rows for Floyd's Triangle: ");
            int n = Convert.ToInt32(Console.ReadLine());

            // Initialize the starting number
            int number = 1;

            // Generate Floyd's Triangle
            Console.WriteLine("\nFloyd's Triangle:");
            for (int i = 1; i <= n; i++)
            {
                for (int j = 1; j <= i; j++)
                {
                    Console.Write(number + " ");
                    number++;
                }
                Console.WriteLine(); // Move to the next line after each row
            }
            Console.ReadKey();
        }
    }
}
```

Output:

```
NAME: SANDESH

Enter the number of rows for Floyd's Triangle: 4

Floyd's Triangle:
1
2 3
4 5 6
7 8 9 10
```

Practical 1.c

Aim: Create an application to demonstrate following operations
  i. Generate Fibonacci series.   ii. Test for prime numbers.

Design:

Home Page.aspx

|body|
Practical 1 - c - i : Generate Fibonacci series.
Practical 1 - c- ii : Test for prime numbers.

Source Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Home Page.aspx.cs"
Inherits="Pract1_d_.Home_Page" %>

<!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="Practical 1 - c - i :"></asp:Label>
 <asp:HyperLink ID="HyperLink1" runat="server" NavigateUrl="~/WebForm1.aspx">Generate
Fibonacci series.</asp:HyperLink>
            <br />
            <asp:Label ID="Label2" runat="server" Text="Practical 1 - c- ii :"></asp:Label>
 <asp:HyperLink ID="HyperLink2" runat="server" NavigateUrl="~/WebForm2.aspx">Test for prime
numbers.</asp:HyperLink>
            <br />
        </div>
    </form>
</body>
</html>
```

WebForm1.aspx (Generate Fibonacci series.)

|div|
Enter The Number of Elements in Fibonacci Series:
Generate Fibonacci Series

Source Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Pract1_d_.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="Enter The Number of Elements in Fibonacci
Series: "></asp:Label>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Generate Fibonacci
Series" />
        </div>
    </form>
</body>
</html>
```
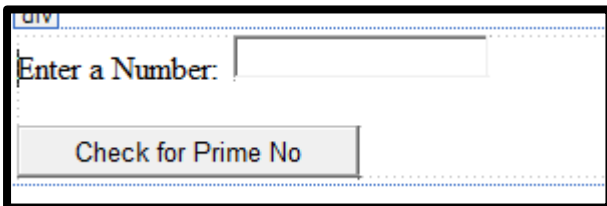
WebForm2.aspx (Test for prime numbers.)

Source Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs"
Inherits="Pract1_d_.WebForm2" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form2" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Enter a Number:"></asp:Label> 
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Check for Prime
No" />
        </div>
    </form>
</body>
</html>
```

Code:

WebForm1.aspx (Generate Fibonacci series.)

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

namespace Pract1_d_
{
```

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

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            int f1 = 0, f2 = 1, f3, n, co;
            n = int.Parse(TextBox1.Text);
            co = 3;
            Response.Write("Fibonacci Series:");
            Response.Write(f1+"\t"+f2);
            while(co<=n)
            {
                f3 = f1 + f2;
                Response.Write("\t" + f3);
                f1 = f2;
                f2 = f3;
                co++;
            }
        }
    }
}
```

WebForm2.aspx (Test for prime numbers.)

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

namespace Pract1_d_
{
    public partial class WebForm2 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            int n, i, c;
            n = int.Parse(TextBox1.Text);
            for (c = 2;c<=n-1;c++)
            {
                if (n % c == 0)
                    break;
            }
            if (n == 1)
                Response.Write(n + " is neither prime nor composite");
            else if (c<n-1)
                Response.Write(n + " is not Prime Number");
            else
                Response.Write(n + " is Prime Number");
        }
    }
}
```

Output

Home Page

|body|

Practical 1 - c - i : Generate Fibonacci series.
Practical 1 - c- ii : Test for prime numbers.

WebForm1.aspx (Generate Fibonacci series.)

Fibonacci Series:0 1 1 2 3 5 8 13 21 34
Enter The Number of Elements in Fibonacci Series: 10

Generate Fibonacci Series

WebForm2.aspx (Test for prime numbers.)

21 is not Prime Number
Enter a Number: 21

Check for Prime No

Practical 2a

Aim: Create a simple application to demonstrate the concepts boxing and unboxing.

Code:

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace NewPract2_a_
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("NAME: Sandesh \n\n");
            // Boxing: Converting a value type (int) to an object
            int num = 123; // Value type
            object obj = num; // Boxing - num is converted to an object
            obj = 145;

            // Display the boxed value
            Console.WriteLine("Boxing:");
            Console.WriteLine($"Value type (int): {num}");
            Console.WriteLine($"Boxed type (object): {obj}");

            // Unboxing: Converting an object back to a value type
            int unboxedNum = (int)obj; // Unboxing - obj is converted back to an int

            // Display the unboxed value
            Console.WriteLine("\nUnboxing:");
            Console.WriteLine($"Boxed type (object): {obj}");
            Console.WriteLine($"Value type (int): {num}");
            Console.WriteLine($"Unboxed type (int): {unboxedNum}");
            Console.ReadKey();
        }
    }
}
```
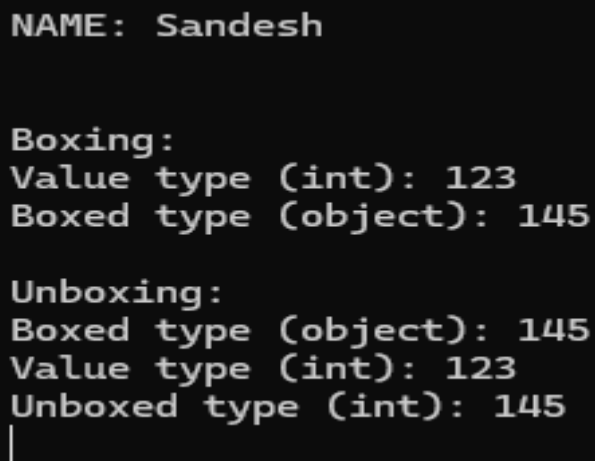
Output:

Practical 2b

Aim: Create a simple application to perform addition and subtraction using delegate

Code:

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

namespace NewPract2b
{
    // Define a delegate that takes two integers and returns an integer
    public delegate int Operation(int x, int y);

    class Program
    {
        // Method to perform addition
        public static int Add(int x, int y)
        {
            return x + y;
        }

        // Method to perform subtraction
        public static int Subtract(int x, int y)
        {
            return x - y;
        }

        static void Main(string[] args)
        {
            Console.Write("NAME: Sandesh \n\n");
            // Create delegate instances
            Operation addOperation = new Operation(Add);
            Operation subtractOperation = new Operation(Subtract);

            // Input numbers
            Console.Write("Enter the first number: ");
            int num1 = int.Parse(Console.ReadLine());

            Console.Write("Enter the second number: ");
            int num2 = int.Parse(Console.ReadLine());

            // Perform addition
            int additionResult = addOperation(num1, num2);
            Console.WriteLine($"Addition Result: {additionResult}");

            // Perform subtraction
            int subtractionResult = subtractOperation(num1, num2);
            Console.WriteLine($"Subtraction Result: {subtractionResult}");

            // Wait for user input before closing
            Console.ReadKey();
        }
    }
```

}

Output:

```
NAME: Sandesh

Enter the first number: 10
Enter the second number: 5
Addition Result: 15
Subtraction Result: 5
```

Practical 2c

Aim: Create a simple application to demonstrate use of the concepts of interfaces.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Interface.aspx.cs"
Inherits="NewPract2c.Interface" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h2> simple application to demonstrate use of the concepts of interfaces. </h2>
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button" />
            <h4>NAME: Sandesh </h4>
        </div>
    </form>
</body>
</html>
```

Code:

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

namespace NewPract2c
{
    public interface Itransactions
    {
        //interface member
        string retcode();
        double amtfunc();
    }

    public class Transaction : Itransactions
    {
        private string tCode;
        private double amount;
        public Transaction()
        {
            tCode = "";
            amount = 0.0;
        }
        public Transaction(string c, double a)
        {
            tCode = c;
            amount = a;
        }
    }
```

```csharp
        public double amtfunc()
        {
            return amount;
        }
        public string retcode()
        {
            return tCode;
        }


    }

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

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Transaction t1 = new Transaction("Cr", 780.00);
            Transaction t2 = new Transaction("Db", 400.00);
            Response.Write("<br> Code " + t1.retcode());
            Response.Write("<br> Amount " + t1.amtfunc());
            Response.Write("<br> Code " + t2.retcode());
            Response.Write("<br> Amount " + t2.amtfunc());
        }
    }
}
```

Output:

simple application to demonstrate use of the concepts of interfaces.

Button

NAME: Sandesh

Code Cr
Amount 780
Code Db
Amount 400

simple application to demonstrate use of the concepts of interfaces.

Button

NAME: Sandesh

<center>**Practical 3a**</center>

Aim: Create a simple web page with various server controls to demonstrate setting and use of their properties. (Example : AutoPostBack)

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 3 a.aspx.cs"
Inherits="Practical_3.Pract_3_a" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 50%;
            border:3px solid navy;
            background-color:#a7a122
        }
        .auto-style4 {
            text-align: center;
            height: 46px;
        }
        .auto-style12 {
            height: 47px;
        }
        .auto-style13 {
            width: 215px;
            height: 56px;
        }
        .auto-style14 {
            height: 56px;
            width: 289px;
        }
        .auto-style15 {
            width: 215px;
            height: 54px;
        }
        .auto-style16 {
            height: 54px;
            width: 289px;
        }
        .auto-style17 {
            width: 215px;
            height: 52px;
        }
        .auto-style18 {
            height: 52px;
            width: 289px;
        }
        .auto-style19 {
            width: 215px;
            height: 49px;
        }
        .auto-style20 {
```

```
            height: 49px;
            width: 289px;
        }
        body{
            background-color:#e4cfcf
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <table class="auto-style1">
                <tr>
                    <td class="auto-style13">
                        <asp:Label ID="Label1" runat="server" Text="RNo"></asp:Label>
                    </td>
                    <td class="auto-style14">
                        <asp:TextBox ID="TextBox1" runat="server" TabIndex="1"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style15">
                        <asp:Label ID="Label2" runat="server" Text="Name"></asp:Label>
                    </td>
                    <td class="auto-style16">
                        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style17">
                        <asp:Label ID="Label3" runat="server" Text="Class"></asp:Label>
                    </td>
                    <td class="auto-style18">
                        <asp:RadioButton ID="RadioButton1" runat="server" Text="FY" GroupName="Class" />
 <asp:RadioButton ID="RadioButton2" runat="server" Text="SY" GroupName="Class" />
 <asp:RadioButton ID="RadioButton3" runat="server" Text="TY" GroupName="Class" />
                    </td>
                </tr>
                <tr>
                    <td class="auto-style19">
                        Course</td>
                    <td class="auto-style20">
                        <asp:DropDownList ID="DropDownList1" runat="server" AutoPostBack="True"
OnSelectedIndexChanged="DropDownList1_SelectedIndexChanged" TabIndex="2">
                            <asp:ListItem>B.Com</asp:ListItem>
                            <asp:ListItem>BMS</asp:ListItem>
                            <asp:ListItem>B.Sc.(I.T.)</asp:ListItem>
                            <asp:ListItem>B.Sc.(CS)</asp:ListItem>
                        </asp:DropDownList>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style4" colspan="2">
                        <asp:Button ID="Button1" runat="server" Text="Submit" OnClick="Button1_Click"
AccessKey="S" TabIndex="3" ToolTip="Please Submit Youe Data" />
                    </td>
```

```
        </tr>
        <tr>
          <td class="auto-style12" colspan="2">
            <asp:Label ID="Label5" runat="server" Text=" "></asp:Label>
          </td>
        </tr>
      </table>
    </div>
  </form>
</body>
</html>
```

Code:

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

namespace Practical_3
{
    public partial class Pract_3_a : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {

            string s = "You have been enrolled in ";
            if (RadioButton1.Checked == true)
            {
                s += RadioButton1.Text;
            }
            else if (RadioButton2.Checked == true)
            {
                s += RadioButton2.Text;
            }
            else if (RadioButton3.Checked == true)
            {
                s += RadioButton3.Text;
            }
            s += DropDownList1.SelectedItem;
            Label5.Text = s;
        }

        protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
        {
            Response.Write("You have selected " + DropDownList1.SelectedItem + " Course");
        }
    }
}
```

Output:

Practical 3b

Aim: Create a simple application to demonstrate your vacation using calendar control.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 3bb.aspx.cs"
Inherits="Practical_3.Pract_3bb" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Calendar ID="Calendar1" runat="server" NextMonthText="Next"
OnDayRender="Calendar1_DayRender" PrevMonthText="Pre" SelectionMode="DayWeekMonth"
BackColor="White" BorderColor="White" BorderWidth="1px" Font-Names="Verdana" Font-Size="9pt"
ForeColor="Black" Height="190px" NextPrevFormat="FullMonth"
OnSelectionChanged="Calendar1_SelectionChanged" Width="350px">
                <DayHeaderStyle Font-Bold="True" Font-Size="8pt" />
                <NextPrevStyle Font-Bold="True" Font-Size="8pt" ForeColor="#333333"
VerticalAlign="Bottom" />
                <OtherMonthDayStyle ForeColor="#999999" />
                <SelectedDayStyle BackColor="#333399" ForeColor="White" />
                <TitleStyle BackColor="White" BorderColor="Black" BorderWidth="4px" Font-Bold="True"
Font-Size="12pt" ForeColor="#333399" />
                <TodayDayStyle BackColor="#CCCCCC" />
            </asp:Calendar>

            <h4>NAME: SANDESH </h4>
        </div>
    </form>
</body>
</html>
```

Code:

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

namespace Practical_3
{
    public partial class Pract_3bb : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }
```

```csharp
protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
{
    if ((e.Day.Date >= new DateTime(2024, 09, 7)) && (e.Day.Date <= new DateTime(2024, 09, 12)))
    {
        e.Cell.BackColor = System.Drawing.Color.Navy;
        e.Cell.BorderColor = System.Drawing.Color.Black;
        e.Cell.ForeColor= System.Drawing.Color.White;
        e.Cell.BorderWidth = new Unit(3);
        if (e.Day.Date == new DateTime(2024, 09, 7))
        {
            e.Cell.Controls.Add(new LiteralControl("/br Ganpati Vacation Start"));
        }
        if (e.Day.Date == new DateTime(2024, 09, 12))
        {
            e.Cell.Controls.Add(new LiteralControl("/br Ganpati Vacation End"));
        }
    }
}

protected void Calendar1_SelectionChanged(object sender, EventArgs e)
{
    if (Calendar1.SelectedDate.Date >= new DateTime(2024, 09, 7) && Calendar1.SelectedDate.Date
<= new DateTime(2024, 09, 12))
        Response.Write("</br><h1>Ganpati Vacation..... Go to your village and worship Lord
Ganesh</h1></br>");
}
}
}
```

Output:

NAME: SANDESH

Practical 3c

Aim: Demonstrate the use of Treeview operations on the web form

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract3c.aspx.cs"
Inherits="Practical_3.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
        Treeview Contorl Navigation:
        <asp:TreeView ID="TreeView1" runat="server"
OnSelectedNodeChanged="TreeView1_SelectedNodeChanged" ShowCheckBoxes="All"
OnTreeNodeCollapsed="TreeView1_TreeNodeCollapsed" ShowLines="True">
            <HoverNodeStyle BackColor="#FF99FF" ForeColor="#003300" />
            <LeafNodeStyle BackColor="#99CCFF" ForeColor="#663300" />
            <Nodes>
                <asp:TreeNode Text="AWP Practical" Value="AWP Practical">
                    <asp:TreeNode Text="Practical 3" Value="Practical 3">
                        <asp:TreeNode Text="Practical 3a" Value="Practical 3a" NavigateUrl="~/Pract 3 a.aspx"
Target="new"/>
                        <asp:TreeNode Text="Practical 3b" Value="Practical 3b" NavigateUrl="~/Pract 3
b.aspx">
                            <asp:TreeNode Text="Practical 3b b" Value="Practical 3b b" NavigateUrl="~/Pract
3bb.aspx"></asp:TreeNode>
                            <asp:TreeNode Text="Practical 3bc" Value="Practical 3bc"
NavigateUrl="~/Pract3bd.aspx"></asp:TreeNode>
                        </asp:TreeNode>
                        <asp:TreeNode Text="Practical 3c" Value="Practical 3c"></asp:TreeNode>
                    </asp:TreeNode>
                    <asp:TreeNode Text="Website" Value="Website">
                        <asp:TreeNode Text="Mumbai University" Value="Mumbai University"
NavigateUrl="https://mu.ac.in/">
                            <asp:TreeNode Text="GD Jalan" Value="GD Jalan"
NavigateUrl="https://gdjalan.edu.in/"></asp:TreeNode>
                        </asp:TreeNode>
                    </asp:TreeNode>
                </asp:TreeNode>
            </Nodes>
            <ParentNodeStyle BackColor="#66FF99" ForeColor="#000099" />
            <RootNodeStyle BackColor="#FFFF99" ForeColor="#990000" />
            <SelectedNodeStyle BackColor="Black" ForeColor="White" />
        </asp:TreeView>

        <br />
        <br />
        <asp:Label ID="Label1" runat="server" BackColor="#FFFF99" Font-Bold="True" Font-
Size="20pt"></asp:Label>
```

```html
      <br />
      <br />
      <br />
      <h4>NAME: Sandesh </h4>

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

Code:

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

namespace Practical_3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
         /*if (!IsPostBack)
            {
                BindData();
            }
        }
        protected void BindData()
        {
            DataSet ds = new DataSet();
            ds.ReadXml(Server.MapPath("XMLFile1.xml"));
            if (ds!= null && ds.HasChanges())
            {
                DataList1.DataSource = ds;
                DataList1.DataBind();
            }
            else
            {
                DataList1.DataBind();
            }*/
        }


        protected void TreeView1_SelectedNodeChanged(object sender, EventArgs e)
        {
            Label1.Text = "You have selected the option:" + TreeView1.SelectedValue;
        }

        protected void TreeView1_TreeNodeCollapsed(object sender, TreeNodeEventArgs e)
        {
            Label1.Text = "The Value Collapsed was:" + e.Node.Value;
        }
```
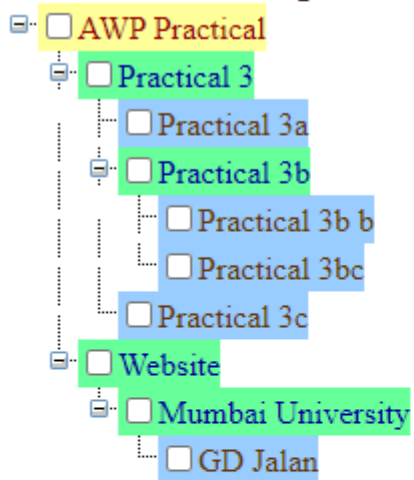
```
    }
}
```

Output:

Treeview Contorl Navigation:

☐ AWP Practical
   ☐ Practical 3
      ☐ Practical 3a
      ☐ Practical 3b
         ☐ Practical 3b b
         ☐ Practical 3bc
      ☐ Practical 3c
   ☐ Website
      ☐ Mumbai University
         ☐ GD Jalan

The Value Collapsed was:AWP Practical

NAME: Sandesh

Practical 4a

Aim: Create a Registration form to demonstrate use of various Validation controls.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="4aValidate Contorl Form.aspx.cs"
Inherits="Pract_4_a.Validate_Contorl_Form" %>

<!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="Enter Password"></asp:Label>
 <asp:TextBox ID="TextBox1" runat="server" TextMode="Password"></asp:TextBox>
 <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="TextBox1" ErrorMessage="Password Required"
ForeColor="Red">*</asp:RequiredFieldValidator>
 <br />
            <br />
            <asp:Label ID="Label2" runat="server" Text="Confirmed Password"></asp:Label>
            <asp:TextBox ID="TextBox2" runat="server" TextMode="Password"></asp:TextBox>
            <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
ControlToValidate="TextBox2" ErrorMessage="Confirm Password Required"
ForeColor="Red">*</asp:RequiredFieldValidator>
            <asp:CompareValidator ID="CompareValidator1" runat="server" ControlToCompare="TextBox1"
ControlToValidate="TextBox2" ErrorMessage="Confirm Password Should Match with password">Confirm
Password Should Match with password</asp:CompareValidator>
            <br />
            <br />
            <asp:Label ID="Label3" runat="server" Text="Enter Your Age "></asp:Label>
 <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
 <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
ControlToValidate="TextBox3" ErrorMessage="Age Required"
ForeColor="Red">*</asp:RequiredFieldValidator>
            <asp:RangeValidator ID="RangeValidator1" runat="server" ControlToValidate="TextBox3"
ErrorMessage="Age Should be between 21 to 30" MaximumValue="30" MinimumValue="21">Age Should
be between 21 to 30</asp:RangeValidator>
            <br />
            <br />
            <asp:Label ID="Label4" runat="server" Text="Enter Your Emai ID"></asp:Label>
 <asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
 <asp:RequiredFieldValidator ID="RequiredFieldValidator4" runat="server"
ControlToValidate="TextBox4" ErrorMessage="Email Required"
ForeColor="Red">*</asp:RequiredFieldValidator>
            <asp:RegularExpressionValidator ID="RegularExpressionValidator1" runat="server"
ControlToValidate="TextBox4" ErrorMessage="Please Enter Valid Email" ValidationExpression="\w+([-
+.']\w+)*@\w+([-.]\w+)*\.\w+([-.]\w+)*">Please Enter Valid Email</asp:RegularExpressionValidator>
            <br />
            <br />
            <asp:Label ID="Label5" runat="server" Text="user id"></asp:Label>
 <asp:TextBox ID="TextBox5" runat="server"></asp:TextBox>
```

```
        <asp:RequiredFieldValidator ID="RequiredFieldValidator5" runat="server"
ControlToValidate="TextBox5" ErrorMessage="User Id Required"
ForeColor="Red">*</asp:RequiredFieldValidator>
        <asp:CustomValidator ID="CustomValidator1" runat="server" ControlToValidate="TextBox5"
ErrorMessage="User Id Length Should be between 7 and 20 characters"
OnServerValidate="CustomValidator1_ServerValidate">User Id Length Should be between 7 and 20
characters</asp:CustomValidator>
        <br />
        <asp:ValidationSummary ID="ValidationSummary1" runat="server" />
        <br />
        <br />
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button" />
        <br />
        <br />

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

Code:

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

namespace Pract_4_a
{
    public partial class Validate_Contorl_Form : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }
        protected void Button1_Click(object sender, EventArgs e)
        {
            Response.Write("Submitted");
        }
            protected void CustomValidator1_ServerValidate(object source, ServerValidateEventArgs args)
        {
            string str = args.Value;
            args.IsValid=false;
            if (str.Length < 7 || str.Length > 20)
                args.IsValid = false;
            else
                args.IsValid = true;
        }
    }
}
```

Output:

Enter Password [   ] *

Confirmed Password [   ] *Confirm Password Should Match with password

Enter Your Age [   ] *Age Should be between 21 to 30

Enter Your Emai ID [   ] *Please Enter Valid Email

user id [   ] *User Id Length Should be between 7 and 20 characters

- Error message 1.
- Error message 2.

[Button]

Enter Password [•••••]

Confirmed Password [••••••] Confirm Password Should Match with password

Enter Your Age [55] Age Should be between 21 to 30

Enter Your Emai ID [example@gmail.com]

user id [pnr]

- Confirm Password Should Match with password
- Age Should be between 21 to 30

[Button]

Practical 4b

Aim: Create Web Form to demonstrate use of Adrotator Control.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Adrotator 4 b.aspx.cs"
Inherits="Pract_4_a.Adrotator_4_b" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:AdRotator ID="AdRotator1" runat="server" AdvertisementFile="~/XMLFile1.xml"
Target="_blank" />
            <br />
            <h4>NAME: Sandesh </h4>
        </div>
    </form>
</body>
</html>
```

Code:

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

namespace Pract_4_a
{
    public partial class Adrotator_4_b : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }
    }
}
```

XML file:

```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
        <Ad>
                <ImageUrl>~/Images/Coke.jpg</ImageUrl>
                <Impressions>1</Impressions>
                <NavigateUrl>https://www.coca-colacompany.com/</NavigateUrl>
                <AlternateText>Coke image is missing</AlternateText>
```

```xml
        <Keyword>Coke</Keyword>
    </Ad>
    <Ad>
        <ImageUrl>~/Images/Frooti.jpg</ImageUrl>
        <Impressions>5</Impressions>
        <NavigateUrl>https://gdjalan.edu.in/commerce-faculty-degree-college/ </NavigateUrl>
        <Keyword>Frooti</Keyword>
    </Ad>
    <Ad>
        <ImageUrl>~/Images/Pepsi.jpg</ImageUrl>
        <Impressions>1</Impressions>
        <NavigateUrl>https://www.pepsi.com/</NavigateUrl>
        <Keyword>Pepsi</Keyword>
    </Ad>
</Advertisements>
```

Output:

NAME: Sandesh

Practical 4c

Aim: Create Web Form to demonstrate use User Controls

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="4C.aspx.cs" Inherits="Pract_4_a._4C" %>

<%@ Register src="WebUserControl1.ascx" tagname="MyControl" tagprefix="user" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <user:MyControl ID="WebUserControl11" runat="server" />
        <div>
            <br />
            <br />
            <asp:Image ID="Image1" runat="server" ImageUrl="~/Images/nature.jpeg" />
            <br />
            <h4>NAME: SANDESH </h4>
        </div>
    </form>
</body>
</html>
```

Code:

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

namespace Pract_4_a
{
    public partial class _4C : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }
    }
}
```

Output:

This is User Control

Name SANDESH

City TROONBAY

Save

Your Name is SANDESH and you are from TROONBAY

NAME: SANDESH

This is User Control

Name [   ]

City [   ]

Save

NAME: SANDESH

Practical 5a

Aim: Create Web Form to demonstrate use of Website Navigation controls.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="prac_5(A).aspx.cs"
Inherits="Pract_4_a.prac_5_A_" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .menu {
            width: 50%;
            height:100px;
            border:3px solid navy;
            background-color:black;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div class="menu">

        <asp:Menu ID="Menu1" runat="server" DataSourceID="SiteMapDataSource1"
DisappearAfter="1000" Font-Bold="True" Font-Size="X-Large" ForeColor="White">
            <DynamicHoverStyle BackColor="Black" ForeColor="White" />
        </asp:Menu>
        </div>
        <div><h1>Welcome to our website</h1>
        <h3>This is the Home Page</h3> <br/></div>



        <asp:SiteMapDataSource ID="SiteMapDataSource1" runat="server" />
        <br />
        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
          <CurrentNodeStyle BackColor="#CCFFCC" />
        </asp:SiteMapPath>
        <br />

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

Page 1:
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Page1.aspx.cs"
Inherits="Pract_4_a.Page1" %>

<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h1>Welcome to Page 1 of our website</h1>
        </div>
        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
        </asp:SiteMapPath>
    </form>
</body>
</html>
```

Welcome to Page 1 of our website

Home Page > Page1

Page 2:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Page2.aspx.cs" Inherits="Pract_4_a.Page2" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h1>Welcome to Page 2 of our website</h1>
        </div>
        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
        </asp:SiteMapPath>
    </form>
</body>
</html>
```

Welcome to Page 2 of our website

Home Page > Page1 > Page2

Page 3:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Page3.aspx.cs" Inherits="Pract_4_a.Page3" %>

<!DOCTYPE html>

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

```
        <form id="form1" runat="server">
            <div>
                <h1>Welcome to Page 3 of our website</h1>
            </div>
            <asp:SiteMapPath ID="SiteMapPath1" runat="server">
            </asp:SiteMapPath>
        </form>
    </body>
</html>
```

Welcome to Page 3 of our website

Home Page > Page1 > Page3

Page 4:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Page4.aspx.cs"
Inherits="Pract_4_a.Page4" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h1>Welcome to Page 4 of our website</h1>
        </div>
        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
        </asp:SiteMapPath>
    </form>
</body>
</html>
```

Welcome to Page 4 of our website

Home Page > Page1 > Page4

Output:

Home Page

Welcome to our website

This is the Home Page

Home Page

NAME: SANDESH

Home Page Page1 Page2
Page3
Page4

Welcome to our website

This is the Home Page

Home Page

NAME: SANDESH

<h1 align="center">Practical 5b</h1>

Aim: Create a web application to demonstrate use of Master Page and content page

Design:

```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master" AutoEventWireup="true"
CodeBehind="Pract5b.aspx.cs" Inherits="Pract5.Pract5b" Theme ="Theme1"%>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
    <style type="text/css">
        .auto-style1 {
            height: 29px;
        }
    </style>
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <h2 align="center"> Contact Us</h2>
<h3 align="center"> Fill the datails</h3>
    <table class="auto-style1" align="center">
        <tr>
            <td class="auto-style1">
                <asp:Label ID="Label1" runat="server" Text="Name:"></asp:Label>
            </td>
            <td class="auto-style1">
                <asp:TextBox ID="TextBox1" runat="server" SkinID="Yellow"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <td>
                <asp:Label ID="Label2" runat="server" Text="Email ID:"></asp:Label>
            </td>
            <td>
                <asp:TextBox ID="TextBox2" runat="server" SkinID="Yellow"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <td class="auto-style1">
                <asp:Label ID="Label3" runat="server" Text="Mobile No."></asp:Label>
            </td>
            <td class="auto-style1">
                <asp:TextBox ID="TextBox3" runat="server" SkinID="Blue"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <td>
                <asp:Label ID="Label4" runat="server" Text="Your Query"></asp:Label>
            </td>
            <td>
                <asp:TextBox ID="TextBox4" runat="server" SkinID="Blue"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <td> </td>
            <td> </td>
        </tr>
        <tr>
            <td colspan="2">
```

```
                <asp:Button ID="Button1" runat="server" Text="Submit" SkinID="Green" />


            </td>
        </tr>
    </table>
 <br />
</asp:Content>
```

MasterPage:
```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="Site1.master.cs"
Inherits="Pract5.Site1" %>

<!DOCTYPE html>

<html>
<head runat="server">
    <title></title>
    <style type="text/css">
        body{
background-color:powderblue;

        }
        .head {
            background-color:#cc3399;
            color:white;

        }
        footer{
background-color:black;
        color:white;
        }
</style>
    <asp:ContentPlaceHolder ID="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
        <div class ="head">
            <h2 align="center">Ghanshyamdas Jalan College of Science & Commerce</h2>
            <h4 align="center"> Chinchowli Rd, Malad, Upper Govind Nagar, Malad East, Mumbai,
Maharashtra 400097</h4>
            <p align="center">  </p>
            </div>
        <div>
            <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
            </asp:ContentPlaceHolder>
        </div>
        <footer align="center">Copyright by GD JALAN</footer>
    </form>
     <h4>NAME: SANDESH</h4>

</body>
</html>
```

Output:

Ghanshyamdas Jalan College of Science & Commerce

Chinchowli Rd, Malad, Upper Govind Nagar, Malad East, Mumbai, Maharashtra 400097

Contact Us

Fill the datails

Name:

Email ID:

Mobile No.

Your Query

Submit

Copyright by GD JALAN

NAME: SANDESH

Practical 5c

Aim: Create a web application to demonstrate various states of ASP.NET Pages.

1. ViewState:

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 5 C ViewState.aspx.cs"
Inherits="Pract5.Pract_5_C_ViewState" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            View Variable:
            <asp:Label ID="Label1" runat="server" Text="View Data is:"></asp:Label>
            <br />
            <br />
            Session Variable:
            <asp:Label ID="Label2" runat="server" Text="Session Variable"></asp:Label>
            <br />
            <br />
            Application Variable:
            <asp:Label ID="Label3" runat="server" Text="Application Variable"></asp:Label>
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Get Data" />
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:

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

namespace Pract5
{
    public partial class Pract_5_C_ViewState : System.Web.UI.Page
    {
        int count = 0;
        protected void Page_Load(object sender, EventArgs e)
        {

            if (!IsPostBack)
```

```csharp
        {
            if (ViewState["cnt"] == null)
            {
                //ViewState["cnt"] = count;
                ViewState.Add("cnt", count);
            }
            if (Session["scnt"] == null)
            {
                //Session["scnt"] = count;
                Session.Add("scnt", count);
            }
            if (Application["acnt"] == null)
            {
                //Application["acnt"] = count;
                Application.Add("acnt", count);
            }

        }
    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        /* count = int.Parse(ViewState["cnt"].ToString());
         count++;
         ViewState["cnt"] = count;
         Label1.Text = ViewState["cnt"].ToString();*/
        ViewState["cnt"] = (int)ViewState["cnt"] + 1;
        Label1.Text = ViewState["cnt"].ToString();
        Session["scnt"] = (int)Session["scnt"] + 1;
        Label2.Text = Session["scnt"].ToString();
        Application["acnt"] = (int)Application["acnt"] + 1;
        Label3.Text = Application["acnt"].ToString();
        /*count++;
        Label1.Text = count.ToString();*/

    }
  }
}
```

Output:

View Variable: 1

Session Variable: 1

Application Variable: 1

Get Data

NAME: SANDESH

2. **QueryString**

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 5c Querystr1.aspx.cs"
Inherits="Pract5.Pract_5c_Querystr1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 68%;
            height: 158px;
        }
        .auto-style2 {
            text-align: center;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <table class="auto-style1">
                <tr>
                    <td colspan="2"> <h2 align ="center"> Query String Example </h2>  </td>
                </tr>
                <tr>
                    <td>
                        <asp:Label ID="Label1" runat="server" Text="UserID"></asp:Label>
                    </td>
                    <td>
                        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td>
                        <asp:Label ID="Label2" runat="server" Text="UserName"></asp:Label>
                    </td>
                    <td>
                        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td class="auto-style2" colspan="2">
                        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Send Data" />
                    </td>
                </tr>
            </table>
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
```

</html>

Code:

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

namespace Pract5
{
    public partial class Pract_5c_Querystr1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            /*Session["userId"] = TextBox1.Text;
            Session["userName"] = TextBox2.Text;*/
            /*Application["userId"] = TextBox1.Text;
            Application["userName"] = TextBox2.Text;*/
            //Response.Redirect("~/Pract 5c Querystr2aspx.aspx");
            Response.Redirect("~/Pract 5c Querystr2aspx.aspx?userId=" +TextBox1.Text + "&userName=" +
TextBox2.Text );
        }
    }
}
```
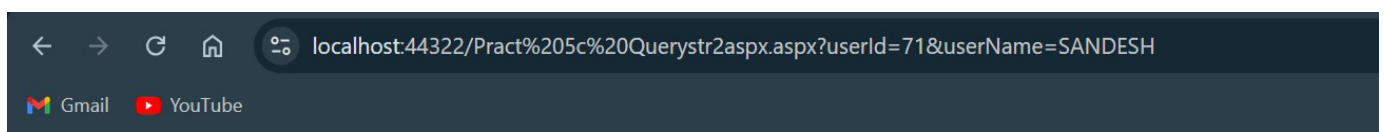
Output:

localhost:44322/Pract%205c%20Querystr1.aspx

M Gmail ▶ YouTube

Query String Example

| UserID | 71 |
| UserName | SANDESH |

Send Data

NAME: SANDESH

localhost:44322/Pract%205c%20Querystr2aspx.aspx?userId=71&userName=SANDESH

M Gmail ▶ YouTube

User ID: **71**
User Name: **SANDESH**

3. Session and Application State

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 5c Session and Application
State.aspx.cs" Inherits="Pract5.Pract_5c_Session_and_Application_State"%>

<!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:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Get Data" />
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:

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

namespace Pract5
{
    public partial class Pract_5c_Session_and_Application_State : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Label1.Text = "";
            Application["OnlineApplicationUsers"] = (int)Application["OnlineApplicationUsers"] + 1;
            Label1.Text = "Aplication Count " + Application["OnlineApplicationUsers"];

            Session["OnlineSessionUsers"] = (int)Session["OnlineSessionUsers"] + 1;
            Label1.Text = Label1.Text + "<br> Session Count " + Session["OnlineSessionUsers"];
        }
    }
}
```

}

Output:

Aplication Count 1
Session Count 1

Get Data

NAME: SANDESH

---

4. **Cookies**

Design:

```aspx
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Practica5cCookies1.aspx.cs" Inherits="Pract5.Practica5cCookies1" %>

<!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="UserName:"></asp:Label>
   
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            User Email:  
            <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:
```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace Pract5
```

```csharp
{
    public partial class Practica5cCookies1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            HttpCookie cookie = new HttpCookie("UserInfo");
            cookie["Name"] = TextBox1.Text;
            cookie["Email"] = TextBox2.Text;
            cookie.Expires = DateTime.Now.AddDays(3);
            //cookie.Expires = DateTime.Now.AddSeconds(100);
            Response.Cookies.Add(cookie);
            Response.Redirect("~/Practica5cCookies2.aspx");
        }
    }
}
```

Output:

UserName:	SANDESH
User Email:	SANDESH@DHAKKAN.CC

Submit

NAME: SANDESH

User Name:	SANDESH
User Email	SANDESH@DHAKKAN.COM

Practical 6a

Aim: Create a web application for inserting and deleting records from a database.

Design & Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="New_Pract_6a.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h2>Inserting and deleting records from a database</h2>
            <asp:DetailsView ID="DetailsView1" runat="server" Height="54px" Width="157px"
AllowPaging="True" AutoGenerateRows="False" BackColor="#DEBA84" BorderColor="#DEBA84"
BorderStyle="None" BorderWidth="1px" CellPadding="3" CellSpacing="2" DataKeyNames="Cust_Id"
DataSourceID="SqlDataSource1">
                <EditRowStyle BackColor="#738A9C" Font-Bold="True" ForeColor="White" />
                <Fields>
                    <asp:BoundField DataField="Cust_Id" HeaderText="Cust_Id" ReadOnly="True"
SortExpression="Cust_Id" />
                    <asp:BoundField DataField="Cust_Name" HeaderText="Cust_Name"
SortExpression="Cust_Name" />
                    <asp:BoundField DataField="State" HeaderText="State" SortExpression="State" />
                    <asp:BoundField DataField="City" HeaderText="City" SortExpression="City" />
                    <asp:CommandField ShowDeleteButton="True" ShowInsertButton="True" />
                </Fields>
                <FooterStyle BackColor="#F7DFB5" ForeColor="#8C4510" />
                <FooterTemplate>
                    Copyright by Ravi Sir
                </FooterTemplate>
                <HeaderStyle BackColor="#A55129" Font-Bold="True" ForeColor="White" />
                <HeaderTemplate>
                    Customer Details:
                </HeaderTemplate>
                <PagerStyle ForeColor="#8C4510" HorizontalAlign="Center" />
                <RowStyle BackColor="#FFF7E7" ForeColor="#8C4510" />
            </asp:DetailsView>
            <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConflictDetection="CompareAllValues"
ConnectionString="<%$ ConnectionStrings:TYConnectionString %>" DeleteCommand="DELETE FROM
[Customer] WHERE [Cust_Id] = @original_Cust_Id AND (([Cust_Name] = @original_Cust_Name) OR
([Cust_Name] IS NULL AND @original_Cust_Name IS NULL)) AND (([State] = @original_State) OR
([State] IS NULL AND @original_State IS NULL)) AND (([City] = @original_City) OR ([City] IS NULL
AND @original_City IS NULL))" InsertCommand="INSERT INTO [Customer] ([Cust_Id], [Cust_Name],
[State], [City]) VALUES (@Cust_Id, @Cust_Name, @State, @City)"
OldValuesParameterFormatString="original_{0}" SelectCommand="SELECT * FROM [Customer]"
UpdateCommand="UPDATE [Customer] SET [Cust_Name] = @Cust_Name, [State] = @State, [City] =
@City WHERE [Cust_Id] = @original_Cust_Id AND (([Cust_Name] = @original_Cust_Name) OR
([Cust_Name] IS NULL AND @original_Cust_Name IS NULL)) AND (([State] = @original_State) OR
([State] IS NULL AND @original_State IS NULL)) AND (([City] = @original_City) OR ([City] IS NULL
AND @original_City IS NULL))">
                <DeleteParameters>
```

```aspx
                <asp:Parameter Name="original_Cust_Id" Type="Int32" />
                <asp:Parameter Name="original_Cust_Name" Type="String" />
                <asp:Parameter Name="original_State" Type="String" />
                <asp:Parameter Name="original_City" Type="String" />
            </DeleteParameters>
            <InsertParameters>
                <asp:Parameter Name="Cust_Id" Type="Int32" />
                <asp:Parameter Name="Cust_Name" Type="String" />
                <asp:Parameter Name="State" Type="String" />
                <asp:Parameter Name="City" Type="String" />
            </InsertParameters>
            <UpdateParameters>
                <asp:Parameter Name="Cust_Name" Type="String" />
                <asp:Parameter Name="State" Type="String" />
                <asp:Parameter Name="City" Type="String" />
                <asp:Parameter Name="original_Cust_Id" Type="Int32" />
                <asp:Parameter Name="original_Cust_Name" Type="String" />
                <asp:Parameter Name="original_State" Type="String" />
                <asp:Parameter Name="original_City" Type="String" />
            </UpdateParameters>
        </asp:SqlDataSource>
        <br />
        <br />
        <asp:FormView ID="FormView1" runat="server" BackColor="#DEBA84"
BorderColor="#DEBA84" BorderStyle="None" BorderWidth="1px" CellPadding="3" CellSpacing="2"
DataKeyNames="Cust_Id" DataSourceID="SqlDataSource1" GridLines="Both">
            <EditItemTemplate>
                Cust_Id:
                <asp:Label ID="Cust_IdLabel1" runat="server" Text='<%# Bind("Cust_Id") %>' />
                <br />
                Cust_Name:
                <asp:TextBox ID="Cust_NameTextBox" runat="server" Text='<%# Bind("Cust_Name") %>'
/>
                <br />
                State:
                <asp:TextBox ID="StateTextBox" runat="server" Text='<%# Bind("State") %>' />
                <br />
                City:
                <asp:TextBox ID="CityTextBox" runat="server" Text='<%# Bind("City") %>' />
                <br />
                <asp:LinkButton ID="UpdateButton" runat="server" CausesValidation="True"
CommandName="Update" Text="Update" />
                 <asp:LinkButton ID="UpdateCancelButton" runat="server" CausesValidation="False"
CommandName="Cancel" Text="Cancel" />
            </EditItemTemplate>
            <EditRowStyle BackColor="#738A9C" Font-Bold="True" ForeColor="White" />
            <FooterStyle BackColor="#F7DFB5" ForeColor="#8C4510" />
            <FooterTemplate>
                Copyright by Ravi Sir
            </FooterTemplate>
            <HeaderStyle BackColor="#A55129" Font-Bold="True" ForeColor="White" />
            <HeaderTemplate>
                Customer Details:
            </HeaderTemplate>
            <InsertItemTemplate>
                Cust_Id:
```

```aspx
                <asp:TextBox ID="Cust_IdTextBox" runat="server" Text='<%# Bind("Cust_Id") %>' />
                <br />
                Cust_Name:
                <asp:TextBox ID="Cust_NameTextBox" runat="server" Text='<%# Bind("Cust_Name") %>' />
                <br />
                State:
                <asp:TextBox ID="StateTextBox" runat="server" Text='<%# Bind("State") %>' />
                <br />
                City:
                <asp:TextBox ID="CityTextBox" runat="server" Text='<%# Bind("City") %>' />
                <br />
                <asp:LinkButton ID="InsertButton" runat="server" CausesValidation="True"
CommandName="Insert" Text="Insert" />
                 <asp:LinkButton ID="InsertCancelButton" runat="server" CausesValidation="False"
CommandName="Cancel" Text="Cancel" />
            </InsertItemTemplate>
            <ItemTemplate>
                Cust_Id:
                <asp:Label ID="Cust_IdLabel" runat="server" Text='<%# Bind("Cust_Id") %>' />
                <br />
                Cust_Name:
                <asp:Label ID="Cust_NameLabel" runat="server" Text='<%# Bind("Cust_Name") %>' />
                <br />
                State:
                <asp:Label ID="StateLabel" runat="server" Text='<%# Bind("State") %>' />
                <br />
                City:
                <asp:Label ID="CityLabel" runat="server" Text='<%# Bind("City") %>' />
                <br />
                <asp:LinkButton ID="EditButton" runat="server" CausesValidation="False"
CommandName="Edit" Text="Edit" />
                 <asp:LinkButton ID="DeleteButton" runat="server" CausesValidation="False"
CommandName="Delete" Text="Delete" />
                 <asp:LinkButton ID="NewButton" runat="server" CausesValidation="False"
CommandName="New" Text="New" />
            </ItemTemplate>
            <PagerStyle ForeColor="#8C4510" HorizontalAlign="Center" />
            <RowStyle BackColor="#FFF7E7" ForeColor="#8C4510" />
        </asp:FormView>
        <br />
        <h4>NAME: SANDESH</h4>
    </div>
  </form>
</body>
</html>
```

Web.config:

```xml
<?xml version="1.0" encoding="utf-8"?>
<!--
  For more information on how to configure your ASP.NET application, please visit
  https://go.microsoft.com/fwlink/?LinkId=169433
  -->
<configuration>
  <connectionStrings>
```

```xml
      <add name="TYConnectionString" connectionString="Server=SAKET;Database=TYDatabase;Integrated Security=True;" providerName="System.Data.SqlClient" />
  </connectionStrings>
  <system.web>
    <compilation debug="true" targetFramework="4.7.2" />
    <httpRuntime targetFramework="4.7.2" />
  </system.web>
  <system.codedom>
    <compilers>
      <compiler language="c#;cs;csharp" extension=".cs" warningLevel="4"
compilerOptions="/langversion:default /nowarn:1659;1699;1701;612;618"
type="Microsoft.CodeDom.Providers.DotNetCompilerPlatform.CSharpCodeProvider,
Microsoft.CodeDom.Providers.DotNetCompilerPlatform, Version=4.1.0.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" />
      <compiler language="vb;vbs;visualbasic;vbscript" extension=".vb" warningLevel="4"
compilerOptions="/langversion:default /nowarn:41008,40000,40008
/define:_MYTYPE=\&quot;Web\&quot; /optionInfer+"
type="Microsoft.CodeDom.Providers.DotNetCompilerPlatform.VBCodeProvider,
Microsoft.CodeDom.Providers.DotNetCompilerPlatform, Version=4.1.0.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" />
    </compilers>
  </system.codedom>
</configuration>
```

Output:

Inserting and deleting records from a database

Customer Details:	
Cust_Id	2
Cust_Name	Sandesh
State	Maharashtra
City	Mumbai
Delete New	
Copyright by Ravi Sir	
1 2 3 4 5 6 7 8 9	

Customer Details:
Cust_Id: 2
Cust_Name: Sandesh
State: Maharashtra
City: Mumbai
Edit Delete New
Copyright by Ravi Sir

NAME: SANDESH

Inserting and deleting records from a database

Customer Details:	
Cust_Id	2
Cust_Name	Sandesh
State	Maharashtra
City	Mumbai
Delete New	
Copyright by Ravi Sir	
1 2 3 4 5 6 7 8 9	

Customer Details:

Cust_Id: 2
Cust_Name: Sandesh
State: Maharashtra
City: Mumbai
Edit Delete New

Copyright by Ravi Sir

NAME: SANDESH

Practical 6b

Aim: Create a web application to display Using Disconnected Data Access and Databinding using GridView

Design:

```aspx
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 6b.aspx.cs"
Inherits="Practical_8.Pract_8c" %>

<!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="Employee Salary &gt;"></asp:Label>
 <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
             
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button" />
            <br />
            <br />
            <asp:Label ID="Label2" runat="server"></asp:Label>
            <br />
            <br />
            <asp:GridView ID="GridView1" runat="server" BorderStyle="Ridge" CellPadding="4"
ForeColor="#333333" GridLines="None">
                <AlternatingRowStyle BackColor="White" ForeColor="#284775" />
                <EditRowStyle BackColor="#999999" />
                <FooterStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#284775" ForeColor="White" HorizontalAlign="Center" />
                <RowStyle BackColor="#F7F6F3" ForeColor="#333333" />
                <SelectedRowStyle BackColor="#E2DED6" Font-Bold="True" ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#E9E7E2" />
                <SortedAscendingHeaderStyle BackColor="#506C8C" />
                <SortedDescendingCellStyle BackColor="#FFFDF8" />
                <SortedDescendingHeaderStyle BackColor="#6F8DAE" />
            </asp:GridView>
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:

```csharp
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;
```

```csharp
using System.Web.Configuration;
using System.Configuration;

namespace Practical_8
{
    public partial class Pract_8c : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            try
            {
                // Debugging - Check if TextBox1 is null
                if (TextBox1 == null)
                {
                    throw new Exception("TextBox1 is null.");
                }

                string connStr = WebConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
                if (string.IsNullOrEmpty(connStr))
                {
                    Label2.Text = "Connection string not found!";
                    return;
                }
                using (SqlConnection con = new SqlConnection(connStr))
                {
                    con.Open();
                    string sql = "SELECT * FROM Employee WHERE Esalary > @Salary";
                    using (SqlCommand cmd = new SqlCommand(sql, con))
                    {
                        decimal salary;
                        if (decimal.TryParse(TextBox1.Text, out salary))
                        {
                            cmd.Parameters.AddWithValue("@Salary", salary);

                            SqlDataAdapter da = new SqlDataAdapter(cmd);
                            DataSet ds = new DataSet();
                            da.Fill(ds);

                            // Debugging - Check if dataset is empty
                            if (ds.Tables.Count == 0 || ds.Tables[0].Rows.Count == 0)
                            {
                                Label2.Text = "No records found.";
                            }
                            else
                            {
                                GridView1.DataSource = ds.Tables[0];
                                GridView1.DataBind();
                            }
                        }
                        else
                        {
```

```
                    Label2.Text = "Please enter a valid salary.";
                }
            }
        }
    }
    catch (Exception ex)
    {
        Label2.Text = "";
        Label2.Text = "Invalid Query ..." + ex.Message;
    }
}

}
}
```

Web.config:

```xml
<?xml version="1.0" encoding="utf-8"?>
<!--
  For more information on how to configure your ASP.NET application, please visit
  https://go.microsoft.com/fwlink/?LinkId=169433
  -->
<configuration>
  <system.web>
    <compilation debug="true" targetFramework="4.7.2" />
    <httpRuntime targetFramework="4.7.2" />
  </system.web>

    <connectionStrings>
        <add name="connStr" connectionString="Data Source=SAKET;Initial
Catalog=EmployeeDB;Integrated Security=True" providerName="System.Data.SqlClient" />
    </connectionStrings>

</configuration>
```

Output:

Employee Salary > [10000]   [Button]

EmployeeId	Name	Esalary
1	Saket	100000.00
2	Sandesh	120000.00
3	Sahil	2000000.00
4	Suraj	10000000.00
5	Deepak	5000000.00
6	Karan	3000000.00

NAME: SANDESH

<div align="center">**Practical 7a**</div>

Aim: Create a web application to demonstrate the use of different types of Cookies.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="CookiesDemo.aspx.cs"
Inherits="New_Pract_7a.CookiesDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <meta charset="utf-8" />
    <title>Cookie Demo</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <h2>Cookie Demonstration</h2>
            <asp:Label ID="lblMessage" runat="server" Text="Cookie Info will appear here." />

            <h3>Create Cookies</h3>
            <label for="cookieValue">Enter Cookie Value:</label>
            <asp:TextBox ID="txtCookieValue" runat="server"></asp:TextBox>
            <br /><br />
            <asp:Button ID="btnCreateSessionCookie" runat="server" Text="Create Session Cookie"
OnClick="btnCreateSessionCookie_Click" />
            <asp:Button ID="btnCreatePersistentCookie" runat="server" Text="Create Persistent Cookie"
OnClick="btnCreatePersistentCookie_Click" />
            <asp:Button ID="btnCreateSecureCookie" runat="server" Text="Create Secure Cookie"
OnClick="btnCreateSecureCookie_Click" />
            <br /><br />

            <h3>Retrieve Cookie</h3>
            <asp:Button ID="btnRetrieveCookie" runat="server" Text="Retrieve Cookie"
OnClick="btnRetrieveCookie_Click" />
            <br /><br />

            <h3>Delete Cookie</h3>
            <asp:Button ID="btnDeleteCookie" runat="server" Text="Delete Cookie"
OnClick="btnDeleteCookie_Click" />
        </div>
    </form>
    <h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:

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

namespace New_Pract_7a
```

```csharp
{
    public partial class CookiesDemo : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            lblMessage.Text = "";
        }

        // Create a session cookie (expires when browser is closed)
        protected void btnCreateSessionCookie_Click(object sender, EventArgs e)
        {
            string cookieValue = txtCookieValue.Text;
            HttpCookie sessionCookie = new HttpCookie("SessionCookie", cookieValue);
            Response.Cookies.Add(sessionCookie);
            lblMessage.Text = "Session Cookie created successfully.";
        }

        // Create a persistent cookie (expires in 30 days)
        protected void btnCreatePersistentCookie_Click(object sender, EventArgs e)
        {
            string cookieValue = txtCookieValue.Text;
            HttpCookie persistentCookie = new HttpCookie("PersistentCookie", cookieValue);
            persistentCookie.Expires = DateTime.Now.AddDays(30); // Set expiration to 30 days
            Response.Cookies.Add(persistentCookie);
            lblMessage.Text = "Persistent Cookie created successfully.";
        }

        // Create a secure cookie (only sent over HTTPS)
        protected void btnCreateSecureCookie_Click(object sender, EventArgs e)
        {
            string cookieValue = txtCookieValue.Text;
            HttpCookie secureCookie = new HttpCookie("SecureCookie", cookieValue);
            secureCookie.Secure = true; // Ensure it's sent only over HTTPS
            Response.Cookies.Add(secureCookie);
            lblMessage.Text = "Secure Cookie created successfully.";
        }

        // Retrieve cookie value
        protected void btnRetrieveCookie_Click(object sender, EventArgs e)
        {
            if (Request.Cookies["SessionCookie"] != null)
            {
                lblMessage.Text = "Session Cookie: " + Request.Cookies["SessionCookie"].Value + "<br/>";
            }

            if (Request.Cookies["PersistentCookie"] != null)
            {
                lblMessage.Text += "Persistent Cookie: " + Request.Cookies["PersistentCookie"].Value +
"<br/>";
            }

            if (Request.Cookies["SecureCookie"] != null)
            {
                lblMessage.Text += "Secure Cookie: " + Request.Cookies["SecureCookie"].Value + "<br/>";
            }
```

```csharp
      if (lblMessage.Text == "")
      {
        lblMessage.Text = "No cookies found.";
      }
    }

  // Delete cookie
  protected void btnDeleteCookie_Click(object sender, EventArgs e)
  {
    if (Request.Cookies["SessionCookie"] != null)
    {
      HttpCookie sessionCookie = new HttpCookie("SessionCookie");
      sessionCookie.Expires = DateTime.Now.AddDays(-1); // Expire the cookie
      Response.Cookies.Add(sessionCookie);
    }

    if (Request.Cookies["PersistentCookie"] != null)
    {
      HttpCookie persistentCookie = new HttpCookie("PersistentCookie");
      persistentCookie.Expires = DateTime.Now.AddDays(-1); // Expire the cookie
      Response.Cookies.Add(persistentCookie);
    }

    if (Request.Cookies["SecureCookie"] != null)
    {
      HttpCookie secureCookie = new HttpCookie("SecureCookie");
      secureCookie.Expires = DateTime.Now.AddDays(-1); // Expire the cookie
      Response.Cookies.Add(secureCookie);
    }

    lblMessage.Text = "All cookies have been deleted.";
  }
}
  }
```

Output:
Session Cookie creation:

Cookie Demonstration

Session Cookie created successfully.

Create Cookies

Enter Cookie Value: [2   ]

[Create Session Cookie] [Create Persistent Cookie] [Create Secure Cookie]

Retrieve Cookie

[Retrieve Cookie]

Delete Cookie

[Delete Cookie]

NAME: SANDESH

Persistent Cookie creation:

Cookie Demonstration

Persistent Cookie created successfully.

Create Cookies

Enter Cookie Value: [1]

[Create Session Cookie] [Create Persistent Cookie] [Create Secure Cookie]

Retrieve Cookie

[Retrieve Cookie]

Delete Cookie

[Delete Cookie]

Secure Cookie creation:

Cookie Demonstration

Secure Cookie created successfully.

Create Cookies

Enter Cookie Value: [1]

[Create Session Cookie] [Create Persistent Cookie] [Create Secure Cookie]

Retrieve Cookie

[Retrieve Cookie]

Delete Cookie

[Delete Cookie]

Retrieving Cookie:

Cookie Demonstration

Session Cookie: 1
Persistent Cookie: 1
Secure Cookie: 1

Create Cookies

Enter Cookie Value: [1]

[Create Session Cookie] [Create Persistent Cookie] [Create Secure Cookie]

Retrieve Cookie

[Retrieve Cookie]

Delete Cookie

[Delete Cookie]

Deleting Cookie:

Cookie Demonstration

All cookies have been deleted.

Create Cookies

Enter Cookie Value: [1]

[Create Session Cookie] [Create Persistent Cookie] [Create Secure Cookie]

Retrieve Cookie

[Retrieve Cookie]

Delete Cookie

[Delete Cookie]

Aim: Create a web application to demonstrate Form Security and Windows Security with proper Authentication and Authorization properties.

Design:

Code:

Output:

Practical 8a

Aim: Create a web application for inserting and deleting records from a database. (Using ExecuteNon Query).

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 8a.aspx.cs"
Inherits="Practical_8.Pract_8a" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 36%;
            height: 111px;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <table class="auto-style1">
                <tr>
                    <td>
                        <asp:Label ID="Label2" runat="server" Text="Employee ID"></asp:Label>
                    </td>
                    <td>
                        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td>
                        <asp:Label ID="Label3" runat="server" Text="Employee Name"></asp:Label>
                    </td>
                    <td>
                        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td>
                        <asp:Label ID="Label4" runat="server" Text="Employee Salary"></asp:Label>
                    </td>
                    <td>
                        <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
                    </td>
                </tr>
                <tr>
                    <td> </td>
                    <td> </td>
                </tr>
                <tr>
```

```
            <td>
                <asp:Button ID="Button1" runat="server" Text="Insert" OnClick="Button1_Click" />
            </td>
            <td> </td>
        </tr>
        <tr>
            <td colspan="2">
                <asp:Label ID="Label5" runat="server"></asp:Label>
            </td>
        </tr>
    </table>
    <asp:SqlDataSource ID="SqlDataSource1" runat="server"
        ConnectionString="<%$ ConnectionStrings:connStr2 %>"
        InsertCommand="INSERT INTO [Employee2] ([Eid], [Ename], [Esalary]) VALUES (@Eid,
@Ename, @Esalary)">
        <InsertParameters>
            <asp:Parameter Name="Eid" Type="Int32" />
            <asp:Parameter Name="Ename" Type="String" />
            <asp:Parameter Name="Esalary" Type="Decimal" />
        </InsertParameters>
    </asp:SqlDataSource>
    <br />
    <asp:Label ID="Label6" runat="server" Text="Select Employee Id:"></asp:Label>
     <asp:DropDownList ID="DropDownList1" runat="server" DataTextField="Eid"
DataValueField="Eid">
    </asp:DropDownList>
    <asp:SqlDataSource ID="SqlDataSource2" runat="server"
        ConnectionString="<%$ ConnectionStrings:connStr2 %>"
        SelectCommand="SELECT Eid FROM Employee2">
    </asp:SqlDataSource>
    <br />
    <br />
    <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Delete" />
    <br />
    <br />
    </div>
</form>
<h4>NAME: SANDESH</h4>
</body>
</html>
```

Code:

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

namespace Practical_8
{
    public partial class Pract_8a : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            // Optional: Bind the DropDownList on first load
            if (!IsPostBack)
            {
```

```csharp
            DropDownList1.DataBind();
        }
    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        // Validate TextBox inputs
        if (string.IsNullOrEmpty(TextBox1.Text) || string.IsNullOrEmpty(TextBox2.Text) ||
string.IsNullOrEmpty(TextBox3.Text))
        {
            Label5.Text = "Please fill all fields.";
            return;
        }

        // Set Insert Parameters
        SqlDataSource1.InsertParameters["Eid"].DefaultValue = TextBox1.Text;
        SqlDataSource1.InsertParameters["Ename"].DefaultValue = TextBox2.Text;
        SqlDataSource1.InsertParameters["Esalary"].DefaultValue = TextBox3.Text;

        // Execute Insert
        try
        {
            SqlDataSource1.Insert();
            Label5.Text = "Record added successfully";


            DropDownList1.DataBind(); // Refresh the DropDownList
        }
        catch (Exception ex)
        {
            Label5.Text = "Error: " + ex.Message;
        }
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        // Validate DropDownList selection
        if (DropDownList1.SelectedValue == "")
        {
            Label5.Text = "Please select an employee to delete.";
            return;
        }

        // Set Delete Command and execute
        try
        {
            SqlDataSource1.DeleteCommand = "DELETE FROM Employee2 WHERE Eid = @Eid";
            SqlDataSource1.DeleteParameters.Clear();
            SqlDataSource1.DeleteParameters.Add("Eid", DropDownList1.SelectedItem.Value);
            SqlDataSource1.Delete();

            Label5.Text = "Record deleted successfully";
            DropDownList1.DataBind(); // Refresh the DropDownList
        }
        catch (Exception ex)
        {
```

```
            Label5.Text = "Error: " + ex.Message;
        }
    }
}
```

Output:

Employee ID   [   ]

Employee Name   [   ]

Employee Salary   [   ]

[Insert]

Record deleted successfully

Select Employee Id: [1 ▾]

[Delete]

NAME: SANDESH

Practical 8b

Aim: Create a web application for user defined exception handling.

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="New_Pract_8_b.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=""></asp:Label>
<br />
<br />
<asp:Label ID="Label2" runat="server" Text=""></asp:Label>
</div>
    </form>

</body>
</html>
```

Code:

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

namespace New_Pract_8_b
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            try
            {
                // Throwing the custom exception
                throw new UserDefinedException("New User Defined Exception");
            }
            catch (UserDefinedException ex) // Catching the custom exception
            {
                Label1.Text = "<b>Exception caught here: </b>" + ex.Message;
            }
            catch (Exception ex) // Catching any other exceptions
            {
                Label1.Text = "<b>Exception caught here: </b>" + ex.ToString();
            }
```

```csharp
            // Final statement
            Label2.Text = "Final Statement that is executed";
        }

        // Custom exception class
        class UserDefinedException : Exception
        {
            public UserDefinedException(string message) : base(message)
            {
                // Optionally log the exception message or perform other actions
            }
        }
    }
}
```

Output:

Exception caught here: New User Defined Exception

Final Statement that is executed

Practical 9a

Aim: Create a web application to demonstrate use of GridView button column and GridView events along with paging and sorting.

Design & Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Pract 9 a.aspx.cs"
Inherits="Practical_8.Pract_9_a" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:GridView ID="GridView1" runat="server" AllowPaging="True"
AutoGenerateColumns="False" CellPadding="4" DataKeyNames="EmployeeId"
DataSourceID="SqlDataSource1" ForeColor="#333333" GridLines="None" Height="283px"
Width="452px">
                <AlternatingRowStyle BackColor="White" ForeColor="#284775" />
                <Columns>
                    <asp:BoundField DataField="EmployeeId" HeaderText="EmployeeId"
SortExpression="EmployeeId" InsertVisible="False" ReadOnly="True" />
                    <asp:BoundField DataField="Name" HeaderText="Name" SortExpression="Name" />
                    <asp:BoundField DataField="Esalary" HeaderText="Esalary" SortExpression="Esalary" />
                </Columns>
                <EditRowStyle BackColor="#999999" />
                <EmptyDataTemplate>
                    No Record Found
                </EmptyDataTemplate>
                <FooterStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#284775" ForeColor="White" HorizontalAlign="Center" />
                <PagerTemplate>
                    Pager Template
                </PagerTemplate>
                <RowStyle BackColor="#F7F6F3" ForeColor="#333333" />
                <SelectedRowStyle BackColor="#E2DED6" Font-Bold="True" ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#E9E7E2" />
                <SortedAscendingHeaderStyle BackColor="#506C8C" />
                <SortedDescendingCellStyle BackColor="#FFFDF8" />
                <SortedDescendingHeaderStyle BackColor="#6F8DAE" />
            </asp:GridView>
            <asp:SqlDataSource ID="SqlDataSource1" runat="server" ConnectionString="<%$
ConnectionStrings:connStr %>" SelectCommand="SELECT * FROM [Employee]"></asp:SqlDataSource>
        </div>
    </form>
</body>
</html>
```

Output:

EmployeeId	Name	Esalary
1	Saket	100000.00
2	Sandesh	120000.00
3	Sahil	2000000.00
4	Suraj	10000000.00
5	Deepak	5000000.00
6	Karan	3000000.00

Practical 9b

Aim: Create a web application to demonstrate data binding using DetailsView and FormView Control

Design:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="PRACT 9 B.aspx.cs"
Inherits="Practical_8.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
  <form id="form1" runat="server">
     <div>
       <!-- DetailsView Control -->
       <asp:DetailsView ID="DetailsView1" runat="server" DataSourceID="SqlDataSource1"
AutoGenerateRows="False" DataKeyNames="EmployeeId">
         <Fields>
           <asp:BoundField DataField="EmployeeId" HeaderText="EmployeeId" InsertVisible="False"
ReadOnly="True" SortExpression="EmployeeId" />
           <asp:BoundField DataField="Name" HeaderText="Name" SortExpression="Name" />
           <asp:BoundField DataField="Esalary" HeaderText="Esalary" SortExpression="Esalary" />
         </Fields>
       </asp:DetailsView>
       <br />


       <!-- FormView Control -->
       <asp:FormView ID="FormView1" runat="server" DataSourceID="SqlDataSource1"
DataKeyNames="EmployeeId" OnItemCommand="FormView1_ItemCommand" >
         <EditItemTemplate>
           EmployeeId:
           <asp:Label ID="EmployeeIdLabel1" runat="server" Text='<%# Eval("EmployeeId") %>' />
           <br />
           Name:
           <asp:TextBox ID="NameTextBox" runat="server" Text='<%# Bind("Name") %>' />
           <br />
           Esalary:
           <asp:TextBox ID="EsalaryTextBox" runat="server" Text='<%# Bind("Esalary") %>' />
           <br />
           <asp:LinkButton ID="UpdateButton" runat="server" CausesValidation="True"
CommandName="Update" Text="Update" />
            <asp:LinkButton ID="UpdateCancelButton" runat="server" CausesValidation="False"
CommandName="Cancel" Text="Cancel" />
         </EditItemTemplate>
         <InsertItemTemplate>
           Name:
           <asp:TextBox ID="NameTextBox" runat="server" Text='<%# Bind("Name") %>' />
           <br />
           Esalary:
           <asp:TextBox ID="EsalaryTextBox" runat="server" Text='<%# Bind("Esalary") %>' />
           <br />
```

```
            <asp:LinkButton ID="InsertButton" runat="server" CausesValidation="True"
CommandName="Insert" Text="Insert" />
             <asp:LinkButton ID="InsertCancelButton" runat="server" CausesValidation="False"
CommandName="Cancel" Text="Cancel" />
        </InsertItemTemplate>
        <ItemTemplate>
            EmployeeId:
            <asp:Label ID="EmployeeIdLabel" runat="server" Text='<%# Eval("EmployeeId") %>' />
            <br />
            Name:
            <asp:Label ID="NameLabel" runat="server" Text='<%# Eval("Name") %>' />
            <br />
            Esalary:
            <asp:Label ID="EsalaryLabel" runat="server" Text='<%# Eval("Esalary") %>' />
            <br />
        </ItemTemplate>
    </asp:FormView>

    <!-- SQL Data Source -->
    <asp:SqlDataSource ID="SqlDataSource1" runat="server"
        ConnectionString="<%$ ConnectionStrings:connStr %>"
        SelectCommand="SELECT * FROM [Employee]">
    </asp:SqlDataSource>
    </div>
    </form>
</body>
</html>
```

Output:

EmployeeId	1
Name	Saket
Esalary	100000.00

EmployeeId: 1
Name: Saket
Esalary: 100000.00

EmployeeId	1
Name	Saket
Esalary	100000.00

EmployeeId: 1
Name: Saket
Esalary: 100000.00

NAME: SAKET

Practical 10a

Aim: Create a web application to demonstrate JS Bootstrap Button.

Design & Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Bootstrap.aspx.cs"
Inherits="Pract10a.Bootstrap" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title>Bootstrap example</title>
<meta charset="utf-8"/>
<meta name="viewport" content="width=device-width, initial-scale=1"/>
<%--<link rel="stylesheet" href= "https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css"/>
<script
    src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js">
</script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js">
</script> --%>
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC"
crossorigin="anonymous"/>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.2/dist/umd/popper.min.js" integrity="sha384-
IQsoLXl5PILFhosVNubq5LC7Qb9DXgDA9i+tQ8Zj3iwWAwPtgFTxbJ8NT4GN1R8p"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.min.js" integrity="sha384-
cVKIPhGWiC2Al4u+LWgxfKTRIcfu0JTxR+EQDz/bgldoEyl4H0zUF0QKbrJ0EcQF"
crossorigin="anonymous"></script>
</head>
<body>
<form id="form1" runat="server">
<div>
<strong>Bootsrap Button Styles in web Page<br />
<br />
</strong>
</div>
<asp:Button ID="Button1" runat="server" CssClass="btn-primary" Text=".btn-primary" />
<asp:Button ID="Button2" runat="server" CssClass="btn-warning" Text=".btn-warning" />
<br />
<br />
<asp:Button ID="Button4" runat="server" CssClass="btn-danger" Text=".btn-danger" Width="112px" />
<br />
<br />
<asp:Button ID="Button5" runat="server" CssClass="btn-primary disabled" Text=",btn-disabled" />
<asp:Button ID="Button6" runat="server" CssClass="btn-primary active" Text=".active" />
<br />
<br />
<asp:Button ID="Button7" runat="server" CssClass="btn-primary btn-lg" Text=".btn-lg" />
```

```
<asp:Button ID="Button8" runat="server" Text=".btn.xs" CssClass="btn-primary btn-xs" />
<br />
<br />
<asp:Button ID="Button9" runat="server" Text=".btn-block" CssClass="btn-primary btn-block" />
</form>
    <h4>NAME: SAKET</h4>
    </body>
     </html>
```

Output:

Bootsrap Button Styles in web Page

NAME: SAKET

Practical 10b

Aim: Create a web application to demonstrate use of various Ajax controls

Design:

```aspx
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="pract 10 B.aspx.cs"
Inherits="Practical_10.pract_10_c" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    </head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:ScriptManager ID="ScriptManager1" runat="server">
            </asp:ScriptManager>
            <br />
            <h1 style="color:blueviolet">From Outside of Update Pannel:</h1>
            <h3>It will refresh the whole page when the button gets pressed.</h3>
            Enter The Name :
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <br />
            <asp:Label ID="Label1" runat="server" Text=""></asp:Label>
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Get Name" />
            <br />
            <br />
            <br />
            <asp:UpdatePanel ID="UpdatePanel1" runat="server">
                <ContentTemplate>
                    <h1 style="color:blueviolet">From Inside of Update Pannel:</h1> <br/>
                    <h3>It will refresh the only sub part of page when the button gets pressed.</h3>
                    Enter The Surname:
                    <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
<br />
                    <asp:Label ID="Label2" runat="server" Text=""></asp:Label>
                    <br />
                    <br />
                    <asp:UpdateProgress ID="UpdateProgress1" runat="server" DisplayAfter="1000"
AssociatedUpdatePanelID="UpdatePanel1">
                        <ProgressTemplate>
                            Please Wait ...
                            <br />
                            <asp:Image ID="Image1" runat="server" ImageUrl="~image" />

                        </ProgressTemplate>
                    </asp:UpdateProgress>
                    <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Get Surname" />
                    <br>
                    </br>
                    <br />
                </ContentTemplate>
```

```
        </asp:UpdatePanel>
        <asp:UpdatePanel ID="UpdatePanel2" runat="server">
            <ContentTemplate>
                Time :
                <asp:Label ID="Label3" runat="server"></asp:Label>
                 <asp:Timer ID="Timer1" runat="server" Interval="10000" OnTick="Timer1_Tick1">
                </asp:Timer>
                <br />
            </ContentTemplate>
        </asp:UpdatePanel>
        <br />
    </div>
    </form>
    <h4>NAME: SAKET</h4>
</body>
</html>
```

Output:

From Outside of Update Pannel:

It will refresh the whole page when the button gets pressed.

Enter The Name : [   ]

[Get Name]

From Inside of Update Pannel:

It will refresh the only sub part of page when the button gets pressed.

Enter The Surname: [   ]

[Get Surname]

Time :

NAME: SAKET

From Outside of Update Pannel:

It will refresh the whole page when the button gets pressed.

Enter The Name : [Saket]

You have Entered Saket

[Get Name]

From Inside of Update Pannel:

It will refresh the only sub part of page when the button gets pressed.

Enter The Surname: [Gupta]
You have Entered Gupta

[Get Surname]

Time : 23:30:44

NAME: SAKET

Practical 10c

Aim:

Design:

Code:

Output:

Aim:

Design:

Code:

Output: