Contents

1. Create a XML document for student database and apply the style sheet effects and display on webpage

Student.xml:

```xml
<?xmlversion="1.0"encoding="UTF-8"?>
<?xml-stylesheettype="text/css"href="StyleSheet.css"?>
<students>
        <heading>Studentdatabase</heading>
        <student>
                <id>RollNo:00009</id>
                <name>Name:SatyamGupta</name>
                <Class>TY-Bsc</Class>
                <division>A</division>
                <Subject>InformationTechnology</Subject>
                <Phone>8433508332</Phone>
                <Address>JuhuKoliwada,HbGawdeMarg,SantacruzWestMum-49</Address>
        </student>

        <student>
                <id>RollNo:00015</id>
                <name>Name:NumanKhan</name>
                <Class>TY-Bsc</Class>
                <division>A</division>
                <Subject>InformationTechnology</Subject>
                <Phone>9667845120</Phone>
                <Address>KharDanda,KharWest,Mum-52</Address>
        </student>

        <student>
                <id>RollNo:00025</id>
                <name>Name:SalmanKhan</name>
                <Class>TY-Bsc</Class>
                <division>A</division>
                <Subject>ComputerScience</Subject>
                <Phone>8433508332</Phone>
                <Address>3, Galaxy Apartments, BJ Road Band Stand, Bandra West, Mumbai, Maharashtra –
400050,India</Address>
        </student>

        <student>
                <id>RollNo:00901</id>
                <name>Name:SangamYadav</name>
                <Class>SY-Bsc</Class>
                <division>A</division>
                <Subject>InformationTechnology</Subject>
                <Phone>841623832</Phone>
                <Address>JuhuKoliwada,HbGawdeMarg,SantacruzWestMum-49</Address>
        </student>

        <student>
                <id>RollNo:001450</id>
                <name>Name:RajuRastogi</name>
                <Class>TY-Bsc</Class>
                <division>A</division>
                <Subject>InformationTechnology</Subject>
                <Phone>8433508332</Phone>
                <Address>MumbaiMaharashtra</Address></student></students>
```

StyleSheet.css

```css
students
{
    font-size:80%;
```

```css
        margin:0.5em;
        font-family:
        Verdana;display:bloc
        k;
    }
student{display:
        block;
        border: 1px solid
        silver;margin:
        0.5em;padding:0.5em;
        background-color:whitesmoke;
    }
heading{display:
        block;
        font-weight:
        bolder;text-align:
        center;font-
        size:30px;
        background-color:
        green;color:white;
    }
id {
        font-family: 'Cascadia
        Code';font-size:30px;
        font-weight:bold;
    }
name, Class, division, Subject,Phone,Address
        {display:block
    }
```

2. Create a simple web page containing the student details (Roll No, Name, Class, Phone, Email). Write a program to store the data in the database and retrieve it using Data reader in tabular format.

Codes:

Deafult.aspx

```aspx
<%@PageLanguage="C#"AutoEventWireup="true"CodeFile="Default.aspx.cs"Inherits="_Default"%>
<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <table>
                <tr><td>RollNo</td><td>
                    <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>
                    </td></tr>
                <tr><td>Name</td><td>
                    <asp:TextBoxID="TextBox2"runat="server"></asp:TextBox>
                    </td></tr>
                <tr><td>Class</td><td>
                    <asp:TextBoxID="TextBox3"runat="server"></asp:TextBox>
                    </td></tr>
                <tr><td>Phone</td><td>
                    <asp:TextBoxID="TextBox4"runat="server"></asp:TextBox>
                    </td></tr>
                <tr><td>Email</td><td>
                    <asp:TextBoxID="TextBox5"runat="server"></asp:TextBox>
                    </td></tr>
                <tr><td>
                    <asp:ButtonID="Button1"runat="server"Text="Submit"OnClick="Button1_Click"/>
                    </td><td>
                    <asp:ButtonID="Button2"runat="server"Text="Retreive"OnClick="Button2_Click"/>
                    </td></tr>
            </table>
        </div>
        <p><asp:LabelID="Label1"runat="server"Text="Label"></asp:Label></p>
    </form>
</body>
</html>
```

Default.aspx.cs

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

```csharp
using
System.Linq;using
System.Web;usingSyst
em.Web.UI;
using
System.Web.UI.WebControls;using
System.Data.SqlClient;
usingSystem.Linq.Expressions;

publicpartialclass_Default:System.Web.UI.Page
{
    SqlConnectioncon
=newSqlConnection("DataSource=(LocalDB)\\MSSQLLocalDB;AttachDbFilename=C:\\Users\\Admin\\OneDrive\\Documents\\"+
        "Practical2.mdf;Integrated Security=True;Connect
    Timeout=30");protected voidPage_Load(objectsender, EventArgse)
    {

    }

    protectedvoidButton1_Click(objectsender,EventArgse)
    {
        try{
            stringInsertQuery= "insertintop2values("+TextBox1.Text+",'"+ TextBox2.Text+"','"+TextBox3.Text
+ "','" + TextBox4.Text + "','" + TextBox5.Text + "')
            ";SqlCommandcmd=newSqlCommand(InsertQuery,
            con);con.Open();
            cmd.ExecuteNonQuery();//UseforinsertupdateanddeleteOnly(*Required)

        }
        catch(ExceptionE)
        {
            Response.Write(E.Message);
        }
        finally
        {
            if(con.State==System.Data.ConnectionState.Closed)
            {

            }
            else
            {
                con.Close();
            }
        }

    }

    protectedvoidButton2_Click(objectsender,EventArgse)
    {
        try
        {
            stringSELECTQuery="Select*fromp2";
            SqlCommandcmd=newSqlCommand(SELECTQuery,con);con.Open()
            ;
            SqlDataReadersdr=cmd.ExecuteReader();strin
            gtbl="<table>";
            if(sdr.HasRows)
            {
                while(sdr.Read())
                {
                    tbl+="<tr><td>"+sdr[0]+"</td><td>"+sdr[1]+"</td><td>"+sdr[2]+"</td><td>"+sdr[4]
+"</td></tr>";
                }
            }
            tbl+="</table>";
```

```csharp
        Label1.Text=tbl;

    }
    catch(ExceptionE)
    {
        Response.Write(E.Message);
    }
    finally
    {
        if(con.State==System.Data.ConnectionState.Closed)
        {

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

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

1. Onclick of a button control display the selected items from the listbox in atextbox. Also in the same webpage display the name of the selected item from theDropDownList1 in a label. Also change the font size of the same label according to the fonts size selected from the Dropdownlist2.

Design:

Default.aspx

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <asp:ListBoxID="ListBox1"runat="server">
                <asp:ListItem>Satyam</asp:ListItem>
                <asp:ListItem>Shivam</asp:ListItem>
                <asp:ListItem>Sundaram</asp:ListItem>
                <asp:ListItem>Sattie</asp:ListItem>
                <asp:ListItem>Sattu</asp:ListItem>
            </asp:ListBox>
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button"
/>       
            <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>
            <br/>
            <br/>
            <br/>
            <asp:DropDownList ID="DropDownList1" runat="server"
AutoPostBack="True"OnSelectedIndexChanged="DropDownList1_SelectedIndexChang
ed">
                <asp:ListItem>Satyam</asp:ListItem>
                <asp:ListItem>Shivam</asp:ListItem>
                <asp:ListItem>Sundaram</asp:ListItem>
                <asp:ListItem>Sattie</asp:ListItem>
                <asp:ListItem>Sattu</asp:ListItem>
            </asp:DropDownList>
```

```
        <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>
        <asp:DropDownList ID="DropDownList2" runat="server"
AutoPostBack="True"OnSelectedIndexChanged="DropDownList2_SelectedIndexChang
ed">
            <asp:ListItem>10</asp:ListItem>
            <asp:ListItem>20</asp:ListItem>
            <asp:ListItem>30</asp:ListItem>
            <asp:ListItem>40</asp:ListItem>
            <asp:ListItem>45</asp:ListItem>
        </asp:DropDownList>
    </div>
  </form>
</body>
</html>Default
.aspx.cs

usingSystem;
using
System.Collections.Generic;using
System.Linq;
using
System.Web;usingSyst
em.Web.UI;
usingSystem.Web.UI.WebControls;

publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {

    }

    protectedvoidButton1_Click(objectsender,EventArgse)
    {
        TextBox1.Text=ListBox1.SelectedValue.ToString();
    }

    protectedvoidDropDownList1_SelectedIndexChanged(objectsender,EventArgse)
    {
        Label1.Text=DropDownList1.SelectedValue.ToString();
    }

    protectedvoidDropDownList2_SelectedIndexChanged(objectsender,EventArgse)
    {
        Label1.Font.Size=Convert.ToInt32(DropDownList2.SelectedValue);
    }
}
```

2. playImagecontrolforphoto.
Design:
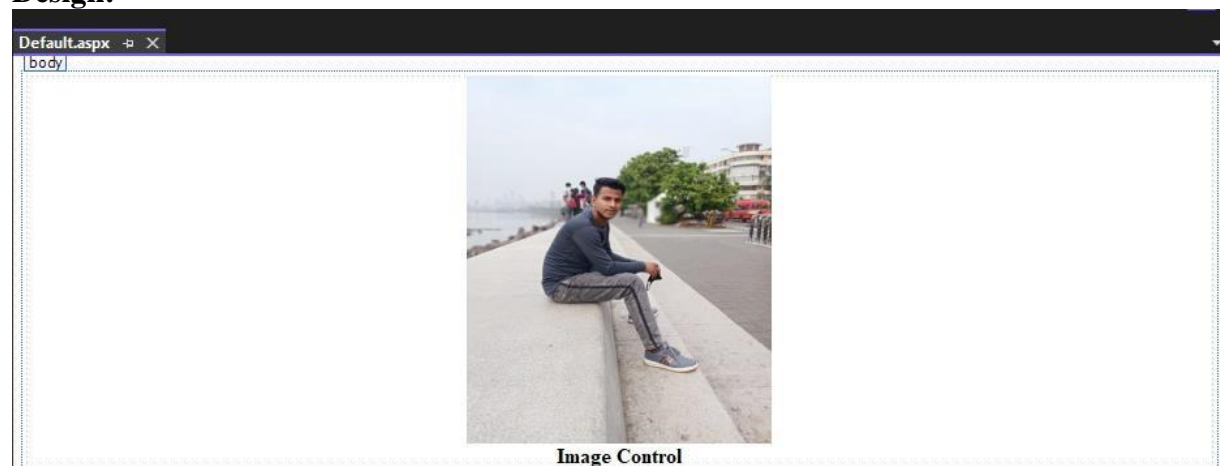
Deafault.aspx
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeFile="Default.aspx.cs"Inherits="_Default"%>
```

```
<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
   <title></title>
   <styletype="text/css">
      .auto-style1{
         text-align:center;
      }
   </style>
</head>
<body>
   <formid="form1"runat="server">
      <divclass="auto-style1">
         <asp:Image ID="Image1" runat="server" Height="282px" ImageUrl="~/IMG-20220324-
WA0008.jpg"Width="234px"/>
         <br/>
         <strong>ImageControl</strong></div>
   </form>
</body>
</html>
```

3. CheckBoxesprovidesspecialformatting(viz.underline, bold,italic)andRadio Buttons provides color for label. 4. Use of AutoPostBack property.Design:
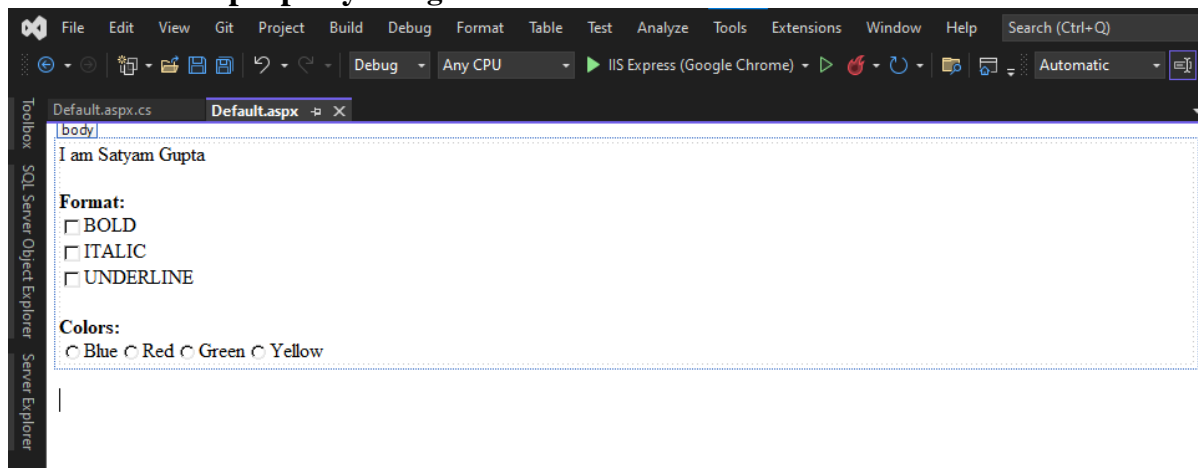
Defualt.aspx

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
   <title></title>
</head>
<body>
   <formid="form1"runat="server">
      <asp:LabelID="Label1"runat="server"Text="IamSatyamGupta"></asp:Label>
      <br/>
      <br/>
      <strong>Format:</strong><br/>
      <asp:CheckBox ID="CheckBox1" runat="server"
AutoPostBack="True"OnCheckedChanged="CheckBox1_CheckedChanged"
Text="BOLD"/>
      <br />
      <asp:CheckBox ID="CheckBox3" runat="server"
AutoPostBack="True"OnCheckedChanged="CheckBox3_CheckedChanged"
Text="ITALIC"/>
      <br />
      <asp:CheckBox ID="CheckBox2" runat="server"
```

```
AutoPostBack="True"OnCheckedChanged="CheckBox2_CheckedChanged"Text="UNDERLINE"/>
    <strong>
    <br/>
    <br/>
    Colors:</strong>
    <br />
    <asp:RadioButton ID="RadioButton1" runat="server" AutoPostBack="True"
GroupName="Color"OnCheckedChanged="RadioButton1_CheckedChanged"Text="Blue"/>
    <asp:RadioButton ID="RadioButton2" runat="server" AutoPostBack="True"
GroupName="Color"OnCheckedChanged="RadioButton2_CheckedChanged"Text="Red"/>
    <asp:RadioButton ID="RadioButton3" runat="server" AutoPostBack="True"
GroupName="Color"OnCheckedChanged="RadioButton3_CheckedChanged"Text="Green"/>
    <asp:RadioButton ID="RadioButton4" runat="server" AutoPostBack="True"
GroupName="Color"OnCheckedChanged="RadioButton4_CheckedChanged"Text="Yellow"/>
   </form>
</body>
</html>
```

Default.aspx.cs

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

publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {

    }
    protectedvoidCheckBox1_CheckedChanged(objectsender,EventArgse)
    {
        if(CheckBox1.Checked)
        {
            Label1.Font.Bold=true;
        }
        else
        {
            Label1.Font.Bold=false;
        }
    }
    protectedvoidCheckBox3_CheckedChanged(objectsender,EventArgse)
    {
        if(CheckBox3.Checked)
        {
            Label1.Font.Italic=true;
        }
        else
        {
            Label1.Font.Italic=false;
        }
    }
    protectedvoidCheckBox2_CheckedChanged(objectsender,EventArgse)
    {
        if(CheckBox2.Checked)
        {
            Label1.Font.Underline=true;
        }
        else
        {Label1.Font.Underline= false;}
    }
    protectedvoidRadioButton1_CheckedChanged(objectsender,EventArgse)
    {
        Label1.ForeColor=System.Drawing.Color.Blue;
    }
```

```csharp
protected void RadioButton2_CheckedChanged(object sender, EventArgs e)
{
    Label1.ForeColor = System.Drawing.Color.Red;
}
protected void RadioButton3_CheckedChanged(object sender, EventArgs e)
{
    Label1.ForeColor = System.Drawing.Color.Green;
}

protected void RadioButton4_CheckedChanged(object sender, EventArgs e)
{
    Label1.ForeColor = System.Drawing.Color.Yellow;
}}
```

4. Createasimplewebpagetocountthenumberoftimesthecurrentwebpage issubmittedtotheserver onclickeventofaButton.

Design:

Default.aspx

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
         TotalCounts:
            <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>

            <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="Button"/>
        </div>
    </form>
</body>
</html>**Default.a**

spx.csusing
System;
publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {

    }
    protectedvoidButton1_Click(objectsender,EventArgse)
    {
        //In thismethod onlythecountwillbedifferentin differenttabsofthesamewebpage
        //ViewState["a"]=Convert.ToInt32(ViewState["a"])+1;
        //Label1.Text=ViewState["a"].ToString();

        Application["a"] = Convert.ToInt32(Application["a"]) +
        1;Label1.Text=Application["a"].ToString();

    }}

5. Createsimpleapplicationtoperformfollowingoperations

i. FindingfactorialValue

ii. MoneyConversion

iii. Cubeofgivennumber

iv. GenerateFibonacciseries

Codes:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:center;
        }
        .auto-style2
            {color:#0099CC
            ;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <divclass="auto-style1">
            <h1><spanclass="auto-style2"><strong>CodeBySatyam09</strong></span></h1>
            <br/>
            <asp:TextBoxID="TextBox1"runat="server"Width="164px"></asp:TextBox>
            <asp:DropDownList ID="DropDownList1" runat="server"
AutoPostBack="True"OnSelectedIndexChanged="DropDownList1_SelectedIndexChang
ed">
                <asp:ListItemValue="1">Factorial</asp:ListItem>
                <asp:ListItemValue="2">RStoUSD</asp:ListItem>
                <asp:ListItemValue="3">Cube</asp:ListItem>
                <asp:ListItemValue="4">Fibonacci</asp:ListItem>
            </asp:DropDownList>
            <br/>
            <br/>
            <br/>
            <h2>
                <asp:LabelID="Label1"runat="server"Text="Result"></asp:Label>
            </h2>
        </div>
    </form>
</body>
</html>
```

C# Code:

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

publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {
```

```csharp
        }
        protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
        {
            if (DropDownList1.SelectedValue == "1")
            {
                Label1.Text = Factorail(Convert.ToInt32(TextBox1.Text));
            }
            else if (DropDownList1.SelectedValue == "2")
            {
                Label1.Text = Money(Convert.ToDouble(TextBox1.Text));
            }
            else if (DropDownList1.SelectedValue == "3")
            {
                Label1.Text = Cube(Convert.ToInt32(TextBox1.Text));
            }
            else if (DropDownList1.SelectedValue == "4")
            {
                Label1.Text = Fibonacci(Convert.ToInt32(TextBox1.Text));
            }

        }
        public string Factorail(int num)
        {
            int fact = 1;
            for (int i = 1; i < num; i++)
            {
                fact *= i;
            }
            return fact.ToString();
        }

        public string Money(double n)
        {
            double d = n /
            82.31; return d.ToStri
            ng();
        }

        public string Cube(double n)
        {

            return (n*n*n).ToString();
        }

        public string Fibonacci(int n)
        {
            int n1 = 0, n2 =
            1; int n3;
            string fs = "";
            fs = n1 + "" + n2 + "";
            for (int i = 2; i < n; ++i)
            {
                n3 = n1 +
                n2; fs += n3 + "";
                n1 = n2;
                n2 = n3;
            }
            return fs;
        }
}
```

6. DemonstratetheuseofCalendarcontroltoperformfollowingoperations.

a) Displaymessagesinacalendarcontrol

b) Displayvacationina calendar control

c) Selecteddayinacalendarcontrolusingstyle

d) Differencebetweentwocalendardates

Codes:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:center;
        }
        .auto-style2{
            text-align:center;
        }
        .auto-style3
            {color:#339933;
            text-decoration:underline;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <divclass="auto-style2">
            <asp:Calendar ID="Calendar1" runat="server" BackColor="White" BorderColor="Black" Font-
Names="Verdana" Font-Size="9pt" ForeColor="Black" Height="250px"
OnDayRender="Calendar1_DayRender"OnSelectionChanged="Calendar1_SelectionChanged" Width="330px"
BorderStyle="Solid" CellSpacing="1"CssClass="auto-style1"NextPrevFormat="ShortMonth">
                <DayHeaderStyleFont-Bold="True"Height="8pt"Font-Size="8pt"ForeColor="#333333"/>
                <DayStyleBackColor="#CCCCCC"/>
                <NextPrevStyleFont-Size="8pt"ForeColor="White"Font-Bold="True"/>
                <OtherMonthDayStyleForeColor="#999999"/>
                <SelectedDayStyleBackColor="#333399"ForeColor="White"/>

                <TitleStyle BackColor="#333399" Font-Bold="True" Font-Size="12pt"
ForeColor="White"BorderStyle="Solid"Height="12pt"/>
                <TodayDayStyleBackColor="#999999"ForeColor="White"/>
            </asp:Calendar>
            <asp:Calendar ID="Calendar2" runat="server" BackColor="White"
BorderColor="White"BorderWidth="1px" Font-Names="Verdana" Font-Size="9pt" ForeColor="Black"
Height="190px" Width="350px"NextPrevFormat="FullMonth">
                <DayHeaderStyleFont-Bold="True"Font-Size="8pt"/>
                <NextPrevStyleFont-Size="8pt"ForeColor="#333333"Font-Bold="True"VerticalAlign="Bottom"/>
                <OtherMonthDayStyleForeColor="#999999"/>
                <SelectedDayStyleBackColor="#333399"ForeColor="White"/>
                <TitleStyle BackColor="White" BorderColor="Black" BorderWidth="4px" Font-Bold="True" Font-
Size="12pt"ForeColor="#333399"/>
                <TodayDayStyleBackColor="#CCCCCC"/>
            </asp:Calendar>
            <asp:Label ID="Label1" runat="server"
Text="Label"></asp:Label>     &nbs
p; 
            <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="Button"/>
            <strong>
            <brclass="auto-style3"/>
            <h1><spanclass="auto-style3">Satyam09</span></h1>
            </strong>
            <br/>
            <br/>
```

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

C# Code:

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

public partial class _Default:System.Web.UI.Page
{
    protected void Page_Load(object sender,EventArgs e)
    {
    }
    protected void Calendar1_DayRender(object sender,DayRenderEventArgs e)
    {
        if(e.Day.Date.Year==2022&&e.Day.Date.Month ==10&&e.Day.Date.Day==5)
        {
            Label l1 = new
            Label();l1.Text="<br>ga
            npati";e.Cell.Controls.Ad
            d(l1);
        }

        if(e.Day.Date.Year==2022&&e.Day.Date.Month==10&& e.Day.Date.Day==15)
        {
            Labell1=newLabel();l1.Text="
            <br>TYITPrelims";e.Cell.Cont
            rols.Add(l1);
        }
    }

    protected void Calendar1_SelectionChanged(object sender,EventArgs e)
    {
        Calendar1.SelectedDayStyle.BackColor =System.Drawing.Color.Red;

        Calendar1.SelectedDayStyle.ForeColor=System.Drawing.Color.Yellow;
    }

    protected void Button1_Click(object sender,EventArgs e)
    {
        TimeSpan ts = Calendar1.SelectedDate -
        Calendar2.SelectedDate;Label1.Text=ts.TotalDays.ToString();
    }
}
```

7. Create Web Form to demonstrate use of User Control. Create

footernamed user control having copyright reserved (ex. "©company name") anduseitinawebpage.

footer.ascx

```
<%@ControlLanguage="C#"AutoEventWireup="true"CodeFile="Footer.ascx.cs"Inherits="Footer"%>
<div style="font-family: 'Arial Black'; font-size: xx-large; font-weight: 200; font-style: normal; font-variant: small-caps; text-transform: uppercase; color: #FF0000; line-height: inherit; vertical-align: middle; text-align: justify; text-indent: inherit; white-space: pre; word-spacing: inherit; letter-spacing: inherit; background-color: #00FFFF;background-image: inherit; background-repeat: repeat-x; background-attachment: scroll; background-position: centercenter; border: thick double #008000; padding: inherit; margin: inherit; position: fixed; z-index: inherit; width: inherit;height: inherit; visibility: visible; display: table-column; float: none; clear: both; cursor: move; table-layout: fixed">@CopyrightSatyam.com
</div>
```

Default.aspx:

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

<%@Registersrc="Footer.ascx"tagname="Footer"tagprefix="uc1"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
   <title></title>
   <styletype="text/css">
      .auto-style1{
         text-align:
         center;color:#336
         6FF;
      }
   </style>
</head>
<body>
   <formid="form1"runat="server">
      <divclass="auto-style1">
         <h1><strong>SatyamGupta</strong></h1>
      </div>
      <uc1:FooterID="Footer1"runat="server"/>
   </form>
</body>
</html>
```

8. CreateWebFormtodemonstrateuseofAdrotatorControlwithfiveadvertisements. Alsodemonstratehowkeywordfilter works.

Design:

Code:

```
<body>
   <formid="form1"runat="server">
      <divclass="auto-style1">
         <h1style="text-align:center">ADRotator</h1>
         <h4>
         <asp:AdRotatorAdvertisementFile="~/XMLFile.xml"ID="AdRotator1"runat="server"Target="_blank"/>
            <br/>
            <br/>
            <br/>
            BySatyamGupta09</h4>
      </div>
   </form>
</body>
```

Web.xml

```
<?xmlversion="1.0"encoding="utf-8"?>
<Advertisements>
        <Ad>
                <ImageUrl>~/Pic/TMKOC.jpg</ImageUrl>
                <Height>300px</Height>
                <Width>550px</Width>

                <NavigateUrl>https://www.youtube.com/c/TaarakMehtaKaOoltahChashmah</NavigateUrl>
                <AlternateText>
                        TarakMehta kaOolta Chashma
                </AlternateText>
                <Impressions>20</Impressions>
                <Keyword>FamilyShow</Keyword>
        </Ad>

        <Ad>
                <ImageUrl>~/Pic/the-kapil-sharma-show.jpg</ImageUrl>
                <Height>300px</Height>
                <Width>550px</Width>
                <NavigateUrl>https://www.youtube.com/c/KapilSharmaK9</NavigateUrl>
                <AlternateText>Watchtheshow</AlternateText>
                <Impressions>15</Impressions>
                <Keyword>ComedyShow</Keyword>
        </Ad>
```

</Advertisements>

9. Create XML file employees with nodes (eid, ename, edept, salary). Bindtheeidandenametoadropdownlistandtheenameshouldbein theascendingorder.

SourceCode:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:center;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <divclass="auto-style1">
            <asp:DropDownListID="DropDownList1"runat="server">
            </asp:DropDownList>
            <br/>
            <br/>
            RollNo:09
        </div>
    </form>
</body>
</html>
```

CsCode:

```
usingSystem;
using
System.Collections.Generic;using
System.Linq;
using
System.Web;usingSyst
em.Web.UI;
using
System.Web.UI.WebControls;using
System.Data;
publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {
        DataSet ds = new
        DataSet();ds.ReadXml("C:\\Users\\Admin\\source\\repos\\P9\\P9\\XMLF
        ile.xml");ds.Tables[0].DefaultView.Sort = "ename";// For Ascending
        OrderDropDownList1.DataSource=ds.Tables[0];DropDownList1.DataT
        extField = "ename";DropDownList1.DataValueField =
        "eid";DropDownList1.DataBind();
    }
```

10. Create simple web page that takes a number as input and display it four times in a row (separated by blank spaces), and then four times in the next row, with no separation. Like-

Enter a digit: 22 Ex

pected Output:

2222 22 22

22222222

2222 22 22

22222222

Codes:

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

<!DOCTYPE html>

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

        Enter a digit:       
        <asp:TextBox ID="TextBox1" runat="server"
AutoPostBack="True" OnTextChanged="TextBox1_TextChanged"></asp:TextBox>
        <br/>
        <br/>
        <br/>
        <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>

    </div>
    </form>
    <p>
        @SatyamGupta09</p>
</body>
</html>
```
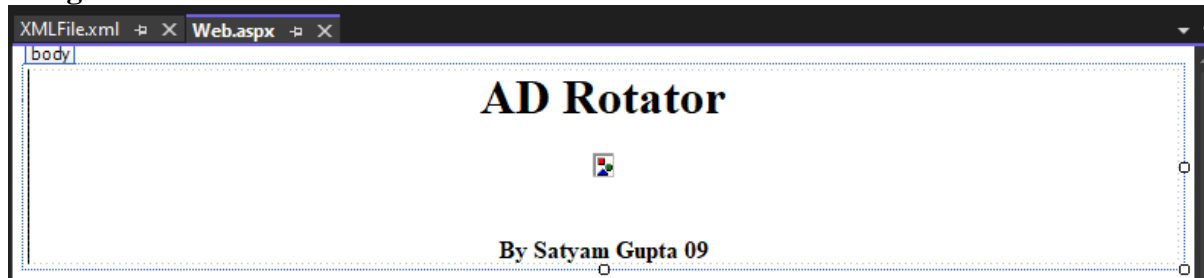
CS codes:

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

public partial class Default2 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void TextBox1_TextChanged(object sender, EventArgs e)
    {
        Label1.Text="";
        int number=Convert.ToInt32(TextBox1.Text);for(
        int i=0;i<4;++i)
```

```csharp
{
    if(i%2 ==0)
    {
        for(int j=0;j<4;++j)
        {
            Label1.Text+=number.ToString();
        }
        Label1.Text +=
        "<br>";if(i%2==0)
        {
            for(int j=0;j<4;++j)
            {
                Label1.Text+=number.ToString()+"";
            }
            Label1.Text+="<br>";
        }
    }
}
}
```

11. Create a simple web page to display the Date properties (year, month,day,hour,minute,second,millisecondetc.)aswellastodisplaythenumbe rofdaysoftheyearbetweentwospecifiedyears.

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            font-size:xx-large;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <div class="auto-
        style1">SatyamGupta0
        9<br/>
        <br/>
        <br/>
        <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="Button"/>
        <br/>
        <br/>
        NumberofDays:
        <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>
    </div>
    </form>
</body>
</html>


usingSystem;
using
System.Collections.Generic;using
System.Linq;
using
System.Web;usingSyst
em.Web.UI;
usingSystem.Web.UI.WebControls;

publicpartialclassDefault3 :System.Web.UI.Page
{
```

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

}

protected void Button1_Click(object sender, EventArgs e)
{
    DateTime date =
    DateTime.Now;Response.Write(date+"<br>");Re
    sponse.Write(date.Year+"<br>");Response.Write(
    date.Month+"<br>");Response.Write(date.Day+"
    <br>");Response.Write(date.Hour+"<br>");Resp
    onse.Write(date.Minute+
    "<br>");Response.Write(date.Second+
    "<br>");Response.Write(date.Millisecond+"<br>"
    );

    DateTime dt1=new DateTime(2002,05,02);
    DateTime dt2= new DateTime(2022,10,16);

    TimeSpan ts=dt2-dt1;
    Label1.Text=ts.TotalDays.ToString();
}
}
```

12. Create a web page containing the student details (RollNo, Name, Class,Phone,Email)andshowresultusingDatabindinganddropdownlistcontrol.
Codes:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1
            {width:100%;
        }
        .auto-style2{
            text-align:
            justify;color:#660
            066;
        }
        .auto-style3{
            text-align:center;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <tableclass="auto-style1">
                <tr>
                    <td>
                        <h1class="auto-style2">SatyamGupta  09</h1>
                        <pclass="auto-
                            style2"> </p>
                        <pclass="auto-
                            style2"> </p>
                    </td>
                </tr>
                <tr>
                    <td>
                        <asp:DropDownListID="DropDownList1"runat="server"CssClass="auto-style3">
                        </asp:DropDownList>
                    </td>
                </tr>
            </table>
        </div>
    </form>
</body>
</html>
```

CScode:

```
usingSystem;
using
System.Collections.Generic;using
System.Linq;
using
System.Web;usingSyst
em.Web.UI;
using
System.Web.UI.WebControls;using
System.Data;
usingSystem.Activities.Expressions;

publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {
        if(!this.IsPostBack)
        {
```

```
List<string> list = new
List<string>();list.Add("09");
list.Add("Satyam
Gupta");list.Add("TYIT")
;list.Add("8433508332");
list.Add("Sg80412111@gmail.com");

DropDownList1.DataSource =
list;DropDownList1.DataBind();
        }
    }
}
```

14. Create a simple web page to demonstrate all string operations.

Codes:

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

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
        <br/>
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button"/>
    </div>

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

CS Code:

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

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

    }
    protected void Button1_Click(object sender,EventArgs e)
    {
        string st =
        TextBox1.Text;Response.Write(st.ToUpper() +
        "<br>");Response.Write(st.ToLower() +
        "<br>");Response.Write(st.Substring(0, 5) +
        "<br>");Response.Write(st.StartsWith("Sat")
        +"<br>");Response.Write(st.IndexOf("yam") +
        "<br>");Response.Write(st.Insert(1,"x")+"<br>");
    }
}
```

15. Designanasp.netwebpagewith2groupsofRadioButtons,DropDownList,labelandTextBoxtoperformthefollowingoperations:-Onclick of Radio Buttons each at the same time from two different groups,change the font-size and font-face of the label's Text. Also on the samewebpage show that, on selecting a country name from the dropdown list, itsrespectivecountry codegetsdisplayed in a textbox

Design:

Codes:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
   <title></title>
   <styletype="text/css">
      .auto-style1{
         text-align:center;
      }
      .auto-style2{}
   </style>
</head>
<body>
   <formid="form1"runat="server">
      <divclass="auto-style1">

         <h1>SatyamGupta09</h1>
         <p>
            <asp:RadioButton ID="RadioButton1" runat="server" GroupName="Font-
Size"OnCheckedChanged="RadioButton1_CheckedChanged"Text="Bahnschrift"/>
 <asp:RadioButton ID="RadioButton2" runat="server" GroupName="Font-Size" Text="Cambria Math"
/> <asp:RadioButtonID="RadioButton3"runat="server"GroupName="Font-Size"Text="Symbol"/>
         </p>
         <p>
            <asp:RadioButton ID="RadioButton4" runat="server" GroupName="Font-
Face"OnCheckedChanged="fontchanged"Text="10"/>
            <asp:RadioButton ID="RadioButton5" runat="server" GroupName="Font-
Face"OnCheckedChanged="fontchanged"Text="20"/>
            <asp:RadioButton ID="RadioButton6" runat="server" GroupName="Font-
Face"OnCheckedChanged="fontchanged"Text="30"/>
         </p>
         <p>
            <asp:LabelID="Label1"runat="server"Text="SatyamGupta"></asp:Label>
         </p>
         <p>
            <asp:DropDownList ID="DropDownList1" runat="server" CssClass="auto-style2"
Height="26px"Width="91px"AutoPostBack="True"OnSelectedIndexChanged="DropDownList1_SelectedIndexChan
ged">
               <asp:ListItem>India</asp:ListItem>
               <asp:ListItem>Nepal</asp:ListItem>
               <asp:ListItem>Pakistan</asp:ListItem>
               <asp:ListItem>SaudiaArbia</asp:ListItem>
            </asp:DropDownList>

                 &
nbsp;        
            <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>
         </p>
         <p>
             </p>
      </div>
   </form>
</body>
</html>
```

Cscode:

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

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

    }
    protected void RadioButton1_CheckedChanged(object sender, EventArgs e)
    {
        Label1.Font.Name = ((RadioButton)sender).Text;
    }


    protected void fontchanged(object sender, EventArgs e)
    {
        Label1.Font.Size = Convert.ToInt32(((RadioButton)sender).Text);
    }

    protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
    {
        if (DropDownList1.SelectedValue == "India")
        {
            TextBox1.Text = "+91";
        } }}
```

Create a delegate del1. Create display1() and display2() static methods.Create a simple application to call these two methods by the through thedelegate.

Codes:

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

<!DOCTYPE html>

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

cscode:

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

public partial class Default2 : System.Web.UI.Page
{
```
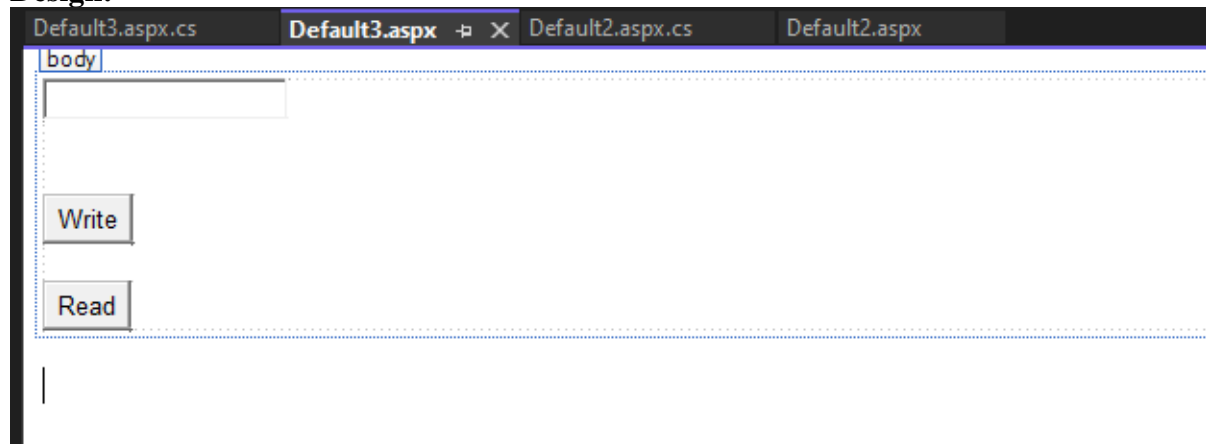
```csharp
delegate string del();
protected void Page_Load(object sender, EventArgs e)
{
    del d1 = new del(display1); del d
    2 = new del(display2); Respons
    e.Write(d1()); Response.Write
    (d2());
}
public static string display1()
{
    return "display1";
}
public static string display2()
{
    return "display2";
}
}
```

Create a simple web page to show how to write and read a cookie from a client's computer.

Design:

Codes:

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

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br/>
            <br/>
            <br/>
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Write"/>
            <br/>
            <br/>
            <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Read"/>
        </div>
    </form>
</body>
</html>
```

CsCode:

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

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

public partial class Default3 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        HttpCookie cook1 = new HttpCookie("user1", TextBox1.Text);

        Response.Cookies.Add(cook1);
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        TextBox1.Text = Response.Cookies["user1"].Value;
    }
}
```
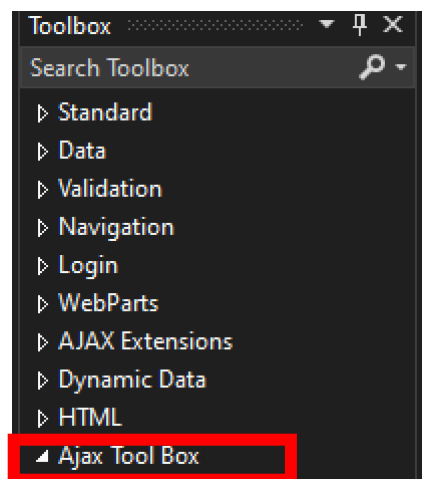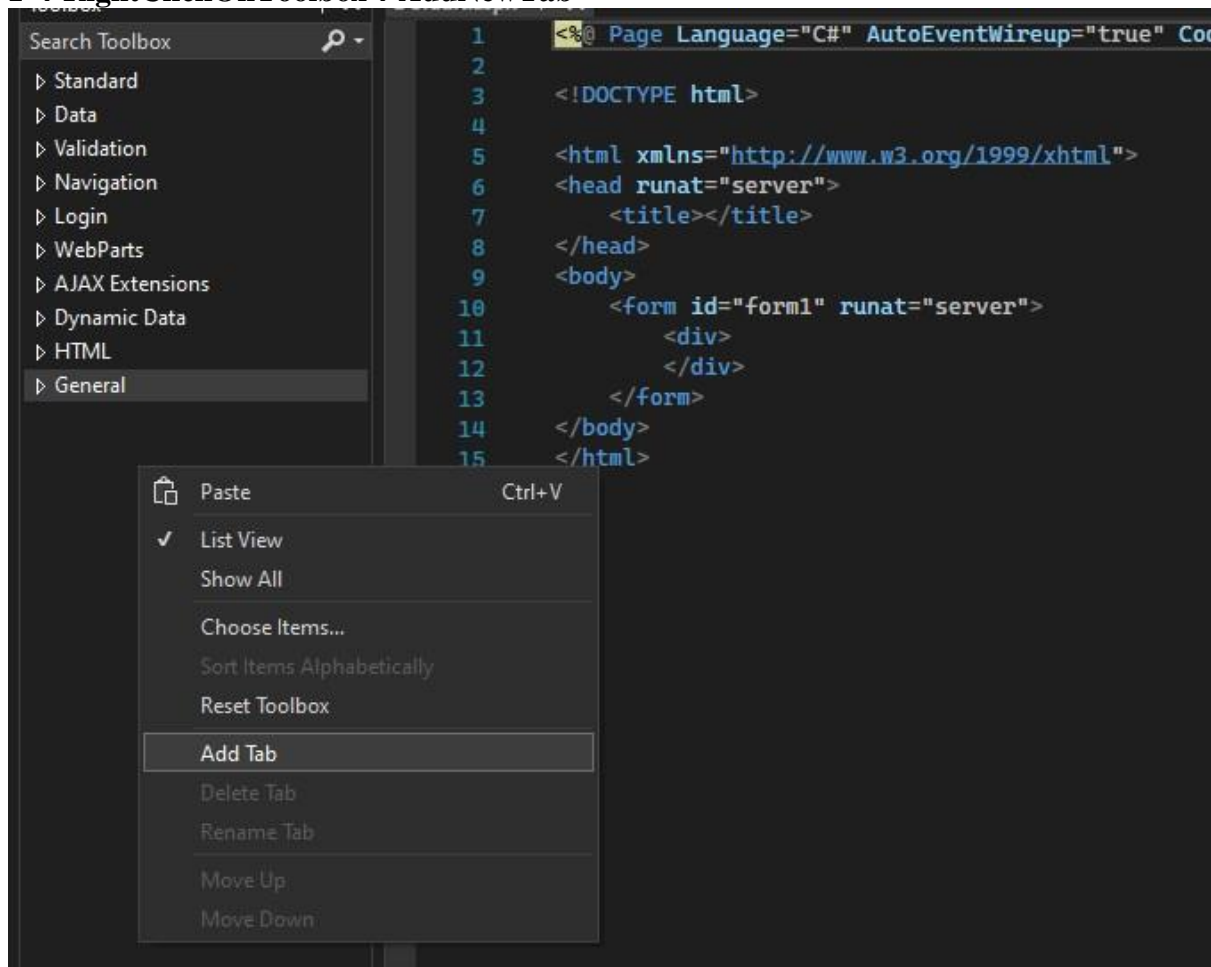
Create a web application to demonstrate use of Html Editor Extender Ajax control.
1 → Right Click On Toolbox → Add New Tab

2 →RightClickonSolutionExplorer→ManageNuGetPackages..
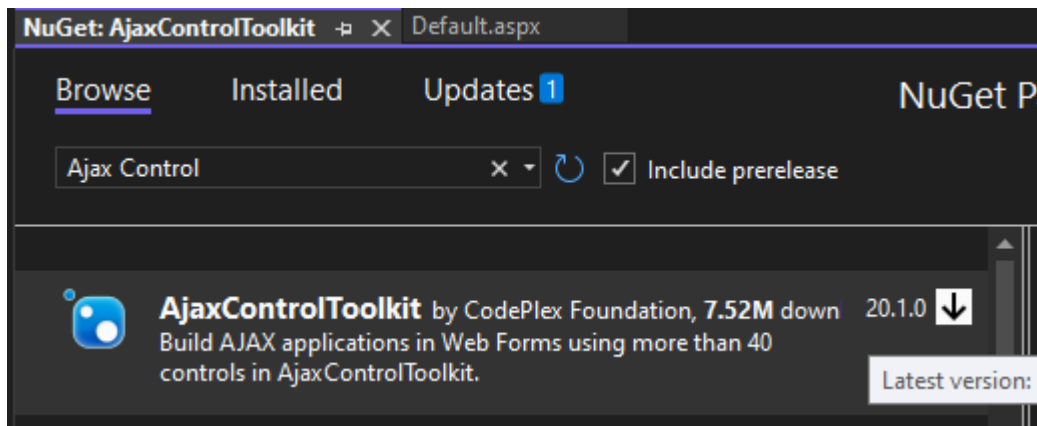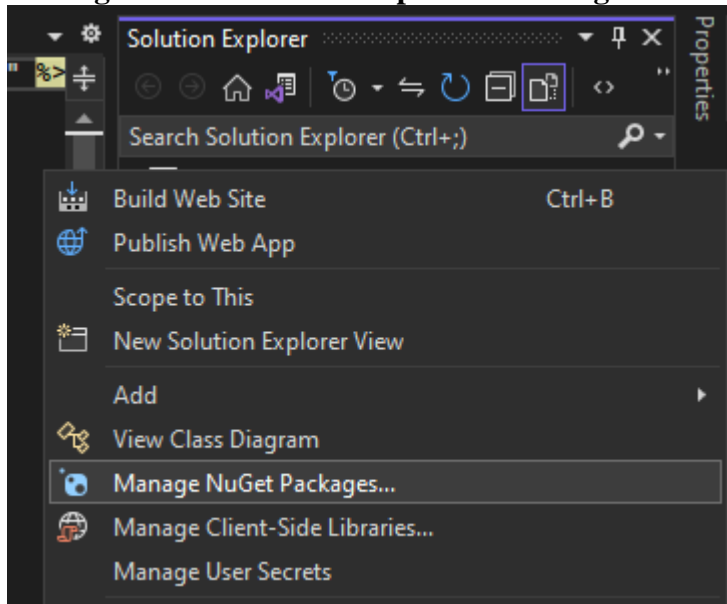
InstallVersion:16.0.1
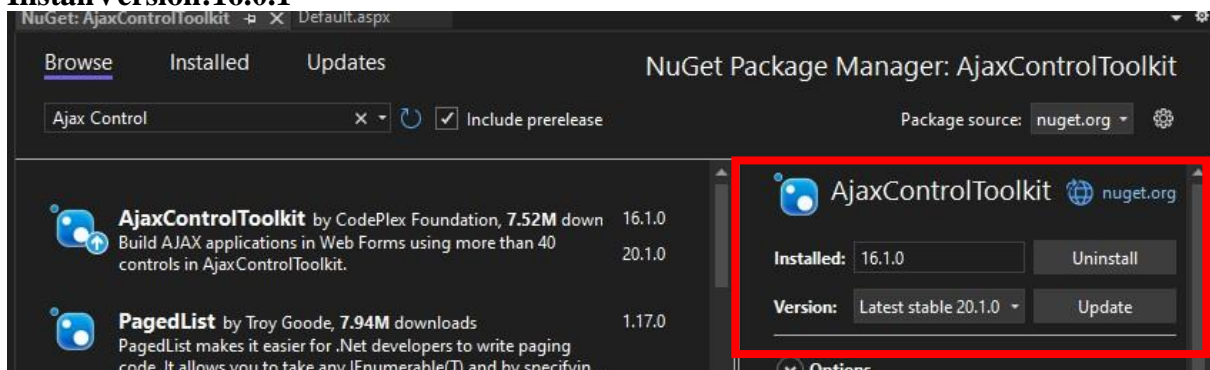
3 →Right ClickonSolution Explores→OpenfolderinFileExplorer
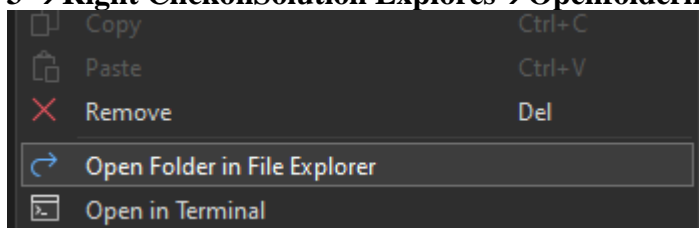
CopytheFollowingDirectory:

4→Again RightClickonAjaxControlToolkit→ChooseItems
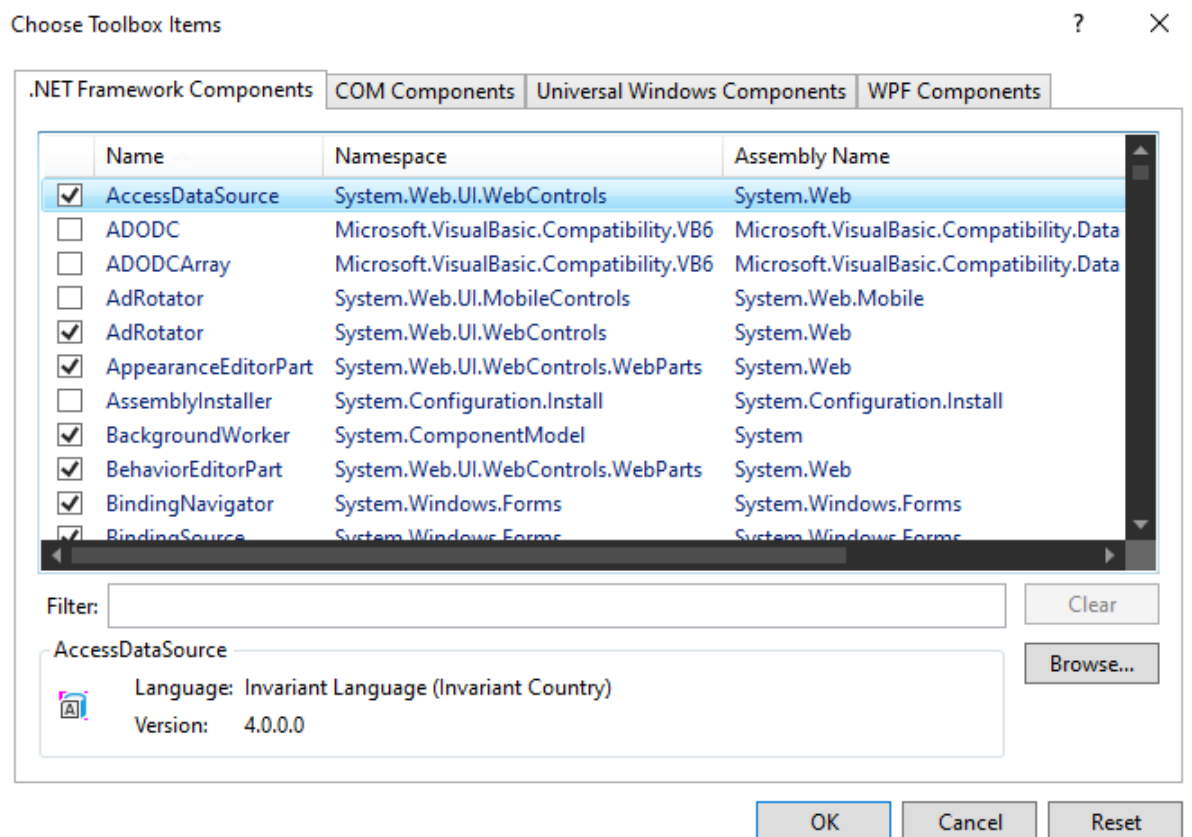
PastethatDirectory

YouWillFind**HtmlEditorExtender**

Codes:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:center;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <h1class="auto-style1">CodeBySatyam09</h1>
        </div>
        <asp:TextBox ID="TextBox1" runat="server" Height="228px"
TextMode="MultiLine"Width="513px"></asp:TextBox>
        <ajaxToolkit:HtmlEditorExtender EnableSanitization="false"
ID="TextBox1_HtmlEditorExtender"runat="server"BehaviorID="TextBox1_HtmlEditorExtender"TargetControlID="
TextBox1">
        </ajaxToolkit:HtmlEditorExtender>
        <asp:ScriptManagerID="ScriptManager1"runat="server">
        </asp:ScriptManager>
        <br/>
    </form>
</body>
</html>
```

Create a web application to demonstrate use of MasterPage with applying Styles and Themes for page beautification.

MasterPage:

```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="MasterPage2.master.cs" Inherits="MasterPage2" %>

<!DOCTYPE html>

<html>
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder id="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
    <div class
        ="head">head

    </div>
        <asp:ContentPlaceHolder id="ContentPlaceHolder1" runat="server">

        </asp:ContentPlaceHolder>
    <div class
        ="foot">foot
    </div>
    </form>
</body>
</html>
```
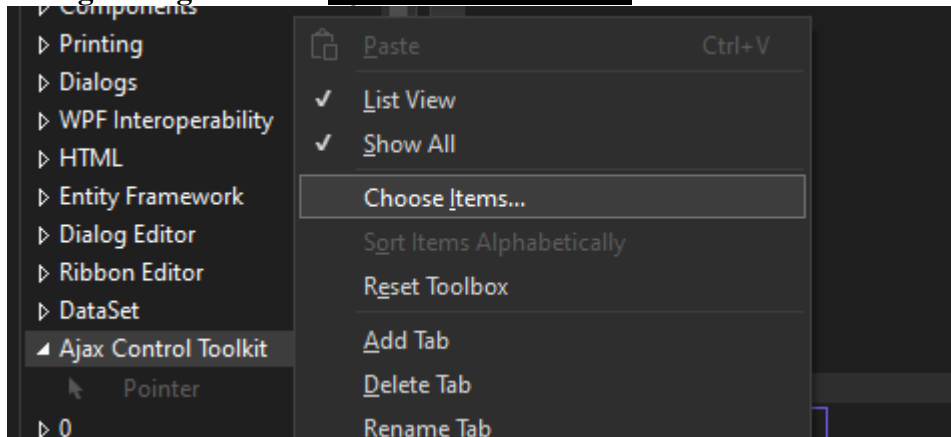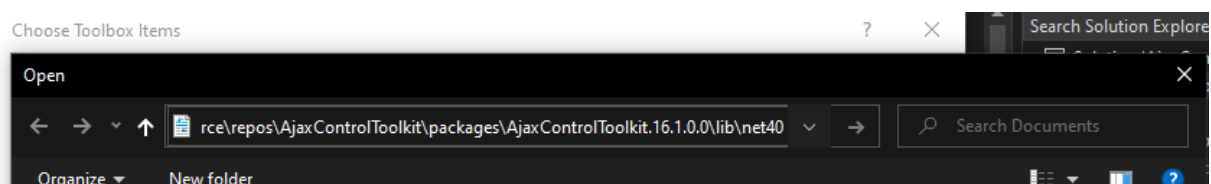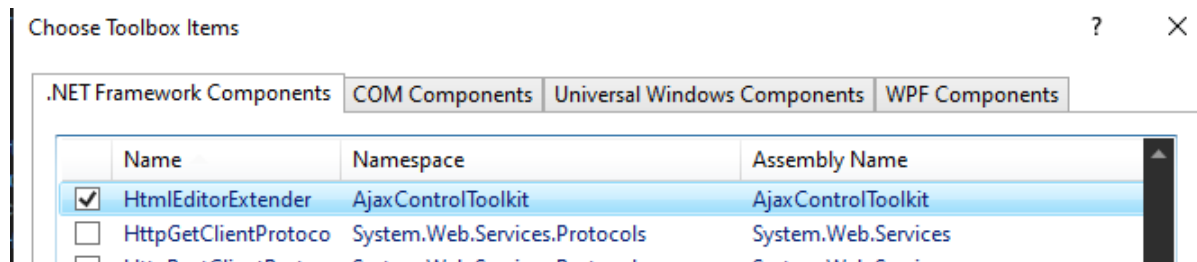
Style:

```
body{
    background-color:green;
}

.head{
    border: thick solid
    #ff6a00;height:200px;
    background-color:aqua
}

.foot{
    border: thick solid
    yellow;height:200px;
}
```

Default.aspx:

```
<%@ Page Title="" EnableTheming="true" Theme="green" Language="C#" MasterPageFile="~/MasterPage2.master" AutoEventWireup="true" CodeFile="Default2.aspx.cs" Inherits="Default2" %>

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

FarazSa
tyamHu
ssainAy
aan
</asp:Content>

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

Code:

AdminHome.aspx-

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

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
    <h1>This is Admin Page</h1>
    </div>
    </form>
</body>
</html>
```

StaffHome.aspx-

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

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
    <h1>This is Staff Page</h1>
    </div>
    </form>
</body>
</html>
```

StudentHome.aspx-

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

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div>
   <h1>Thisisstudetnpage</h1>
   </div>
   </form>
</body>
</html>
```

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

<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/
DTD/xhtml1-transitional.dtd">

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

      <asp:Login ID="Login1" runat="server">
      </asp:Login>

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

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

<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/
DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
```

```asp
<div>

    <asp:HyperLink ID="HyperLink1" runat="server" Font-
        Size="Large"NavigateUrl="~/Admin/AdminHome.aspx">Admin</asp:HyperLink>
    <br/>
    <br/>
    <asp:HyperLinkID="HyperLink2"runat="server"Font-
        Size="Large"NavigateUrl="~/Staff/StaffHome.aspx">Staff</asp:HyperLink>
    <br/>
    <br/>
    <asp:HyperLink ID="HyperLink3" runat="server" Font-
        Size="Large"NavigateUrl="~/Student/StudentHome.aspx">Student</asp:HyperLink>

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

CreateawebapplicationtodemonstrateGridViewpagingandCreatingown tableformatusingGrid View.

Grid View:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <asp:DetailsViewID="DetailsView1"runat="server"Height="50px"Width="125px">
            </asp:DetailsView>
            <br/>
            <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>
            <br/>
            <br/>
            <asp:GridView ID="GridView1" runat="server" AllowPaging="True"
AllowSorting="True"AutoGenerateColumns="False"DataKeyNames="RollNo"DataSourceID="Sql
DataSource1">
                <Columns>
                    <asp:CommandFieldShowDeleteButton="True"ShowEditButton="True"ShowSelectButton="True"/>
                    <asp:BoundFieldDataField="RollNo"HeaderText="RollNo"ReadOnly="True"SortExpression="Roll
No"
                    <asp:BoundFieldDataField="StudentName"HeaderText="StudentName"SortExpression="Student
/>Name"/
                    <asp:BoundFieldDataField="Address"HeaderText="Address"SortExpression="Address"/>
>           </Columns>

            </asp:GridView>
            <br/>
            <asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="<%$ConnectionStrings:DatabaseConnectionString%>"DeleteCommand="DELETEFROM[Student]WHERE[Rol
lNo]
= @Roll_No" InsertCommand="INSERT INTO [Student] ([Roll No], [Student Name], [Address])
VALUES(@Roll_No, @Student_Name, @Address)" SelectCommand="SELECT * FROM
[Student]"UpdateCommand="UPDATE [Student] SET [Student Name] = @Student_Name, [Address] =
@Address WHERE[RollNo]=@Roll_No">
                <DeleteParameters>
                    <asp:ParameterName="Roll_No"Type="Int32"/>
                </DeleteParameters>
                <InsertParameters>
                    <asp:ParameterName="Roll_No"Type="Int32"/>
                    <asp:ParameterName="Student_Name"Type="String"/>
                    <asp:ParameterName="Address"Type="String"/>
                </InsertParameters>
                <UpdateParameters>
                    <asp:ParameterName="Student_Name"Type="String"/>
                    <asp:ParameterName="Address"Type="String"/>
                    <asp:ParameterName="Roll_No"Type="Int32"/>
                </UpdateParameters>
            </asp:SqlDataSource>
        </div>
    </form>
</body></html>
```

Createawebapplicationtobinddatainamultilinetextboxbyqueryinginanother textbox.

Design:
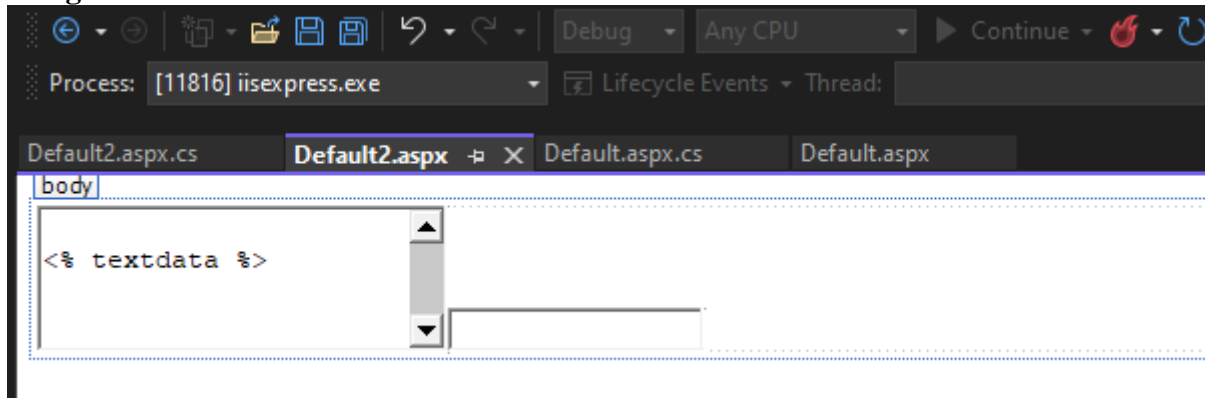
Code:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <asp:TextBox ID="TextBox2" Text="<%textdata %>" runat="server"
TextMode="MultiLine"Height="67px"Width="199px">&lt;%textdata %&gt;</asp:TextBox>
            <asp:TextBox ID="TextBox3" runat="server"
AutoPostBack="True"OnTextChanged="TextBox3_TextChanged"></asp:TextBox>
        </div>

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

Cscode:

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

publicpartialclassDefault2 :System.Web.UI.Page
{
    publicstringtextdata;
    protectedvoidPage_Load(objectsender,EventArgse)
    {
    }
    protectedvoidTextBox3_TextChanged(objectsender,EventArgse)
    {
        textdata=TextBox3.Text;t
        his.DataBind();
    }

}
```

22. Write a program to create a DLL to print a factorial of a number.

Design:

ClassLibrary:

```
namespace ClassLibrary1
{
    public class Class1
    {

        public string fact(int n)
        {
            int d=1;
            for(int i=1;i<=n;i++)
            {
                d*=i;
            }
            return d.ToString();
        }


    }
}
```

Source:

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            text-align:center;
        }
        .auto-style2
            {color:#0099CC
            ;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div class="auto-style1">
            <h3><span class="auto-style2">SatyamGuptaTYIT</span><br class="auto-style2"/>
            </h3>
            <p>
                 </p>
        </div>
        <asp:TextBox ID="TextBox1"
runat="server"></asp:TextBox>    &nbsp
;  
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button"
/>             
        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
    </form>
</body>
</html>
```

CS:

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

```csharp
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using ClassLibrary1;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Class1 c = new Class1();
        TextBox2.Text = c.fact(Convert.ToInt32(TextBox1.Text));
    }
}
```

23. WriteanApplicationto:

1. GenerateFibonacciseries

2. Testforprimenumbers

3. Testforvowels

4. Reverseanumber

Design:
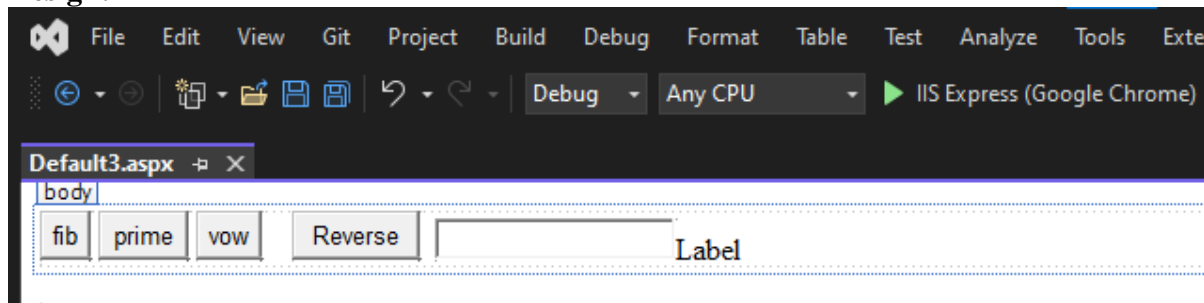
Code:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="fib"/>
 <asp:Button ID="Button3" runat="server" OnClick="Button3_Click" style="width: 48px" Text="prime"
/> <asp:Button ID="Button4" runat="server" OnClick="Button4_Click" style="width: 35px" Text="vow"
/>   
            <asp:ButtonID="Button5"runat="server"OnClick="Button5_Click"Text="Reverse"/>
 
            <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>
            <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>
        </div>
    </form>
</body>
</html>
```

Code:

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

publicpartialclassDefault3 :System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {

    }

    protectedvoidButton1_Click(objectsender,EventArgse)
    {
```

```csharp
        Label1.Text=fib(Convert.ToInt32(TextBox1.Text));
    }

    public string fib(int limit)
    {
        int   x   =
        0;int  y  =
        1;int z;
        string
        st=x+","+y+",";for(int i=0;i
        <10;i++)
        {
            z=x+y;x
            =y;
            y=z;
            if(z> limit)
            {
                break;
            }
            st+=z+",";
        }
        return st;
    }
    public string prime(int num)
    {
        for(int i=2;i<num;i++)
        {
            if(num % i==0)
            {
                return"Yes";
            }

        }
        return"No";
    }
    public string vow(string c)
    {
        if("aeiou".Contains(c))
        {
            return"vow";
        }
        else
        {
            return"Novowel";
        }
    }
    protected void Button3_Click(object sender,EventArgs e)
    {
        Label1.Text=prime(Convert.ToInt32(TextBox1.Text));
    }

    protected void Button4_Click(object sender,EventArgs e)
    {
        Label1.Text=vow(TextBox1.Text);
    }

    protected void Button5_Click(object sender,EventArgs e)
    {
        Label1.Text="";
        for(int i= TextBox1.Text.Length -1;i>-1;i--)
        {
            Label1.Text+=TextBox1.Text[i];
        }
    }
}
```

23. Create a simple web page to demonstrate use of builtin DivideByZeroException and IndexOutOfRangeException exceptions using textbox and label control.

Default.aspx:

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

<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
   <title></title>
</head>
<body>
   <formid="form1"runat="server">
     <div>
        <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="Button"/>
     </div>
   </form>
</body>
</html>
```

Code:

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

publicpartialclassDefault2 :System.Web.UI.Page
{
   protectedvoidPage_Load(objectsender,EventArgse)
   {

   }

   protectedvoidButton1_Click(objectsender,EventArgse)
   {
     try
     {
       string[] arr = new
       string[3];arr[0]="a";
       arr[1]="b";
       arr[2]="c";

       int a =
       10;int b =
       20;intc= a
       /b;
     }
     catch(IndexOutOfRangeExceptionior)
     {
       Response.Write(ior.ToString());
     }
     catch(DivideByZeroExceptiondbz)
     {
       Response.Write(dbz.ToString());
     }
   }
}
```

24. Create a simple web page to show data in Tree view control and datalistusingweb.Sitemapfile containingnavigationinformation.
Design:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <asp:TreeViewID="TreeView1"runat="server"DataSourceID="SiteMapDataSource1">
            </asp:TreeView>
            <asp:SiteMapDataSource ID="SiteMapDataSource1" runat="server"
/>@SatyamGupta
        </div>
    </form>
</body>
</html>
```

Sitemap:

```
<?xmlversion="1.0"encoding="utf-8"?>
<siteMapxmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0">
        <siteMapNodeurl="Numan.com"title=""description="Numan">
                <siteMapNodeurl="yahoomail.com"title="yahoomail"description="mail">
                        <siteMapNodeurl="sportsnews1.com"title="sports1"description="sports"/>
        </siteMapNode>
        <siteMapNodeurl="yahoonews.com"title="yahoonews"description="news">
                <siteMapNodeurl="sportsnews.com"title="sports"description="sports"/>
                <siteMapNodeurl="gloabalnews.com"title="global"description="gloabal"/>
        </siteMapNode>
        </siteMapNode>

</siteMap>
```

25. Display the no. of visitors on a given web page.

Default.aspx:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default4.aspx.cs" Inherits="Default4" %>

<!DOCTYPE html>

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

public partial class Default4 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        Response.Write(Application["usercount"].ToString());
    }
}
```

Global.asax:

```
<%@ Application Language="C#" %>

<script runat="server">

    void Application_Start(object sender, EventArgs e)
    {
        //Code that runs on application startup

    }

    void Application_End(object sender, EventArgs e)
    {
        //Code that runs on application shutdown

    }

    void Application_Error(object sender, EventArgs e)
    {
        //Code that runs when an unhandled error occurs

    }

    void Session_Start(object sender, EventArgs e)
    {
        Application.Lock();
        Application["usercount"]=Convert.ToInt32(Application["usercount"])+1;
```

```
      Application.UnLock();

   }

   void Session_End(object sender,EventArgse)
   {

   }

</scrip>
```

27. Create a registration form having text fields for accepting, Name, Age,Email, Address and Mobile number. Perform the following validations forthesame:

1. Allfieldsneedtobefilledcompulsorily

2. Nameshouldcontainonlyalphabetsandshouldnotbemorethan25characterslong

3. Validateemailandmobilenumberappropriately

4. Ageshouldbebetween18and32only.

Include submit and cancel buttons. On click of submit button, open a new pageanddisplayalltheinformationenteredbytheuserandonclickofcancelbutton,all textfieldsshouldbecleared.

Design:

Default.aspx:

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

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:
            center;color:
            #006600;font-
            size:large;
        }
        .auto-style2
            {width:85px;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <div>
            <tablestyle="width:100%;">
                <tr>
                    <tdclass="auto-style1"colspan="3"><strong>Registration</strong></td>
                </tr>
                <tr>
                    <tdclass="auto-style2">NAME:</td>
                    <td>
                        <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>

                        <asp:RequiredFieldValidator ID="RequiredFieldValidator1"
runat="server"ControlToValidate="TextBox1" Display="Dynamic"
ErrorMessage="*"ForeColor="Red"></asp:RequiredFieldValidator>
                        <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
runat="server"ControlToValidate="TextBox1" Display="Dynamic" ErrorMessage="Only Aphabets and not
more than 25Characters"ForeColor="Red"ValidationExpression="[a-zA-
Z]{5,25}"></asp:RegularExpressionValidator>
                    </td>
                    <td> </td>
                </tr>
                <tr>
                    <tdclass="auto-style2">AGE:</td>
                    <td>
                        <asp:TextBoxID="TextBox2"runat="server"></asp:TextBox>
                        <asp:RequiredFieldValidator ID="RequiredFieldValidator2"
runat="server"ControlToValidate="TextBox2" Display="Dynamic"
```

```
ErrorMessage="*"ForeColor="Red"></asp:RequiredFieldValidator>
                <asp:RangeValidator ID="RangeValidator1" runat="server"
ControlToValidate="TextBox2"Display="Dynamic" ErrorMessage="18 to 32 Only" ForeColor="Red"
MaximumValue="32" MinimumValue="18"Type="Integer"></asp:RangeValidator>
            </td>
            <td> </td>
        </tr>
        <tr>
            <tdclass="auto-style2">EMAIL:</td>
            <td>
                <asp:TextBoxID="TextBox3"runat="server"></asp:TextBox>
                <asp:RequiredFieldValidator ID="RequiredFieldValidator3"
runat="server"ControlToValidate="TextBox3" Display="Dynamic"
ErrorMessage="*"ForeColor="Red"></asp:RequiredFieldValidator>
                <asp:RegularExpressionValidator ID="RegularExpressionValidator2"
runat="server"ControlToValidate="TextBox3" Display="Dynamic" ErrorMessage="Invalid Email"
ForeColor="Red"ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-
.]\w+)*"></asp:RegularExpressionValidator>
            </td>
            <td> </td>
        </tr>
        <tr>
            <tdclass="auto-style2">ADDRESS:</td>
            <td>
                <asp:TextBoxID="TextBox4"runat="server"></asp:TextBox>
                <asp:RequiredFieldValidator ID="RequiredFieldValidator4"
runat="server"ControlToValidate="TextBox4" Display="Dynamic"
ErrorMessage="*"ForeColor="Red"></asp:RequiredFieldValidator>
            </td>
            <td> </td>
        </tr>
        <tr>
            <tdclass="auto-style2">PHONE:</td>
            <td>
                <asp:TextBoxID="TextBox5"runat="server"></asp:TextBox>
                <asp:RequiredFieldValidator ID="RequiredFieldValidator5"
runat="server"ControlToValidate="TextBox5" Display="Dynamic"
ErrorMessage="*"ForeColor="Red"></asp:RequiredFieldValidator>
                <asp:RegularExpressionValidator ID="RegularExpressionValidator3"
runat="server"ControlToValidate="TextBox5" Display="Dynamic" ErrorMessage="Invalid Phone"
ForeColor="Red"ValidationExpression="\d{10}"></asp:RegularExpressionValidator>
            </td>
            <td> </td>
        </tr>
        <tr>
            <tdclass="auto-style2"> </td>
            <td>
                <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="SUBMIT"
/>   
                <asp:ButtonID="Button2"runat="server"OnClick="Button2_Click"Text="CLEAR"/>
            </td>
            <td> </td>
        </tr>
    </table>
    </div>
    </form>
</body>
</html>
```

Default.aspx.cs:

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

```csharp
publicpartialclass_Default:System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {

    }

    protectedvoidButton1_Click(objectsender,EventArgse)
    {

Response.Redirect("Default2.aspx?na="+TextBox1.Text+"&ag="+TextBox2.Text+"&em="+TextBox3.Text+"&ad="
+TextBox4.Text
        +"&Ph="+TextBox5.Text+"");
    }

    protectedvoidButton2_Click(objectsender,EventArgse)
    {
        TextBox1.Text    =
        "";TextBox2.Text  =
        "";TextBox3.Text  =
        "";TextBox4.Text  =
        "";TextBox5.Text="
        ";
    }
}
```

Default2.aspx:

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

<!DOCTYPEhtml>

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

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

Default2.aspx.cs

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

publicpartialclassDefault2 :System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {
        Response.Write(Request.QueryString["na"]+"<br>");
        Response.Write(Request.QueryString["ag"]+"<br>");
        Response.Write(Request.QueryString["em"]+"<br>");
        Response.Write(Request.QueryString["ad"]+"<br>");
        Response.Write(Request.QueryString["Ph"]+"<br>");
    }
}
```

30. Create a web page with multiline textbox and two buttons, viz. saveContents and loadContents. On click of saveContents button, contents from the textbox should be retained and on click of loadContents button, the previously saved contents should be displayed back on the textbox.
Design:

Codes:
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeFile="Default6.aspx.cs"Inherits="Default6"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <styletype="text/css">
        .auto-style1{
            text-align:center;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
        <divclass="auto-style1">
            <h1>
            <asp:TextBox ID="TextBox2" runat="server" CssClass="auto-style1"
Height="129px"TextMode="MultiLine"Width="239px"></asp:TextBox>
            <asp:ButtonID="Button1"runat="server"OnClick="Button1_Click"Text="SaveContent"/>
 
            <asp:ButtonID="Button2"runat="server"OnClick="Button2_Click"Text="LoadContent"/>
                <br/>
                SatyamGupta</h1>
```

```html
        </div>

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

CScode:

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

using System.Web.UI.WebControls;

public partial class Default6 :System.Web.UI.Page
{
    string data= "";
    protected void Page_Load(object sender,EventArgse)
    {
    }
    protected void Button1_Click(object sender,EventArgse)
    {
        ViewState["data"]=TextBox2.Text;
        TextBox2.Text="";
    }
    protected void Button2_Click(object sender,EventArgse)
    {
        TextBox2.Text=ViewState["data"].ToString();
    }

}
```

31. Store 3 objects of the furniture class having 3 data members (name,manufacturer, and cost) in 3 session objects. Display a panel to include alistbox displaying the names of all three furniture objects, and a buttonnamed "MoreInformation". On click of the button retrieve the selectedobject(fromlistbox) informationand display itina label.

Codes:

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeFile="Default7.aspx.cs"Inherits="Default7"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">
<headrunat="server">
    <title></title>
    <style
        type="text/css">#for
        m1 {
            text-align:center;
        }
        .auto-
            style1{color:#66
            FFCC;
        }
    </style>
</head>
<body>
    <formid="form1"runat="server">
     <div>
        </div>
        <asp:ListBoxID="ListBox1"runat="server"></asp:ListBox>
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button"
/> <asp:LabelID="Label1"runat="server"Text="Label"></asp:Label>


        <br/>
        <br/>
        <br/>
        <spanclass="auto-style1">CodeBySatyam</span></form>
</body>
</html>
```

CsCode:

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

publicpartialclassDefault7 :System.Web.UI.Page
{
    protectedvoidPage_Load(objectsender,EventArgse)
    {
        if(!IsPostBack)
        {
            Session["s1"]   =   new   Furniture("chair1",   "xyz1",
            "1001");Session["s2"] = new Furniture("chair2", "xyz2",
            "1002");Session["s3"]=newFurniture("chair3","xyz3",
            "1003");


            ListBox1.Items.Add(((Furniture)Session["s1"]).name);
            ListBox1.Items.Add(((Furniture)Session["s2"]).name);
            ListBox1.Items.Add(((Furniture)Session["s3"]).name);
        }
    }
```

```csharp
protected void Button1_Click(object sender, EventArgs e)
{
    if (ListBox1.SelectedIndex != -1)
    {
        if (ListBox1.SelectedIndex == 0)
        {
            Label1.Text = ((Furniture)Session["s1"]).money; Label
            1.Text = ((Furniture)Session["s1"]).cost;

        }
        else if (ListBox1.SelectedIndex == 1)
        {
            Label1.Text = ((Furniture)Session["s2"]).money; Label
            1.Text = ((Furniture)Session["s2"]).cost;

        }
        else if (ListBox1.SelectedIndex == 2)
        {
            Label1.Text = ((Furniture)Session["s3"]).money; Label
            1.Text = ((Furniture)Session["s3"]).cost;

        }
    }
}

class Furniture
{

    public string
    name; public string
    money; public string c
    ost;

    public Furniture(string name, string money, string cost)
    {
        this.name =
        name; this.money =
        money; this.cost = cost
        ;
    }
```

32. Write a program in C# to demonstrate multiple inheritance using interfaces.

Code:

```csharp
using System;
public class Program
{
    public interface common
    {
        void Displayed();
    }
    public class A : common
    {
        public void Displayed()
        {
            Console.WriteLine("This is the method of Class A");
        }
    }
    public class B : common
    {
        public void Displayed()
        {
            Console.WriteLine("This is the method of Class B");
        }
    }
    public static void Main()
    {
        Console.WriteLine("Code by Satyam 09"); Console.WriteLine("Multiple Interface Using Interface"); common
        c; c = new A(); c.Displayed(); c = new B(); c.Displayed(); Console.ReadLine();
    }
}
```