ADVANCED WEB TECHNOLOGIES LAB

Subject Code: MCAL24

A Project Report Submitted in Fulfilment of the Degree of

MASTER

In COMPUTER APPLICATION

Year 2023-2024

By

Mr. Jadhav Harshal Sanjay

(Application Id-79763)

Semester-II

(Seat no: 1910488)

Under the Guidance of

Prof. Dnyaneshwar Deore

Centre for Distance and Online Education

Vidya Nagari, Kalina, Santacruz East – 400098.

University of Mumbai

PCP Center

[Satish Pradhan Dyanasadhana College, Thane]

Centre for Distance and Online Education
Vidya Nagari, Kalina, Santacruz East – 400098.

CERTIFICATE

This to certify that, **"Jadhav Harshal Sanjay"** appearing **Master's In Computer Application (Semester II) Application ID: 79763** has satisfactorily completed the prescribed practical of **MCAL24 - Advance Web Technologies Lab** as laid down by the University of Mumbai for the academic year 2023-24.

Teacher In Charge	External Examiner	Coordinator – M.C.A

Index

Practical : 1

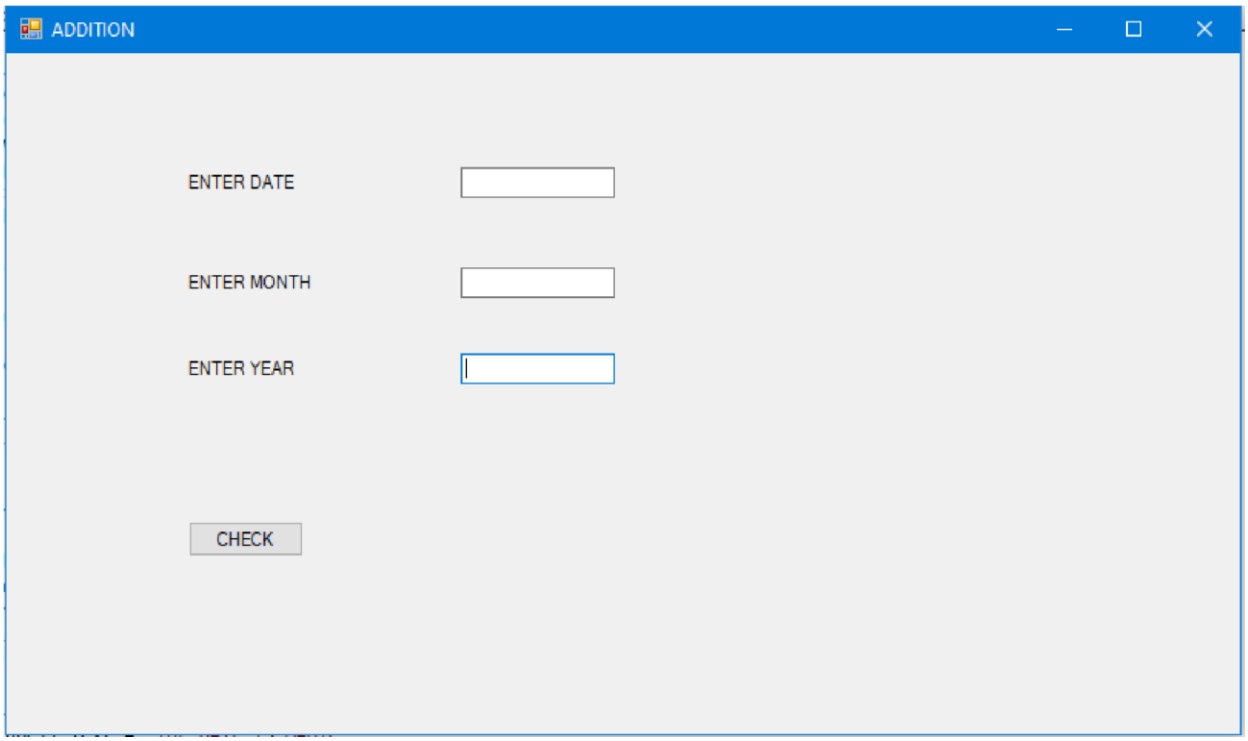
AIM: Design UI based applications using basic Windows forms Controls

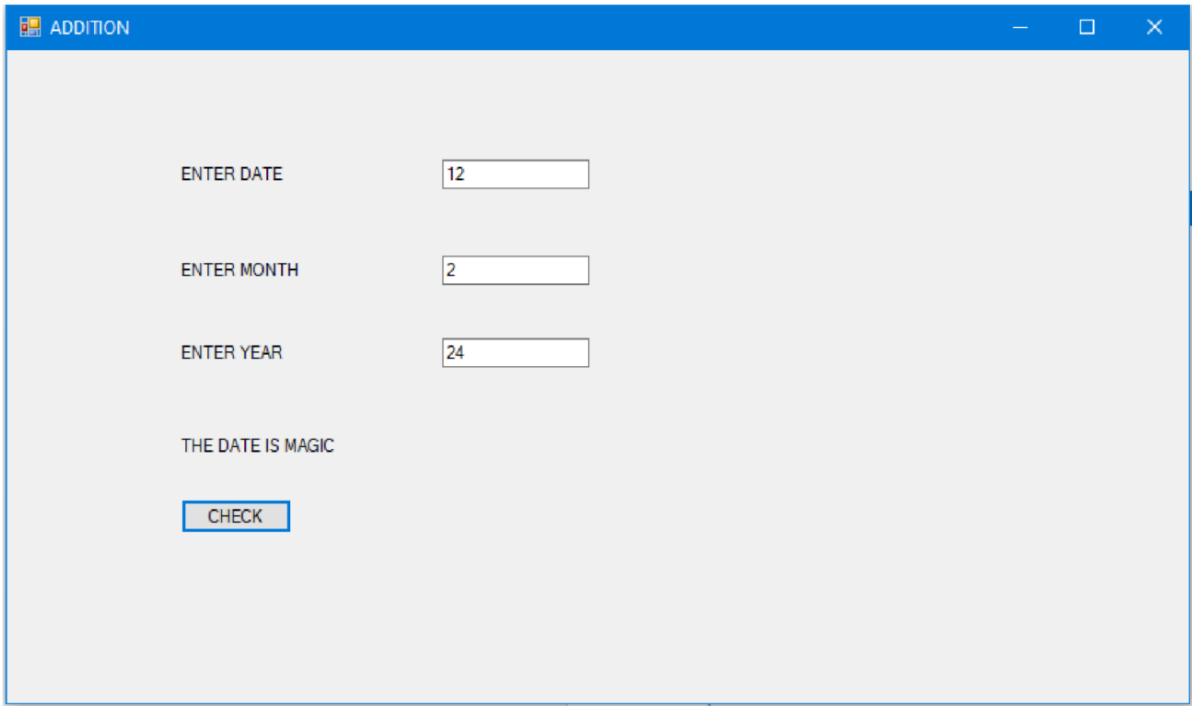
A) WAP in C# that ask the user to enter a month, a day and a two digit year. The program should then determine whether the month times a day is equal to the year. If so, it should display the message saying the date is magic. Otherwise not a magic.

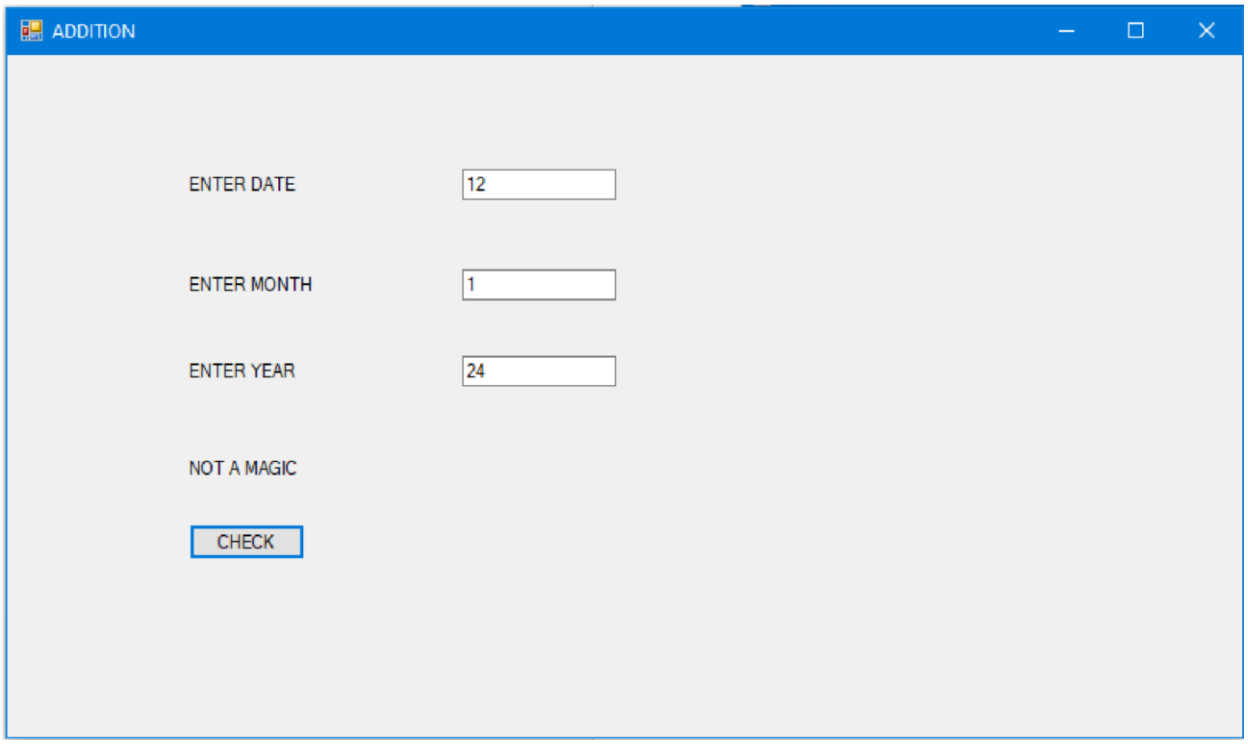
Code :

```
 using System;
using  System.Collections.Generic;
using System.ComponentModel; using
System.Data; using System.Drawing;
using      System.Linq;      using
System.Text;                 using
System.Windows.Forms;
namespace WindowsFormsApplication1
{ public partial class Form1 : Form
    { public Form1()
        {
            InitializeComponent(); label1.Visible
            = false;
        }
private void button1_Click(object sender, EventArgs e)
        { int d = Int32.Parse(textBox1.Text);
            int m = Int32.Parse(textBox2.Text);
            int y = Int32.Parse(textBox3.Text);
            label1.Visible = true; if(d*m==y)
            {
      label1.Visible = true;      label1.Text      =
"THE DATE IS MAGIC";
            }  else
            {       label1.Visible = true;
label1.Text = "NOT A MAGIC";
            }
        }



    }
}
```

OUTPUT:


ADDITION
ENTER DATE
ENTER MONTH
ENTER YEAR
CHECK


ADDITION
ENTER DATE
12
ENTER MONTH
2
ENTER YEAR
24
THE DATE IS MAGIC
CHECK



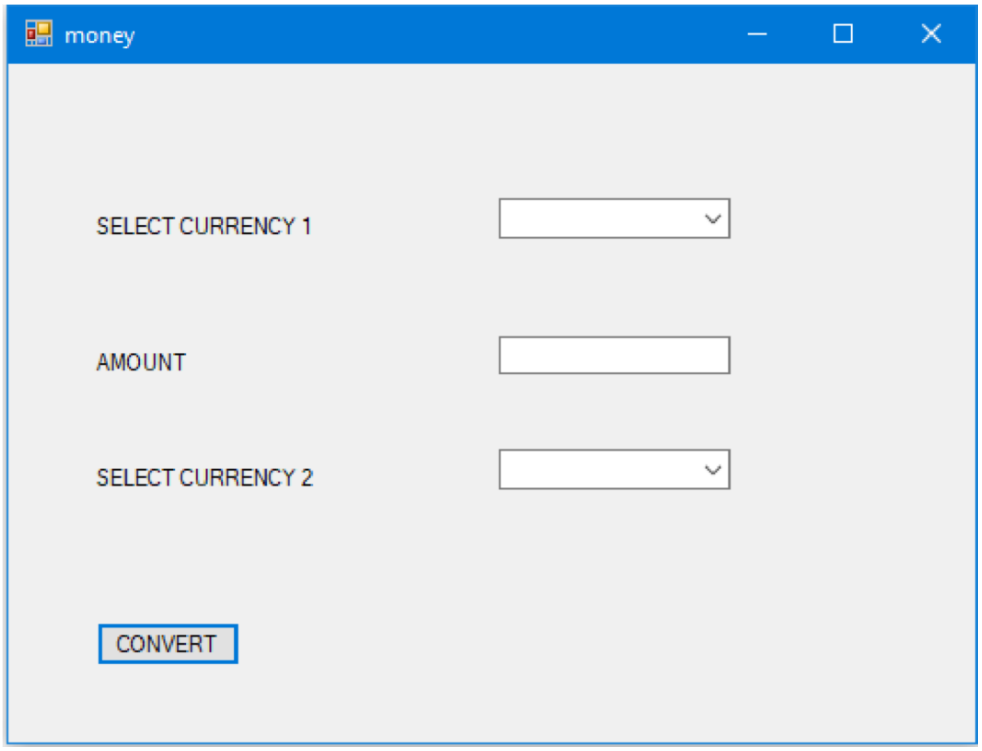
B) Write a Program to perform Money Conversion.

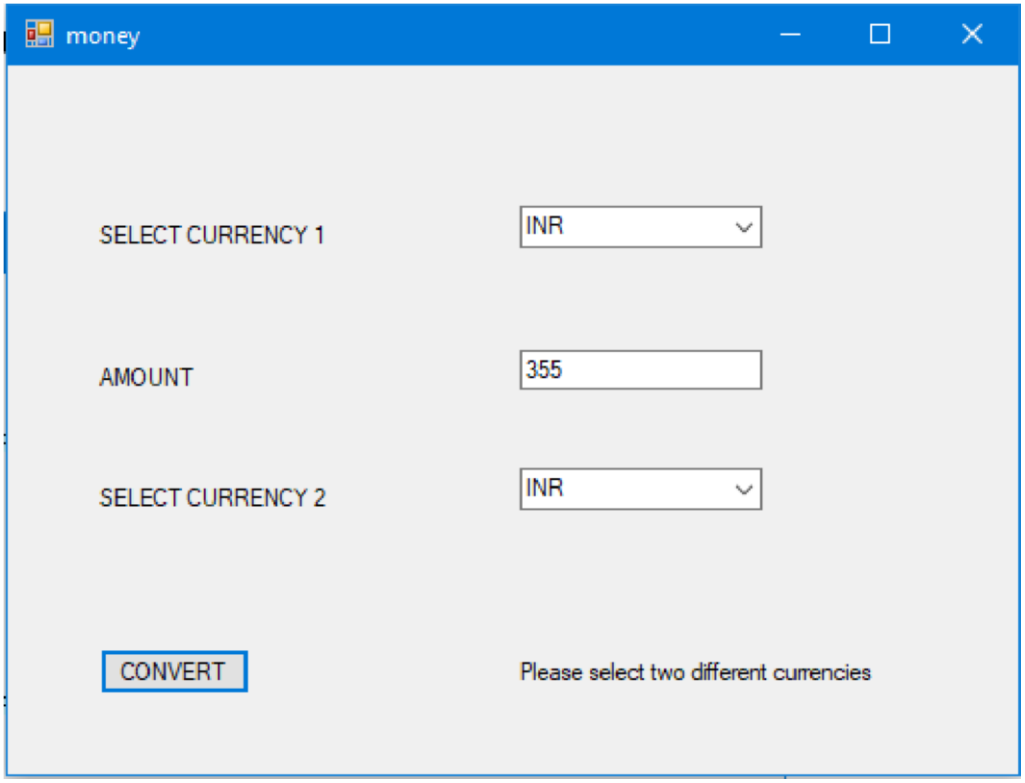
CODE:

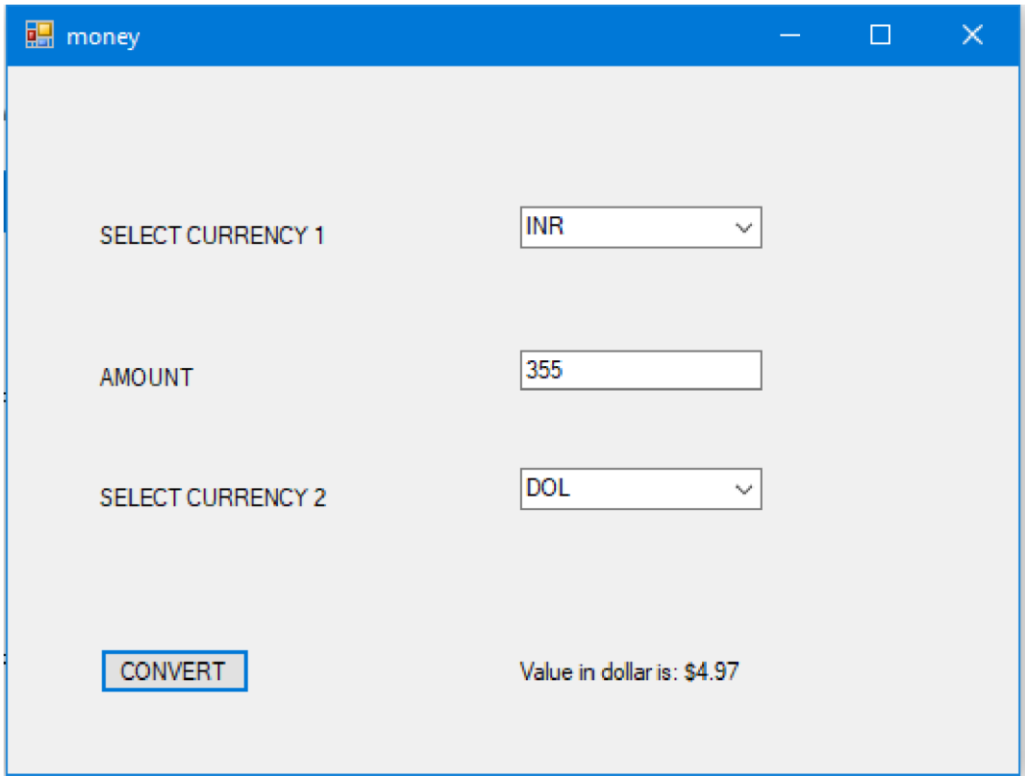
```
using        System;        using
System.Collections.Generic;  using
System.ComponentModel;       using
System.Data; using System.Drawing;
using      System.Linq;      using
System.Text;                 using
System.Windows.Forms;
namespace WindowsFormsApplication1
{ public partial class money : Form
    { public money()
        {
            InitializeComponent(); label2.Visible
            = false;
        }


        private void button1_Click(object sender, EventArgs e) {
double inr = 72.91; double dol
            = 0.014;
            double val = double.Parse(textBox1.Text);
            String s1 = comboBox1.Text;
            String s2 = comboBox2.Text;
            if (s1 == s2)
            { label2.Visible = true;
                 label2.Text = "Please select two different currencies";
            } else if (s1 == "INR")
```

```
            {
                label2.Visible = true;
                label2.Text = "Value in dollar is: $"+val*dol;
            }  else
            {       label2.Visible     =
true;
                label2.Text = "Value in rupees is: Rs" + val * inr;
            }
        }
    }
}
```

OUTPUT:





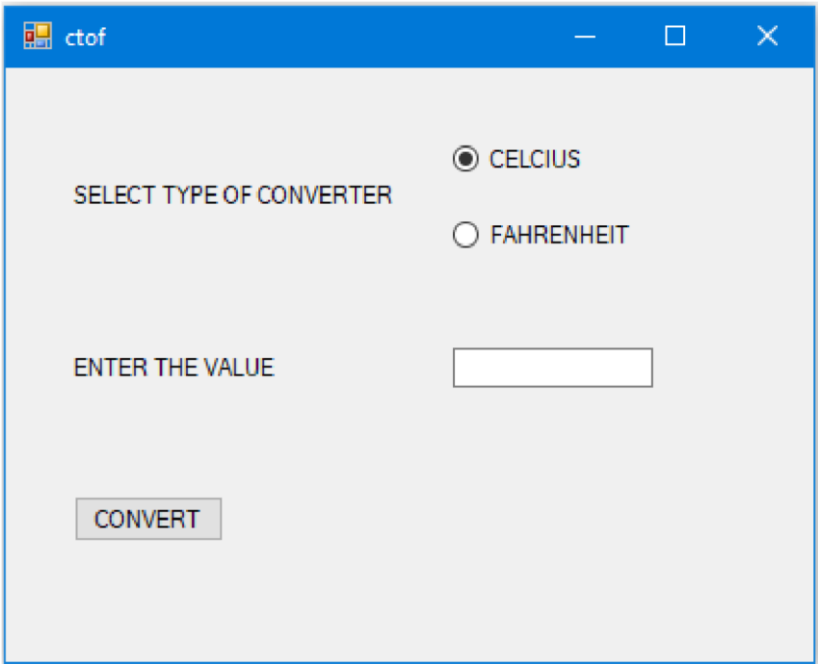


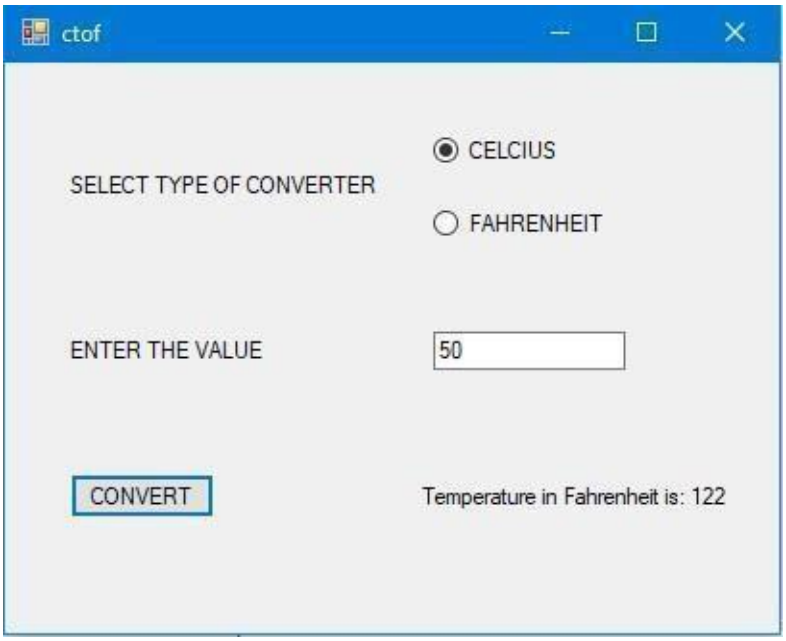
C) To convert temperature from Fahrenheit to Celsius or vice versa.

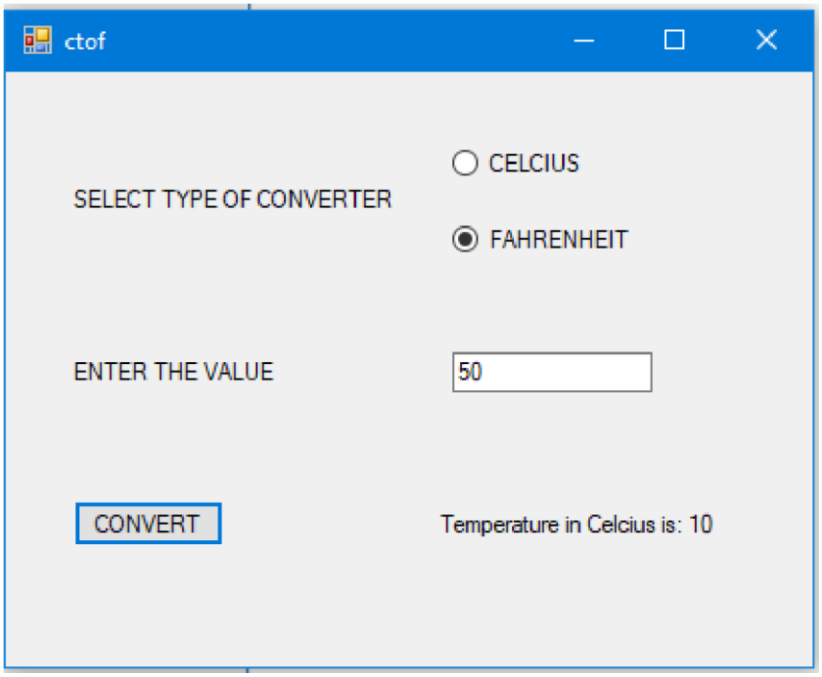
CODE:

```
using System; using
System.Collections.Generic; using
System.ComponentModel; using
System.Data; using System.Drawing;
using System.Linq; using
System.Text; using
System.Windows.Forms;
namespace WindowsFormsApplication1
{ public partial class ctof : Form
    { public ctof()
        {
            InitializeComponent(); label3.Visible
            = false;
        }

        private void button1_Click(object sender, EventArgs e)
        { if (radioButton1.Checked)
            { label3.Visible = true;
label3.Text = "Temperature in Fahrenheit is:
"+Math.Round(((float.Parse(textBox1.Text) * 1.8) + 32),2).ToString(); }
if(radioButton2.Checked)
            { label3.Visible = true;
                label3.Visible = true;

                label3.Text = "Temperature in Celcius is:
"+Math.Round(((float.Parse(textBox1.Text)-32)*0.5556),2).ToString();
            }
        }
    }
}
```

OUTPUT:


ctof
CELCIUS
SELECT TYPE OF CONVERTER
FAHRENHEIT
ENTER THE VALUE
CONVERT


ctof
CELCIUS
SELECT TYPE OF CONVERTER
FAHRENHEIT
ENTER THE VALUE
50
CONVERT
Temperature in Fahrenheit is: 122



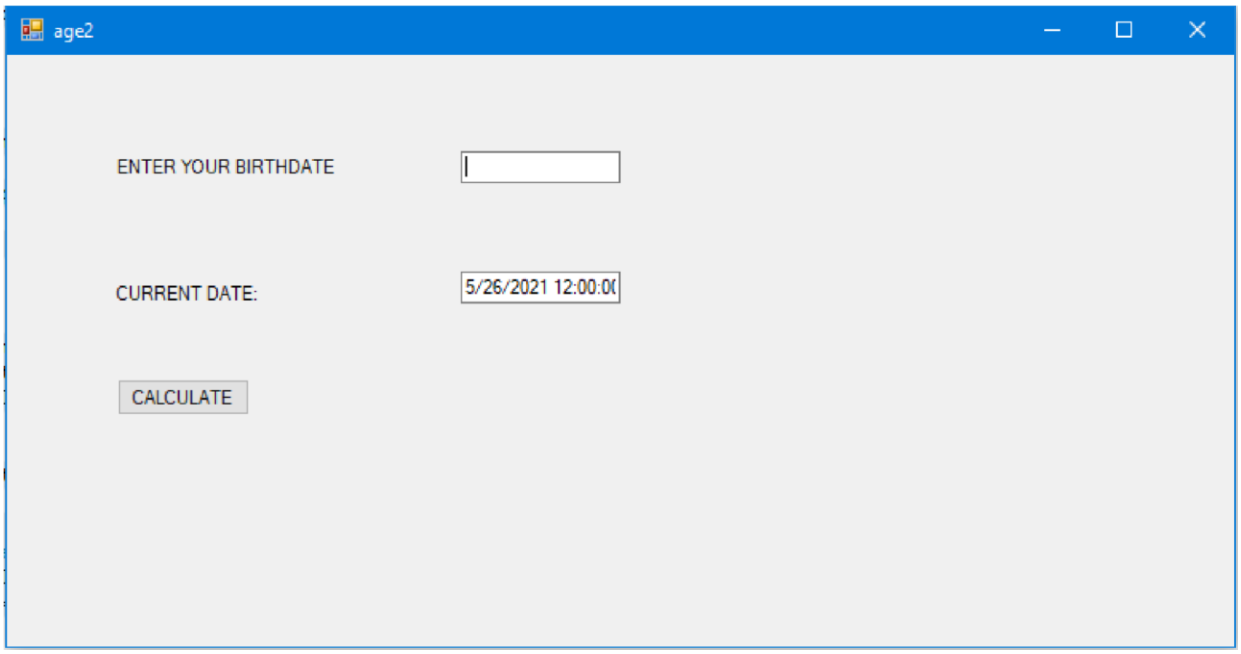
D) Create a Window application to calculate age of a person by providing input as birth date and current date .Current date and Birth date must be in long string format and display the age in terms of years:

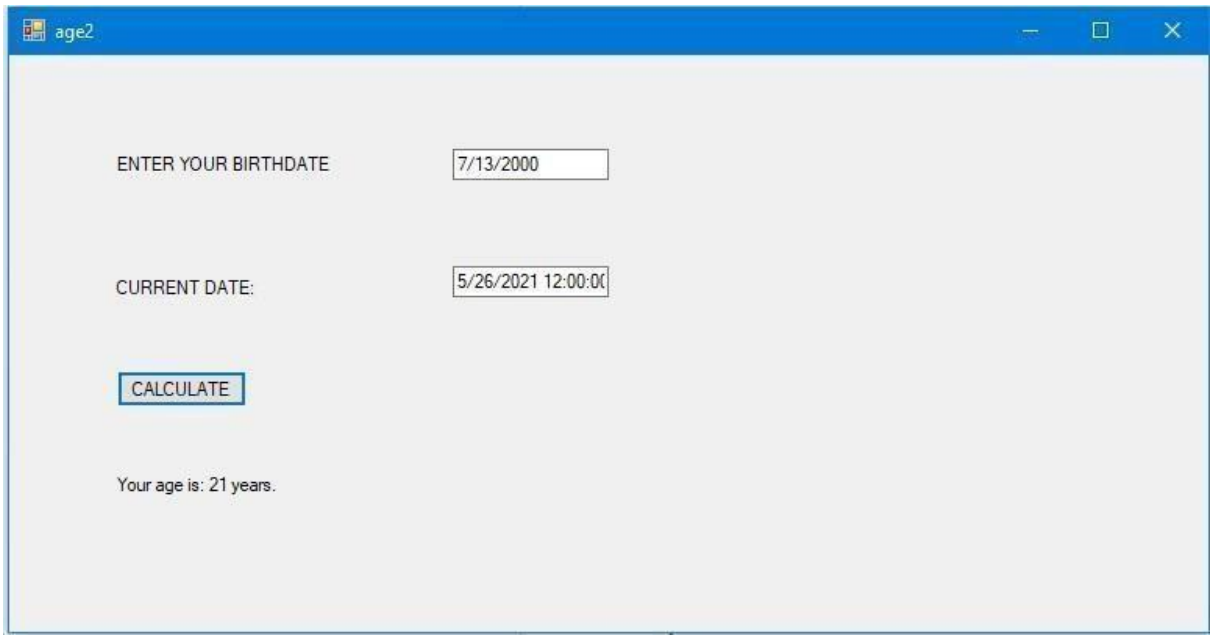
CODE:

```
using System;
using  System.Collections.Generic;
using System.ComponentModel; using
System.Data; using System.Drawing;
using      System.Linq;      using
System.Text;                 using
System.Windows.Forms;
namespace WindowsFormsApplication1
{ public partial class age2 : Form
    { public age2()
        {
            InitializeComponent();
            textBox2.Text = DateTime.Today.ToString(); label2.Visible
            = false;
        }

                private void button1_Click(object sender, EventArgs e)
        {
            DateTime  d  =  DateTime.Parse(textBox1.Text);
            var   yr   =   DateTime.Today.Year   -   d.Year;
            label2.Visible = true;
            label2.Text = "Your age is: " + yr.ToString() + " years."; }
```

```
    }
}
```

OUTPUT:


age2
ENTER YOUR BIRTHDATE
CURRENT DATE:
5/26/2021 12:00:0(
CALCULATE


age2
ENTER YOUR BIRTHDATE
7/13/2000
CURRENT DATE:
5/26/2021 12:00:0(
CALCULATE
Your age is: 21 years.

Practical : 2

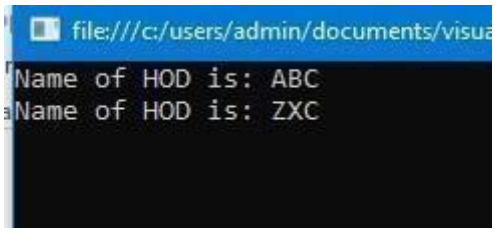
AIM: Design Applications using Classes and Objects

A) Write a program to declare a class “staff“ having data members as name and post. Accept this data 5 staffs and display names of staff who are HOD**.**

CODE:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Text;
namespace ConsoleApplication4
{ class staff
    {
        String name,  post;
public staff(String n , String p)
        {  this.name  =  n;
            this.post = p;
        }

void dis()
        { if (post == "HOD")
            {
                Console.WriteLine("Name of HOD is: "+name); }


        } static void Main(string[]
        args)
        { staff[] s = new staff[5]; s[0] = new
            staff("ABC","HOD"); s[1] = new
            staff("XYZ", "TEACHER"); s[2] = new
            staff("JKL", "LAB ASSISTANT"); s[3] = new
            staff("ZXC", "HOD"); s[4] = new
            staff("QWE", "DEP.HOD");
for (int i = 0; i <= 4; i++)
            { s[i].dis();
            }
            Console.ReadKey();
        }
    }
}
```

OUTPUT:



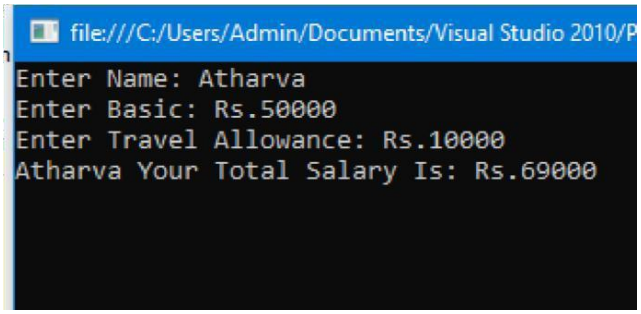
B) Define a class "salary" which will contain member variable Basic, TA, DA, HRA. Write a program using Constructor with default values for DA and HRA and calculate the salary of the employee**.**

CODE:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Text;
namespace ConsoleApplication3
{ class salary
    {   int   da,   hra;
        public salary()
        { da = 5000;
            hra = 4000;
        }
public static void Main(string[] args)
        {
            Console.Write("Enter Name: ");
            String      name      =      Console.ReadLine();
            Console.Write("Enter Basic: Rs."); int basic =
            Int32.Parse(Console.ReadLine());
            Console.Write("Enter Travel Allowance: Rs.");
            int ta = Int32.Parse(Console.ReadLine());
```

```
            salary s = new salary();
            Console.WriteLine(name+ " Your Total Salary Is:
            Rs."+(s.da+s.hra+basic+ta)); Console.ReadKey(); }
    }
}
```

OUTPUT:



Practical : 3

AIM: Design Applications using Inheritance and Abstract Classes.

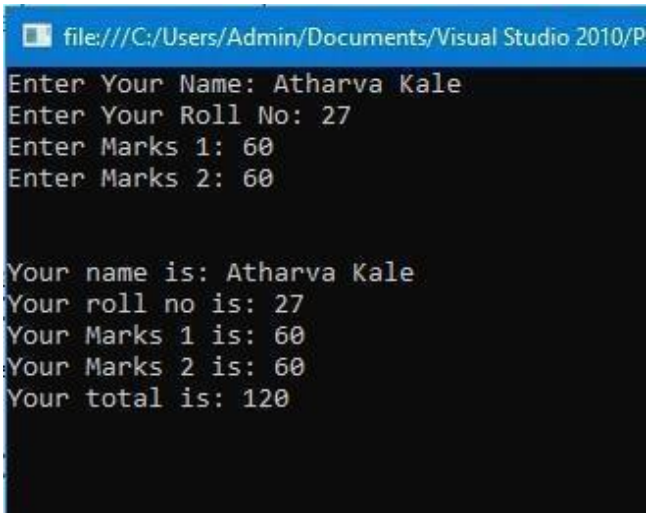
A) Write a program to implement multilevel inheritance from following figure. Accept and display data for one student.

CODE:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Text;
 namespace Student
{

class Student
    { public String name;
        public int roll_no;
public void get_data()
        {
            Console.Write("Enter Your Name: "); name
            = Console.ReadLine();
            Console.Write("Enter Your Roll No: "); roll_no
            = Int32.Parse(Console.ReadLine());


        }


    }

class Test : Student
    { public int marks1,marks2;
        public void get_data2()
        {


            Console.Write("Enter Marks 1: "); marks1 =
        Int32.Parse(Console.ReadLine());
        Console.Write("Enter Marks 2: "); marks2 =
        Int32.Parse(Console.ReadLine()); }
    }

class Result : Test
    { public int total;
        public void add()
        { total = marks1 + marks2;
        }


        public void dis()
        { get_data();
            get_data2();
            add();
            Console.WriteLine("\n\nYour name is: "+name);
```

```
            Console.WriteLine("Your roll no is: "+roll_no.ToString());
            Console.WriteLine("Your Marks 1 is: "+marks1.ToString());
            Console.WriteLine("Your Marks 2 is: "+marks2.ToString());
            Console.WriteLine("Your total is: "+total.ToString()); }
    }

    class Program
    { static void Main(string[] args)
        {
            Result r = new Result();
            r.dis(); Console.ReadKey();
        }
    }
}
```

OUTPUT:



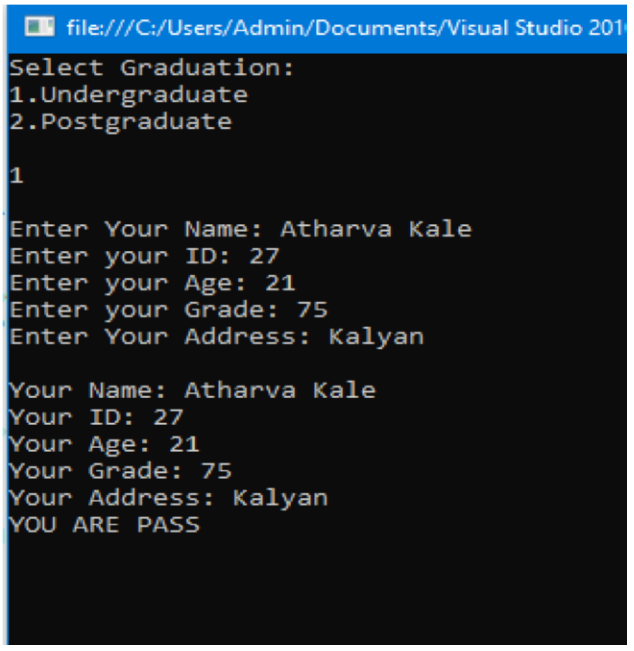
B) Create Super Class Student and two sub class of it, Graduate and Under Graduate. The members of the Student are name, id, grade, age and address and one method : boolean method IsPassed which takes in the parameter integer grade(0-100) and return true.The two sub classes over ride the method, for UG its 70% for passing and for G its 80% as passing grade**.**

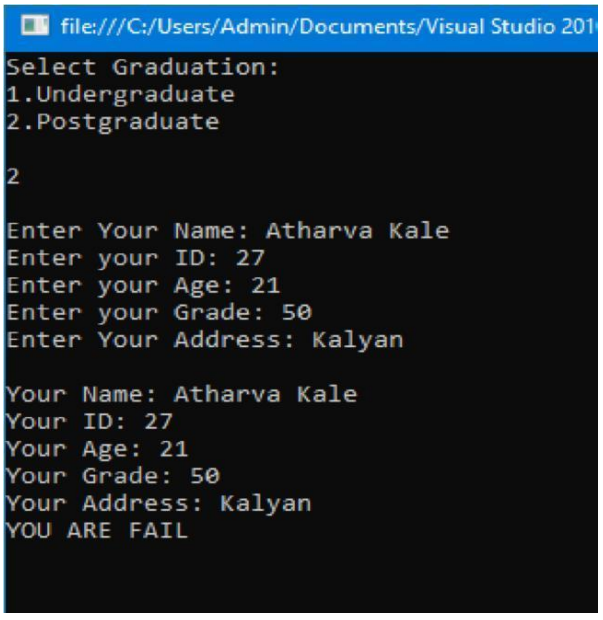
CODE:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Text;
namespace ConsoleApplication5
{
class Student
    { public String name, address;
        public int id, age, grade;
 public void getdata()
        {
            Console.Write("Enter Your Name: "); name
            = Console.ReadLine();

            Console.Write("Enter your ID"); id=Int32.Parse(Console.ReadLine());

            Console.Write("Enter your Age"); age =
            Int32.Parse(Console.ReadLine());

            Console.Write("Enter your Grade"); grade
            = Int32.Parse(Console.ReadLine());


            Console.Write("Enter Your Address"); address
            = Console.ReadLine();
        }


        public void dis()
        {
            Console.WriteLine("\nYour Name: "+name); Console.WriteLine("Your
            ID: "+id);
            Console.WriteLine("Your Age: "+age);
            Console.WriteLine("Your Grade: "+grade);
            Console.WriteLine("Your Address: "+address);


        }
 public virtual Boolean check()
        {
            return true;
        }
    }

class Undergraduate : Student
    { public override Boolean check()
        { getdata(); dis();
            if (grade >= 70)
            {
```

```
                Console.WriteLine("YOU ARE PASS");
            }  else
            {
                Console.WriteLine("YOU ARE FAIL");
            }

            return true;
        }


    }

class Postgraduate : Student
    { public override Boolean check()
        { getdata(); dis();
            if (grade >= 80)
            {
                Console.WriteLine("YOU ARE PASS");
            }  else
            {
                Console.WriteLine("YOU ARE FAIL");
            }

            return true;
        }


    }

class Program
    { static void Main(string[] args)
        { int c;
            Console.WriteLine("Select Graduation:\n1.Undergraduate\n2.Postgraduate");
            c=Int32.Parse(Console.ReadLine()); switch(c)
            { case 1:
                    Undergraduate u = new Undergraduate();
                    u.check(); break;
                case 2:
                    Postgraduate p = new Postgraduate();
                    p.check(); break;


            }


             Console.ReadKey();
}}}
```

OUTPUT:


file:///C:/Users/Admin/Documents/Visual Studio 201
Select Graduation:
1.Undergraduate
2.Postgraduate
1
Enter Your Name: Atharva Kale
Enter your ID: 27
Enter your Age: 21
Enter your Grade: 75
Enter Your Address: Kalyan
Your Name: Atharva Kale
Your ID: 27
Your Age: 21
Your Grade: 75
Your Address: Kalyan
YOU ARE PASS


file:///C:/Users/Admin/Documents/Visual Studio 201
Select Graduation:
1.Undergraduate
2.Postgraduate
2
Enter Your Name: Atharva Kale
Enter your ID: 27
Enter your Age: 21
Enter your Grade: 50
Enter Your Address: Kalyan
Your Name: Atharva Kale
Your ID: 27
Your Age: 21
Your Grade: 50
Your Address: Kalyan
YOU ARE FAIL

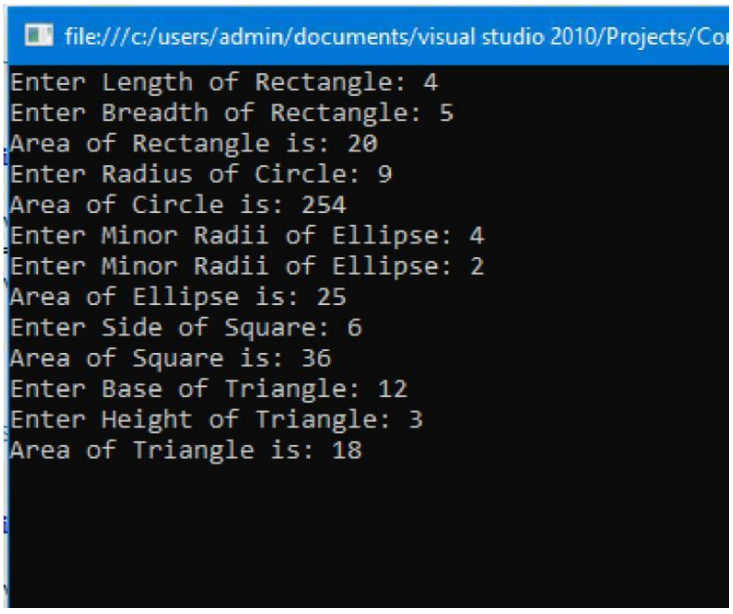
C) Program to calculate to find the area of various shape: Rectangle, Circle, Ellipse, Square and Triangle using abstract class and abstract method.

CODE:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Text;
namespace ConsoleApplication6
{ abstract class Shape
    { public abstract void calc();
    }

    class Rectangle : Shape
    {
 public override void calc()
        {
            Console.Write("Enter Length of Rectangle: ");
        float l = float.Parse(Console.ReadLine());
        Console.Write("Enter Breadth of Rectangle: "); float
        w = float.Parse(Console.ReadLine());
        Console.WriteLine("Area of Rectangle is: "+w*l); }


    }
 class Circle : Shape
    {
 public override void calc()
        {
            Console.Write("Enter Radius of Circle: "); float
            r = float.Parse(Console.ReadLine());
            Console.WriteLine("Area of Circle is: " + Math.Round(Math.PI*r*r),2); }


    }
 class Ellipse : Shape
    {
 public override void calc()
        {
            Console.Write("Enter Minor Radii of Ellipse: ");
            float r1 = float.Parse(Console.ReadLine());
            Console.Write("Enter Minor Radii of Ellipse: ");
            float r2 = float.Parse(Console.ReadLine());
            Console.WriteLine("Area of Ellipse is: " + Math.Round(Math.PI*r1*r2),2); }


    }
 class Triangle : Shape
    {
 public override void calc()
        {
            Console.Write("Enter Base of Triangle: "); float ba =
        float.Parse(Console.ReadLine()); Console.Write("Enter
        Height of Triangle: "); float he =
        float.Parse(Console.ReadLine()); Console.WriteLine("Area of
        Triangle is: " + ba*he*0.5); }


    }
 class Square : Shape
    {
```

```
    public override void calc()
            {
                Console.Write("Enter Side of Square: "); float side =
            float.Parse(Console.ReadLine());    Console.WriteLine("Area
            of Square is: " + side*side); }


        }
    class ok
        { static void Main(string[] args)
            {
                Rectangle r = new Rectangle();
                r.calc();

                Circle c = new Circle();
                c.calc();

                Ellipse e = new Ellipse();
                e.calc();

                Square s = new Square();
                s.calc();


                Triangle t = new Triangle();
                t.calc(); Console.ReadKey();
            }

        }
```

OUTPUT:



Practical : 4

AIM: Design online registration form using Master Page and Validations.

A) Design online registration form for the participation of technical events (use HTML Controls, validation controls) and display all the data on the other page. Also design a layout using Master Page.

CODE:

1 MasterPage.master:

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

<!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>
<asp:ContentPlaceHolder id="head" runat="server">
</asp:ContentPlaceHolder>
<style type="text/css">
.style1 {
width: 100%;
}
.style2 {
height: 23px;
}
.style3 {
height: 467px;
}
.style4 {
width: 100%;
height: 100%;
}
.style5
{
width: 120px; }
</style>
</head>
<body>
<form id="form1" runat="server">
<div>

<table class="style1">
<tr>
```

```
<td bgcolor="#3333FF" class="style2" style="text-align: center">
<asp:Label ID="Label2" runat="server" Font-Bold="True" Font-Size="30pt"
ForeColor="#DEFC83" Text="TECHNOFEST 2021"></asp:Label>
</td>
</tr>
<tr>
<td class="style3">
<table class="style4">
<tr>
<td align="justify" class="style5"
style="text-align: center; vertical-align: top" bgcolor="Orange">
<br />
<asp:Label ID="Label1" runat="server" BackColor="Yellow" BorderColor="Black"
BorderStyle="Dashed" Text="E V E N T S" Width="120px" Font-Bold="True"
Font-Italic="True" Font-Names="Bodoni MT Condensed" Font-Size="25pt"
ForeColor="#CC0000" Height="38px" style="margin-top: 0px"></asp:Label>
<br />
<br />
<asp:Label ID="Button2" runat="server" Text="HACKATHON" Width="120px"
BackColor="Yellow" BorderStyle="Solid" BorderWidth="3px" Font-Bold="True"
ForeColor="#CC0000" Height="30px" Enabled="False" />
<br />
<br />
<asp:Label ID="Button3" runat="server" Text="LAN GAMING" Width="120px"
BackColor="Yellow" BorderStyle="Solid" BorderWidth="3px" Font-Bold="True"
ForeColor="#CC0000" Height="30px" Enabled="False" />
<br />
<br />
<asp:Label ID="Button4" runat="server" Text="WEBINAR" Width="120px"
BackColor="Yellow" BorderStyle="Solid" BorderWidth="3px" Font-Bold="True"
ForeColor="#CC0000" Height="30px" Enabled="False" />
<br />
<br />
<asp:Label ID="Button5" runat="server" Text="ROBO WARS" Width="120px"
BackColor="Yellow" BorderStyle="Solid" BorderWidth="3px" Font-Bold="True"
ForeColor="#CC0000" Height="30px" Enabled="False" />
</td>
<td style="vertical-align: top">
<asp:ContentPlaceHolder ID="mainstuff" runat="server">

STUFFS AND ALLS

</asp:ContentPlaceHolder>

<asp:ContentPlaceHolder ID="prints" runat="server"> STUFFS

AND ALLS


</asp:ContentPlaceHolder>




</td>
</tr>
```

```
</table>
</td>
</tr>
<tr>
<td class="style2" bgcolor="#3333FF" style="text-align: center">
<asp:Label ID="Label3" runat="server" Font-Bold="True" Font-Size="30pt"
ForeColor="#DEFC83" Text="COME INCREASE THE KNOWLEDGE AND ENJOY!!!"></asp:Label>
</td>
</tr>
</table>

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

2. First.aspx:

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

<asp:Content ID="Content1" runat="server" contentplaceholderid="mainstuff">



     <p style="height: 60px" align="center">
         <asp:Label ID="Label4" runat="server" Font-Bold="True" Font-Italic="False"
             Font-Size="25pt" Font-Underline="False" ForeColor="Orange"
             Text="REGISTRATION FORM"></asp:Label><br />
             <asp:Label ID="Label1" runat="server" Font-Bold="True" Font-Italic="False"
             Font-Size="15pt" Font-Underline="False" ForeColor="Orange"
             Text="PARTICIPATE AND CONQUER"></asp:Label>
         <br />

     </p>
     <p style="height: 23px" align="center">
         <asp:Label ID="Label5" runat="server" Text="Name: " ForeColor="Orange"
></asp:Label>
          
         <asp:TextBox ID="name" runat="server" ></asp:TextBox>
       
         <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
             ControlToValidate="name" ErrorMessage="*" Font-Bold="True"
             ForeColor="Red"></asp:RequiredFieldValidator> </p>
     <p style="height: 25px" align="center">
         <asp:Label ID="Label6" runat="server" Text="Roll No: " ForeColor="Orange"
></asp:Label>
          
         <asp:TextBox ID="roll" runat="server"></asp:TextBox>
         <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
             ControlToValidate="roll" ErrorMessage="*"
 ForeColor="Red"></asp:RequiredFieldValidator>
```

```
      <asp:RangeValidator ID="RangeValidator2" runat="server"
             ControlToValidate="roll" ErrorMessage="*Please Enter Valid Roll No"
             Font-Bold="True" ForeColor="Red" MaximumValue="120" MinimumValue="1"
             Type="Integer"></asp:RangeValidator>
       
     </p>
     <p style="height: 25px" align="center">
        <asp:Label ID="Label8" runat="server" ForeColor="Orange" Text="Age:
"></asp:Label>
 <asp:TextBox ID="age" runat="server"></asp:TextBox>
         <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
             ControlToValidate="age" ErrorMessage="*"
 ForeColor="Red"></asp:RequiredFieldValidator>
      <asp:RangeValidator ID="RangeValidator1" runat="server"
             ControlToValidate="age" ErrorMessage="*Age Not In Range" Font-Bold="True"
             ForeColor="Red" MaximumValue="50" MinimumValue="17"
Type="Integer"></asp:RangeValidator>
     </p>
     <p style="height: 25px" align="center">
         <asp:Label ID="Label9" runat="server" ForeColor="Orange" Text="E-Mail:
"></asp:Label>
         <asp:TextBox ID="email" runat="server"></asp:TextBox>
         <asp:RequiredFieldValidator ID="RequiredFieldValidator4" runat="server"
             ControlToValidate="email" ErrorMessage="*"
 ForeColor="Red"></asp:RequiredFieldValidator>
      <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
             runat="server" ControlToValidate="email"
             ErrorMessage="*Please Enter Valid E-Mail" Font-Bold="True" ForeColor="Red"
             ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-
.]\w+)*"></asp:RegularExpressionValidator>
     </p>
     <p style="height: 25px" align="center">
        <asp:Label ID="Label7" runat="server" ForeColor="Orange" Text="Department:
"></asp:Label>
         <asp:DropDownList ID="dep" runat="server">
             <asp:ListItem>Engineering</asp:ListItem>
             <asp:ListItem>MCA</asp:ListItem>
             <asp:ListItem>INXT</asp:ListItem>
         </asp:DropDownList>
     </p>
     <p style="height: 22px" align="center">
         <asp:Label ID="Label10" runat="server" ForeColor="Orange"
             Text="Select Events: " Font-Size="15pt"></asp:Label>
         <asp:CheckBoxList ID="eve" runat="server" style="margin-left:800px">
             <asp:ListItem>Hackathon</asp:ListItem>
             <asp:ListItem>Lan Gaming</asp:ListItem>
             <asp:ListItem>Webinar</asp:ListItem>
             <asp:ListItem>Robo Wars</asp:ListItem>
         </asp:CheckBoxList>
         <br />
             </p>
```

```
     <p style="height: 25px" align="center">
                                    <asp:Button ID="Button2" runat="server" Text="SUBMIT"
             Width="120px" BackColor="Yellow" BorderStyle="Solid" Font-Bold="True"
               ForeColor="Orange" Height="30px" PostBackUrl="~/Print.aspx"
onclick="Button2_Click" />
                                    </p>



</asp:Content>



<asp:Content ID="Content2" runat="server" contentplaceholderid="prints">
</asp:Content>
```

3. print.aspx:

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
AutoEventWireup="true" CodeFile="Print.aspx.cs" Inherits="Print" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="mainstuff" Runat="Server">
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="prints" Runat="Server">
     <p align="center">
         <asp:Label ID="Label4" runat="server" Font-Bold="True" Font-Italic="False" Font-
             Size="25pt" Font-Underline="False" ForeColor="Orange"
         Text="Registered Successfully!!!"></asp:Label><br />
         <asp:Label ID="Label15" runat="server" Font-Bold="True" Font-Italic="False" Font-
             Size="15pt" Font-Underline="False" ForeColor="Orange"
         Text="Please Validate Information"></asp:Label>
         <br />
     </p>
     <p align="center">
         <asp:Label ID="Label5" runat="server" Text="Name: " ForeColor="Orange"
         Font-Bold="True" Font-Size="15pt"></asp:Label>
         <asp:Label ID="Label10" runat="server" Font-Bold="True" Font-Size="15pt"
         Text="Label"></asp:Label>
     </p>
     <p align="center">
         <asp:Label ID="Label6" runat="server" Text="Roll No: " ForeColor="Orange"
         Font-Bold="True" Font-Size="15pt"></asp:Label>
         <asp:Label ID="Label11" runat="server" Font-Bold="True" Font-Size="15pt"
         Text="Label"></asp:Label>
     </p>
     <p align="center">
         <asp:Label ID="Label8" runat="server" ForeColor="Orange" Text="Age: "
```

```
        Font-Bold="True" Font-Size="15pt"></asp:Label>
    <asp:Label ID="Label12" runat="server" Font-Bold="True" Font-Size="15pt"
        Text="Label"></asp:Label>
    </p>
    <p align="center">
        <asp:Label ID="Label16" runat="server" ForeColor="Orange" Text="E-Mail: "
        Font-Bold="True" Font-Size="15pt"></asp:Label>
    <asp:Label ID="Label17" runat="server" Font-Bold="True" Font-Size="15pt"
        Text="Label"></asp:Label>
    </p>
    <p align="center">
        <asp:Label ID="Label7" runat="server" ForeColor="Orange"
        Text="Department: " Font-Bold="True" Font-Size="15pt"></asp:Label>
        <asp:Label ID="Label13" runat="server" Font-Bold="True" Font-Size="15pt"
        Text="Label"></asp:Label>
    </p>
    <p align="center">
        <asp:Label ID="Label18" runat="server" ForeColor="Orange"
        Text="Selected Events:" Font-Bold="True" Font-Size="15pt"></asp:Label><br />
        <asp:Label ID="Label19" runat="server" Font-Bold="True" Font-Size="15pt"
        Text="Label"></asp:Label>
    </p>
    <p align="center">
         </p>
</asp:Content>
```

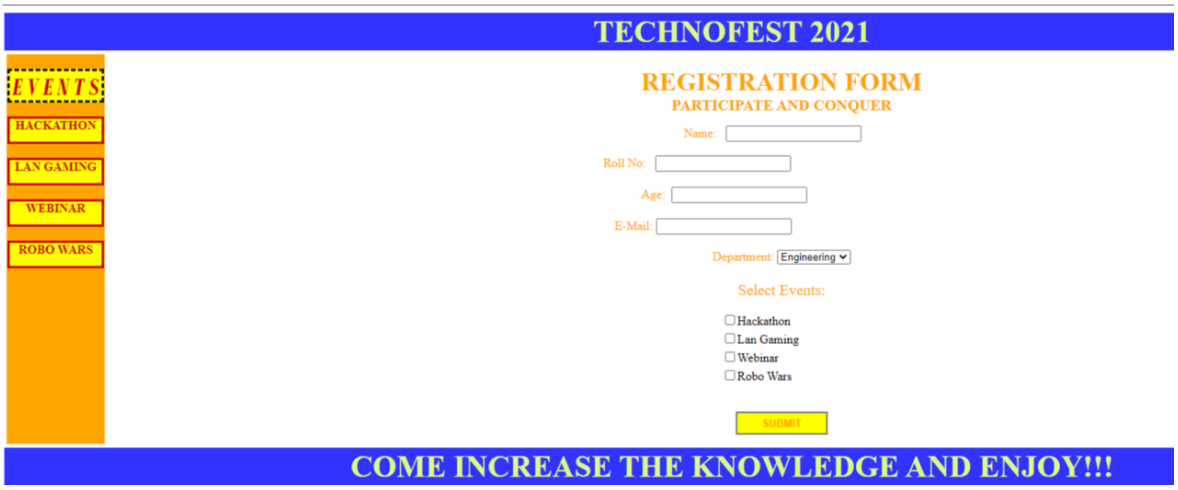
4. print.aspx.cs

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web; using System.Web.UI;
using System.Web.UI.WebControls;
public partial class Print :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
     { if (PreviousPage != null)
        {
            ContentPlaceHolder place =
(ContentPlaceHolder)PreviousPage.Master.FindControl("mainstuff");
             TextBox n = (TextBox)place.FindControl("name");
             TextBox r = (TextBox)place.FindControl("roll"); TextBox
             a = (TextBox)place.FindControl("age");
             TextBox email = (TextBox)place.FindControl("email");
             DropDownList d = (DropDownList)place.FindControl("dep");
             CheckBoxList c = (CheckBoxList)place.FindControl("eve");
             Label10.Text = n.Text;
             Label11.Text  = r.Text;
             Label12.Text  = a.Text;
             Label17.Text = email.Text;
             Label13.Text = d.SelectedItem.Text;
 string item = "";
             for (int i = 0; i < c.Items.Count; i++)
             { if (c.Items[i].Selected == true)
```

```
                { item += c.Items[i].Text + "<br>";
                }
            }

            if (item != null)
            {
                                Label19.Text = item;
            }

        }
    }
}
```

OUTPUT:

AFTER LOADING:



- **Required Field Validator:**

Other Validations:

Entering Correct Data:

REGISTRATION FORM

PARTICIPATE AND CONQUER

Name: Atharva Kale

Roll No: 27

Age: 21

E-Mail: abc@gmail.com

Department: MCA

Select Events:

- [x] Hackathon
- [x] Lan Gaming
- [x] Webinar
- [ ] Robo Wars

SUBMIT

Data Shown After Successful registration:

TECHNOFEST 2021

EVENTS

HACKATHON

LAN GAMING

WEBINAR

ROBO WARS

Registered Successfully!!!

Please Validate Information

Name: Atharva Kale

Roll No: 27

Age: 21

E-Mail: abc@gmail.com

Department: MCA

Selected Events:
Hackathon
Lan Gaming
Webinar

COME INCREASE THE KNOWLEDGE AND ENJOY!!!

Practical : 5

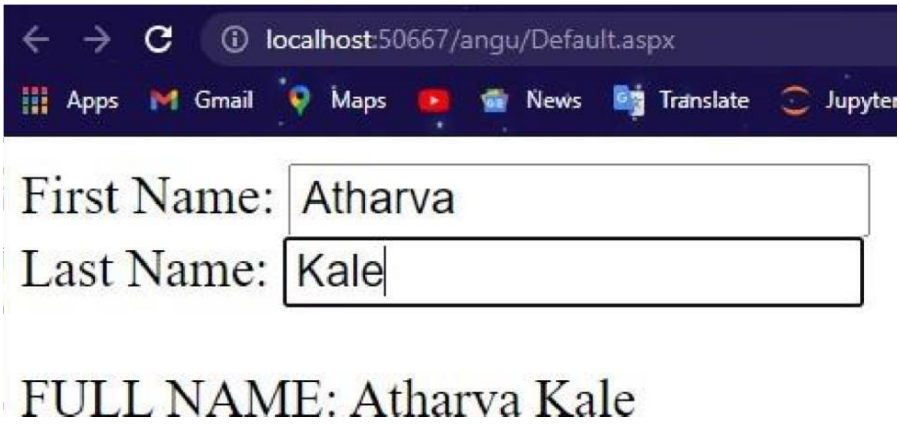
AIM: Design simple angular web application.

A) Build a simple angular web application.

CODE:

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

<!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">
<script
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>

<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div ng-app="myapp" ng-controller="myctrl">

    First Name: <input type="text" ng-model="fname" /><br />
    Last Name: <input type="text" ng-model="lname" />

    <br />
    <br />
    FULL NAME: {{fname+" "+lname}}
    </div>

    <script   type="text/javascript">   var   app   =
        angular.module('myapp',                  []);
        app.controller('myctrl', function ($scope) {

            $scope.fname = "";
            $scope.lname = "";
        });
    </script>
    </form>
</body>
</html>
```

OUTPUT:


localhost:50667/angu/Default.aspx
Apps
Gmail
Maps
News
Translate
First Name: Atharva
Last Name: Kale
FULL NAME: Atharva Kale

Practical : 6

AIM: Design web applications to demonstrate connected and disconnected architecture in Ado.net.

A) Design a webpage to demonstrate a connection oriented architecture. Fetch Student details from database such as Roll no, Name, Programme (e.g. MCA), Course (e.g. AWT) etc.

CODE:

1. Defualt.aspx:

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

<!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:GridView ID="GridView1" runat="server" Height="248px" Width="371px">
        </asp:GridView>

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

2. Default.aspx.cs:

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

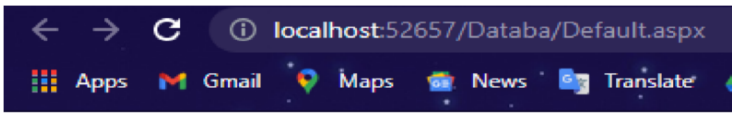
```
public partial class _Default : System.Web.UI.Page
{ protected void Page_Load(object sender,
EventArgs e)
    {
        SqlConnection con = new SqlConnection("data
source=COOLBOY\\SQLEXPRESS;Database=college; integrated security=true;");
SqlCommand query = new SqlCommand("select * from student",con); con.Open();
        SqlDataReader r = query.ExecuteReader();
        GridView1.DataSource = r;
        GridView1.DataBind(); con.Close();
    }
}
```

OUTPUT:

DATA STORED IN DATABASE AT SQL SERVER MANAGEMENT STUDIO

COOLBOY\SQLEXPRE...ge - dbo.student

	name	roll_no	programme	course
	Atharva	27	MCA	AWT
	B	2	MCA	AIML
	C	3	ENG	C++
	D	4	INXT	Deep learning
	E	5	BSC	Database
▶*	*NULL*	*NULL*	*NULL*	*NULL*



name	roll_no	programme	course
Atharva	27	MCA	AWT
B	2	MCA	AIML
C	3	ENG	C++
D	4	INXT	Deep learning
E	5	BSC	Database

B) Design a webpage to demonstrate a disconnected architecture. Fetch Student details from database such as Roll no, Name, Programme (e.g. MCA), Course (e.g.AWT) etc.

CODE:

1. Default.aspx:

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

<!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:GridView ID="GridView1" runat="server" Height="297px" Width="386px">
        </asp:GridView>

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

2. Default.aspx.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using   System.Web.UI.WebControls;
using System.Data.SqlClient; using
System.Data;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
       SqlConnection        con        =        new        SqlConnection("data
source=COOLBOY\\SQLEXPRESS;Database=college;    integrated    security=true;");
SqlDataAdapter   a   =   new   SqlDataAdapter("select   *   from   student",   con);
con.Open();
        DataSet ds = new DataSet();
        a.Fill(ds, "student");
```

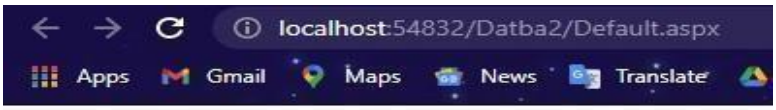
```
            GridView1.DataSource = ds.Tables[0];
            GridView1.DataBind(); con.Close();
        }
    }
```

OUTPUT:

DATA STORED IN DATABASE AT SQL SERVER MANAGEMENT STUDIO


COOLBOY\SQLEXPRE...ge - dbo.student

	name	roll_no	programme	course
	Atharva	27	MCA	AWT
	B	2	MCA	AIML
	C	3	ENG	C++
	D	4	INXT	Deep learning
	E	5	BSC	Database
▸*	*NULL*	*NULL*	*NULL*	*NULL*



name	roll_no	programme	course
Atharva	27	MCA	AWT
B	2	MCA	AIML
C	3	ENG	C++
D	4	INXT	Deep learning
E	5	BSC	Database

Practical : 7

AIM: Design web applications to demonstrate the use of data bound controls and procedures.

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

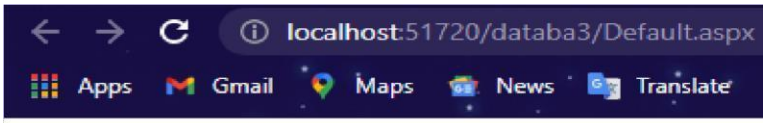
CODE:

1. **Default.aspx:**

```
@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="_Default"
<%
%>
<!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:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
             DataSourceID="SqlDataSource1">
             <Columns>
                  <asp:BoundField DataField="name" HeaderText="name" SortExpression="name"
/>
                 <asp:BoundField DataField="roll_no" HeaderText="roll_no"
                     SortExpression="roll_no" />
                 <asp:BoundField DataField="programme" HeaderText="programme"
                     SortExpression="programme" />
                 <asp:BoundField DataField="course" HeaderText="course"
                     SortExpression="course" />
             </Columns>
         </asp:GridView>
         <br />
         <asp:SqlDataSource ID="SqlDataSource1" runat="server"
           ConnectionString="<%$ ConnectionStrings:collegeConnectionString %>"
```

```
            SelectCommand="SELECT [name], [roll_no], [programme], [course] FROM
[student]">
        </asp:SqlDataSource>

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

OUTPUT:



name	roll_no	programme	course
Atharva	27	MCA	AWT
B	2	MCA	AIML
C	3	ENG	C++
D	4	INXT	Deep learning
E	5	BSC	Database
ASFG	45	MCA	AWT
Atharva	36	BSC	AI

B) Design a webpage to demonstrate the working of a simple stored procedure.

CODE:

1. Default.aspx:

```
@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="_Default"
<%
%>
<!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:GridView ID="GridView1" runat="server">
        </asp:GridView>
        <br />
        <br />


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

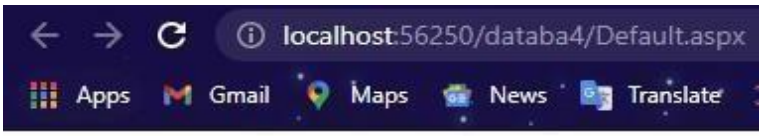
2. Default.aspx.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using   System.Web.UI.WebControls;
using System.Data.SqlClient; using
System.Data;
 public partial class _Default :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
    {
        SqlConnection con = new SqlConnection("data source=COOLBOY\\SQLEXPRESS;
Database=College; integrated security = true"); con.Open();
        SqlCommand cmd = new SqlCommand("enterdata", con); cmd.CommandType
        = CommandType.StoredProcedure;


        SqlDataReader rdr = cmd.ExecuteReader();
        GridView1.DataSource = rdr;
        GridView1.DataBind();
    }
}
```

3. Stored Procedure “Enterdata”:

```
CREAT PROCEDURE enterdata
AS
BEGIN
SELECT * FROM student
END;
```

OUTPUT:



name	roll_no	programme	course
Atharva	27	MCA	AWT
B	2	MCA	AIML
C	3	ENG	C++
D	4	INXT	Deep learning
E	5	BSC	Database
ASFG	45	MCA	AWT
Atharva	36	BSC	AI

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

CODE:

1. Default.aspx:

```
   @ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"Inherits
                                        ="_Default"
<%
%>
<!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:Label ID="Label2" runat="server" Text="Enter Name: "></asp:Label>
  

         <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
         <br />
         <br />
```

```
        <asp:Label ID="Label3" runat="server" Text="Enter Roll No: "></asp:Label>
  
          <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
          <br />
          <br />
          <asp:Label ID="Label4" runat="server" Text="Enter Programme: "></asp:Label>
          <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
          <br />
          <br />
          <asp:Label ID="Label5" runat="server" Text="Enter Course: "></asp:Label>
          <asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
          <br />
          <br />
          <br />
         <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="SUBMIT" />
           
          <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>

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

2. Default.aspx.cs:

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

public partial class _Default : System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e) {
 }
     protected void Button1_Click(object sender, EventArgs e)
     {
         SqlConnection con = new SqlConnection("data source=COOLBOY\\SQLEXPRESS;
 Database=college; integrated security = true");
        SqlParameter rn, name, br, prog, cor;
         SqlCommand cmd = new SqlCommand("spd", con);

        //Specifying that we are dealing with stored procedure cmd.CommandType
        = CommandType.StoredProcedure;
         //Creating  parameter  rn  =  new  SqlParameter("@roll_no",
         SqlDbType.Int);    name    =    new    SqlParameter("@name",
         SqlDbType.VarChar); prog = new SqlParameter("@programme",
         SqlDbType.VarChar);  cor  =  new  SqlParameter("@course",
         SqlDbType.VarChar);

        //Add parameters with sqlcommand object
        cmd.Parameters.Add(rn);
        cmd.Parameters.Add(name);
        cmd.Parameters.Add(prog);
        cmd.Parameters.Add(cor); //passing
```

```
        parameter Values rn.Value =
        Int32.Parse(TextBox2.Text); name.Value =
        TextBox1.Text; prog.Value =
        TextBox3.Text; cor.Value =
        TextBox4.Text; con.Open();


         try
         {
    cmd.ExecuteNonQuery();
    Label1.Text = "success";
         }

         catch (Exception)
        {
             Label1.Text = "fail";
        }
     }
}
```

3. Parameterized Stored Procedure “spd”:

```
CREATE PROCEDURE spd(
@name varchar(50),
@roll_no int,
@programme varchar(50),
@course varchar(50)
)
AS
BEGIN
INSERT INTO student(
[name],
[roll_no],
[programme],
[course]
)
VALUES (
@name,
@roll_no,
@programme,
@course
)
END
```

OUTPUT:

DATA SUCCESSFULLY INSERTED

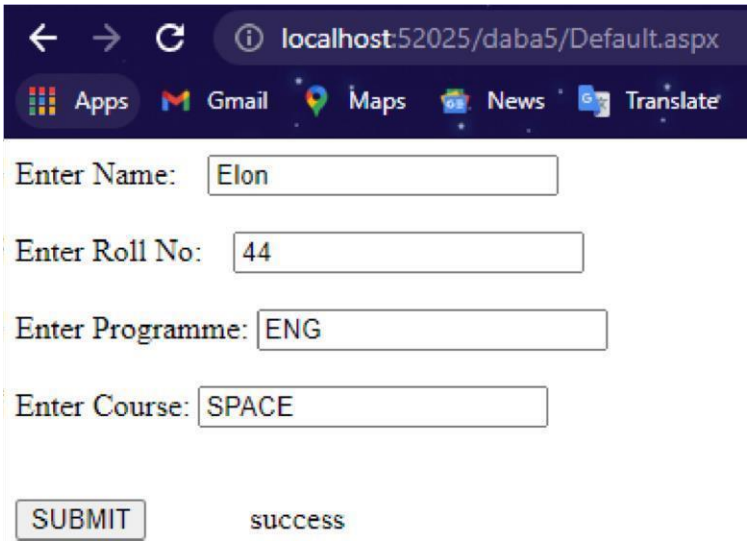


TABLE AFTER INSERTION OF DATA

	name	roll_no	programme	course
1	Atharva	27	MCA	AWT
2	B	2	MCA	AIML
3	C	3	ENG	C++
4	D	4	INXT	Deep learning
5	E	5	BSC	Database
6	ASFG	45	MCA	AWT
7	Atharva	36	BSC	AI
8	Elon	44	ENG	SPACE

Practical : 8

AIM: Design web applications to demonstrate the use of LINQ to SQL and ADO.NET Entity Framework.

A) Design a web page to display the employee information from table to grid control. Use LINQ to SQL.

CODE:

1. Default.aspx:

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

<!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:GridView ID="GridView1" runat="server" Height="224px" Width="285px">
        </asp:GridView>

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

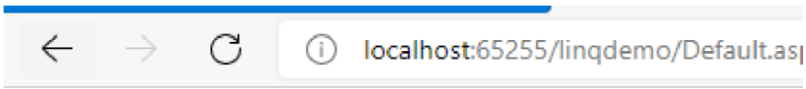
2. Default.aspx.cs:

```
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)
    {
```

```
        DataClassesDataContext dbContext = new DataClassesDataContext();
        //Retrieve data from StudentsInfo table
        GridView1.DataSource = (from a in dbContext.employees where a.EMP_CITY ==
"kalyan" select a);

        GridView1.DataBind();
    }
}
```

3. Adding LINQ TO SQL class and drop table employee on it:

OUTPUT:



EMP_ID	EMP_NAME	EMP_CITY	EMP_SAL
1	Atharva	Kalyan	10000
3	AGA	Kalyan	15000
4	GASE	Kalyan	30000

B) Design a library system in ASP.NET and show all the book details in a Gridview dynamically using ADO.NET Entity Framework.

CODE:

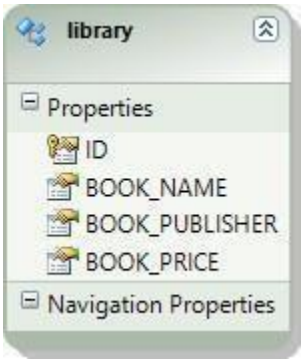
1. Default.aspx:

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

<!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:GridView ID="GridView1" runat="server" Height="278px" Width="343px">
        </asp:GridView>

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

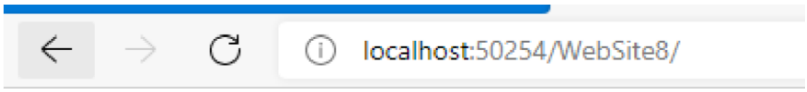
2. Default.aspx.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using   System.Web.UI.WebControls;
using collegeModel;
public partial class _Default : System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
    {    collegeEntities2    ctx    =    new    collegeEntities2();
        GridView1.DataSource = (from s in ctx.libraries select s);
       // GridView1.DataSource = ctx.Students;
       GridView1.DataBind();
    }
}
```

3. Model.edmx:



OUTPUT:



ID	BOOK_NAME	BOOK_PUBLISHER	BOOK_PRICE
1	Beginning ASP. NET	John Wiley & Sons,	1000
2	Professional ASP. NET 3.5 SP1 Edition	John Wiley & Sons,	2000
3	Pro asp. netmvc 5 platform	Berkeley	3000
4	Professional ASP. NET MVC 5	Wrox Press	4000
5	ASP. Net 4.5 Unleashed	Pearson Education India	5000

Practical : 9

AIM: Design web applications to demonstrate Client and Server side State Management Techniques.

A) WAP to implement Client side state management techniques and Server side state management techniques on the form design attached with the assignment.

1) ViewState:

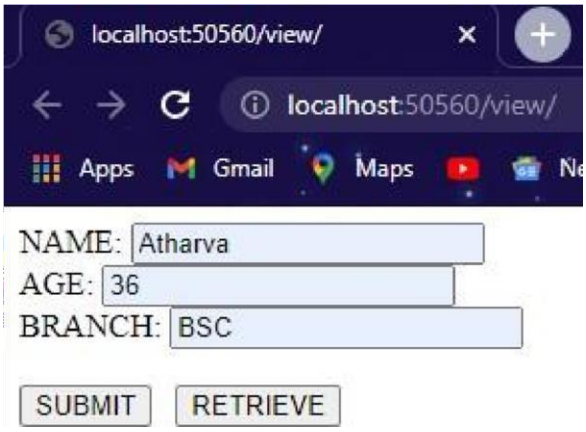
CODE:

- **Default.aspx.cs:**

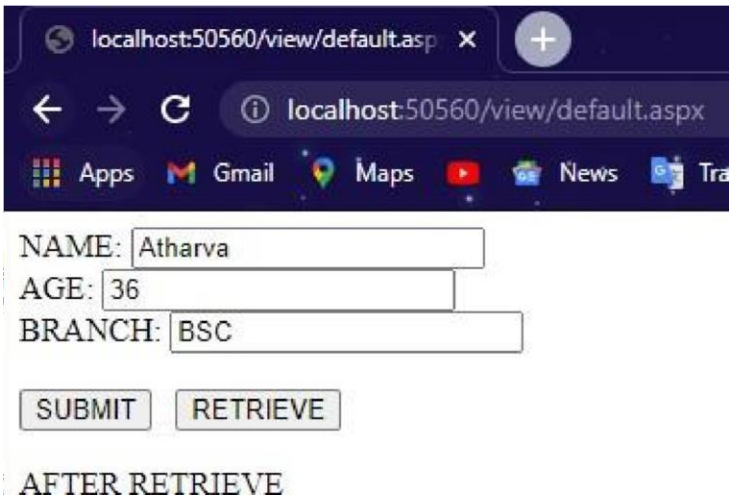
```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web; using System.Web.UI;
using System.Web.UI.WebControls;
public partial class _Default :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
     {
        Label4.Visible = false;
     }
     protected void Button1_Click(object sender, EventArgs e)
     {
        ViewState["name"] = TextBox1.Text;
        ViewState["age"] = TextBox2.Text;
        ViewState["branch"] = TextBox3.Text;
         TextBox1.Text = TextBox2.Text = TextBox3.Text = null; }


     protected void Button2_Click(object sender, EventArgs e)
     { if (ViewState != null)
        {
             Label4.Visible = true;
             Label4.Text = "AFTER RETRIEVE";
              TextBox1.Text = Convert.ToString(ViewState["name"]);
            TextBox2.Text = Convert.ToString(ViewState["age"]);
            TextBox3.Text = Convert.ToString(ViewState["branch"]); }
     }
}
```

OUTPUT:

- **SUBMIT:**



- **RETREIVE:**



2) Hidden Field:

CODE:

- **Default.aspx:**

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

<!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:Label ID="Label1" runat="server" Text="NAME: "></asp:Label>
 
        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
        <br />
        <asp:Label ID="Label2" runat="server" Text="AGE: "></asp:Label>
 
        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
        <br />
        <asp:Label ID="Label3" runat="server" Text="BRANCH: "></asp:Label>
 
        <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
        <br />
    <br />
    <br />
 <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text=" SUBMIT " />

  

         <asp:Button ID="Button2" runat="server" onclick="Button1_Click" Text="RETRIEVE"
             PostBackUrl="~/Default2.aspx" />

         <br />
         <br />
         <asp:HiddenField ID="HiddenField1" runat="server" />
         <asp:HiddenField ID="HiddenField2" runat="server" />
         <asp:HiddenField ID="HiddenField3" runat="server" />

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

Default.aspx.cs:

```
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)
```

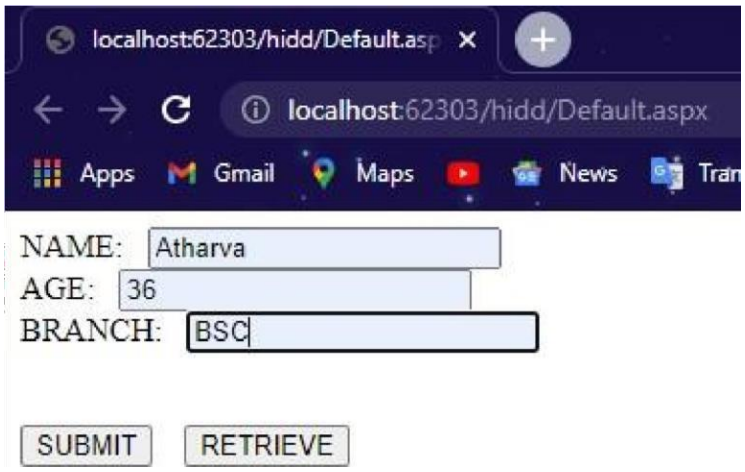
```
    {
        HiddenField1.Value = TextBox1.Text;
        HiddenField2.Value = TextBox2.Text;
        HiddenField3.Value = TextBox3.Text;
    }
}
```

Default2.aspx.cs:

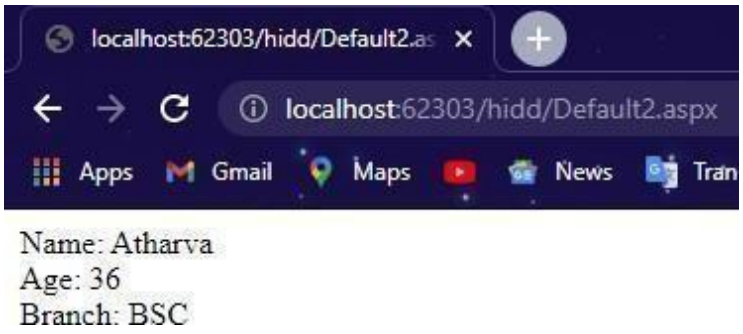
```
using        System;        using
System.Collections.Generic;  using
System.Linq;   using   System.Web;
using     System.Web.UI;     using
System.Web.UI.WebControls;

public partial class Default2 : System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
    {  string  na=Request.Form["HiddenField1"];  string
        age = Request.Form["HiddenField2"]; string
        branch = Request.Form["HiddenField3"];
        Label1.Text += na;
        Label2.Text += age;
        Label3.Text += branch;
    }
}
```

- **CODE:**

SUBMIT:



- **RETREIVE:**



3) Cookies:

- **Default.aspx.cs:**

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

- **OUTPUT:**

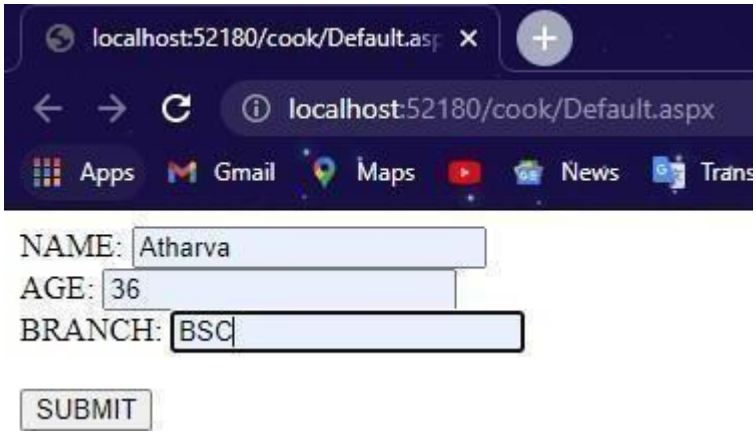
```
using     System.Web.UI;     using
System.Web.UI.WebControls;
 public partial class _Default :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
     {
 }
     protected void Button1_Click(object sender, EventArgs e)
     {
         HttpCookie ck = new HttpCookie("userInfo");
         ck["Name"] = TextBox1.Text; ck["Age"] =
         TextBox2.Text; ck["Branch"] =
         TextBox3.Text; Response.Cookies.Add(ck);
         Response.Redirect("Default2.aspx");
     }
}
```

- **Default2.aspx.cs:**

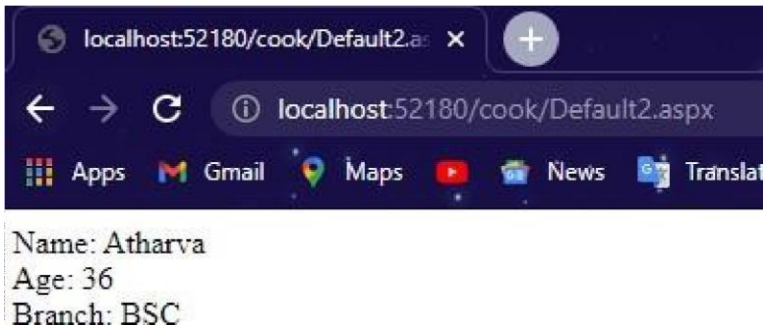
```
using        System;        using
System.Collections.Generic;  using
System.Linq;   using   System.Web;
using     System.Web.UI;     using
System.Web.UI.WebControls;
 public partial class Default2 :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
     {
         HttpCookie cook = Request.Cookies["userInfo"];
         string name = cook["Name"].ToString(); string
         age = cook["Age"].ToString(); string branch =
         cook["Branch"].ToString();
         Label1.Text += name;
         Label2.Text += age;
         Label3.Text += branch;
     } }
```

- **SUBMIT:**

- **CODE:**



- **RETRIEVE:**



4) Query String:

- **Default.aspx.cs:**

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using System.Web.UI.WebControls;
public partial class _Default :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e) {
 }
     protected void Button1_Click(object sender, EventArgs e)
     {
         Response.Redirect("Default2.aspx?Name=" + TextBox1.Text + "&Age=" + TextBox2.Text
```

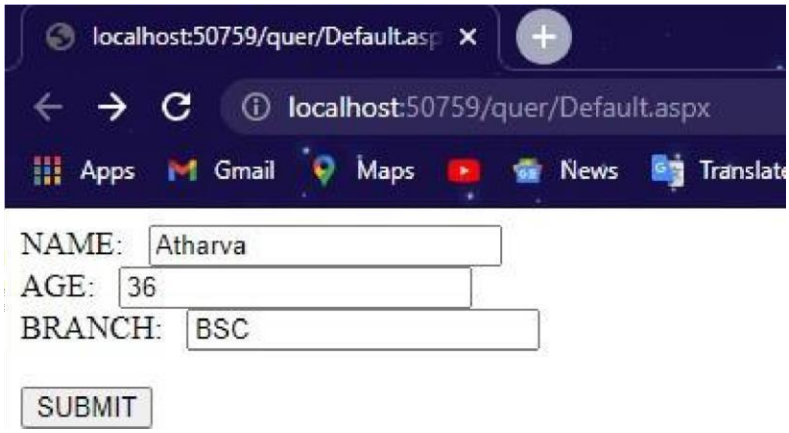
- **OUTPUT:**

```
+ "&Branch=" + TextBox3.Text); }
}
```

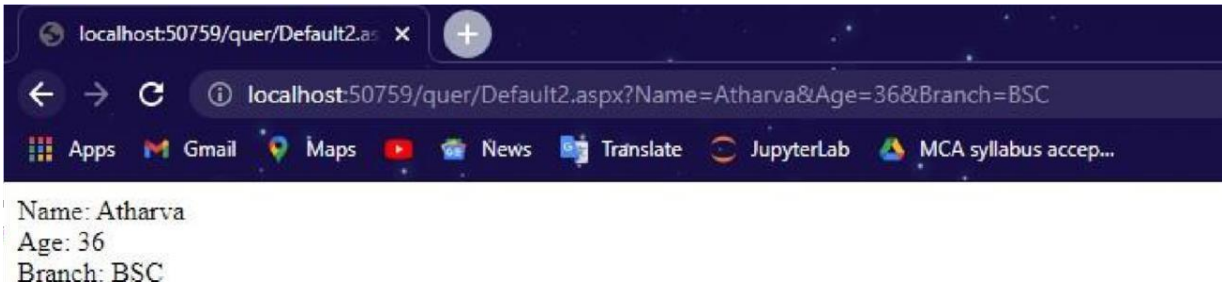
- **Default2.aspx.cs:**

```
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)
     { string name = Request.QueryString["Name"]; string
         age = Request.QueryString["Age"]; string branch
         = Request.QueryString["Branch"];
         Label1.Text +=  name;
         Label2.Text += age;
         Label3.Text += branch;
     } }
```

- **SUBMIT:**



- **RETRIEVE:**



- **CODE:**

5) Session State:

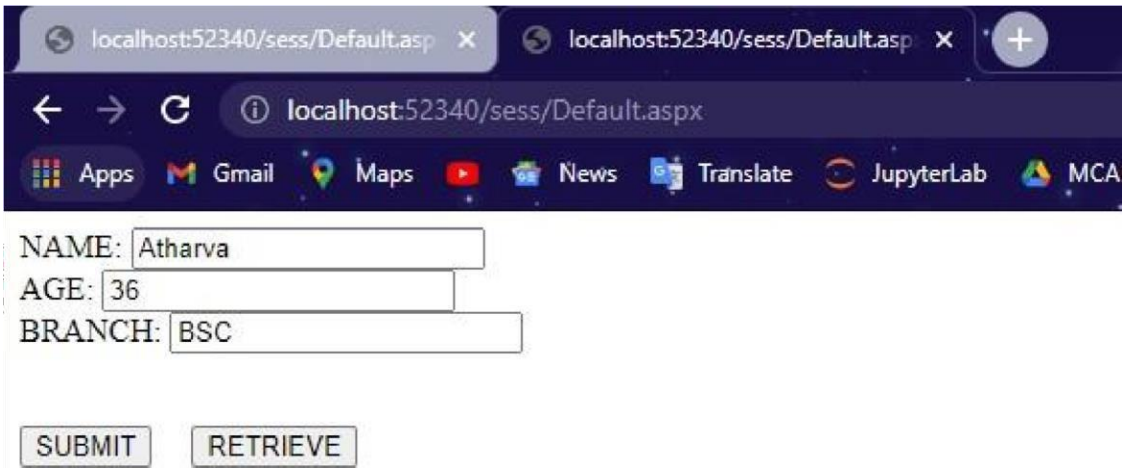
- **Default.aspx:**

```
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)
     {
         Session["name"] = TextBox1.Text;
         Session["age"] = TextBox2.Text;
         Session["branch"] = TextBox3.Text;
         TextBox1.Text = TextBox2.Text = TextBox3.Text = null; }

     protected void Button2_Click(object sender, EventArgs e)
     { if (ViewState != null)
         {
              TextBox1.Text = Convert.ToString(Session["name"]);
             TextBox2.Text = Convert.ToString(Session["age"]);
             TextBox3.Text = Convert.ToString(Session["branch"]); }
     }
}
```

- **OUTPUT:**

- **SUBMIT:**

RETRIEVE ON ANOTHER TAB:



6) Application State:

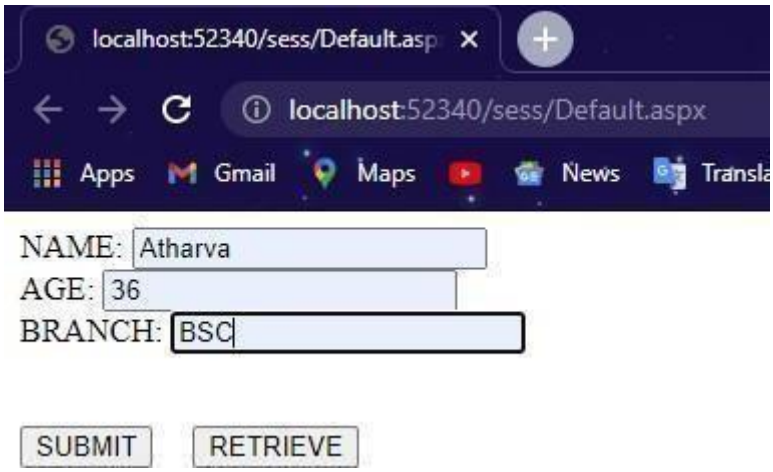
CODE:

- **Default.aspx:**

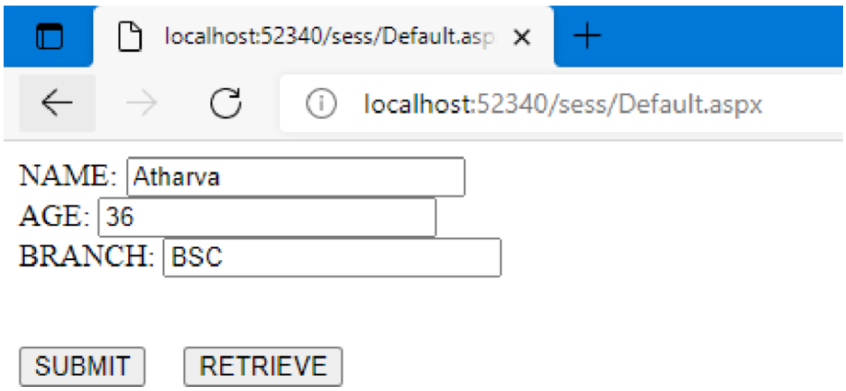
```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using System.Web.UI.WebControls;
 public partial class _Default :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e) {
 }
     protected void Button1_Click(object sender, EventArgs e)
     {
         Application["name"] = TextBox1.Text;
         Application["age"] = TextBox2.Text;
         Application["branch"] = TextBox3.Text;
         TextBox1.Text = TextBox2.Text = TextBox3.Text = null; }


     protected void Button2_Click(object sender, EventArgs e)
     { if (ViewState != null)
         {
             TextBox1.Text = Convert.ToString(Application["name"]);
             TextBox2.Text = Convert.ToString(Application["age"]);
             TextBox3.Text = Convert.ToString(Application["branch"]); }
     }
}
```

- **OUTPUT:**

  - **SUBMIT:**



- **RETREIVE ON ANOTHER BROWSER:**



Practical : 10

AIM: Design Web Application to produce and consume a web Service

A) Create an XML web service that returns all the student details from the student table.

CODE:

1. Default.aspx.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;  using  System.Web.UI;
using System.Web.UI.WebControls;
 public partial class Default2 :
System.Web.UI.Page
{ protected void Page_Load(object sender, EventArgs e)
     { }
     protected void Button1_Click(object sender, EventArgs e)
     {
         Label1.Visible = false;
         localhost2.WebService2 wb = new localhost2.WebService2();
         GridView1.DataSource = wb.takedata();
         GridView1.DataBind();
     }
}
```

2. Default.aspx:

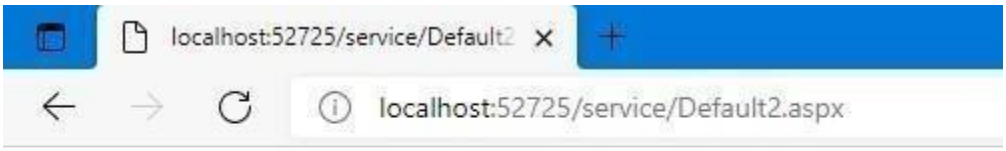
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default2.aspx.cs"
Inherits="Default2" %>

<!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:GridView ID="GridView1" runat="server">
         </asp:GridView>
         <br />
        <asp:Label ID="Label1" runat="server" Text="PRESS BUTTON TO GETDATA"></ asp:Label>
         <br />
         <br />
```

```
        <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Button" />

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

3. WebService.cs:

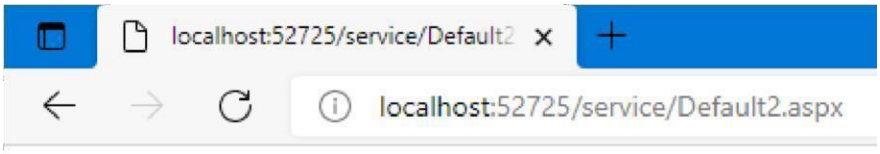
```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;                  using
System.Web.Services;         using
System.Data;                 using
System.Data.SqlClient;

/// <summary>
/// Summary description for WebService2
/// </summary>
[WebService(Namespace = "http://tempuri.org/")]
[WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
// To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
following line.
//  [System.Web.Script.Services.ScriptService]  public  class
 WebService2   :   System.Web.Services.WebService   {   public
 WebService2 () {

        //Uncomment the following line if using designed components
        //InitializeComponent();
    }

    [WebMethod]
    public string HelloWorld() {
        return "Hello World";
    }

    [WebMethod] public
    DataTable takedata()
    {
       SqlConnection          con          =          new          SqlConnection("data
source=COOLBOY\\SQLEXPRESS;Database=college; integrated security=true;");
        SqlCommand cmd = new SqlCommand("SELECT * FROM student");
        SqlDataAdapter sda = new SqlDataAdapter();
        cmd.Connection = con; sda.SelectCommand =
        cmd; DataTable dt = new DataTable();
        dt.TableName = "student"; sda.Fill(dt);
        return dt;
    }
 }
```

OUTPUT :



PRESS BUTTON TO GET DATA

Button



name	roll_no	programme	course
B	2	MCA	AIML
C	3	ENG	C++
D	4	INXT	Deep learning
E	5	BSC	Database
Atharva	27	MCA	AWT
Atharva	36	BSC	AI
Elon	44	ENG	SPACE
ASFG	45	MCA	AWT

Button

B) Create an XML web service that is used to insert a row with the values given by the user.

1. **Default.aspx.cs:**

```
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)
     { try
         {         string   name,   programme,
course;
             int roll_no;
 localhost.add  a  =  new  localhost.add();  name  =
TextBox1.Text;                    roll_no          =
Int32.Parse(TextBox2.Text);        programme        =
TextBox3.Text;
             course = TextBox4.Text;

             a.data_add(name, roll_no, programme, course);

             Label5.Text = "DATA ADDED SUCCESSFULLY!";
         }

         catch (Exception)
         {
             Label5.Text = "OOPS! SOME ISSUE!!";
         }
     }
}
```

2. Default.aspx:

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

<!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:Label ID="Label1" runat="server" Text="Enter Name: "></asp:Label>
   
         <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
         <br />
         <br />
       <asp:Label ID="Label2" runat="server" Text="Enter Roll No: "></asp:Label>
  
         <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
         <br />
         <br />
        <asp:Label ID="Label3" runat="server" Text="Enter Programme: "></asp:Label>
  
```

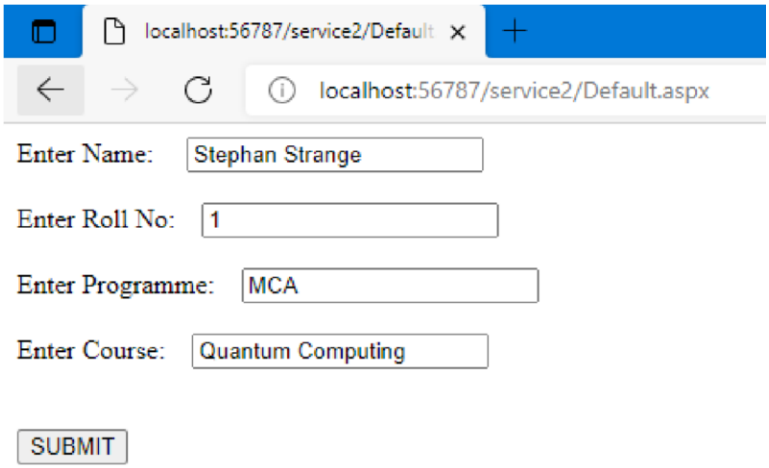
```
            <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
            <br />
            <br />
           <asp:Label ID="Label4" runat="server" Text="Enter Course: "></asp:Label>
  
            <asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
            <br />
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="SUBMIT" />
            <br />
            <br />
            <br />
            <asp:Label ID="Label5" runat="server"></asp:Label>

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

3. add.cs:

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

/// <summary>
/// Summary description for add
/// </summary>
[WebService(Namespace = "http://tempuri.org/")]
[WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
// To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
following line.
// [System.Web.Script.Services.ScriptService] public
class add : System.Web.Services.WebService {
 public add () {
     //Uncomment the
     following line
     if using
     designed
     components
         //InitializeComponent();
     }


     [WebMethod]
     public void data_add(string name, int roll, string programme,string course)
     {
        SqlConnection       con       =       new       SqlConnection("data
source=COOLBOY\\SQLEXPRESS;Database=college; integrated security=true;");
SqlCommand cmd = new SqlCommand("INSERT INTO student VALUES
(@name,@roll,@programme,@course)",con);
         cmd.Parameters.AddWithValue("@name",name);
         cmd.Parameters.AddWithValue("@roll",roll);
         cmd.Parameters.AddWithValue("@programme",programme);
```

```
            cmd.Parameters.AddWithValue("@course", course);
            con.Open(); cmd.ExecuteNonQuery(); con.Close();
        }

    }
```

- **OUTPUT:**



	name	roll_no	programme	course
1	Stephan Strange	1	MCA	Quantum Computing
2	B	2	MCA	AIML
3	C	3	ENG	C++
4	D	4	INXT	Deep learning
5	E	5	BSC	Database
6	Atharva	27	MCA	AWT
7	Atharva	36	BSC	AI
8	Elon	44	ENG	SPACE
9	ASFG	45	MCA	AWT

Practical : 11

AIM: Design Web Application to produce and Consume a web Service.

A) Create a WCF web service "Calculator" with methods as Addition, Subtraction, Multiplication & Division.

CODE:

1. IMathService.cs:

```
using System;
using System.Collections.Generic; using
System.Linq;
using  System.Runtime.Serialization;
using   System.ServiceModel;   using
System.Text;
namespace MathService
{
    // NOTE: You can use the "Rename" command on the "Refactor" menu to change the
interface name "IMathService" in both code and config file together.
    [ServiceContract]
    public interface IMathService
    {
        [OperationContract]            int
        Addition(int num1, int num2);

        [OperationContract]
        int Subtraction(int num1, int num2);

        [OperationContract]
        int Multiplication(int num1, int num2);

        [OperationContract]
        int Division(int num1, int num2);
    }
}
```

2. MathService.cs:

```
using         System;          using
System.Collections.Generic;    using
System.Linq;                   using
System.Runtime.Serialization;  using
System.ServiceModel;           using
System.Text;
namespace MathService
{
```

```
    // NOTE: You can use the "Rename" command on the "Refactor" menu to change the class
name "MathService" in both code and config file together.
    public class MathService : IMathService
    { public int Addition(int num1, int num2)
        { return num1 + num2;
        }
        public int Subtraction(int num1, int num2)
        { return num1 - num2;
        }
        public int Multiplication(int num1, int num2)
        { return num1 * num2;
        }
        public int Division(int num1, int num2)
        { return num1 / num2;
        }

    }
}
```

3. App.config:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <system.serviceModel>
    <behaviors>
      <serviceBehaviors>
        <behavior name="mexBehaviour">
          <serviceMetadata httpGetEnabled="true" />
        </behavior>
      </serviceBehaviors>
    </behaviors>
    <services>
      <service name="MathService.MathService" behaviorConfiguration="mexBehaviour">
       <endpoint address="MathService" binding="basicHttpBinding"
contract="MathService.IMathService">
        </endpoint>
        <endpoint address="MathService" binding="netTcpBinding"
contract="MathService.IMathService">
        </endpoint>
        <endpoint address="mex" binding="mexHttpBinding" contract="IMetadataExchange" />
        <host>
          <baseAddresses>
            <add baseAddress="http://localhost:8080/" />
            <add baseAddress="net.tcp://localhost:8090" />
          </baseAddresses>
        </host>
      </service>
    </services>
  </system.serviceModel>
</configuration>
```

4. Program.cs:

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

```
System.ServiceModel;     namespace
MathService_Host
{ class Program
    { static void Main(string[] args)
        {
            ServiceHost    host    =    new    ServiceHost(typeof(MathService.MathService));
            host.Open();
            Console.WriteLine("Service Hosted Sucessfully"); Console.Read();
        }
    }
}
```

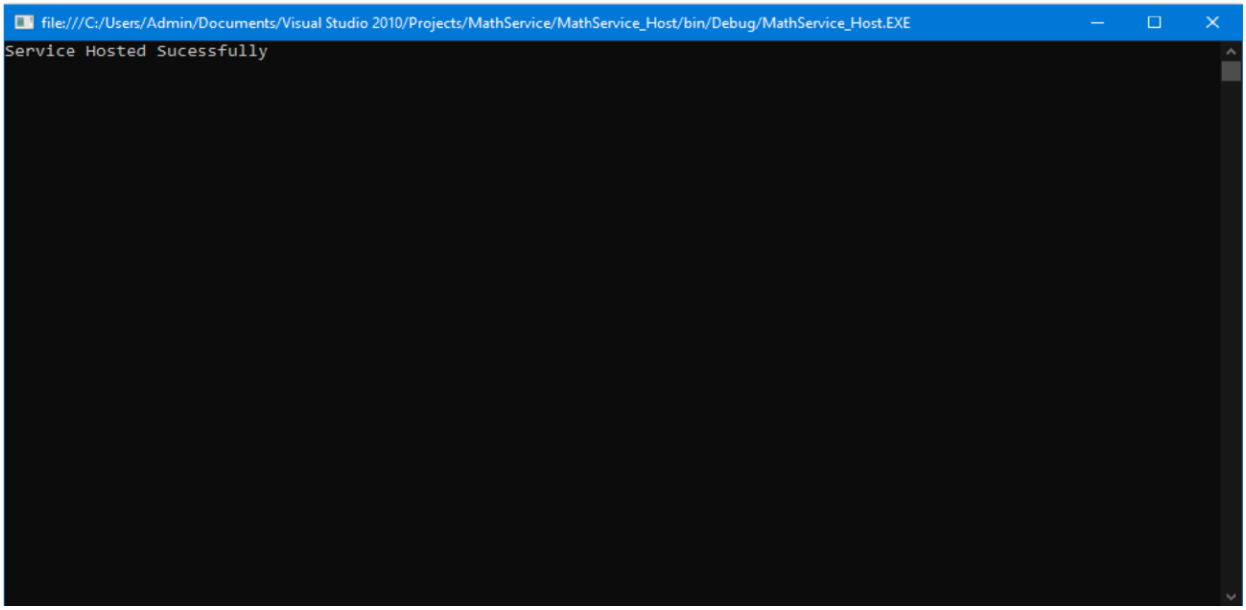
5. Form1.cs:

```
using         System;         using
System.Collections.Generic;  using
System.ComponentModel;       using
System.Data; using System.Drawing;
using      System.Linq;      using
System.Text;                 using
System.Windows.Forms;
namespace MachService_Client
{ public partial class Form1 : Form
    { public Form1()
        {
            InitializeComponent(); label1.Visible
            = false;
        }

        private void button1_Click(object sender, EventArgs e)
        {
            ServiceReference1.MathServiceClient _obj = new
ServiceReference1.MathServiceClient("NetTcpBinding_IMathService");
            string val = comboBox1.Text;
label1.Visible  =  true;  label1.Text  =
            "Value is: "; if(val=="ADD")
            {
            label1.Text          +=          _obj.Addition(Convert.ToInt32(textBox1.Text),
Convert.ToInt32(textBox2.Text)).ToString();
            }
else if(val=="SUB")
            {
            label1.Text         +=         _obj.Subtraction(Convert.ToInt32(textBox1.Text),
Convert.ToInt32(textBox2.Text)).ToString();
            }
else if(val=="MUL")
            {
            label1.Text       +=       _obj.Multiplication(Convert.ToInt32(textBox1.Text),
Convert.ToInt32(textBox2.Text)).ToString();
            }
else if(val=="DIV")
            {
            label1.Text          +=          _obj.Division(Convert.ToInt32(textBox1.Text),
Convert.ToInt32(textBox2.Text)).ToString();
            }
        }
    }
```

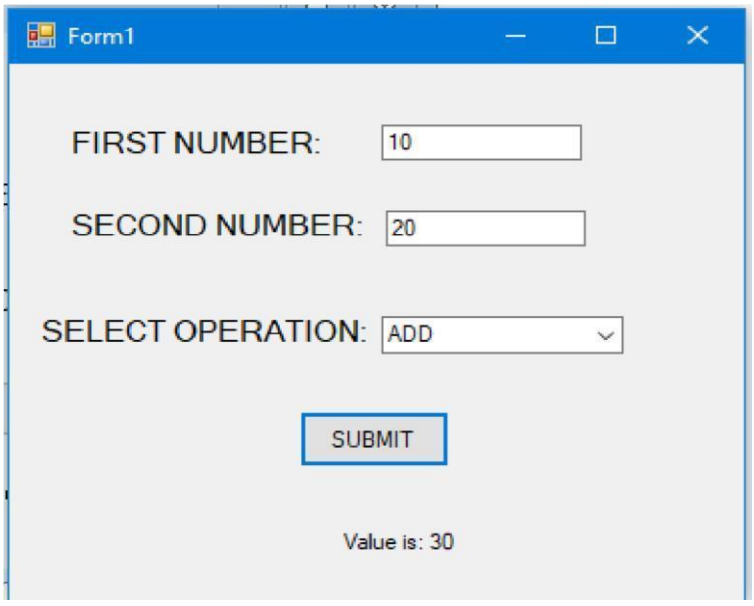
}

OUTPUT:

SERVICE HOSTED SUCCESSFULLY:

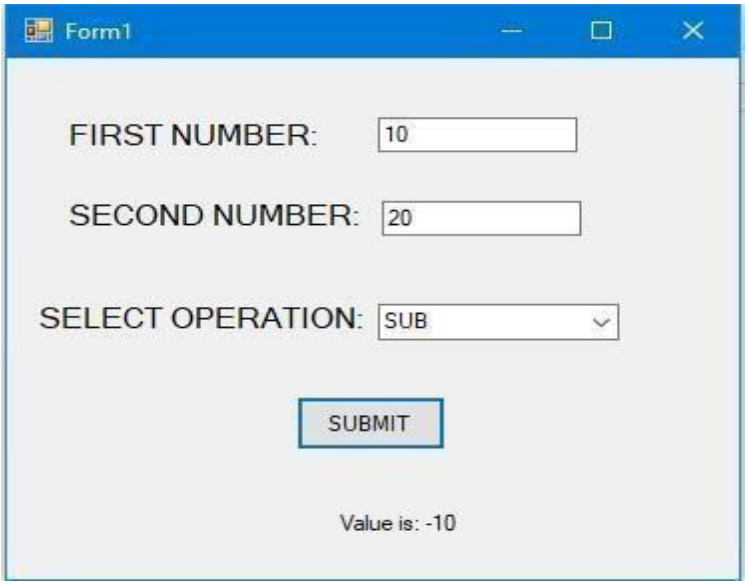


- **ADDITION:**

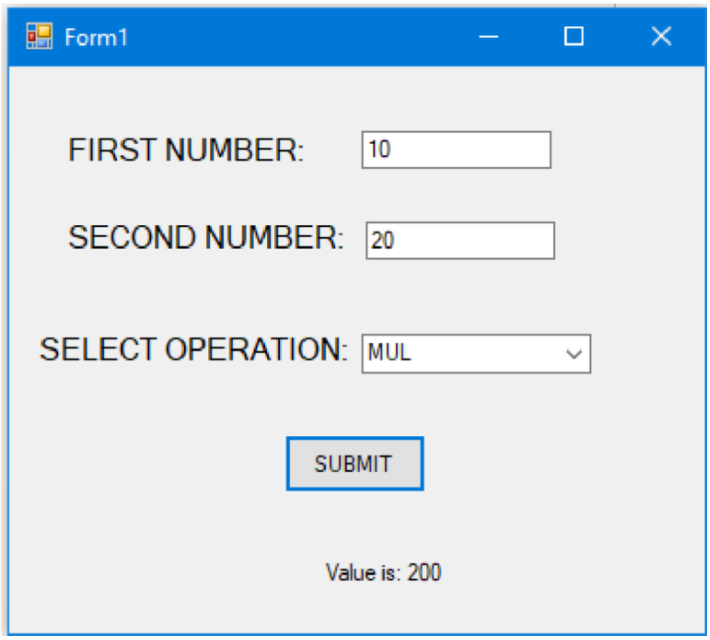


s

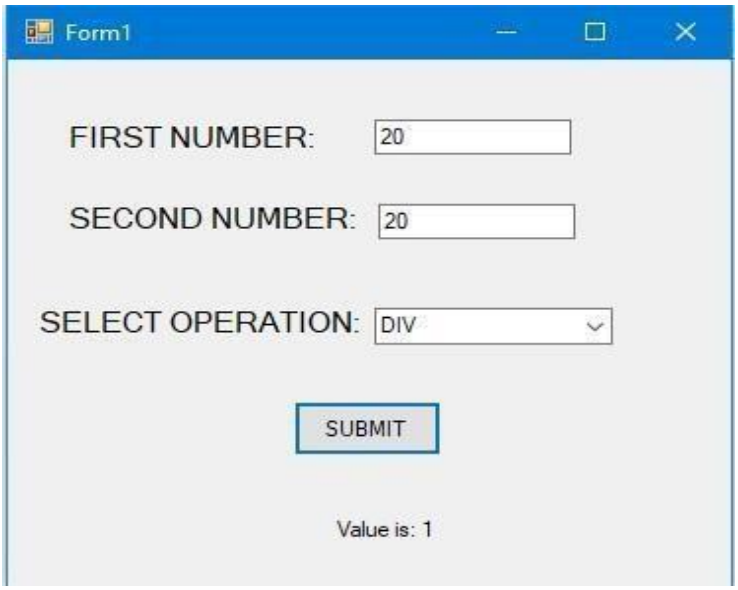
SUBTRACTION:



- **MULTIPLICATION:**



DIVISION:


Form1
FIRST NUMBER:
20
SECOND NUMBER:
20
SELECT OPERATION:
DIV
SUBMIT
Value is: 1

Practical : 12

AIM: Design Web Applications to demonstrate Model View Controller.

A) Create a MVC application to demonstrate the use of Httpget and Httppost.

CODE:

1. Employee.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web;
namespace EMPDEMO.Models
{ public class Employee
    { public string Name{get; set;} public
        string Address { get; set; } public
        int Age { get; set; }


    }
}
```

2. HomeController.cs:

```
using EMPDEMO.Models; using
System;
using System.Collections.Generic; using
System.Linq;
using System.Web; using
System.Web.Mvc;
namespace EMPDEMO.Controllers
{ public class HomeController : Controller
    {
        [HttpGet] //
        GET: Home
        public ActionResult Index()
        {
            Employee emp = new Employee()
            {
                Address = "KALYAN",
                Name = "ATHARVA",
                Age = 21
            };

            return View(emp);
        }
```

```
        [HttpPost]
public ActionResult Index(Employee emp)
        { return View("DisplayData", emp);
        }

    }}
```

3. RouteConfig.cs:

```
using System;
using  System.Collections.Generic;
using      System.Linq;      using
System.Web; using System.Web.Mvc;
using System.Web.Routing;
namespace EMPDEMO
{ public class RouteConfig
    { public static void RegisterRoutes(RouteCollection routes)
        { routes.IgnoreRoute("{resource}.axd/{*pathInfo}");
routes.MapRoute( name:
            "Default",
                url: "{controller}/{action}/{id}",
                defaults: new { controller = "Home", action = "Index", id =
UrlParameter.Optional }
            );
        }
    }
}
```

4. Index.cshtml:

```
@model EMPDEMO.Models.Employee

@{
    Layout = null;
}

<!DOCTYPE html>

<html>
<head>
    <meta name="viewport" content="width=device-width" />
    <title>Index</title>
</head>
<body>
    <div>
        @using (Html.BeginForm("Myform"))
        {
            @Html.TextBoxFor(x => x.Name)<br /><br /><br />
             @Html.TextBoxFor(x => x.Address)<br /><br /><br />
```

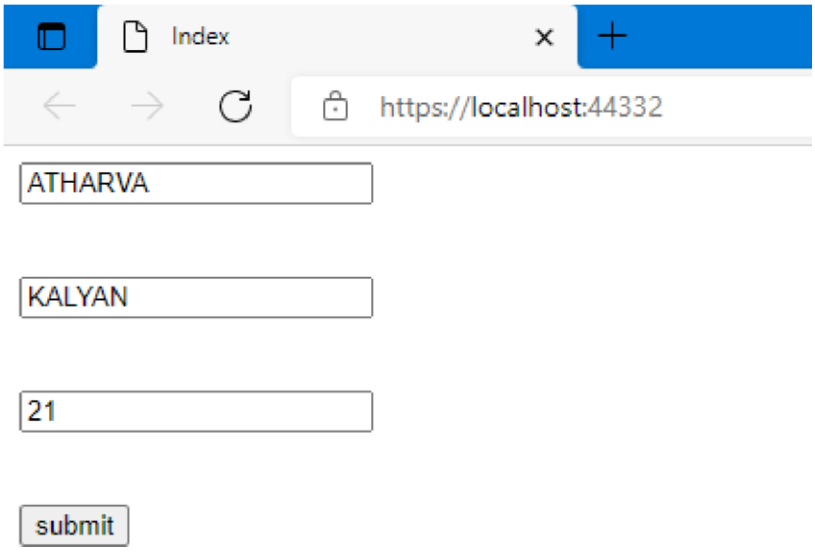
```
            @Html.TextBoxFor(x => x.Age)<br /><br /><br />

                        <input type="submit" value="submit" />
        }
    </div>
</body>
</html>
```

5. DisplayData.cshtml:

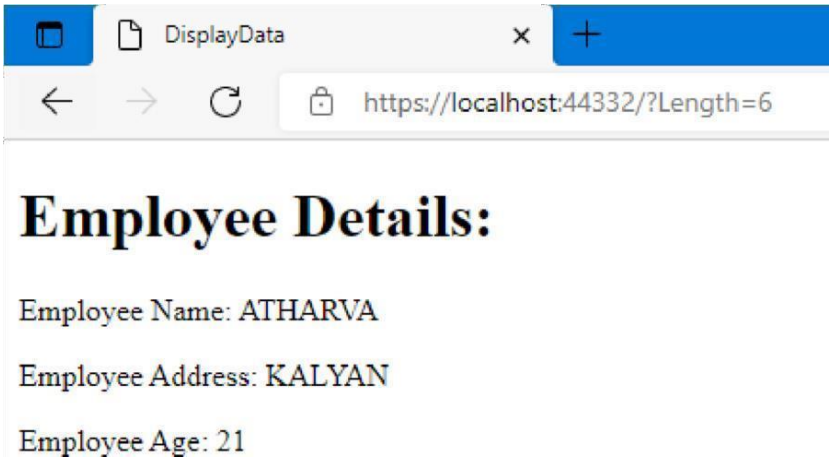
```
@model EMPDEMO.Models.Employee

@{
    Layout = null;
}

<!DOCTYPE html>

<html>
<head>
    <meta name="viewport" content="width=device-width" />
    <title>DisplayData</title>
</head>
<body>
    <div>
        <h1> Employee Details: </h1>
        <p> Employee Name: @Model.Name</p>
        <p>Employee Address: @Model.Address</p>
        <p> Employee Age: @Model.Age</p>
    </div>
</body>
</html>
```

OUTPUT:

- **HttpGet:**



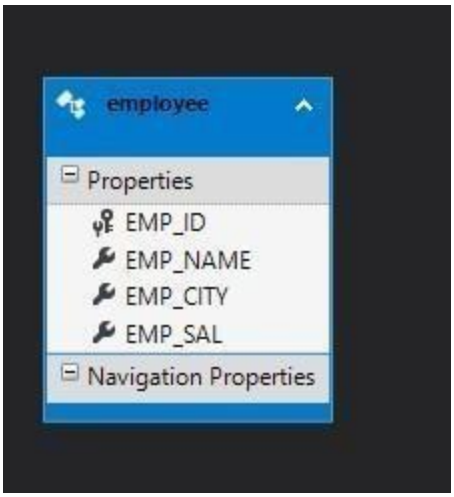
- **HttpPost:**



B) Create a MVC application to Edit,Create, Delete and to display the data from the database using ADO.net Entity Model.

CODE:

1. Model.edmx:



2. employeeController.cs:

```
using System;
using System.Collections.Generic;
using System.Data; using
System.Data.Entity; using
System.Linq; using System.Net;
using System.Web; using
System.Web.Mvc; using MVC_DEMO_2;
namespace MVC_DEMO_2.Controllers
{ public class employeesController : Controller
    { private collegeEntities db = new collegeEntities();

        // GET: employees public
        ActionResult Index()
        { return View(db.employees.ToList()); }

        // GET: employees/Details/5 public
        ActionResult Details(int? id)
        { if (id == null)
            {
                return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
            }
            employee employee = db.employees.Find(id); if
            (employee == null)
            { return HttpNotFound();
            }
            return View(employee);
        }
```

```
        // GET: employees/Create public
        ActionResult Create()
        { return View();
        }


        // POST: employees/Create
        // To protect from overposting attacks, enable the specific properties you want
to bind to, for
        // more details see https://go.microsoft.com/fwlink/?LinkId=317598.
        [HttpPost]
        [ValidateAntiForgeryToken]
        public ActionResult Create([Bind(Include = "EMP_ID,EMP_NAME,EMP_CITY,EMP_SAL")]
employee employee)
        { if (ModelState.IsValid)
            { db.employees.Add(employee);
                db.SaveChanges();
                return RedirectToAction("Index");
            }


            return View(employee);
        }


        // GET: employees/Edit/5 public
        ActionResult Edit(int? id)
        { if (id == null)
            { return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
            }
            employee employee = db.employees.Find(id); if
            (employee == null)
            { return HttpNotFound();
            }
            return View(employee);
        }


        // POST: employees/Edit/5
        // To protect from overposting attacks, enable the specific properties you want
to bind to, for
        // more details see https://go.microsoft.com/fwlink/?LinkId=317598.
        [HttpPost]
        [ValidateAntiForgeryToken]
        public ActionResult Edit([Bind(Include = "EMP_ID,EMP_NAME,EMP_CITY,EMP_SAL")]
employee employee)
        { if (ModelState.IsValid)
            { db.Entry(employee).State = EntityState.Modified;
                db.SaveChanges();
                return RedirectToAction("Index");
            }
            return View(employee);
        }


        // GET: employees/Delete/5 public
        ActionResult Delete(int? id)
        { if (id == null)
            { return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
            }
```

```
            employee employee = db.employees.Find(id); if
            (employee == null)
            { return HttpNotFound();
            }
            return View(employee);
        }

        // POST: employees/Delete/5
        [HttpPost, ActionName("Delete")] [ValidateAntiForgeryToken]
        public ActionResult DeleteConfirmed(int id)
        { employee employee = db.employees.Find(id);
            db.employees.Remove(employee);
            db.SaveChanges();
            return RedirectToAction("Index");
        }

        protected override void Dispose(bool disposing)
        { if (disposing)
            { db.Dispose();
            }
            base.Dispose(disposing);
        }
    }
}
```

3. RouteConfig.cs:

```
using        System;        using
System.Collections.Generic;  using
System.Linq;   using   System.Web;
using    System.Web.Mvc;    using
System.Web.Routing;      namespace
MVC_DEMO_2
{ public class RouteConfig
    { public static void RegisterRoutes(RouteCollection routes)
        { routes.IgnoreRoute("{resource}.axd/{*pathInfo}");
routes.MapRoute( name:
            "Default",
                url: "{controller}/{action}/{id}",
                defaults:  new  {  controller  =  "employees",  action  =  "Index",  id  =
UrlParameter.Optional }
            );
        }}}
```

4. Edit.cshtml:

```
@model MVC_DEMO_2.employee

@{
    ViewBag.Title = "Edit";
}
```

```
<h2>Edit</h2>


@using (Html.BeginForm())
{
    @Html.AntiForgeryToken()

    <div class="form-horizontal">
        <h4>employee</h4>
        <hr />
        @Html.ValidationSummary(true,    "",    new    {    @class    =    "text-danger"    })
        @Html.HiddenFor(model => model.EMP_ID)

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_NAME, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                 @Html.EditorFor(model => model.EMP_NAME, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_NAME, "", new { @class =
"text-danger" })
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_CITY, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                @Html.EditorFor(model => model.EMP_CITY, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_CITY, "", new { @class =
"text-danger" })
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_SAL, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                 @Html.EditorFor(model => model.EMP_SAL, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_SAL, "", new { @class =
"text-danger" })
            </div>
        </div>


        <div class="form-group">
            <div class="col-md-offset-2 col-md-10">
                <input type="submit" value="Save" class="btn btn-default" />
            </div>
        </div>
    </div>
}


<div>
    @Html.ActionLink("Back to List", "Index") </div>
```

```
<script src="~/Scripts/jquery-3.4.1.min.js"></script>
<script src="~/Scripts/jquery.validate.min.js"></script>
 <script src="~/Scripts/jquery.validate.unobtrusive.min.js"></script>
```

5. Details.cshtml:

```
@model MVC_DEMO_2.employee

@{
    ViewBag.Title = "Details";
}

<h2>Details</h2>

<div>
    <h4>employee</h4>
    <hr />
    <dl class="dl-horizontal">
        <dt>
            @Html.DisplayNameFor(model => model.EMP_NAME) </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_NAME) </dd>

        <dt>
            @Html.DisplayNameFor(model => model.EMP_CITY)
        </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_CITY)
        </dd>

        <dt>
            @Html.DisplayNameFor(model => model.EMP_SAL)
        </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_SAL)
        </dd>

    </dl>
</div>
<p>
    @Html.ActionLink("Edit", "Edit", new { id = Model.EMP_ID }) |
    @Html.ActionLink("Back to List", "Index")
</p>
```

6. Delete.cshtml:

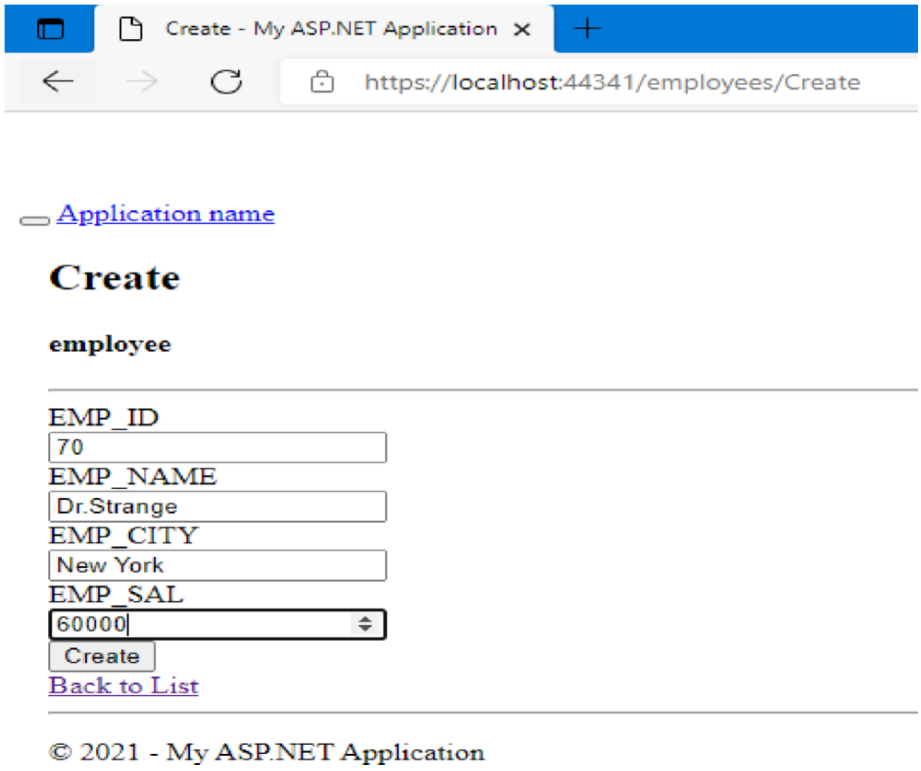
```
@model MVC_DEMO_2.employee

@{
    ViewBag.Title = "Delete";
}

<h2>Delete</h2>

<h3>Are you sure you want to delete this?</h3>
<div>
    <h4>employee</h4>
    <hr />
    <dl class="dl-horizontal">
        <dt>
            @Html.DisplayNameFor(model => model.EMP_NAME)
        </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_NAME)
        </dd>

        <dt>
            @Html.DisplayNameFor(model => model.EMP_CITY)
        </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_CITY)
        </dd>

        <dt>
            @Html.DisplayNameFor(model => model.EMP_SAL)
        </dt>

        <dd>
            @Html.DisplayFor(model => model.EMP_SAL) </dd>

    </dl>

    @using (Html.BeginForm()) {
        @Html.AntiForgeryToken()

        <div class="form-actions no-color">
            <input type="submit" value="Delete" class="btn btn-default" /> |

            @Html.ActionLink("Back to List", "Index")

        </div>
    }
</div>
```

7. Create.cshtml:

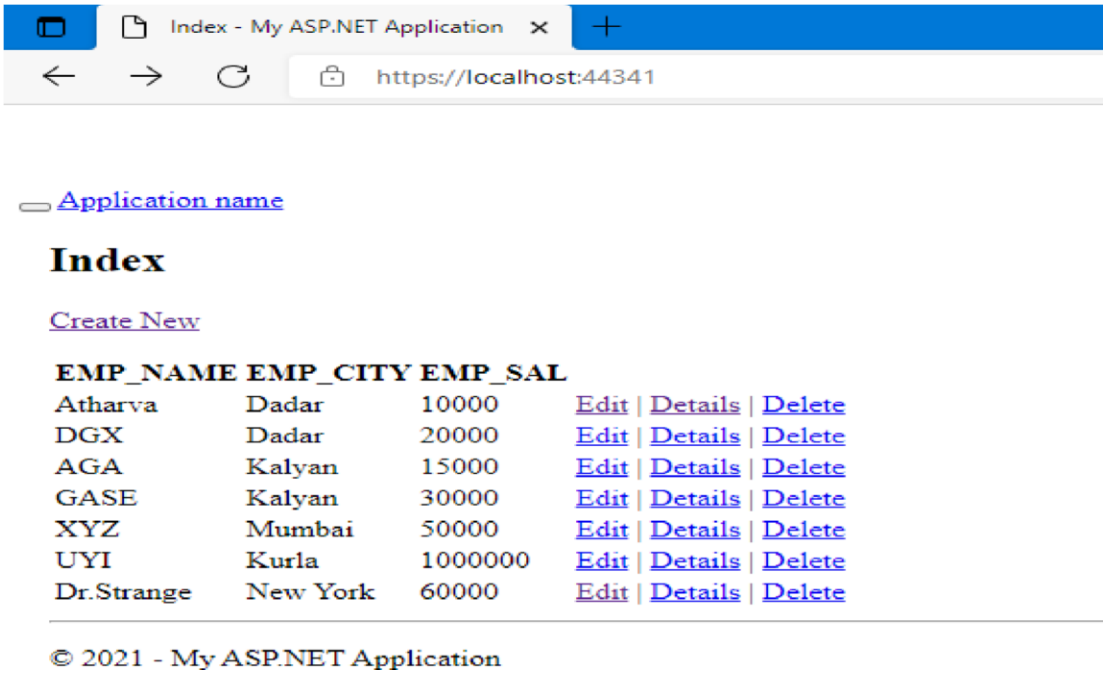
```
@model MVC_DEMO_2.employee

@{
    ViewBag.Title = "Create";
}

<h2>Create</h2>


@using (Html.BeginForm())
{
    @Html.AntiForgeryToken()

    <div class="form-horizontal">
        <h4>employee</h4>
        <hr />
        @Html.ValidationSummary(true, "", new { @class = "text-danger" })
        <div class="form-group">
            @Html.LabelFor(model => model.EMP_ID, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                 @Html.EditorFor(model => model.EMP_ID, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_ID, "", new { @class = "text-
danger" })
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_NAME, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                @Html.EditorFor(model => model.EMP_NAME, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_NAME, "", new { @class =
"text-danger" })
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_CITY, htmlAttributes: new { @class =
"control-label col-md-2" })
            <div class="col-md-10">
                 @Html.EditorFor(model => model.EMP_CITY, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_CITY, "", new { @class =
"text-danger" })
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(model => model.EMP_SAL, htmlAttributes: new { @class =
"control-label col-md-2" })
```

```
            <div class="col-md-10">
                @Html.EditorFor(model => model.EMP_SAL, new { htmlAttributes = new {
@class = "form-control" } })
                @Html.ValidationMessageFor(model => model.EMP_SAL, "", new { @class =
"text-danger" })
            </div>
        </div>


        <div class="form-group">
            <div class="col-md-offset-2 col-md-10">
                <input type="submit" value="Create" class="btn btn-default" />
            </div>
        </div>
    </div>
}


<div>
    @Html.ActionLink("Back to List", "Index") </div>

<script src="~/Scripts/jquery-3.4.1.min.js"></script>
<script src="~/Scripts/jquery.validate.min.js"></script>
<script src="~/Scripts/jquery.validate.unobtrusive.min.js"></script>
```

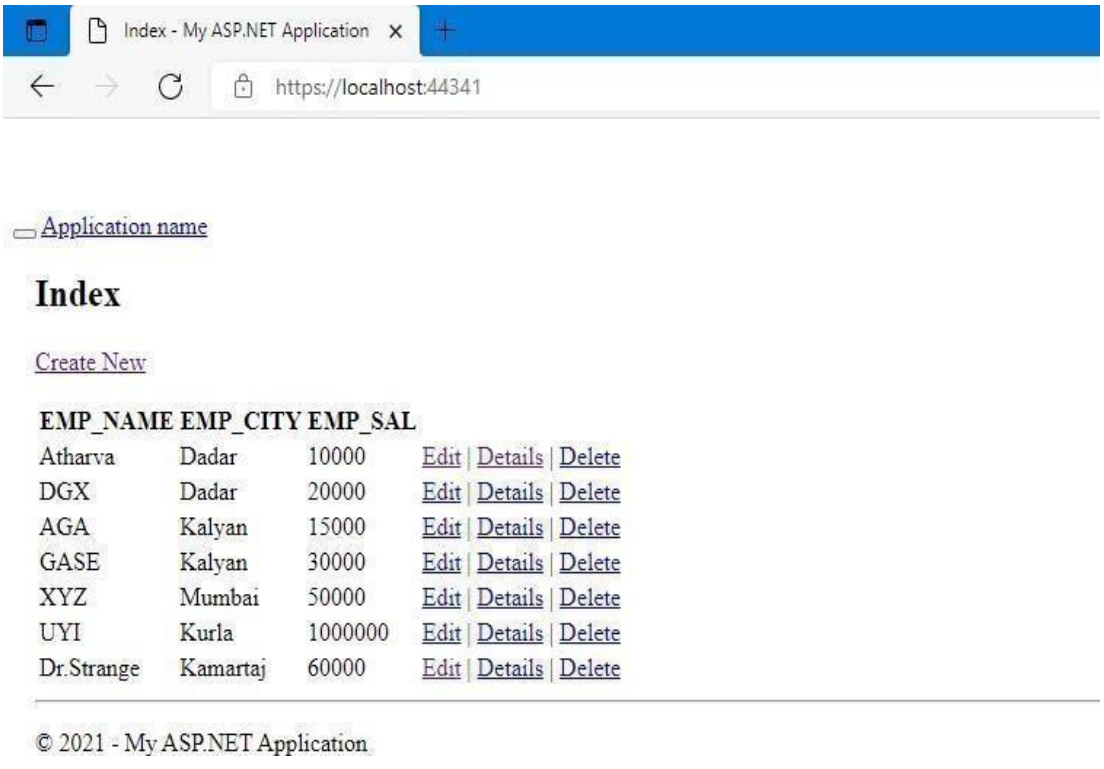
- **OUTPUT:**
  - **Create New:**

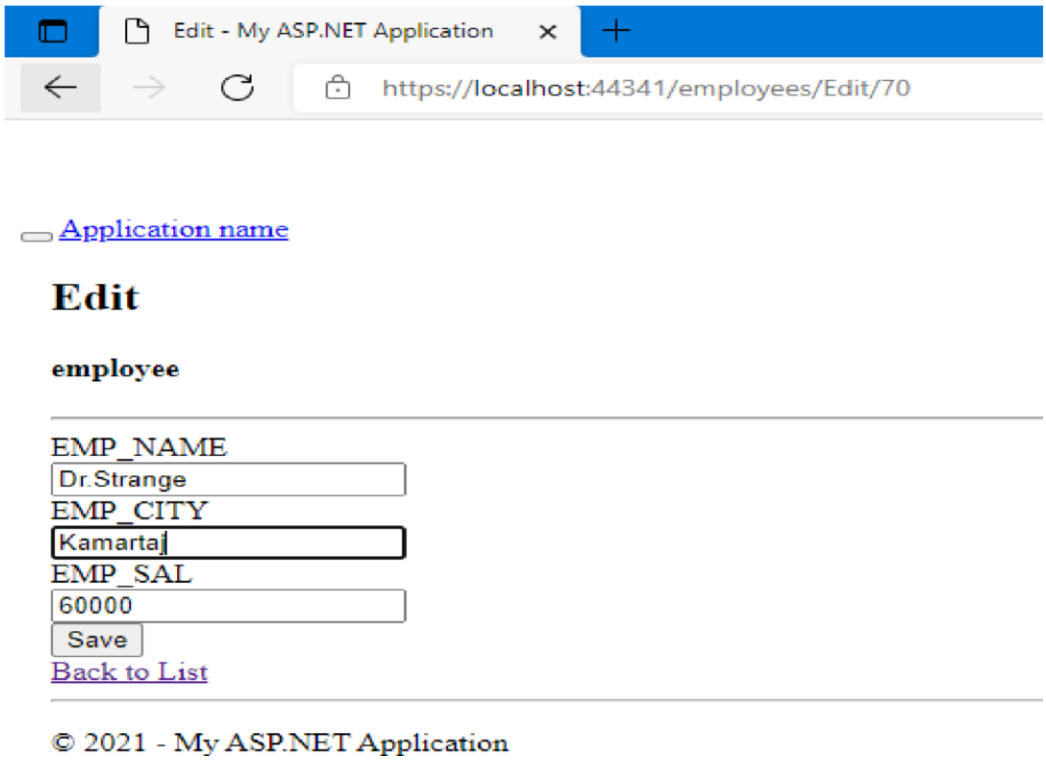


- **Display:**

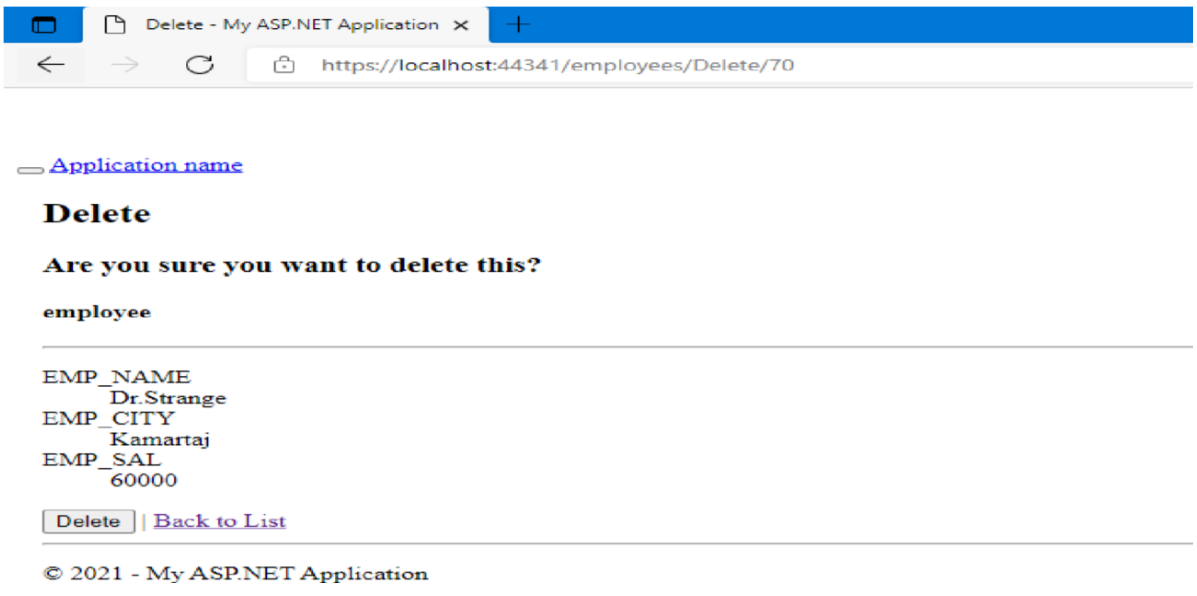


- **Edit:**




Edit - My ASP.NET Application
https://localhost:44341/employees/Edit/70
Application name
Edit
employee
EMP_NAME
Dr.Strange
EMP_CITY
Kamartaj
EMP_SAL
60000
Save
Back to List
© 2021 - My ASP.NET Application

- **Delete:**


Delete - My ASP.NET Application
https://localhost:44341/employees/Delete/70
Application name
Delete
Are you sure you want to delete this?
employee
EMP_NAME
Dr.Strange
EMP_CITY
Kamartaj
EMP_SAL
60000
Delete
| Back to List
© 2021 - My ASP.NET Application

Application name

Index

Create New

EMP_NAME	EMP_CITY	EMP_SAL	
Atharva	Dadar	10000	Edit | Details | Delete
DGX	Dadar	20000	Edit | Details | Delete
AGA	Kalyan	15000	Edit | Details | Delete
GASE	Kalyan	30000	Edit | Details | Delete
XYZ	Mumbai	50000	Edit | Details | Delete
UYI	Kurla	1000000	Edit | Details | Delete