Advanced Web Technologies Lab

Subject Code: MCAL24

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In

COMPUTER APPLICATION

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By

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CERTIFICATE

This to certify that, **" Ravishankar Jaiswal "** appearing **Master's incomputer application (Semester II) Application ID: 172047** has satisfactory completed the prescribed practical of **MCAL24 -Advanced Web Technologies Lab** as laid down by the University of Mumbai for the academic year 2022-23.

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

Date:

Place: -

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1.a Write a C# console application to perform basic Addition, multiplication, division, and subtraction operation.

```csharp
using System;
namespace Sample
{
    class Demo
    {
        static void Main(string[] args)
        {
            int num1 = 50;
            int num2 = 25;
            int result;
            result = num1 + num2;
            Console.WriteLine("Value is {0}", result);
            result = num1 - num2;
            Console.WriteLine("Value is {0}", result);
            result = num1 * num2;
            Console.WriteLine("Value is {0}", result);
            result = num1 / num2;
            Console.WriteLine("Value is {0}", result);
            result = num1 % num2;
            Console.WriteLine("Value is {0}", result);
            result = num1++;
            Console.WriteLine("Value is {0}", result);
            result = num1--;
            Console.WriteLine("Value is {0}", result);
            Console.ReadLine();
        }
    }
}
```

```
Value is 75
Value is 25
Value is 1250
Value is 2
Value is 0
Value is 50
Value is 51
```

1.b Write a program to print 1 to 10 multiplication table
using nested for loop.

```csharp
using System;

public class Exercise6
{
    public static void Main()
    {
        int j, n;

        Console.Write("\n\n");
        Console.Write("Display the multiplication table:\n");
        Console.Write("----------------------------------");
        Console.Write("\n\n");

        Console.Write("Input the number (Table to be calculated) : ");
        n = Convert.ToInt32(Console.ReadLine());

        Console.Write("\n");

        for (j = 1; j <= 10; j++)
        {
            Console.Write("{0} X {1} = {2} \n", n, j, n * j);
        }
    }
}
```

1.c Design a UI based application using basic Windows forms controls.

FORM1.CS

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

namespace UIinterface
{
    public partial class Form1 : Form
    {

        private TextBox txtName;
        private TextBox txtAge;
        private Label lblName;
        private Label lblAge;
        private Button btnSubmit;
        public Form1()
        {
```

```csharp
        InitializeComponent();
}

private void Form1_Load(object sender, EventArgs e)
{
    txtName = new TextBox();
    txtAge = new TextBox();
    lblName = new Label();
    lblAge = new Label();
    btnSubmit = new Button();

    SuspendLayout();

    // TextBox for Name
    txtName.Location = new System.Drawing.Point(100, 30);
    txtName.Size = new System.Drawing.Size(150, 20);

    // TextBox for Age
    txtAge.Location = new System.Drawing.Point(100, 70);
    txtAge.Size = new System.Drawing.Size(150, 20);

    // Label for Name
    lblName.Location = new System.Drawing.Point(30, 30);
    lblName.Text = "Name:";

    // Label for Age
    lblAge.Location = new System.Drawing.Point(30, 70);
    lblAge.Text = "Age:";

    // Button
    btnSubmit.Location = new System.Drawing.Point(100, 110);
    btnSubmit.Size = new System.Drawing.Size(75, 23);
    btnSubmit.Text = "Submit";
    btnSubmit.Click += new EventHandler(btnSubmit_Click);

    // Form1
    AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
    AutoScaleMode = AutoScaleMode.Font;
    ClientSize = new System.Drawing.Size(300, 200);
    Controls.Add(txtName);
    Controls.Add(txtAge);
    Controls.Add(lblName);
    Controls.Add(lblAge);
    Controls.Add(btnSubmit);
    Name = "Form1";
    Text = "Simple Windows Forms App";
    ResumeLayout(false);
    PerformLayout();
}

private void btnSubmit_Click(object sender, EventArgs e)
```

```csharp
        {
            string name = txtName.Text;
            int age;

            if (int.TryParse(txtAge.Text, out age))
            {
                MessageBox.Show($"Hello, {name}! You are {age} years old.", "Greeting");
            }
            else
            {
                MessageBox.Show("Invalid age. Please enter a valid number.", "Error");
            }

        }

        private void label1_Click(object sender, EventArgs e)
        {

        }

        private void txt_TextChanged(object sender, EventArgs e)
        {

        }
    }
}
```

FORM1.Designer.CS
```csharp
namespace UIinterface
{
    partial class Form1
    {
        /// <summary>
        /// Required designer variable.
        /// </summary>
        private System.ComponentModel.IContainer components = null;

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

```csharp
            if (disposing && (components != null))
            {
                components.Dispose();
            }
            base.Dispose(disposing);
        }

        #region Windows Form Designer generated code

        /// <summary>
        /// Required method for Designer support - do not modify
        /// the contents of this method with the code editor.
        /// </summary>
        private void InitializeComponent()
        {
            this.SuspendLayout();
            //
            // Form1
            //
            this.AutoScaleDimensions = new System.Drawing.SizeF(8F, 16F);
            this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
            this.ClientSize = new System.Drawing.Size(800, 450);
            this.Name = "Form1";
            this.Text = "Form1";
            this.Load += new System.EventHandler(this.Form1_Load);
            this.ResumeLayout(false);

        }

        #endregion
    }
}
```
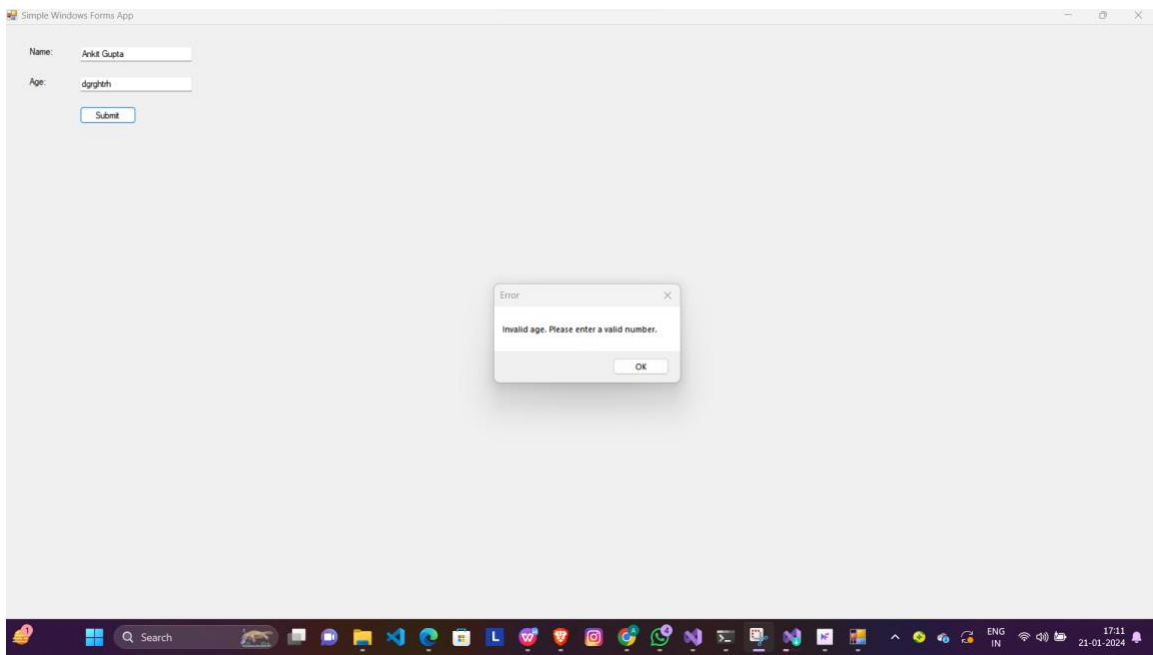
Name: Ankit Gupta

Age: 25

Submit

Greeting

Hello, Ankit Gupta! You are 25 years old.

OK

Name: Ankit Gupta

Age: dgrghtrh

Submit

Error

Invalid age. Please enter a valid number.

OK
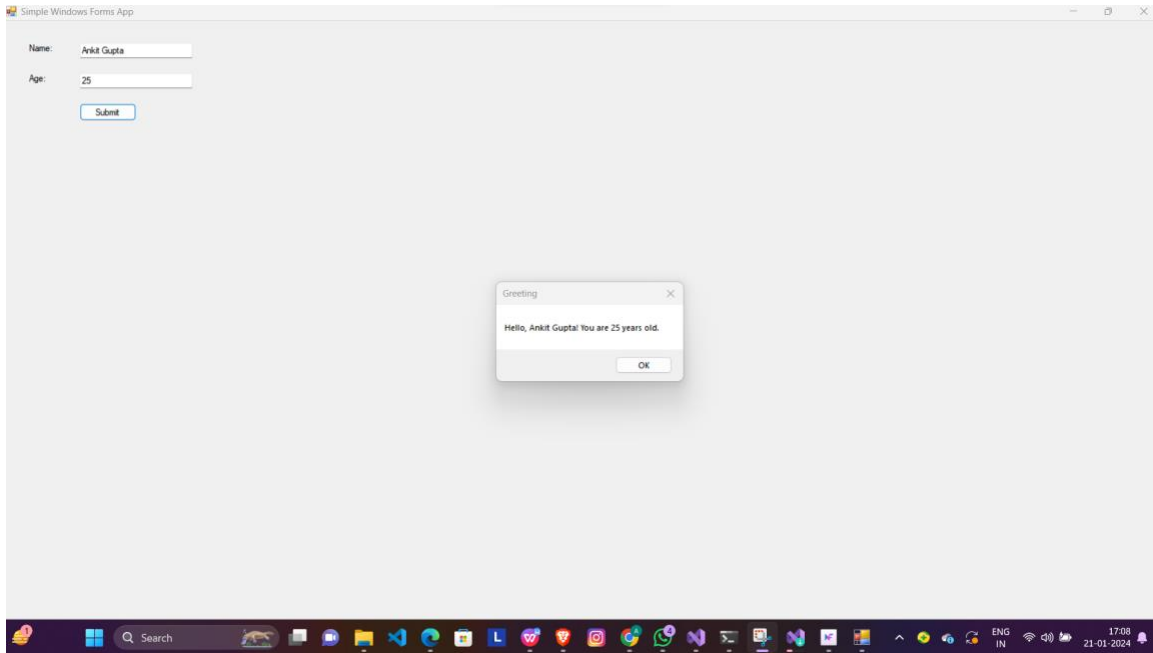
1.d Design a web application for an organization with registration forms and advanced controls.

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.Threading.Tasks;
using System.Data;
using System.Data.SqlClient;
using System.Windows.Forms;

namespace Registration
{
    public partial class Form1 : Form
    {

        SqlConnection conn;
        SqlCommand cmd;
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            if (txtusrname.Text == "" || txtpass.Text == "" || txtcpass.Text ==
"")
```
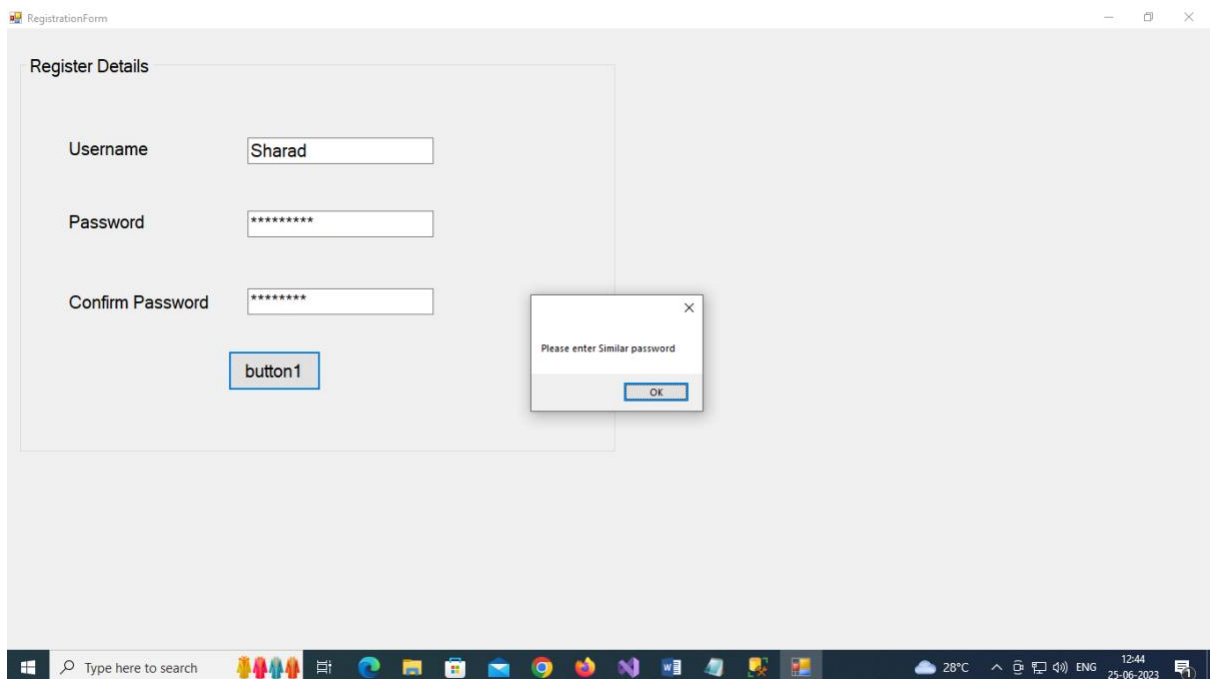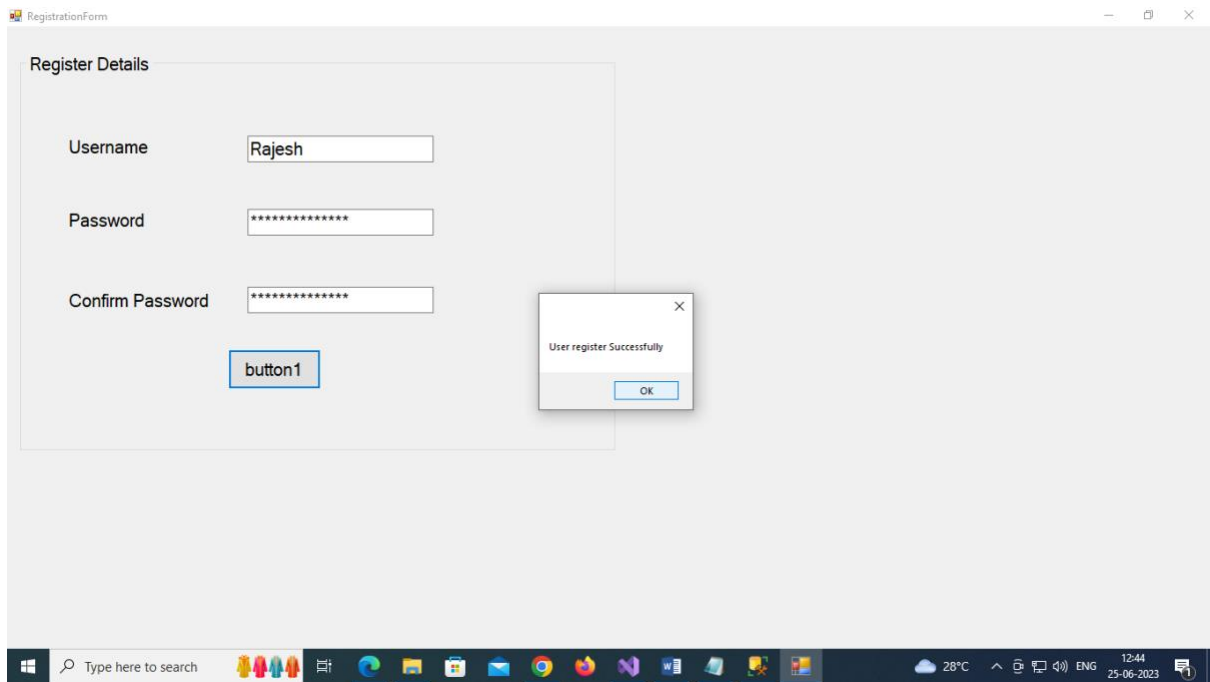
```csharp
            {
                MessageBox.Show("Pls Fillup Details........");
                txtusrname.Focus();
                txtpass.Focus();
                txtcpass.Focus();

            }
            else if (txtpass.Text == txtcpass.Text)
                try
                {
                    conn = new SqlConnection("Data
Source=LAB03PC17\\SPDC;Initial            Catalog=DB1;Integrated
Security=True");
                    conn.Open();
                    cmd = new SqlCommand("insert into
Register(Username,Password) values('" + txtusrname.Text + "','" +
txtpass.Text + "')",conn);
                    cmd.ExecuteNonQuery();
                    conn.Close();
                    MessageBox.Show("User register Successfully ");
                    txtusrname.Text = "";
                    txtpass.Text = "";
                    txtcpass.Text = "";
                }
                catch (Exception ex)
                {

                    MessageBox.Show(ex.Message);
                }
            else
            {
                MessageBox.Show("Please enter Similar password");
            }
        }
    }


}
```

2. Creating a new ASP.NET Web Forms page

WebForm1.aspx

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
      <div>
          <h1>Hello ASP.NET Web Form Application</h1>
          <p>Enter Username        
            <asp:TextBox ID="TextBox1" runat="server" Width="232px"></asp:TextBox>
          </p>
          <p>
            <asp:Button ID="Button1" runat="server" Height="30px" OnClick="Button1_Click" Text="Display" Width="99px" />
          </p>
          <p>Welcome          <asp:Label ID="Label1" runat="server" Font-Size="X-Large" ForeColor="Red" Text="Label"></asp:Label>
          </p>
      </div>
    </form>
</body>
</html>
```


WebForm1.aspx.cs

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

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

        }
```

```csharp
protected void Button1_Click(object sender, EventArgs e)
{
    Label1.Text=TextBox1.Text;
    TextBox1.Text = "";
}
}
}
```
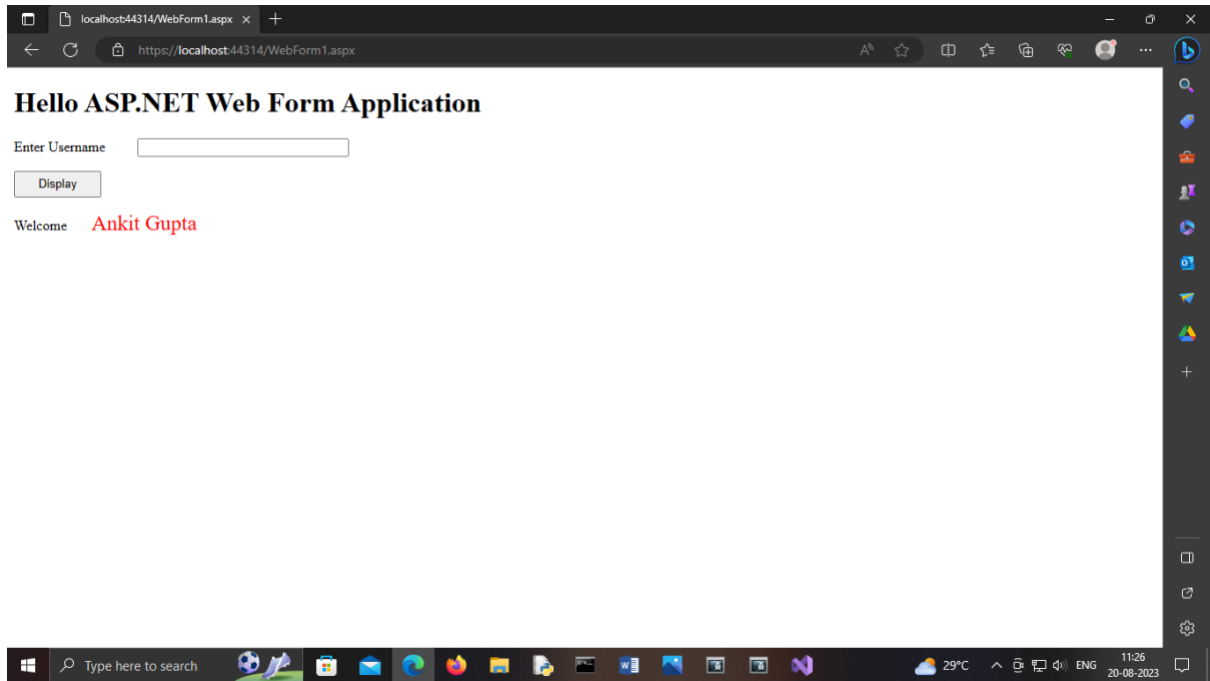OUTPUT

3. SQL Server Database connection and fetching Data.

WebForm2.aspx

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <p>
            <asp:GridView ID="GridView1" runat="server" CellPadding="4" ForeColor="#333333" GridLines="None" Height="162px" Width="504px">
                <AlternatingRowStyle BackColor="White" />
                <FooterStyle BackColor="#990000" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#990000" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#FFCC66" ForeColor="#333333" HorizontalAlign="Center" />
                <RowStyle BackColor="#FFFBD6" ForeColor="#333333" />
                <SelectedRowStyle BackColor="#FFCC66" Font-Bold="True" ForeColor="Navy" />
                <SortedAscendingCellStyle BackColor="#FDF5AC" />
                <SortedAscendingHeaderStyle BackColor="#4D0000" />
                <SortedDescendingCellStyle BackColor="#FCF6C0" />
                <SortedDescendingHeaderStyle BackColor="#820000" />
            </asp:GridView>
        </p>
        <div>
        </div>
    </form>
</body>
</html>
```

WebForm2.aspx.cs

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

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

namespace MCAWebApplication
{
    public partial class WebForm2 : System.Web.UI.Page
    {
        SqlConnection con;
        SqlDataAdapter sda;
        DataTable dt;
        protected void Page_Load(object sender, EventArgs e)
        {
            try
            {
                con=new   SqlConnection("Data   Source=lab03pc17\\SPDC;Initial   Catalog=data2;Integrated
Security=True");
                con.Open();
                sda = new SqlDataAdapter("select * from Employee", con);
                dt=new DataTable();
                sda.Fill(dt);
                GridView1.DataSource = dt;
                GridView1.DataBind();
                con.Close();

            }catch (Exception ex) { }


        }
    }
}
```

OUTPUT

4. CRUD operations

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <style type="text/css">
        .auto-style1 {
            width: 116px;
        }
        .auto-style2 {
            width: 225px;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
        <div>
```

```html
<table style="width:100%;">
    <tr>
        <td class="auto-style1">Empname: </td>
        <td class="auto-style2">
            <asp:TextBox ID="TextBox1" runat="server" Width="151px"></asp:TextBox>
        </td>
        <td> </td>
    </tr>
    <tr>
        <td class="auto-style1">Salary:</td>
        <td class="auto-style2">
            <asp:TextBox ID="TextBox2" runat="server" Width="155px"></asp:TextBox>
        </td>
        <td> </td>
    </tr>
    <tr>
        <td class="auto-style1">Department:</td>
        <td class="auto-style2">
            <asp:TextBox ID="TextBox3" runat="server" Width="153px"></asp:TextBox>
        </td>
        <td>
            <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="#33CC33"></asp:Label>
        </td>
    </tr>
    <tr>
        <td class="auto-style1">Mobile No:</td>
        <td class="auto-style2">
            <asp:TextBox ID="TextBox4" runat="server" Width="152px"></asp:TextBox>
        </td>
        <td> </td>
    </tr>
    <tr>
        <td class="auto-style1">
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="GetData" />
        </td>
        <td                                                                class="auto-
style2">            
            <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="AddRecord"
/>
        </td>
        <td>
            <asp:Button ID="Button3" runat="server" OnClick="Button3_Click"
Text="UpdateRecord" />
     
            <asp:Button ID="Button4" runat="server" Text="DeleteRecord" />
        </td>
    </tr>
    <tr>
        <td colspan="3">
```

```
            <asp:GridView  ID="GridView1"  runat="server"  CellPadding="4"  ForeColor="#333333"
GridLines="None" Height="197px" Width="492px">
                <AlternatingRowStyle BackColor="White" ForeColor="#284775" />
                <EditRowStyle BackColor="#999999" />
                <FooterStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <HeaderStyle BackColor="#5D7B9D" Font-Bold="True" ForeColor="White" />
                <PagerStyle BackColor="#284775" ForeColor="White" HorizontalAlign="Center" />
                <RowStyle BackColor="#F7F6F3" ForeColor="#333333" />
                <SelectedRowStyle BackColor="#E2DED6" Font-Bold="True" ForeColor="#333333" />
                <SortedAscendingCellStyle BackColor="#E9E7E2" />
                <SortedAscendingHeaderStyle BackColor="#506C8C" />
                <SortedDescendingCellStyle BackColor="#FFFDF8" />
                <SortedDescendingHeaderStyle BackColor="#6F8DAE" />
            </asp:GridView>
          </td>
        </tr>
      </table>


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

WEBFORM3.ASPX.CS

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

namespace MCAWebApplication
{
    public partial class WebForm3 : System.Web.UI.Page
    {
        SqlConnection con;
        SqlDataAdapter sda;
        DataTable dt;
        protected void Page_Load(object sender, EventArgs e)
        {

        }
```

```csharp
protected void Button2_Click(object sender, EventArgs e)
{
    try
    {
        con = new SqlConnection("Data Source=lab03pc17\\SPDC;Initial Catalog=data2;Integrated Security=True");
        con.Open();
        string sql = "insert into Employee(Empname,Salary,Dept,Mobile) values('" + TextBox1.Text + "','" + Convert.ToInt32(TextBox2.Text) + "','" + TextBox3.Text + "','" + TextBox4.Text+ "')";
        SqlCommand cmd = new SqlCommand(sql, con);
        TextBox1.Text = "";
        TextBox2.Text = "";
        TextBox3.Text = "";
        TextBox4.Text = "";
        Label1.Text = "Data Saved.......";
        con.Close();

    }
    catch (Exception ex) { Label1.Text = ex.Message; }


}

protected void Button1_Click(object sender, EventArgs e)
{
    try
    {
        con = new SqlConnection("Data Source=lab03pc17\\SPDC;Initial Catalog=data2;Integrated Security=True");
        con.Open();
        sda = new SqlDataAdapter("select * from Employee", con);
        dt = new DataTable();
        sda.Fill(dt);
        GridView1.DataSource = dt;
        GridView1.DataBind();
        con.Close();

    }
    catch (Exception ex) { }

}

protected void Button3_Click(object sender, EventArgs e)
{
    try
    {
        con = new SqlConnection("Data Source=lab03pc17\\SPDC;Initial Catalog=data2;Integrated Security=True");
        con.Open();
        string sql = "Update Employee set Empname=  ;
        SqlCommand cmd = new SqlCommand(sql, con);
```
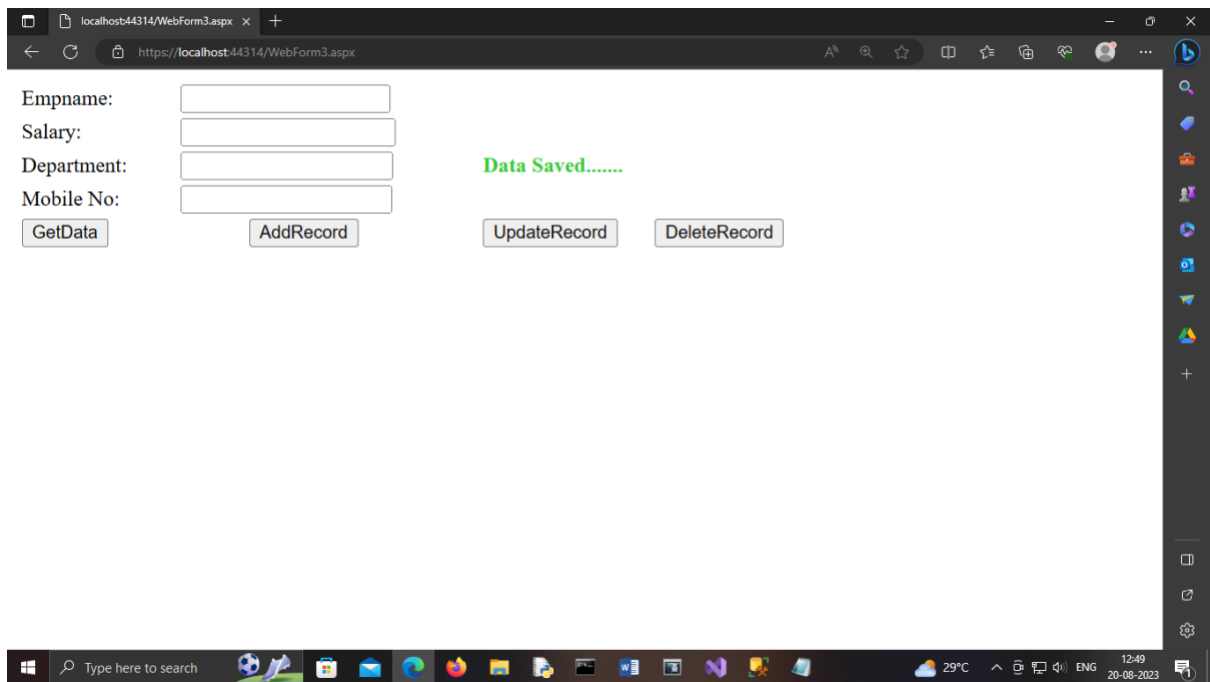
```
            TextBox1.Text = "";
            TextBox2.Text = "";
            TextBox3.Text = "";
            TextBox4.Text = "";
            Label1.Text = "Data Updated Successfully.......";
            con.Close();


        }
        catch (Exception ex) { Label1.Text = ex.Message; }


    }
  }
}
```
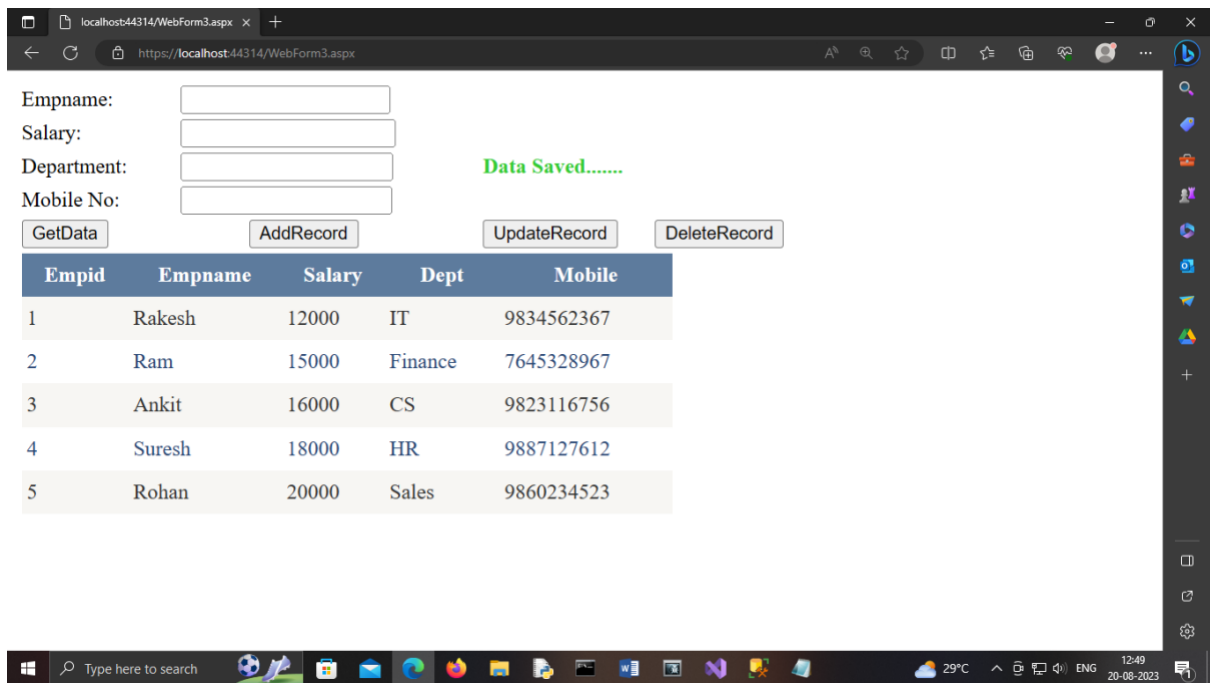
OUTPUT

5. Different Data bind Controls

Default.aspx

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

<!DOCTYPE html>

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

```
<table style="width: 559px">
    <tr>
        <td style="width: 228px; height: 157px;">
            <asp:ListBox ID="ListBox1" runat="server" AutoPostBack="True"
                OnSelectedIndexChanged="ListBox1_SelectedIndexChanged">
            </asp:ListBox>
        </td>

        <td style="height: 157px">
            <asp:DropDownList ID="DropDownList1" runat="server"
                AutoPostBack="True"
OnSelectedIndexChanged="DropDownList1_SelectedIndexChanged">
            </asp:DropDownList>
        </td>
    </tr>

    <tr>
        <td style="width: 228px; height: 40px;">
            <asp:Label ID="lbllistbox" runat="server"></asp:Label>
        </td>

        <td style="height: 40px">
            <asp:Label ID="lbldrpdown" runat="server">
            </asp:Label>
        </td>
    </tr>

    <tr>
        <td style="width: 228px; height: 21px">
        </td>

        <td style="height: 21px">
        </td>
    </tr>

    <tr>
        <td style="width: 228px; height: 21px">
            <asp:RadioButtonList ID="RadioButtonList1" runat="server"
                AutoPostBack="True"
OnSelectedIndexChanged="RadioButtonList1_SelectedIndexChanged">
            </asp:RadioButtonList>
        </td>

        <td style="height: 21px">
            <asp:CheckBoxList ID="CheckBoxList1" runat="server"
                AutoPostBack="True"
OnSelectedIndexChanged="CheckBoxList1_SelectedIndexChanged">
            </asp:CheckBoxList>
        </td>
    </tr>

    <tr>
        <td style="width: 228px; height: 21px">
            <asp:Label ID="lblrdlist" runat="server">
            </asp:Label>
        </td>
```

```html
                <td style="height: 21px">
                    <asp:Label ID="lblchklist" runat="server">
                    </asp:Label>
                </td>
            </tr>
        </table>

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

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

namespace DataBindApp
{
    public partial class Default : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            IList bklist = createbooklist();


            if (!this.IsPostBack)
            {
                this.ListBox1.DataSource = bklist;
                this.ListBox1.DataTextField = "Book";
                this.ListBox1.DataValueField = "Author";
```

```csharp
            this.DropDownList1.DataSource = bklist;
            this.DropDownList1.DataTextField = "Book";
            this.DropDownList1.DataValueField = "Author";

            this.RadioButtonList1.DataSource = bklist;
            this.RadioButtonList1.DataTextField = "Book";
            this.RadioButtonList1.DataValueField = "Author";

            this.CheckBoxList1.DataSource = bklist;
            this.CheckBoxList1.DataTextField = "Book";
            this.CheckBoxList1.DataValueField = "Author";

            this.DataBind();
        }
    }

    protected IList createbooklist()
    {
        ArrayList allbooks = new ArrayList();
        booklist bl;

        bl = new booklist("UNIX CONCEPTS", "SUMITABHA DAS");
        allbooks.Add(bl);

        bl = new booklist("PROGRAMMING IN C", "RICHI KERNIGHAN");
        allbooks.Add(bl);

        bl = new booklist("DATA STRUCTURE", "TANENBAUM");
        allbooks.Add(bl);

        bl = new booklist("NETWORKING CONCEPTS", "FOROUZAN");
        allbooks.Add(bl);

        bl = new booklist("PROGRAMMING IN C++", "B. STROUSTROUP");
        allbooks.Add(bl);

        bl = new booklist("ADVANCED JAVA", "SUMITABHA DAS");
        allbooks.Add(bl);

        return allbooks;
    }

    protected void ListBox1_SelectedIndexChanged(object sender, EventArgs e)
    {
        this.lbllistbox.Text = this.ListBox1.SelectedValue;
    }

    protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs
e)
    {
        this.lbldrpdown.Text = this.DropDownList1.SelectedValue;
    }

    protected void RadioButtonList1_SelectedIndexChanged(object sender,
EventArgs e)
    {
        this.lblrdlist.Text = this.RadioButtonList1.SelectedValue;
```
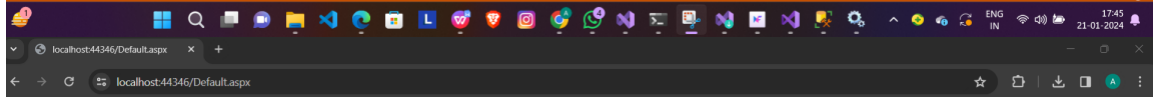
```
        }

        protected void CheckBoxList1_SelectedIndexChanged(object sender, EventArgs
e)
        {
            this.lblchklist.Text = this.CheckBoxList1.SelectedValue;
        }
    }

}
```