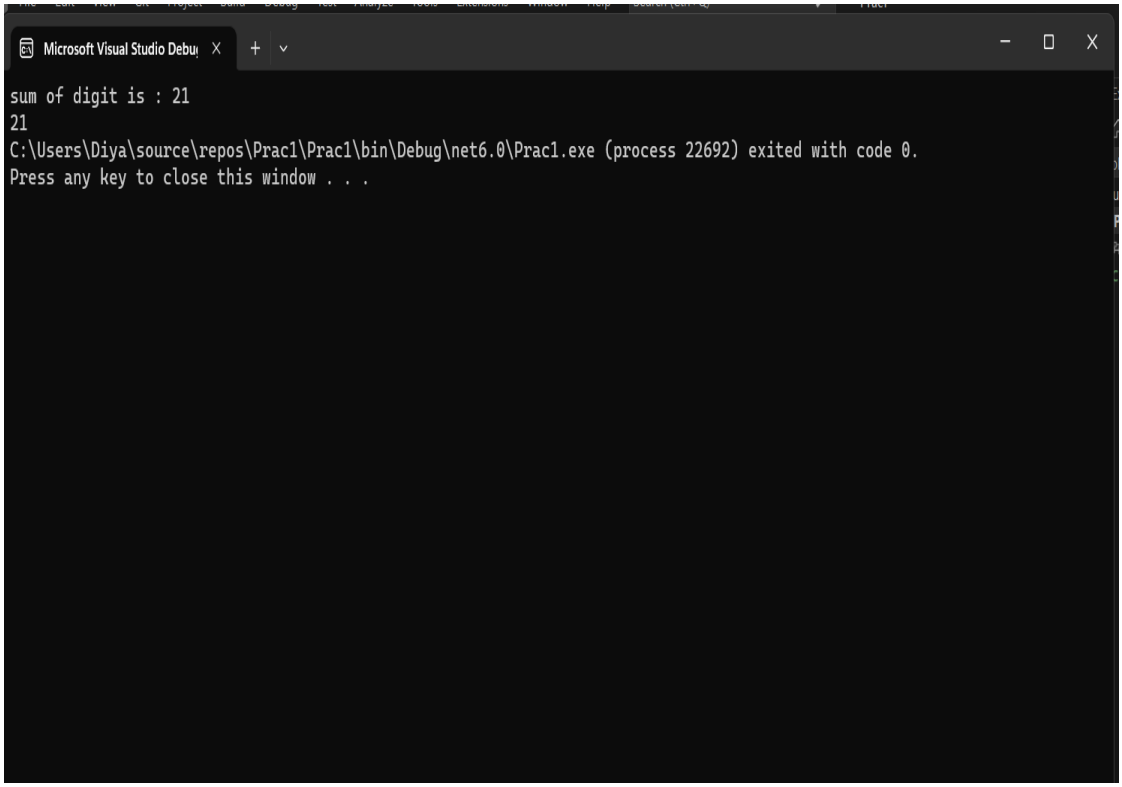
PRACTICAL – 1

Aim : Develop a console application to display sum of digits.

```
using System;

class GFG
{
    /* Function to get sum of digits */
    static int getSum(int n)
    {
        int sum = 0;

        while (n != 0)
        {
            sum = sum + n % 10;
            n = n / 10;
        }

        return sum;
    }

    // Driver code
    public static void Main()
    {
        int n = 687;
        Console.WriteLine("sum of digit is : " + getSum(n));

    }
}
```

Output :



PRACTICAL – 2

Aim: Develop a Console application to calculate Courier Service Charges of goods from source to destination with Following Constraints. Following are the cost distance matrix:

Less than 100 km - 50 Rs/Kg,
100 to 200 km – 65Rs/Kg
200 to 300 km - 90 Rs/Kg
Greater than 300 km - 120 Rs/K

Distance in Kilometer and Total Kg of goods are the input parameter.

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


namespace Charge
{
    class Courier
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Distance in Kilometer : ");
            string distance = Console.ReadLine();
            int dist = Int32.Parse(distance);

            Console.WriteLine("Weight in Kg : ");
            string weight = Console.ReadLine();
            int wt = Int32.Parse(weight);

            int rate = 0;
            if (dist < 100)
                rate = 50;
            else if (dist < 200)
                rate = 65;
            else if (dist < 300)
                rate = 90;
            else
                rate = 120;

            int totalCost = wt * rate;
            Console.WriteLine("charges : " + totalCost);
            Console.ReadLine();
        }
    }
}
```

Output:

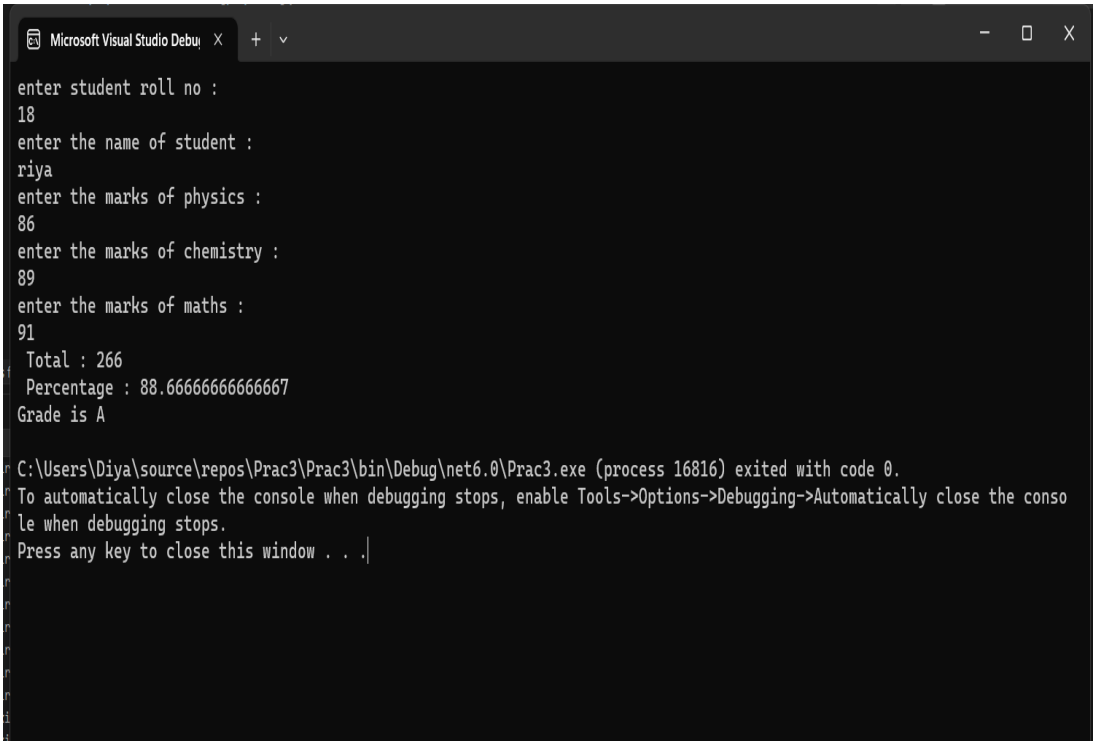
PRACTICAL – 3

Aim : Develop a Console application to Create a Student class that stores rollno, name and marks of three subjects. Add one function that calculates percentage and grade based on percentage. Calculate total students who have passed

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

namespace Pract3
{
    class Student
    {
        int rollNo, m1, m2, m3;
        String name;
        Double res;
        static int c=0;

        Student(int rollNo, String name,int m1,int m2,int m3)
        {
            this.rollNo = rollNo;
            this.name = name;
            this.m1 = m1;
            this.m2 = m2;
            this.m3 = m3;
        }

        void Percentage()
        {
            int sum = m1 + m2 + m3;
            res = sum / 3;
            Console.WriteLine("THe Percentage : " + res);
            if (res > 33)
                c += 1;
        }


        void Grade()
        {
            if (res > 80)
            {
                Console.WriteLine("Grade : A");
            }
            else if (res > 70)
            {
                Console.WriteLine("Grade : B");
            }
            else if (res > 60)
            {
                Console.WriteLine("Grade : C");
            }
            else if (res > 50)
            {
                Console.WriteLine("Grade : D");
            }
            else
            {
```

```
                Console.WriteLine("Grade : E");
            }
        }

        void PassedStudent()
        {
            Console.WriteLine("Paas Count : " + c);
        }


        static void Main(string[] args)
        {
            Console.WriteLine("ENter Your name : ");
            String n = Console.ReadLine();

            Console.WriteLine("Enter Your Roll No : ");
            int rollNo = int.Parse(Console.ReadLine());

            Console.WriteLine("Enter Your Physics Marrks : ");
            int m1 = int.Parse(Console.ReadLine());

            Console.WriteLine("Enter Your Maths Marrks : ");
            int m2 = int.Parse(Console.ReadLine());

            Console.WriteLine("Enter Your Chemestry Marrks : ");
            int m3 = int.Parse(Console.ReadLine());

            Student s = new Student(rollNo, n, m1, m2, m3);
            s.Percentage();
            s.Grade();
            s.PassedStudent();
            Console.ReadLine();
        }
    }
}
```

Output :

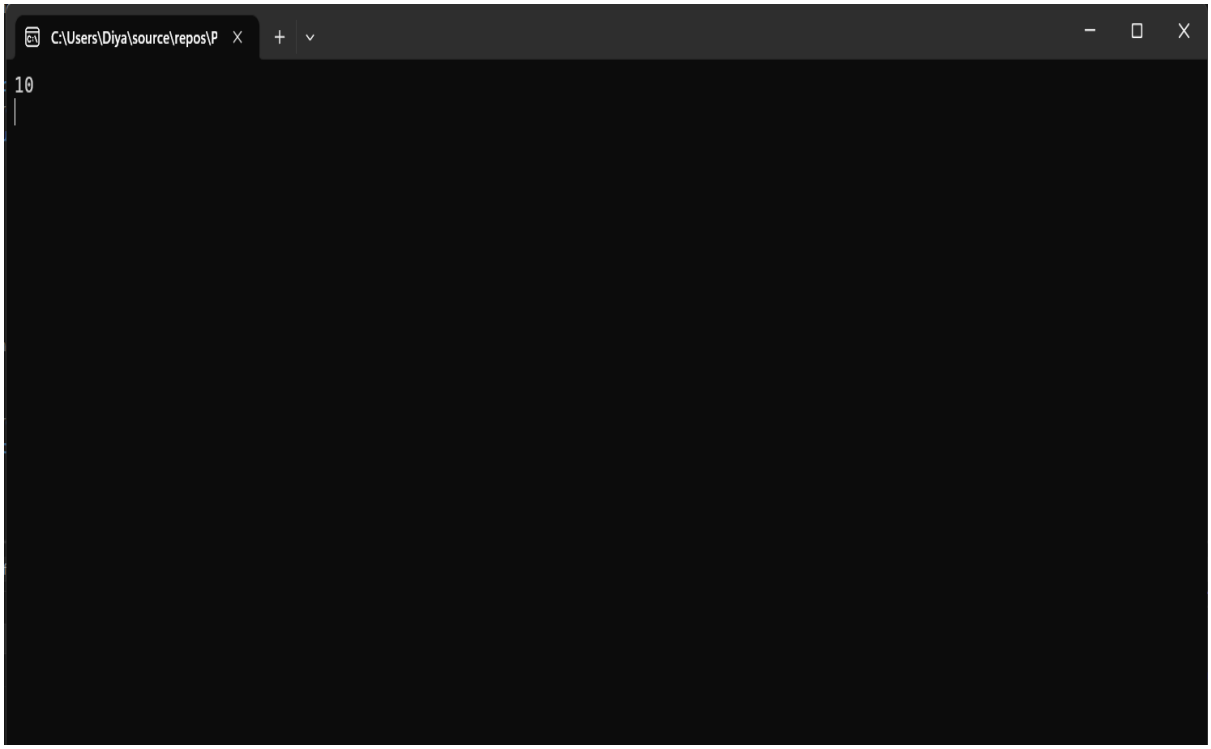


PRACTICAL – 4

Aim: Develop a Console application to demonstrate use of Property {get, set}

```
using System;

class Customer
{
    private int x;
    public int X

    {
        get { return x; }
        set { x = value; }
    }
}

class Client
{
    static void Main(string[] args)
    {
        Customer customer = new Customer();
        customer.X = 10;  //write
        Console.WriteLine(customer.X);  //read
        Console.ReadLine();
    }
}
```

Output:

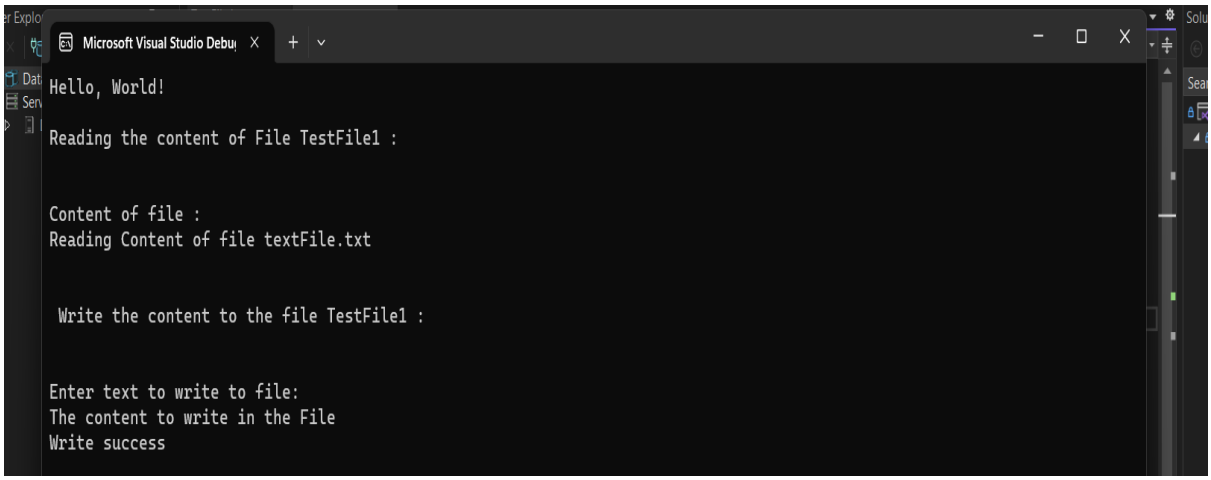


PRACTICAL – 5

Aim: Develop a Console application to read and write to a file.

```
using System;
using System.IO;

namespace prac5
{
    class RW
    {
        static void Main(string[] args)
        {
            string fileName = "day-3.txt";

            Console.WriteLine("Enter some text: ");
            string userInput = Console.ReadLine();

            using (StreamWriter sw = new StreamWriter(fileName))
            {
                sw.WriteLine(userInput);
            }

            using (StreamReader sr = new StreamReader(fileName))
            {
               string fileContents = sr.ReadToEnd();
                Console.WriteLine($"Content of file {fileName}:");
                Console.WriteLine(fileContents);

            }
            Console.ReadLine();
        }
    }
                                    }
```

Output:



PRACTICAL – 6

Aim : Develop a Simple Calculator Form in Windows Application

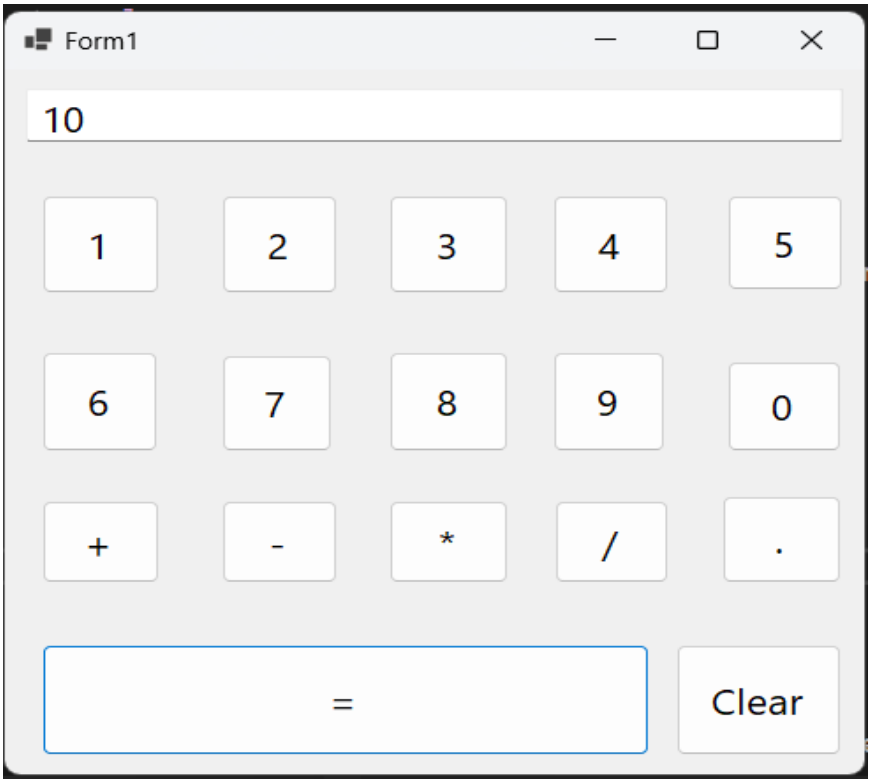
```
namespace Prac6
{
    public partial class Form1 : Form
    {
        double FirstNumber;
        string Operation;

        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            if (textBox1.Text == "0" && textBox1.Text != null)
            {
                textBox1.Text = "1";
            }
            else
            {
                textBox1.Text += "1";
            }
        }

        private void button2_Click(object sender, EventArgs e)
        {
            if (textBox1.Text == "0" || textBox1.Text == null)
            {
                textBox1.Text = "2";
            }
            else
            {
                textBox1.Text += "2";
            }
        }

        private void button3_Click(object sender, EventArgs e)
        {
            if (textBox1.Text == "0" && textBox1.Text != null)
            {
                textBox1.Text = "3";
            }
            else
            {
                textBox1.Text += "3";
            }
        }

        private void button4_Click(object sender, EventArgs e)
        {
            if (textBox1.Text == "0" && textBox1.Text != null)
            {
                textBox1.Text = "4";
            }
            else
            {
                textBox1.Text += "4";
```

```
    }
}

private void button5_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "5";
    }
    else
    {
        textBox1.Text += "5";
    }
}

private void button6_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "6";
    }
    else
    {
        textBox1.Text += "6";
    }
}

private void button7_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "7";
    }
    else
    {
        textBox1.Text += "7";
    }
}

private void button8_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "8";
    }
    else
    {
        textBox1.Text += "8";
    }
}

private void button9_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "9";
    }
    else
    {
        textBox1.Text += "9";
    }
}
```

```
private void button10_Click(object sender, EventArgs e)
{
    textBox1.Text += "0";
}

private void button11_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "+";
}

private void button12_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "-";
}

private void button13_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "*";
}

private void button14_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "/";
}

private void button15_Click(object sender, EventArgs e)
{
    textBox1.Text += ".";
}

private void button16_Click(object sender, EventArgs e)
{
    double SecondNumber;
    double Result;

    SecondNumber = Convert.ToDouble(textBox1.Text);

    if(Operation == "+")
    {
        Result = FirstNumber + SecondNumber;
        textBox1.Text =Convert.ToString(Result);
        FirstNumber = Result;
    }

    if (Operation == "-")
    {
        Result = FirstNumber - SecondNumber;
        textBox1.Text = Convert.ToString(Result);
        FirstNumber = Result;
    }


    if (Operation == "*")
    {
        Result = FirstNumber * SecondNumber;
```

```
            textBox1.Text = Convert.ToString(Result);
            FirstNumber = Result;
        }


        if (Operation == "/")
        {
            if(SecondNumber == 0)
            {
                textBox1.Text = "Cannot divide by zero";
            }
            else
            {
                Result = FirstNumber / SecondNumber;
                textBox1.Text = Convert.ToString(Result);
                FirstNumber = Result;
            }

        }
    }

    private void button17_Click(object sender, EventArgs e)
    {
        textBox1.Text = "0";
    }
}
                            }
```

Output:



PRACTICAL – 7

Aim : Develop an ASP.net webpage to demonstrate validation controls.

```
<%@ Page Language="C#" %>
<!DOCTYPE html>
<html>
<head>
<title>Validation Controls Example</title>
</head>
<body>
<form runat="server">
<div>
<h1>Validation Controls Example</h1>
<p>
<label for="txtName">Enter Your Name:</label>
<asp:TextBox ID="txtName" runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="rfvName" runat="server"
ControlToValidate="txtName" ErrorMessage="Please enter your
name">
</asp:RequiredFieldValidator>
</p>
<p>
<label for="txtEmail">Enter Your Email id:</label>
<asp:TextBox ID="txtEmail" runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="rfvEmail" runat="server"
ControlToValidate="txtEmail" ErrorMessage="Please enter
your email">
</asp:RequiredFieldValidator>
<asp:RegularExpressionValidator ID="revEmail" runat="server"
ControlToValidate="txtEmail" ErrorMessage="Please enter a
valid email" ValidationExpression="^\w+@[a-zA-Z_]+?\.[a
zA-Z]{2,3}$">
</asp:RegularExpressionValidator>
</p>
</div>
</form>
</body>
</html>
```

Output :

Top of Form

PRACTICAL – 8

Aim : Develop an ASP.net web page to show all page events along with their order of Execution.

WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="pageevent1.WebForm1" %>

<!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>page-event</title>
</head>
<body>
    <form id="form1" runat="server">
    <div>

        <asp:Label ID="label1" runat="server"></asp:Label>
        <br  />
        <br />


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


    </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 pageevent1
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            label1.Text += "Page load event handled. <br  />";

             if(Page.IsPostBack)
               {
                 label1.Text += "Page post back event handled. <br />";
```

```
            }
        }

        protected void Page_Init(object sender, EventArgs e)
        {
            label1.Text += "Page initialization event handled. <br  />";
        }
        protected void Page_PreRender(object sender, EventArgs e)
        {
            label1.Text += "Page prerender event handled. <br  />";
        }


        protected void Button1_Click(object sender, EventArgs e)
        {
            label1.Text += "Button click event handled.<br  />";
        }
    }
}
```

Output:

Page initialization event handled.
Page load event handled.
Page prerender event handled.

Click

PRACTICAL – 9

Aim : Develop an ASP.net web page to upload an image and load it within same page. Repeat for multiple image upload and display all in the same page

➢ ASP.net

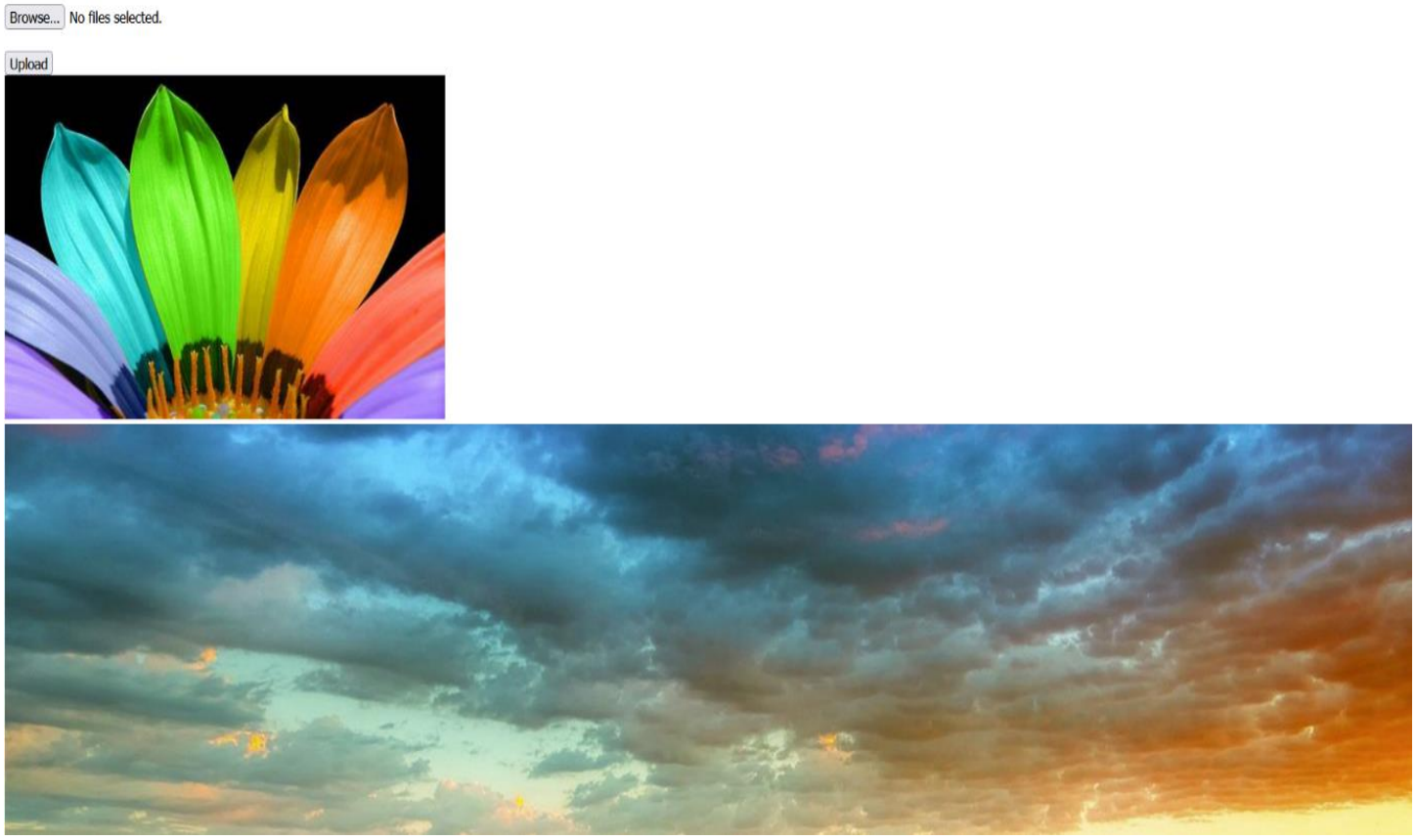
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Pract9.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Multiple Image Upload</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:FileUpload ID="FileUpload1" runat="server"
AllowMultiple="true"/>
        </div>
        <div> </div>
        <div>
            <asp:Button ID="btnUpload" runat="server" Text="Upload"
OnClick="btnUpload_Click"></asp:Button> 
        </div>


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

➢C#

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
using System.Net.NetworkInformation;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace Pract9
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
        }
        protected void btnUpload_Click(object sender, EventArgs e)
        {
            // Loop through the uploaded files and process each one
            if (FileUpload1.HasFiles)
            {
                foreach (HttpPostedFile file in FileUpload1.PostedFiles)
```

```
                {
                    string filename = file.FileName;
                    file.SaveAs(Server.MapPath("~/Images/" + filename));
                    Image img = new Image();
                    img.ImageUrl = "~/Images/" + filename;
                    Controls.Add(img);

                }

            }
        }

    }
}
```

Output:



PRACTICAL – 10

Aim : Develop an ASP.net web application to demonstrate page themes.

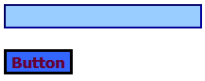
➢ ASP.net

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="prac__10.WebForm1" StylesheetTheme="Skin1"%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body style="blue">
    <form id="form1" runat="server">
        <div>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" Text="Button"
BackColor="#3366FF" BorderColor="Black" ForeColor="#660033" />

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

➢ Skin1.skin

```
<asp:Button runat="server" BackColor="#000099"
 BorderColor="Black" BorderWidth="3px" Font-Bold="true"/>

<asp:TextBox runat="server" BackColor="#99CCFF"
BorderColor="#000099" Font-Bold="true"/>
```

Output :



PRACTICAL – 11

Aim : Develop an ASP.net web application to demonstrate session management across application

➢ Index.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="index.aspx.cs"
Inherits="prac11.index" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:TextBox ID="TextBox1" runat="server"
BorderStyle="Solid"></asp:TextBox>

            <br />
            <br />
            <asp:Button ID="Button1" runat="server" Text="Submit"
BackColor="#CCFFFF" ForeColor="#660033" OnClick="Button1_Click" />
        </div>
    </form>
</body>
</html>
```

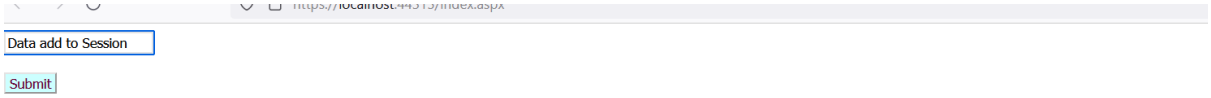
➢ Index.aspx.cs

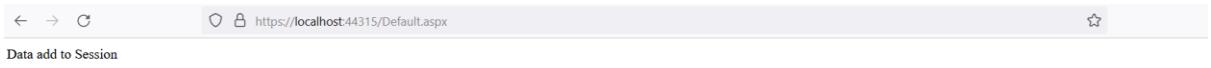
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace prac11
{
    public partial class index : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {


        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Session["data"] = TextBox1.Text;
            Response.Redirect("Default.aspx");
        }
    }
}
```

➢ Default.aspx.cs

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

namespace prac11
{
    public partial class Default : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if(!IsPostBack)
            {
                Response.Write(Session["data"].ToString());
            }
        }
    }
}
```

Output:





Data add to Session

PRACTICAL – 12

Aim : Develop an ASP.net web application to demonstrate Data Bound Controls. [Controls must be bounded dynamically

➢ WebForm1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="Pract12.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:GridView ID="GridView1" runat="server"></asp:GridView>
        </div>
        <div> </div>
        <asp:Button ID="Button1" runat="server" Text="Show Data"
OnClick="Button1_Click" />
    </form>
</body>
</html>
```

➢ WebForm1.aspx.cs

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

namespace Pract12
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            String cs = @"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\Diya\source\repos\Pract12
\Pract12\App_Data\Database1.mdf;Integrated Security=True";

            SqlConnection conn = new SqlConnection(cs);

            conn.Open();

            SqlCommand cmd = new SqlCommand("select * from student", conn);
```

```
            SqlDataReader reader = cmd.ExecuteReader();

            GridView1.DataSource = reader;
            GridView1.DataBind();

            conn.Close();
        }
    }
}
```

Output: