

# **ADVANCED**

# **WEB**

# **DEVELOPMENT**



# CERTIFICATE

Class \_\_\_\_\_

Year \_\_\_\_\_

This is to certify that the work entered in this Journal is the work of

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External  
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Subject teacher

Date :     /     / 20

Department of

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## PRACTICAL NO. : 1

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### Practical 1A)

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

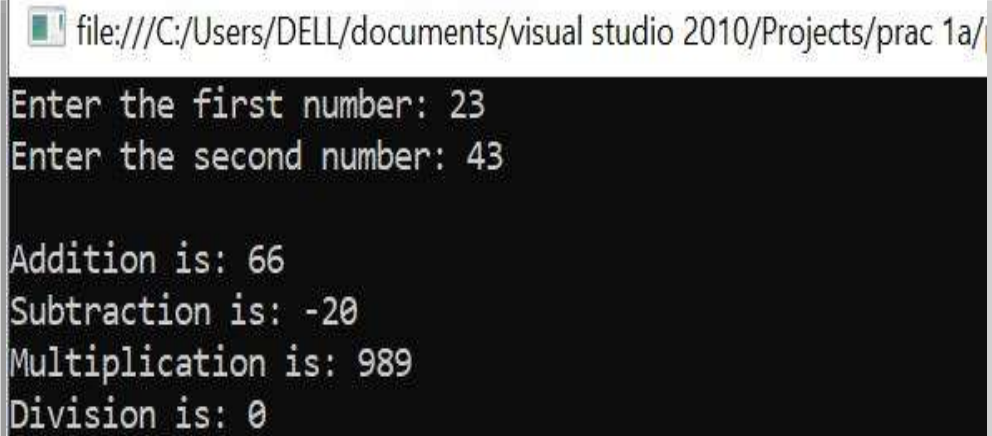
### CODE:

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

namespace prac_1a
{
    class Program
    {
        static void Main(string[] args)
        {
            int num1, num2, add, sub, mul, div;
            Console.WriteLine("Enter the first number: ");
            num1 = Int32.Parse(Console.ReadLine());
            Console.WriteLine("Enter the second number: ");
            num2 = Int32.Parse(Console.ReadLine());
            Console.WriteLine();
            add = num1 + num2;
            Console.WriteLine("Addition is: " + add);
            add = num1 - num2;
            Console.WriteLine("Subtraction is: " + add);
            add = num1 * num2;
            Console.WriteLine("Multiplication is: " + add);
            add = num1 / num2;
            Console.WriteLine("Division is: " + add);

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

## **OUTPUT:**



```
file:///C:/Users/DELL/documents/visual studio 2010/Projects/prac 1a/  
Enter the first number: 23  
Enter the second number: 43  
  
Addition is: 66  
Subtraction is: -20  
Multiplication is: 989  
Division is: 0
```

## Practical 1B)

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

### **CODE:**

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

namespace prac_1b
{
    class Program
    {
        static void Main(string[] args)
        {
            int height, i, j;
            int value = 1;
            String triangleValue;

            Console.WriteLine("Enter the height of the triangle :");
            height = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine();

            for (i = 1; i <= height; i++)
            {
                for (j = 1; j < i + 1; j++)
                {
                    triangleValue = value > 9 ? (value + "") : (value + " ");

                    Console.Write(triangleValue + " ");
                    value++;
                }
                Console.ReadLine();
            }
        }
    }
}
```

## OUTPUT:

file:///C:/Users/DELL/Documents/Visual Studio 2010/Projects/prac 1b/

Enter the height of the triangle :

5

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

## PRACTICAL NO. : 2

---

### Practical 2A)

**AIM:** Create an application to demonstrate following operations

- i. Generate Fibonacci series.

### CODE:

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

namespace prac_1c
{
    class Program
    {
        static void Main(string[] args)
        {
            int num1 = 0, num2 = 1, num3, num4, num, counter;
            Console.WriteLine("Upto how many numbers you want Fibonacci Series: ");
            num = Convert.ToInt32(Console.ReadLine());
            counter = 3;
            Console.Write(num1 + "\t" + num2);
            while (counter <= num)
            {
                num3 = num1 + num2;
                if (counter >= num)
                    break;
                Console.Write("\t" + num3);
                num1 = num2;
                num2 = num3;
                counter++;
            }
            Console.ReadLine();
        }
    }
}
```



## **OUTPUT:**

file:///C:/Users/DELL/Documents/Visual Studio 2010/Projects/prac 1c/

Upto how many numbers you want Fibonacci Series:

8

0        1        1        2        3        5        8

## Practical 2A)

**AIM:** Create an application to demonstrate following operations

- ii. Test for prime numbers.

### CODE:

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

namespace prac_1c2_prime_no
{
    class Program
    {
        static void Main(string[] args)
        {
            int num, counter;
            Console.Write("Enter a Number: ");
            num = Convert.ToInt32(Console.ReadLine());
            for (counter = 2; counter <= num / 2; counter++)
            {
                if((num%counter)==0)
                    break;
            }
            if(num==1)
                Console.WriteLine(num+" is neither prime nor composite");
            else if(counter<(num/2))
                Console.WriteLine(num+" is not prime number");
            else
                Console.WriteLine(num+" is prime number");
            Console.ReadLine();
        }
    }
}
```

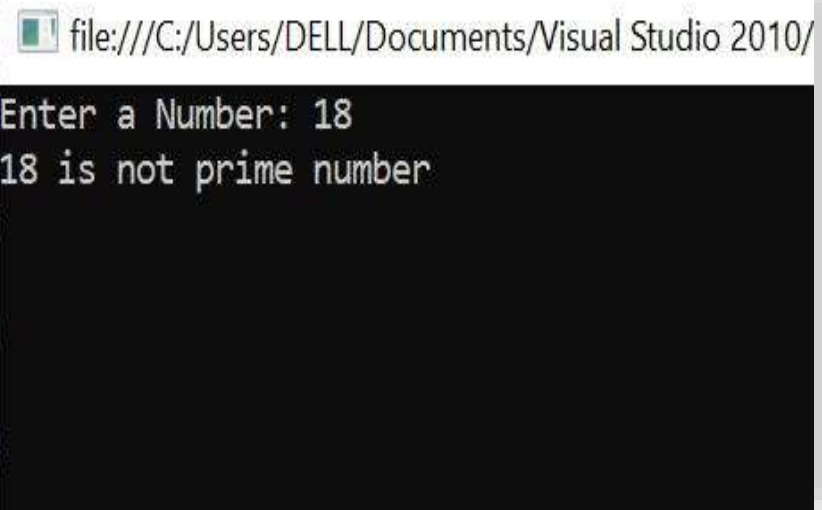
## **OUTPUT:**



file:///C:/Users/DELL/Documents/Visual Studio 2010/Projects/

Enter a Number: 7

7 is prime number



file:///C:/Users/DELL/Documents/Visual Studio 2010/

Enter a Number: 18

18 is not prime number

## Practical 2B)

**AIM:** Write a program to demonstrate Single Inheritance.

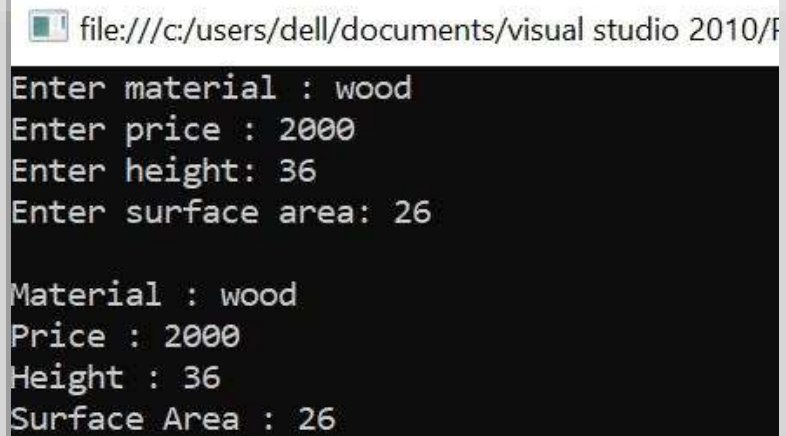
### **CODE:**

```
using System;
namespace SingleInheritance
{
    class Furniture
    {
        string material;
        float price;
        public void getdata()
        {
            Console.Write("Enter material : ");
            material = Console.ReadLine();
            Console.Write("Enter price : ");
            price = float.Parse(Console.ReadLine());
        }
        public void showdata()
        {
            Console.WriteLine("Material : " + material);
            Console.WriteLine("Price : " + price);
        }
    }

    class Table:Furniture
    {
        int height, surface_area;
        public void getdata()
        {
            base.getdata();
            Console.Write("Enter height: ");
            height = int.Parse(Console.ReadLine());
            Console.Write("Enter surface area: ");
            surface_area = int.Parse(Console.ReadLine());
        }
        public void showdata()
        {
            base.showdata();
            Console.WriteLine("Height : " + height);
            Console.WriteLine("Surface Area : " + surface_area);
        }
    }
    class Program
    {
        static void Main(string[] args)
```

```
    {  
        Table t1 = new Table();  
        t1.getdata();  
        Console.WriteLine();  
        t1.showdata();  
        Console.ReadLine();  
    }  
}
```

### **OUTPUT:**



The screenshot shows a console window with a title bar indicating the file path: file:///c:/users/dell/documents/visual studio 2010/F. The console output consists of two parts. The first part shows four prompts: 'Enter material :', 'Enter price :', 'Enter height:', and 'Enter surface area:', each followed by a user input. The second part shows the program's output: 'Material :', 'Price :', 'Height :', and 'Surface Area :', each followed by the corresponding input value.

```
file:///c:/users/dell/documents/visual studio 2010/F  
Enter material : wood  
Enter price : 2000  
Enter height: 36  
Enter surface area: 26  
  
Material : wood  
Price : 2000  
Height : 36  
Surface Area : 26
```

## PRACTICAL NO. : 3

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### Practical 3A)

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

### **CODE:**

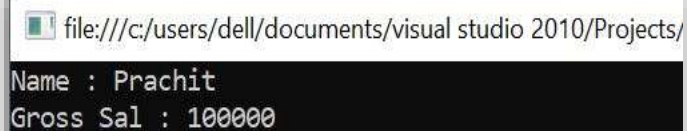
```
using System;
namespace MultipleInheritance
{
    interface Gross
    {
        int ta
        {
            get;
            set;
        }
        int da
        {
            get;
            set;
        }
        int GrossSal();
    }
    class Employee
    {
        string name;
        public Employee(string name)
        { this.name = name; }
        public int BasicSal(int basicSal)
        {
            return basicSal;
        }
        public void ShowData()
        {
            Console.WriteLine("Name : " + name);
        }
    }
    class Salary : Employee, Gross
    {
        int hra;
        public Salary(string name, int hra)
            : base(name)
        { this.hra = hra; }
        public int ta
        {
            get { return S_ta; }
        }
    }
}
```

```

        set { S_ta = value; }
    }
    private int S_ta;
    public int da
    {
        get { return S_da; }
        set { S_da = value; }
    }
    private int S_da;
    public int GrossSal()
    {
        int gSal;
        gSal = hra + ta + da + BasicSal(15000);
        return gSal;
    }
    public void dispSal()
    {
        base.ShowData();
        Console.WriteLine("Gross Sal : " + GrossSal());
    }
}
class Program
{
    static void Main(string[] args)
    {
        Salary s = new Salary("Prachit", 35000);
        s.da = 20000;
        s.ta = 30000;
        s.dispSal();
        Console.ReadLine();
    }
}

```

## **OUTPUT:**



```

file:///c:/users/dell/documents/visual studio 2010/Projects/
Name : Prachit
Gross Sal : 100000

```

### Practical 3B)

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

#### **CODE:**

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

namespace NewPract2_a_
{
    class Program
    {
        static void Main(string[] args)
        {
            int num = 123;
            object obj = num;
            obj = 145;

            Console.WriteLine("Boxing:");
            Console.WriteLine("Value type (int): {num}");
            Console.WriteLine("Boxed type (object): {obj}");

            int unboxedNum = (int)obj;

            Console.WriteLine("\nUnboxing:");
            Console.WriteLine("Boxed type (object): {obj}");
            Console.WriteLine("Value type (int): {num}");
            Console.WriteLine("Unboxed type (int): {unboxedNum}");
            Console.ReadKey();
        }
    }
}
```



## **OUTPUT:**

file:///c:/users/dell/documents/visual studio 2010/Projects/prac 1f/

Boxing:

Value type (int): {num}

Boxed type (object): {obj}

Unboxing:

Boxed type (object): {obj}

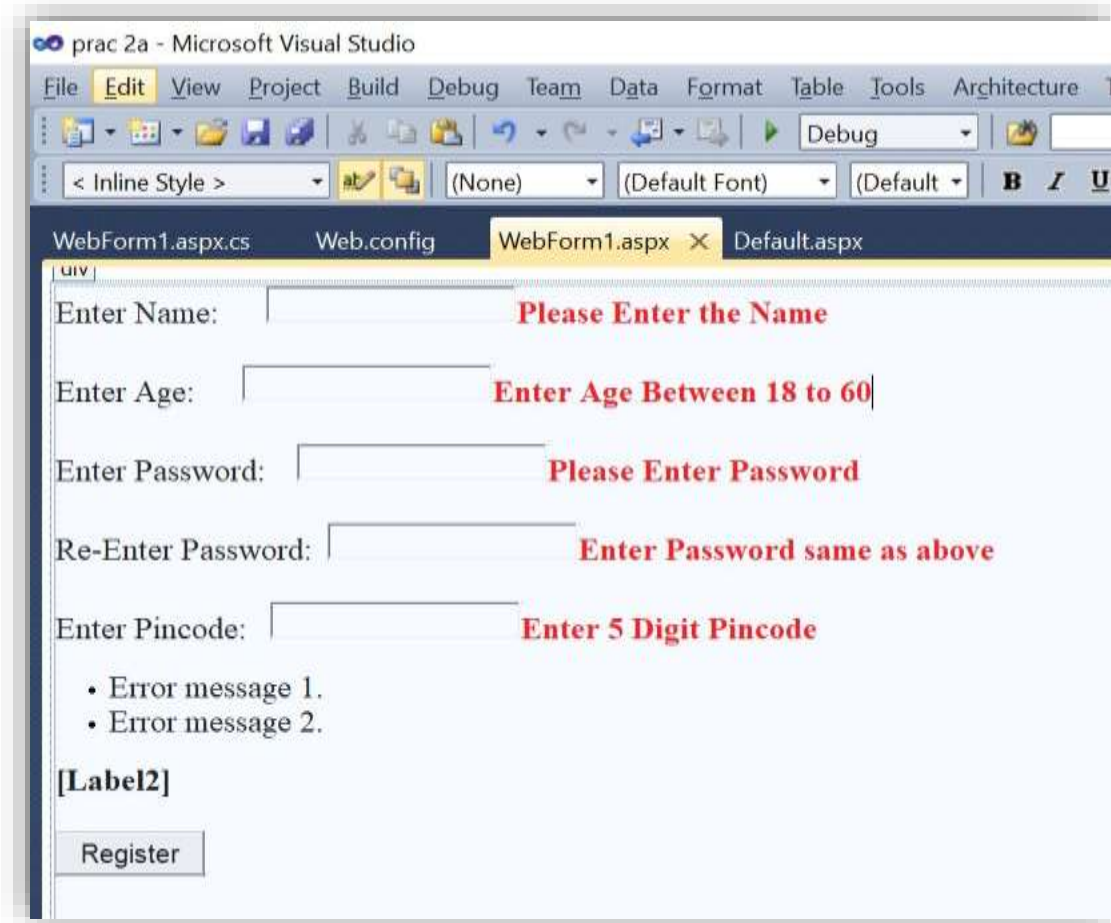
Value type (int): {num}

Unboxed type (int): {unboxedNum}

## PRACTICAL NO. : 4

### Practical 4A)

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



### CODE:

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

namespace prac_2a
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
```

```

    {
    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Label2.Text = "Registration Successful";
    }
}

```

Control	Property	Value
RequiredFieldValidator	ID	RequiredFieldValidator1
	ControlToValidate	TextBox1
	ErrorMessage	Please Enter the Name
	ForeColor	Red
RangeValidator	ID	RangeValidator1
	ControlToValidate	TextBox2
	ErrorMessage	Enter age between 18 to 60
	ForeColor	Red
	MaximunValue	60
	MinimumValue	18
RequiredFieldValidator	ID	RequiredFieldValidator2
	ControlToValidate	TextBox3
	ErrorMessage	Please Enter the Password
	ForeColor	Red
CompareValidator	ID	CompareValidator1
	ControlToValidate	TextBox4
	CompareToValidate	TextBox3
	ErrorMessage	Enter Password same as above
	ForeColor	Red
RegularExpressionValidator1	ID	RegularExpressionValidator1
	ControlToValidate	TextBox5
	ErrorMessage	Enter 5 Digit Pincode
	ForeColor	Red
ValidationSummary	ID	ValidationSummary1

## OUTPUT:



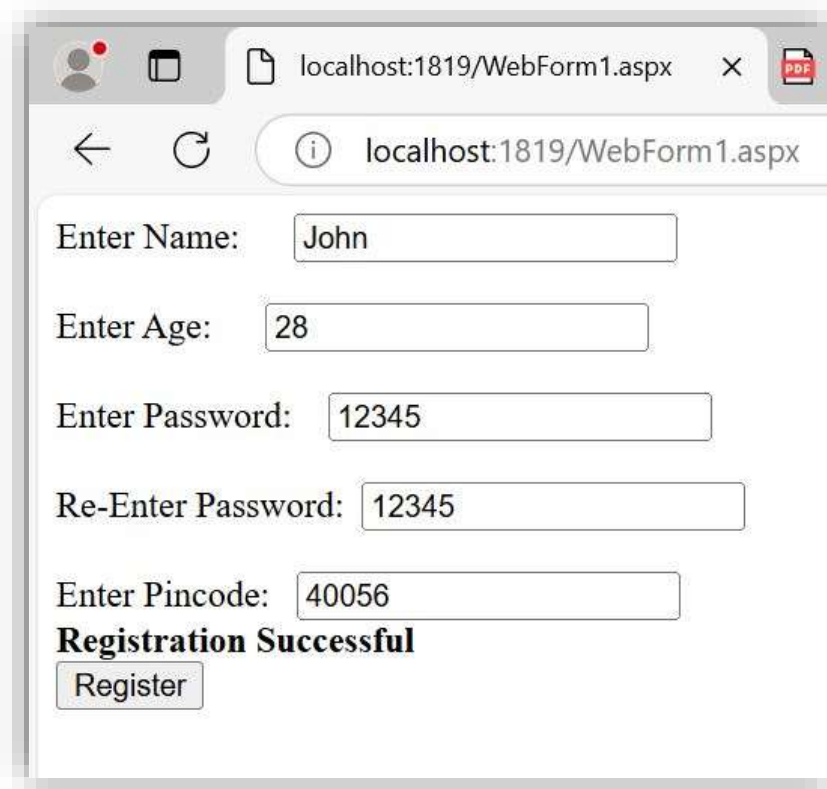
A screenshot of a web browser window displaying a registration form at localhost:1819/WebForm1.aspx. The form contains five input fields with corresponding validation messages in red text:

- Enter Name: [ ] Please Enter the Name
- Enter Age: [63] Enter Age Between 18 to 60
- Enter Password: [ ] Please Enter Password
- Re-Enter Password: [345] Enter Password same as above
- Enter Pincode: [176] Enter 5 Digit Pincode

Below the input fields, there is a bulleted list of validation messages:

- Please Enter the Name
- Please Enter Password
- Enter Password same as above
- Enter 5 Digit Pincode

At the bottom left, there is a "Register" button.



A screenshot of a web browser window displaying the same registration form at localhost:1819/WebForm1.aspx. The form is now filled with the following values:

- Enter Name: [John]
- Enter Age: [28]
- Enter Password: [12345]
- Re-Enter Password: [12345]
- Enter Pincode: [40056]

Below the input fields, the message "Registration Successful" is displayed in bold black text. The "Register" button remains at the bottom left.

## Practical 4B)

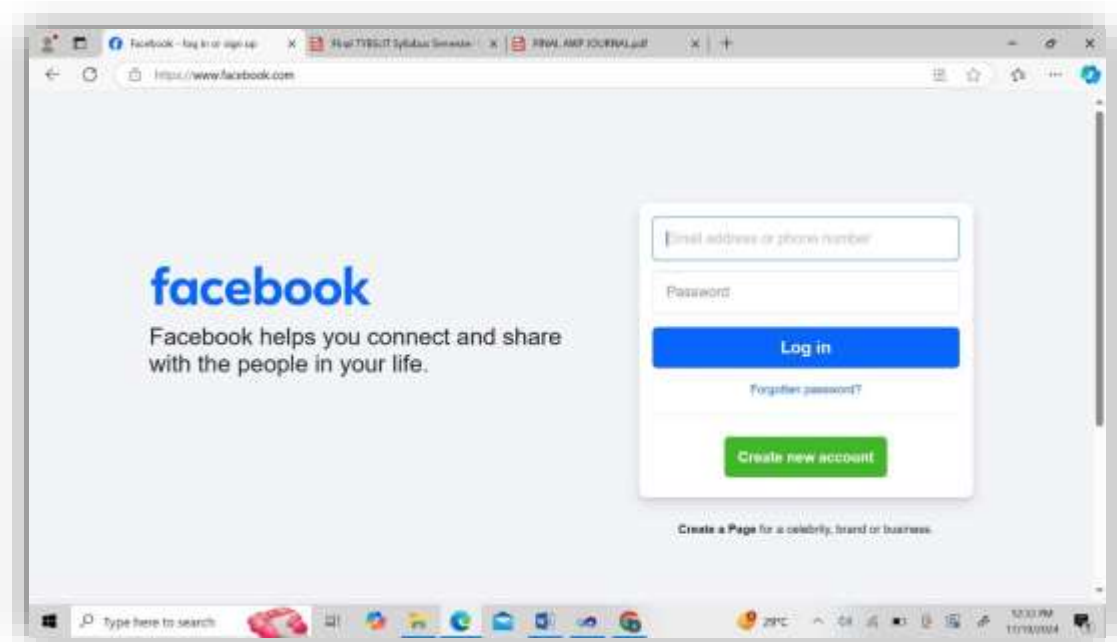
**AIM:** Create Web Form to demonstrate use of Adrotator Control.

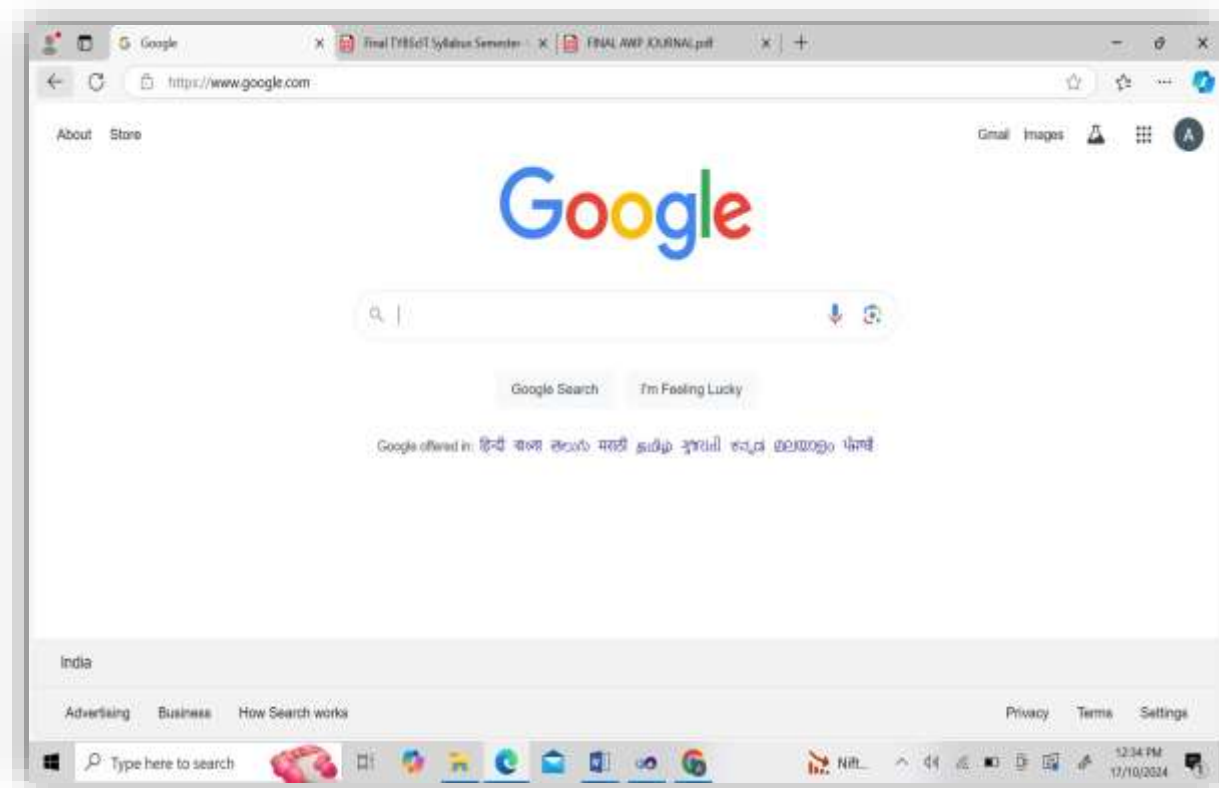
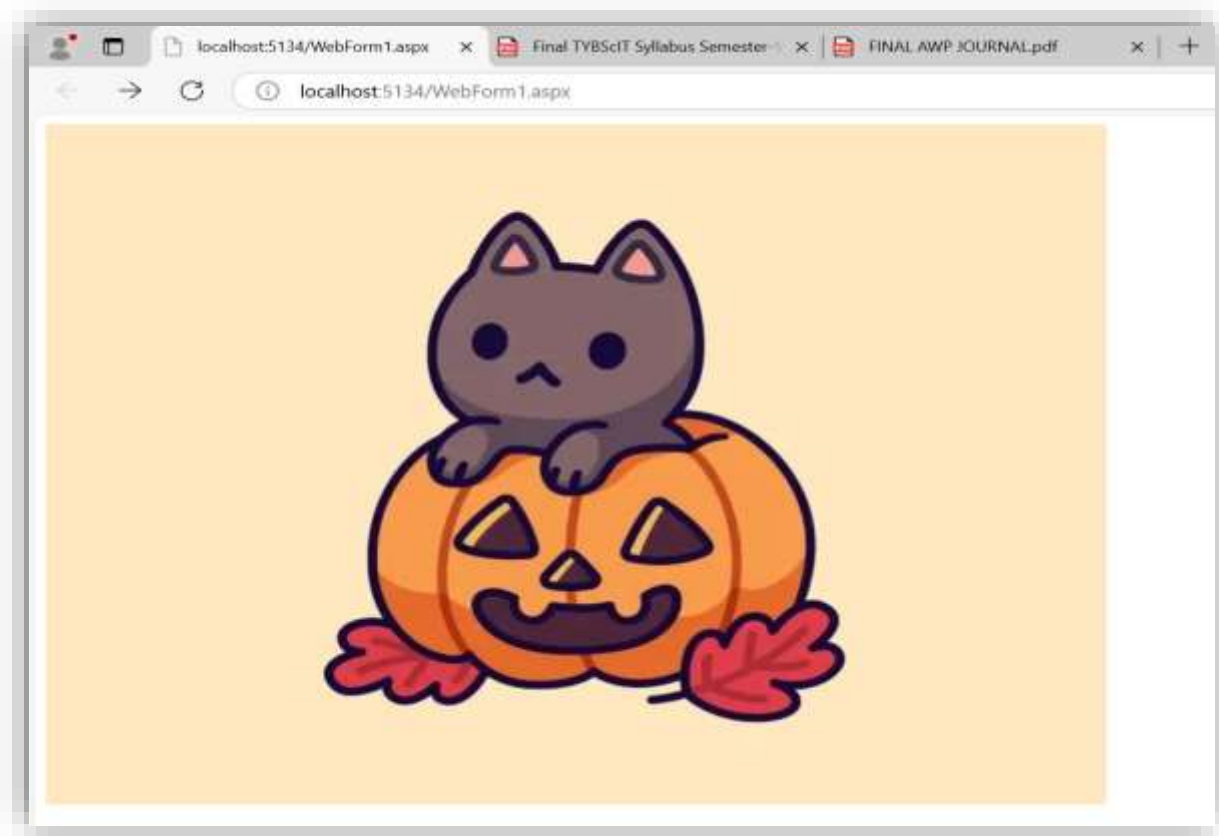
### **CODE:**

#### **XMLFILE1.xml**

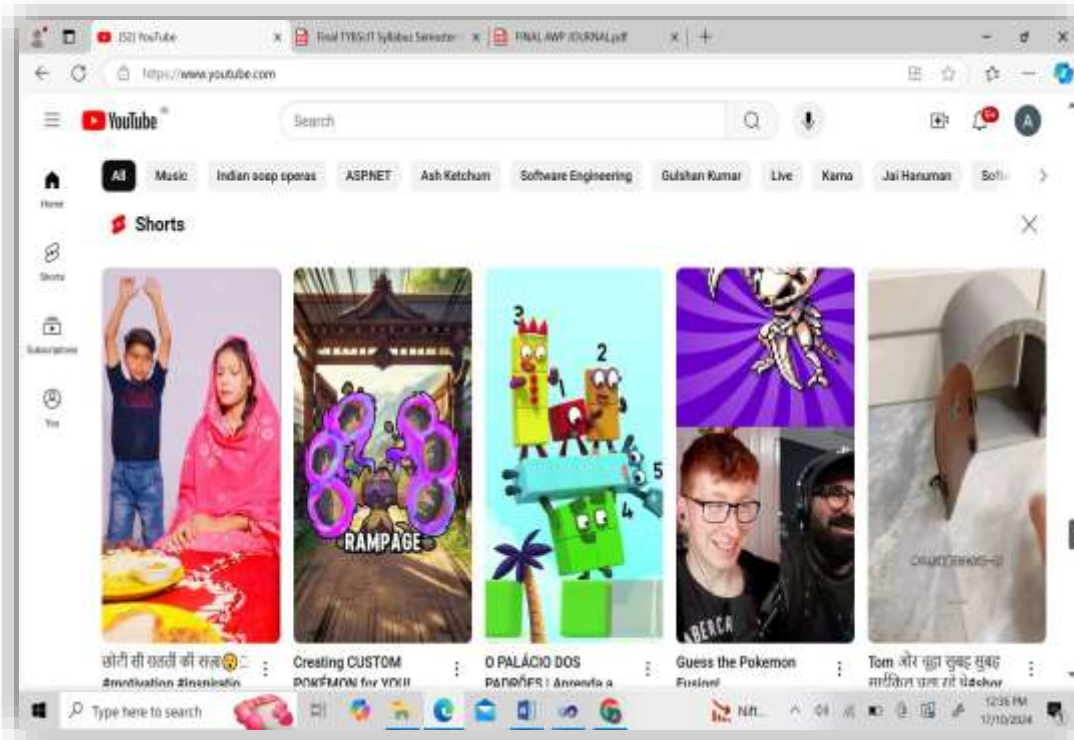
```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
  <Ad>
    <ImageUrl>cat.jpg</ImageUrl>
    <NavigateUrl>https://www.google.com/</NavigateUrl>
    <Impressions>5</Impressions>
    <AlternateText>Google Search</AlternateText>
    <Keyword>Google</Keyword>
  </Ad>
  <Ad>
    <ImageUrl>color-wheel-picker.jpg</ImageUrl>
    <NavigateUrl>https://www.youtube.com </NavigateUrl>
    <Impressions>5</Impressions>
    <AlternateText>YouTube Search</AlternateText>
    <Keyword>YouTube</Keyword>
  </Ad>
  <Ad>
    <ImageUrl>random.jpg</ImageUrl>
    <NavigateUrl>https://www.facebook.com/</NavigateUrl>
    <Impressions>5</Impressions>
    <AlternateText>Facebook Search</AlternateText>
    <Keyword>Facebook</Keyword>
  </Ad>
</Advertisements>
```

## OUTPUT:











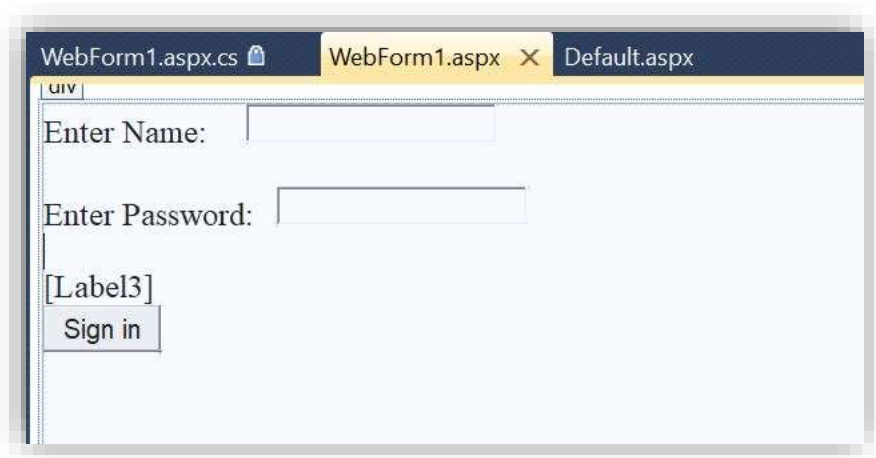
## PRACTICAL NO. : 5

---

### Practical 5A)

**AIM:** Create Web Form to demonstrate use User Controls

### **CODE:**



### Webform1.aspx.cs

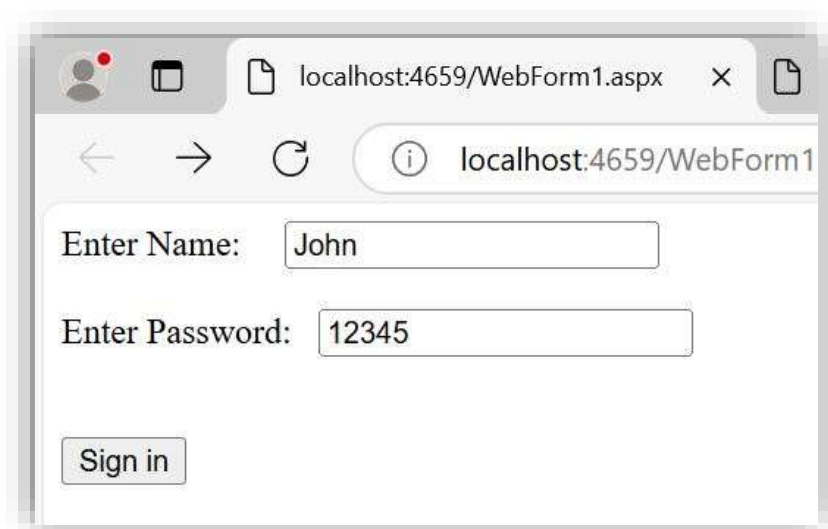
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace prac_2c
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

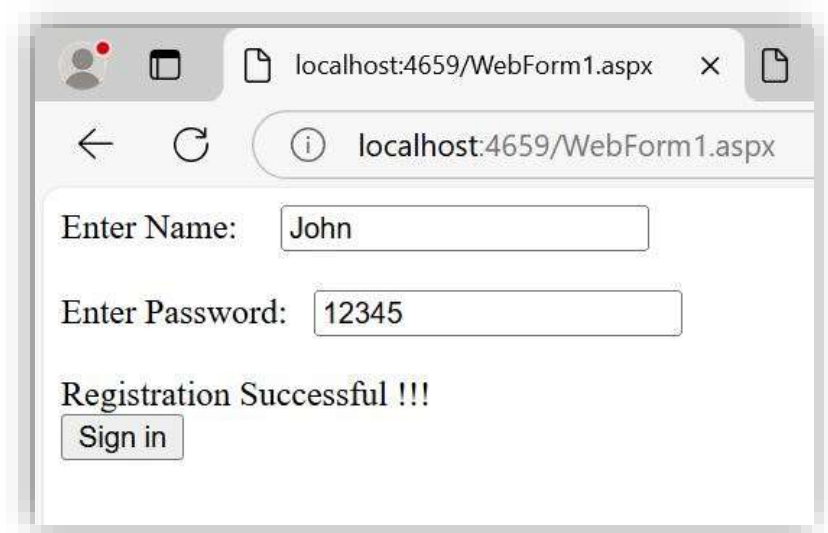
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Label3.Text = "Registration Successful !!!";
        }
    }
}
```

## OUTPUT:



A screenshot of a web browser window. The address bar shows 'localhost:4659/WebForm1.aspx'. The page contains a registration form with two input fields: 'Enter Name:' with the value 'John' and 'Enter Password:' with the value '12345'. Below the fields is a 'Sign in' button.



A screenshot of a web browser window, identical to the one above, but with an additional message 'Registration Successful !!!' displayed below the password field. The 'Sign in' button remains visible.

## Practical 5B)

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

### **CODE:**

#### **STEP 1: Default.aspx**

Add 1 sitemappath 1 menu and 1 sitemapdatasource from tool box.

#### **STEP 2: WebForm1.aspx**

In <div> tag add 1 sitemappath and <h1> tag with statement.

```
<div>
    <asp:SiteMapPath ID="SiteMapPath1" runat="server">
    </asp:SiteMapPath>
    <br />
    <h1> <b>Welcome To Navigation Controls !!!</b></h1>
</div>
```

#### **STEP 3: WebForm2.aspx**

In <div> tag add 1 sitemappath and <h1> tag with statement.

```
<div>
    <asp:SiteMapPath ID="SiteMapPath1" runat="server">
    </asp:SiteMapPath>
    <br />
    <h1> <b>Welcome To Webform1...</b></h1>
</div>
```

#### **STEP 4: WebForm3.aspx**

In <div> tag add 1 sitemappath and <h1> tag with statement.

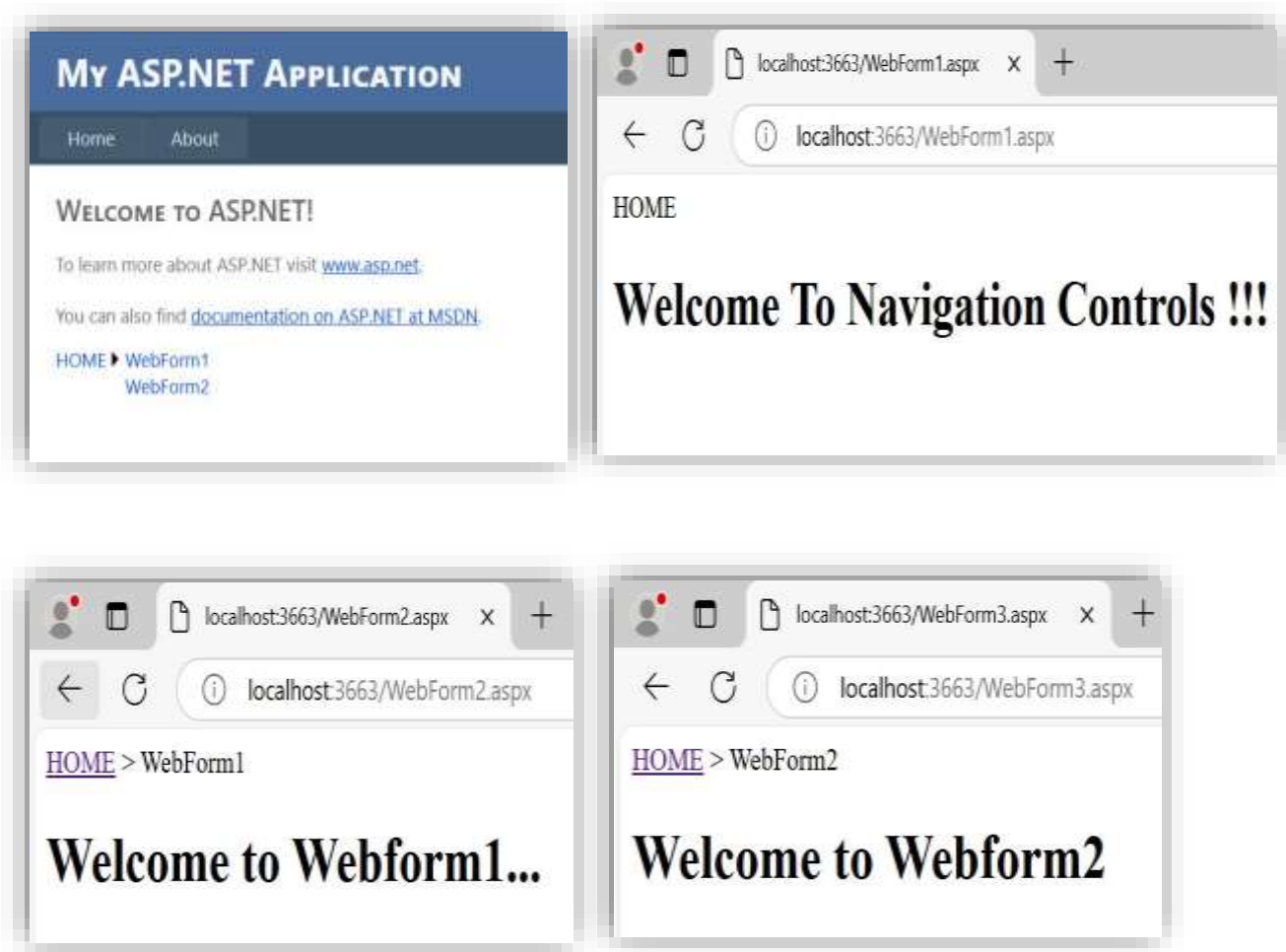
```
<div>
    <asp:SiteMapPath ID="SiteMapPath1" runat="server">
    </asp:SiteMapPath>
    <br />
    <h1> <b>Welcome To Webform2...</b></h1>
</div>
```

STEP 5: Add 1 site map with extension .sitemap

## Web.sitemap

```
<?xml version="1.0" encoding="utf-8" ?>
<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >
  <siteMapNode url="WebForm1.aspx" title="HOME" description="">
    <siteMapNode url="WebForm2.aspx" title="WebForm1" description="" />
    <siteMapNode url="WebForm3.aspx" title="WebForm2" description="" />
  </siteMapNode>
</siteMap>
```

## OUTPUT:



## PRACTICAL NO. : 6

---

### Practical 6A)

**AIM:** Create a web application to demonstrate JS Bootstrap Button.

### **CODE:**

```
<!Doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap JS Buttons </title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhY6hW+ALEwI
H" crossorigin="anonymous">
  </head>
  <body>
    <h1><u><b></B>BOOTSTRAP JS BUTTONS</u></b></h1><br>
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jleHz"
crossorigin="anonymous"></script>
    <button type="button" class="btn btn-primary">Primary</button>
    <button type="button" class="btn btn-secondary">Secondary</button><br><br>
    <button type="button" class="btn btn-success">Success</button>
    <button type="button" class="btn btn-danger">Danger</button><br><br>
```

```
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-info">Info</button><br><br>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-dark">Dark</button><br><br>
<button type="button" class="btn btn-link">Link</button>
</body>
</html>
```

### **OUTPUT:**

