Practical 1

a) Aim: Create an application to print on screen the output of adding, subtraction, multiplication and division two numbers entered by the user in C #.

Code:

```
using System;
namespace myproject
{
   class Program {
      static void Main(string[] args) {
         int a,b,r1,r2,r3,r4;
         Console.WriteLine("Enter number 1: ");
         a=Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter number 2: ");
         b=Convert.ToInt32(Console.ReadLine());
         r1 = a + b;
         Console.WriteLine("Addition: "+r1);
         r2 = a - b;
         Console.WriteLine("Subtraction: "+r2);
         r3 = a * b;
         Console.WriteLine("Multiplication: "+r3);
         r4 = a / b;
         Console.WriteLine("Division: "+r4);
      }
   }
}
```

Output:

```
PS C:\Users\IT PC NO. 15\Desktop\myproject> dotnet run
Enter number 1:
10
Enter number 2:
5
Addition: 15
Subtraction: 5
Multiplication: 50
Division: 2
```

b) Aim: Create an application to print Floyd's Triangle till n rows in C #.

Code:

```
using System;
class Program
{
   static void printFloydTriangle(int n)
   {
      int i, j, val = 1;
      for(i=1;i<=n;i++)
      {
         for(j=1;j<=i;j++)
         {
            Console.Write(val + " ");
            val++;
         }
         Console.WriteLine();
      }
   }
   public static void Main()
   {
      printFloydTriangle(6);
   }
}
```

Output:

```
PS C:\Users\IT PC NO. 15\Desktop\myproject> dotnet run
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
```

c) Create an application to demonstrate following operations:

i. Generate Fibonacci series

ii. Test for prime numbers

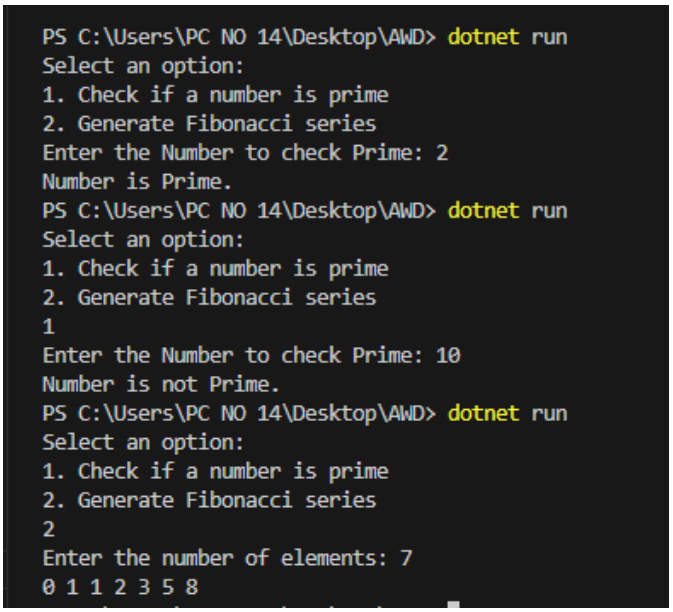
Code:

```
using System.Security.Cryptography.X509Certificates;
namespace p1;
class Program
{
    public static void Main(string[] args) {
        static void primenum() {
            int n, i, m=0, flag=0;
            Console.Write("Enter the Number to check Prime: ");
           n = int.Parse(Console.ReadLine());
          m=n/2;
          for(i = 2; i <= m; i++)
          {
              if(n % i == 0)
              {
                  Console.Write("Number is not Prime.");
                  flag=1;
                  break;
              }
          }
        if (flag==0)
         Console.Write("Number is Prime.");
}
```

```
static void fibo(int number) {
    int n1=0,n2=1,n3,i;
    Console.Write("Enter the number of elements: ");
    number = Convert.ToInt32(Console.ReadLine());
    Console.Write(n1+" "+n2+" ");
    for(i=2;i<number;++i)
    {
        n3=n1+n2;
        Console.Write(n3+" ");
        n1=n2;
        n2=n3;
    }
}

Console.WriteLine("Select an option:");
Console.WriteLine("1. Check if a number is prime");
Console.WriteLine("2. Generate Fibonacci series");

int x = Convert.ToInt32(Console.ReadLine());

switch(x) {
    case 1:
    primenum();
    break;
   case 2:
   fibo(4);
   break;
   default:
   Console.WriteLine("Error!");
```

```
    break;
}
    }
}
```

Output:



Practical 2

a) Aim: Create a simple application to demonstrate the concepts boxing and unboxing.

Code:

```
using System;
namespace awd
{
   class Program
   {
      static void Main(string[] args)
      {
         int num=23;
         object obj=num;
         int i=(int)obj;
         Console.WriteLine("Value of object: "+obj);
         Console.WriteLine("Value of i: "+i);
      }
   }
}
```

Output:

```
PS C:\Users\Harshita\Desktop\AWD> dotnet run
Value of object: 23
Value of i: 23
PS C:\Users\Harshita\Desktop\AWD>
```

b) Aim: Create a simple application to perform addition and subtraction using delegate.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace AWD
{
   delegate void MyDelegate(int x,int y);
   public class Calculatedeligate
   {
      public static void Add(int x, int y)
      {
         Console.WriteLine("Addition is=" + (x+y));
      }
      public static void Sub(int x, int y)
      {
         Console.WriteLine("Subtraction is=" + (x-y));
      }
      public static void Multiply(int x, int y)
      {
         Console.WriteLine("Multiply is=" + (x*y));
      }
      public static void Division(int x, int y)
      {
         Console.WriteLine("Division is=" + (x/y));
      }
```

```
 }
 class Program
 {
    public static void Main(string[] args)
    {
       MyDelegate obj = new MyDelegate(Calculatedeligate.Add);
       obj(6,4);
       MyDelegate obj1 = new MyDelegate(Calculatedeligate.Sub);
       obj1(2,5);
       MyDelegate obj2 = new MyDelegate(Calculatedeligate.Multiply);
       obj2(2,4);
       MyDelegate obj3 = new MyDelegate(Calculatedeligate.Division);
       obj3(6,4);
       Console.WriteLine("\n");
    }
 }

}
```

Output:

```
PS C:\Users\ITPc No.7\Desktop\AWD> dotnet run
Addition is=10
Subtraction is=-3
Multiply is=8
Division is=1
```

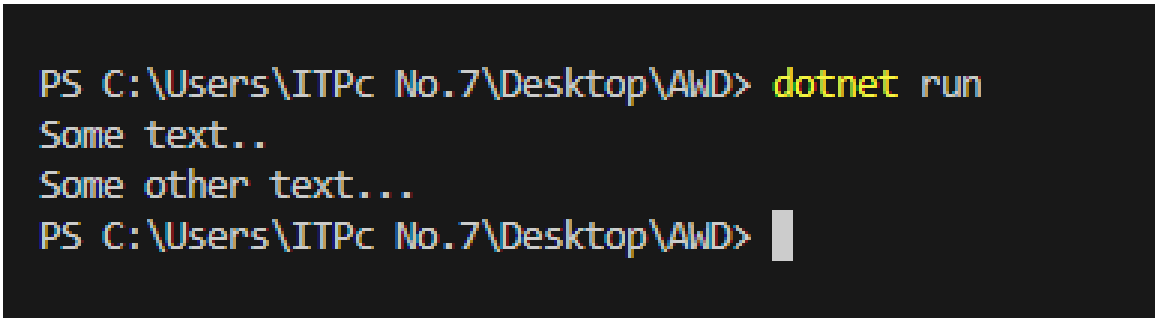
c) Aim: Create a simple application to demonstrate use of the concepts of interfaces.

Code:

```
using System;
namespace AWD
{
   interface IFirstInterface
   {
      void myMethod();
   }
   interface ISecondInterface
   {
      void myOtherMethod();
   }
   class DemoClass : IFirstInterface, ISecondInterface
   {
      public void myMethod()
      {
         Console.WriteLine("Some text..");
      }
      public void myOtherMethod()
      {
         Console.WriteLine("Some other text...");
      }
   }
   class Program
   {
      static void Main(string[] args)
```

```
    {
        DemoClass myObj = new DemoClass();
        myObj.myMethod();
        myObj.myOtherMethod();
    }
  }
}
```

Output:



Practical 3

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

Code:

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true" CodeBehind="Default.aspx.cs" Inherits="WebApplication3._Default" %>

<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">

</asp:Content>

<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">

  <h2>

    Welcome to ASP.NET!

  </h2><br />

      Enter your name :

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

    Enter your age :

      <asp:TextBox ID="TextBox2" runat="server" AutoPostBack="True"></asp:TextBox>

      <br /><br />

    <asp:Button ID="Button1" runat="server" Text="Submit" />

  </p>

</asp:Content>
```

Output:

```
PS C:\Users\Harshita\Desktop\AWD> dotnet run
Value of object: 23
Value of i: 23
PS C:\Users\Harshita\Desktop\AWD>
```

c) Aim: Create a simple application to demonstrate your vacation using calendar control.

Code:

Default.aspx

```
<%@ Page Language=”C#” AutoEventWireup=”true”
  CodeBehind=”Default.aspx.cs” Inherits=”calendar._Default” %>
<!DOCTYPE html>
<html xmlns=http://www.w3.org/1999/xhtml>
  <head id=”Head1” runat=”server”>
    <title></title>
  </head>
  <body>
    <form id=”form1” runat=”server”>
    <div>
      <asp:Calendar ID=”Calendar1” runat=”server”
OnSelectionChanged=”Calendar1_SelectionChanged”
OnDayRender=”Calendar1_DayRender”></asp:Calendar>
      <asp:Calendar ID=”Calendar2” runat=”server”></asp:Calendar>
      <br />
      <asp:Label ID=”Label1” runat=”server” Text=”No of days is : “></asp:Label>
       
      <asp:Button ID=”Button1” runat=”server” OnClick=”Button1_Click”
Text=”Button” />
    </div>
```

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

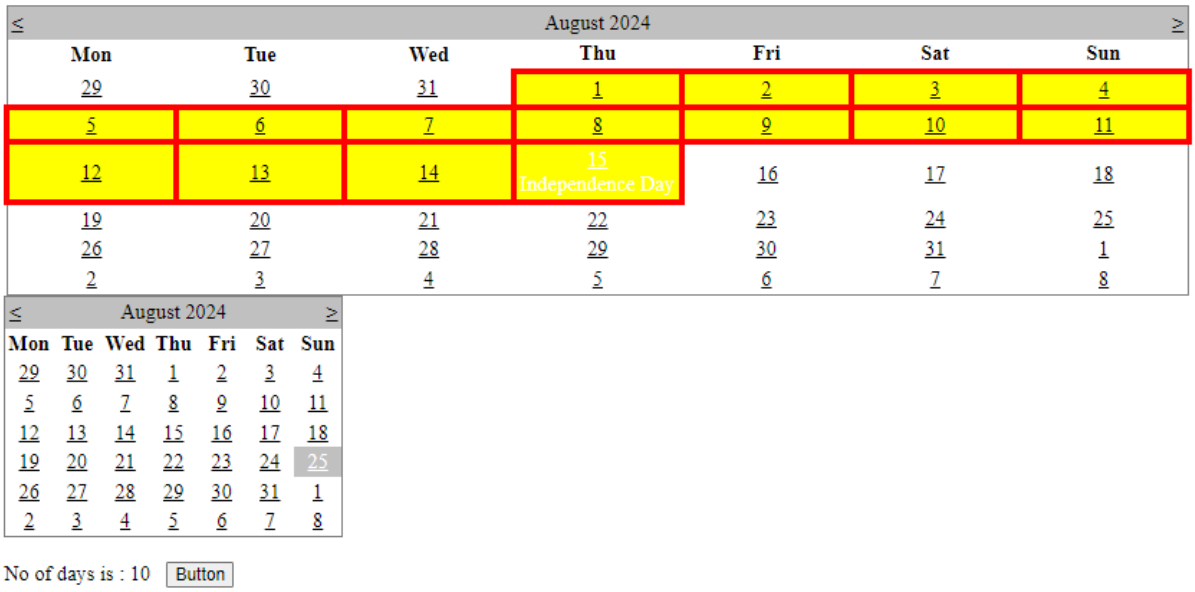
Default.aspx.cs

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

Namespace calendar
{
  Public partial class _Default : System.Web.UI.Page
  {
    Protected void Page_Load(object sender, EventArgs e)
    {

    }
    Protected void Calendar1_SelectionChanged(object sender, EventArgs e)
    {
```

```
    }

    Protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
    {
       If (e.Day.Date.Day == 15)
          e.Cell.Controls.Add(new LiteralControl("</br>Independence Day"));
       if ((e.Day.Date >= new DateTime(2024, 8, 1)) && (e.Day.Date <= new
DateTime(2024, 8, 15)))
       {
          e.Cell.BackColor = System.Drawing.Color.Yellow;
          e.Cell.BorderColor = System.Drawing.Color.Red;
          e.Cell.BorderWidth = new Unit(5);
          if (e.Day.IsOtherMonth)
          {
             e.Cell.Controls.Clear();
          }
       }
    }
    Protected void Button1_Click(object sender, EventArgs e)
    {
       TimeSpan t = Calendar2.SelectedDate – Calendar1.SelectedDate;
       Label1.Text += t.Days.ToString();
```

```
    }
  }
}
```

Output:


≤
August 2024
≥
Mon Tue Wed Thu Fri Sat Sun
29 30 31 1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 Independence Day 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31 1
2 3 4 5 6 7 8
≤
August 2024
≥
Mon Tue Wed Thu Fri Sat Sun
29 30 31 1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31 1
2 3 4 5 6 7 8
No of days is : 10
Button

c) Aim: Demonstrate the use of Treeview and Menuview operations on the web form.

Code:

Default.aspx

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"
   CodeBehind="Default.aspx.cs" Inherits="WebApplication6._Default" %>


<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">
<asp:Menu ID="Menu1" runat="server" Orientation="Horizontal">
   <Items>
      <asp:MenuItem NavigateUrl="~/page1.aspx" Text="Home" Value="Home">
      </asp:MenuItem>
      <asp:MenuItem NavigateUrl="~/page2.aspx" Text="About Us" Value="About Us">
      <asp:MenuItem NavigateUrl="~/page3.aspx" Text="Help" Value="Help">
      </asp:MenuItem>
      </asp:MenuItem>
   </Items>
   </asp:Menu><br />
   <br />
   Tree View<asp:TreeView ID="TreeView1" runat="server" ImageSet="BulletedList2"
      ShowExpandCollapse="False">
      <HoverNodeStyle Font-Underline="True" ForeColor="#5555DD" />
      <Nodes>
         <asp:TreeNode NavigateUrl="~/page1.aspx" Text="Home" Value="Home">
         </asp:TreeNode>
         <asp:TreeNode NavigateUrl="~/page2.aspx" Text="About Us" Value="About Us">
```

```
        <asp:TreeNode NavigateUrl="~/page3.aspx" Text="Help" Value="Help">
        </asp:TreeNode>
        </asp:TreeNode>
      </Nodes>
      <NodeStyle Font-Names="Tahoma" Font-Size="10pt" ForeColor="Black"
                  HorizontalPadding="5px" NodeSpacing="0px" VerticalPadding="0px" />
      <ParentNodeStyle Font-Bold="False" />
      <SelectedNodeStyle Font-Underline="True" ForeColor="#5555DD"
                  HorizontalPadding="0px" VerticalPadding="0px" />
    </asp:TreeView>
</asp:Content>
```

page1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page1.aspx.cs"
Inherits="WebApplication6.page1" %>

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

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

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

page2.aspx

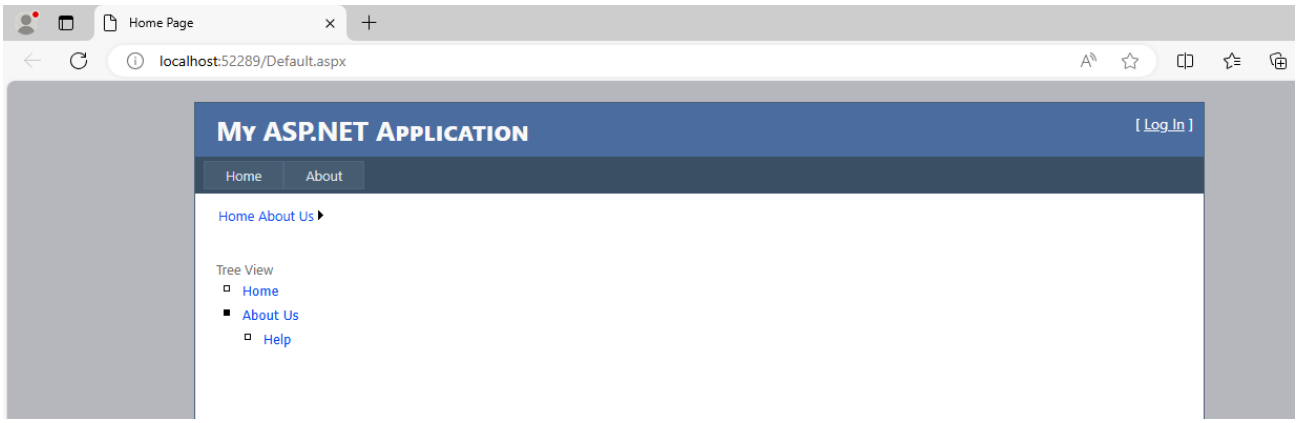
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page2.aspx.cs"
Inherits="WebApplication6.page2" %>

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

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

page3.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page3.aspx.cs"
Inherits="WebApplication6.page3" %>

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

<html xmlns="http://www.w3.org/1999/xhtml">
```

```
head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div>
   <h1>Help</h1>
   </div>
   </form>
</body>
</html>
```

Output:



ADVANCED WEB DEVELOPMENT

PRACTICAL 4

A) AIM:- Create a Registration form to demonstrate use of various Validation Controls.

Default.aspx

CODE:-

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master"
AutoEventWireup="true"
   CodeBehind="Default.aspx.cs" Inherits="WebApplication7._Default" %>

<asp:Content ID="HeaderContent" runat="server"
ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server"
ContentPlaceHolderID="MainContent">
   <asp:Label ID="Label1" runat="server" Text="Username"></asp:Label>
          &nbs
p;      
<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
    
<asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
   ControlToValidate="TextBox1" Display="Dynamic"
   ErrorMessage="Usename is mandatory" ForeColor="Red"
SetFocusOnError="True">*</asp:RequiredFieldValidator>
<br />
<br />
<asp:Label ID="Label2" runat="server" Text="Password"></asp:Label>
          &nbs
p;      
<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
     
   <asp:CustomValidator ID="CustomValidator1" runat="server"
      ControlToValidate="TextBox2" Display="Dynamic"
      ErrorMessage=" Password must contain 8 or more than 8 characters"
      ForeColor="Red" onservervalidate="CustomValidator1_ServerValidate"
      SetFocusOnError="True" ValidateEmptyText="True">Invalid
Password</asp:CustomValidator>
<br />
<br />
```

```
<asp:Label ID="Label3" runat="server" Text="Confirm Password"></asp:Label>
       
<asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
     
  <asp:CompareValidator ID="CompareValidator1" runat="server"
    ControlToCompare="TextBox2" ControlToValidate="TextBox3"
Display="Dynamic"
    ErrorMessage="Password and Confirm Password does not matches"
ForeColor="Red"
    SetFocusOnError="True">Password Misatched</asp:CompareValidator>
<br />
<br />
<asp:Label ID="Label4" runat="server" Text="Email Id"></asp:Label>
          &nbs
p;          
<asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
     
  <asp:RegularExpressionValidator ID="RegularExpressionValidator1" runat="server"
    ControlToValidate="TextBox4" Display="Dynamic"
    ErrorMessage=" Email Id is in incorrect format" ForeColor="Red"
    ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-.]\w+)*">Invalid
Email Id</asp:RegularExpressionValidator>
<br />
<br />
<asp:Label ID="Label5" runat="server" Text="Mobile Number"></asp:Label>
         
<asp:TextBox ID="TextBox5" runat="server"></asp:TextBox>
     
  <asp:RegularExpressionValidator ID="RegularExpressionValidator2" runat="server"
    ControlToValidate="TextBox5" Display="Dynamic"
    ErrorMessage="Mobile Number shoud cointain 10 digits" ForeColor="Red"
    SetFocusOnError="True" ValidationExpression="\d{10}">Invalid
Number</asp:RegularExpressionValidator>
<br />
<br />
<asp:Label ID="Label6" runat="server" Text="DOB"></asp:Label>
          &nbs
p;          &nb
sp; 
<asp:TextBox ID="TextBox6" runat="server"
ontextchanged="TextBox6_TextChanged"></asp:TextBox>
      
  <asp:RangeValidator ID="RangeValidator1" runat="server"
```

```
        ControlToValidate="TextBox6" Display="Dynamic"
        ErrorMessage="Age should be in between 18 to 45" ForeColor="Red"
        SetFocusOnError="True" Type="Date">Age not in range</asp:RangeValidator>
<br />
<br />
<asp:Label ID="Label7" runat="server" Text="Country"></asp:Label>
                    
<asp:DropDownList ID="DropDownList1" runat="server">
    <asp:ListItem>Select A Country</asp:ListItem>
    <asp:ListItem>India</asp:ListItem>
    <asp:ListItem>USA</asp:ListItem>
    <asp:ListItem>UK</asp:ListItem>
    <asp:ListItem>Japan</asp:ListItem>
</asp:DropDownList>
   
    <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
        ControlToValidate="DropDownList1" Display="Dynamic"
        ErrorMessage="Country must be choosen" ForeColor="Red"
        InitialValue="Select A Country"
SetFocusOnError="True">*</asp:RequiredFieldValidator>
<br />
                      
<br />
                                                                                
<asp:Button ID="Button1" runat="server" Text="SUBMIT" />
<br />
<br />
</asp:Content>
```

Web.Config

CODE:

```
<?xml version="1.0"?>
```

```
<!--
  For more information on how to configure your ASP.NET application, please visit
  http://go.microsoft.com/fwlink/?LinkId=169433
  -->

<configuration>
  <appSettings>
    <add key ="ValidationSettings:UnobtrusiveValidationMode" value="None"></add>
  </appSettings>
  <connectionStrings>
    <add name="ApplicationServices"
        connectionString="data source=.\SQLEXPRESS;Integrated
Security=SSPI;AttachDBFilename=|DataDirectory|\aspnetdb.mdf;User
Instance=true"
        providerName="System.Data.SqlClient" />
  </connectionStrings>

  <system.web>
    <compilation debug="true" targetFramework="4.0" />

    <authentication mode="Forms">
      <forms loginUrl="~/Account/Login.aspx" timeout="2880" />
    </authentication>

    <membership>
      <providers>
        <clear/>
        <add name="AspNetSqlMembershipProvider"
type="System.Web.Security.SqlMembershipProvider"
connectionStringName="ApplicationServices"
          enablePasswordRetrieval="false" enablePasswordReset="true"
requiresQuestionAndAnswer="false" requiresUniqueEmail="false"
          maxInvalidPasswordAttempts="5" minRequiredPasswordLength="6"
minRequiredNonalphanumericCharacters="0" passwordAttemptWindow="10"
          applicationName="/" />
      </providers>
    </membership>

    <profile>
      <providers>
        <clear/>
```

```
      <add name="AspNetSqlProfileProvider"
type="System.Web.Profile.SqlProfileProvider"
connectionStringName="ApplicationServices" applicationName="/"/>
    </providers>
  </profile>

  <roleManager enabled="false">
    <providers>
      <clear/>
      <add name="AspNetSqlRoleProvider"
type="System.Web.Security.SqlRoleProvider"
connectionStringName="ApplicationServices" applicationName="/" />
      <add name="AspNetWindowsTokenRoleProvider"
type="System.Web.Security.WindowsTokenRoleProvider" applicationName="/" />
    </providers>
  </roleManager>

 </system.web>

 <system.webServer>
   <modules runAllManagedModulesForAllRequests="true"/>
 </system.webServer>
</configuration>
```

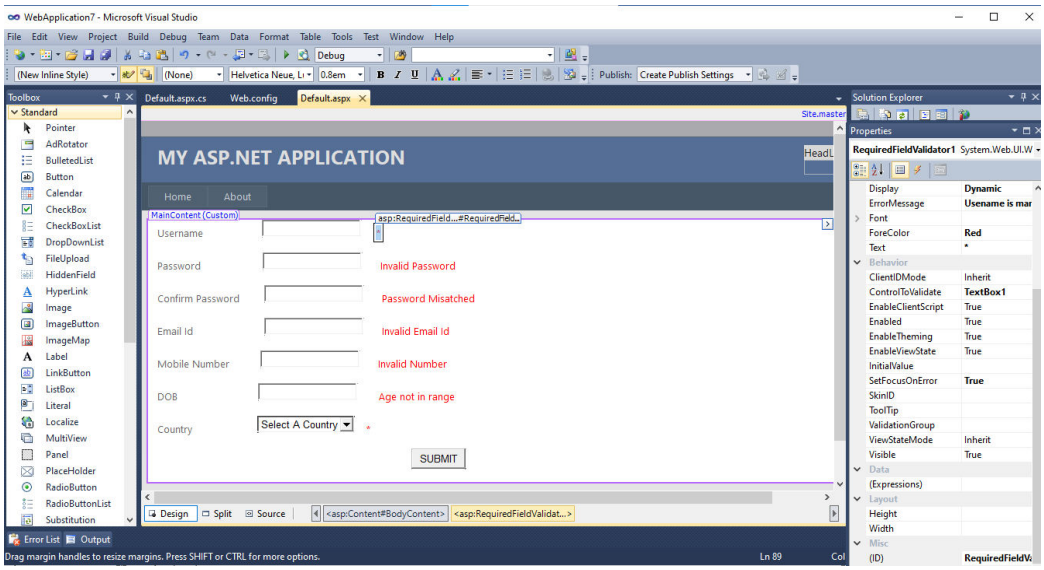
Default.aspx.cs

CODE :-

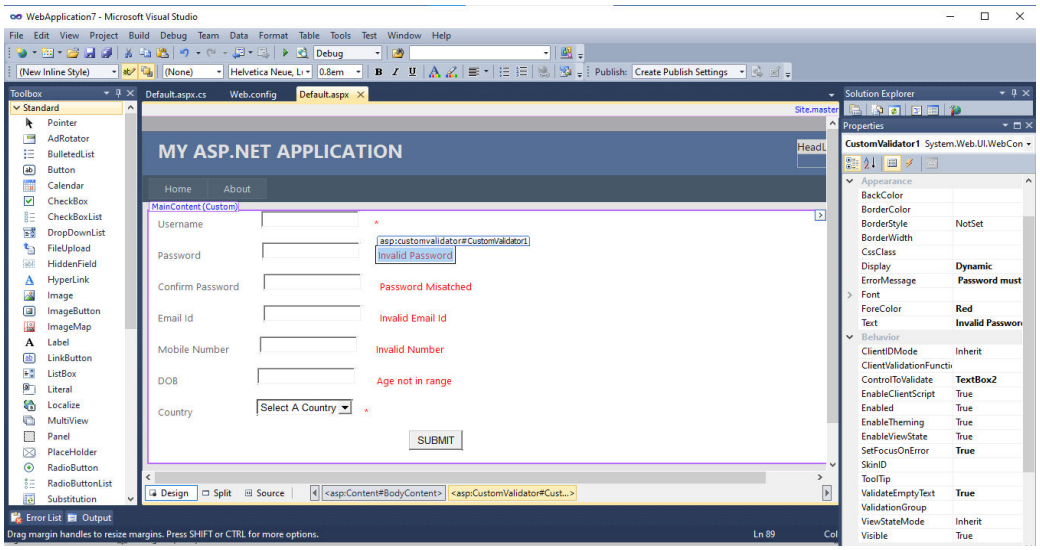
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace WebApplication7
{
  public partial class _Default : System.Web.UI.Page
  {
    protected void Page_Load(object sender, EventArgs e)
    {
      RangeValidator1.MinimumValue = DateTime.Now.AddYears(-
45).ToShortDateString();
```

```
        RangeValidator1.MaximumValue = DateTime.Now.AddYears(-
18).ToShortDateString();
    }

    protected void TextBox6_TextChanged(object sender, EventArgs e)
    {

    }

    protected void CustomValidator1_ServerValidate(object source,
ServerValidateEventArgs args)
    {
        int len = args.Value.Length;
        if (len >= 8 && len <= 15)
            args.IsValid = true;
        else
            args.IsValid = false;
    }


  }
}
```

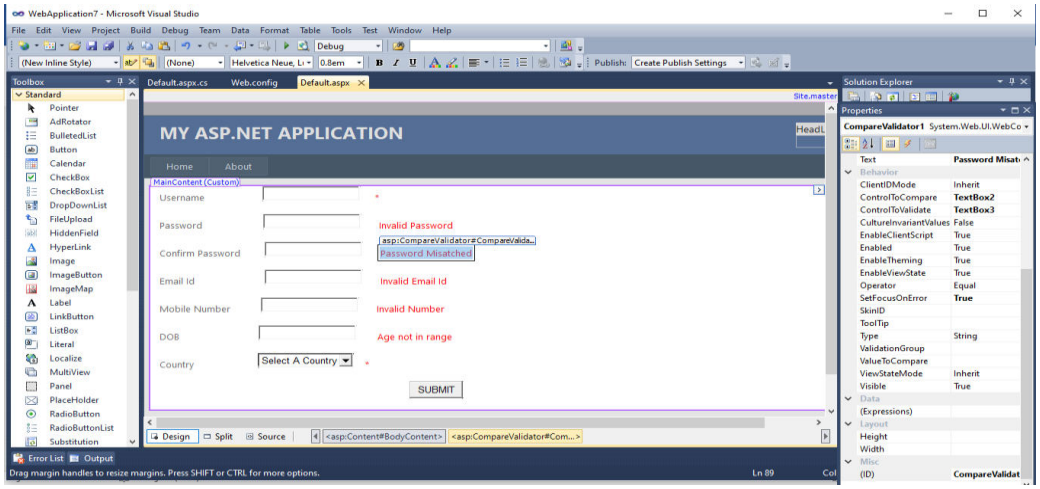
For Username add RequiredFieldValidator and change their properties.



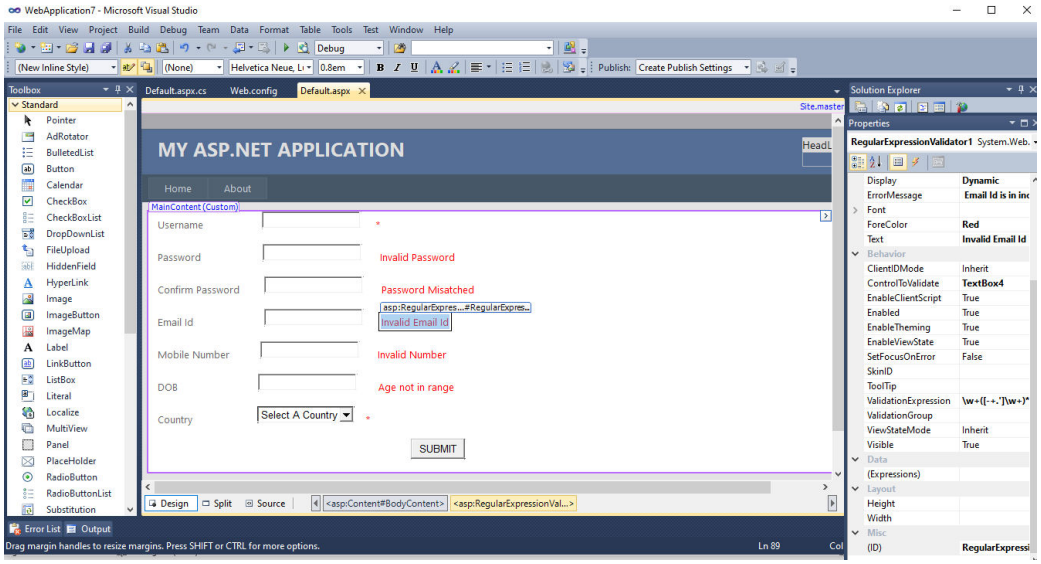
For Password add CustomValidator and change their properties.



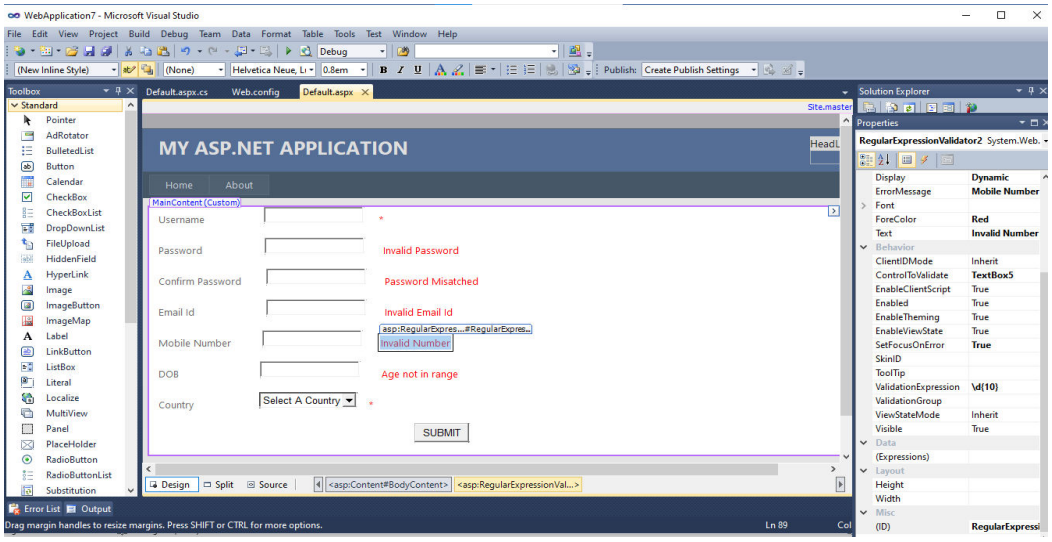
For Confirm Password add CompareValidator and change their properties.



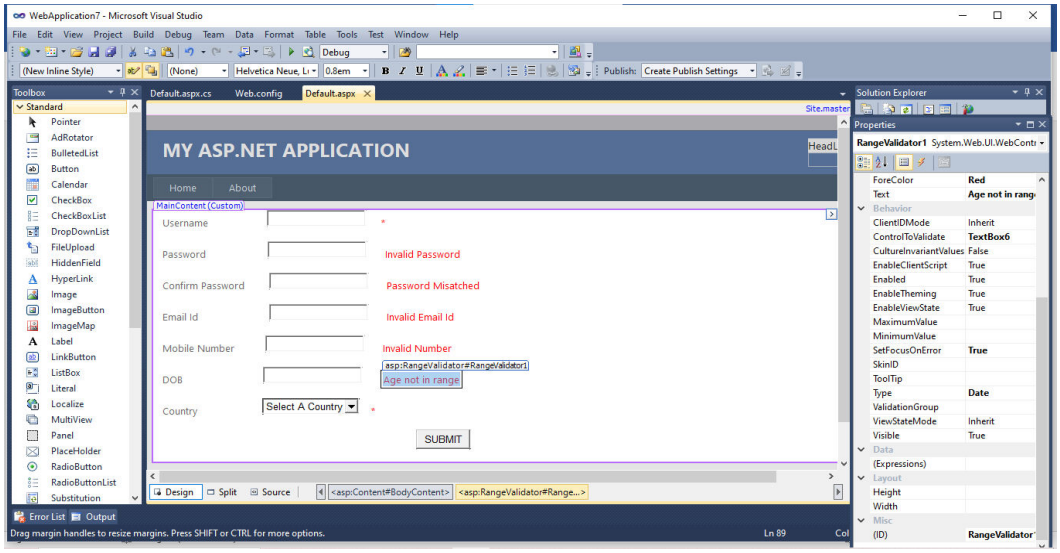
For Email Id add RegularExpressionValidator and change their properties.



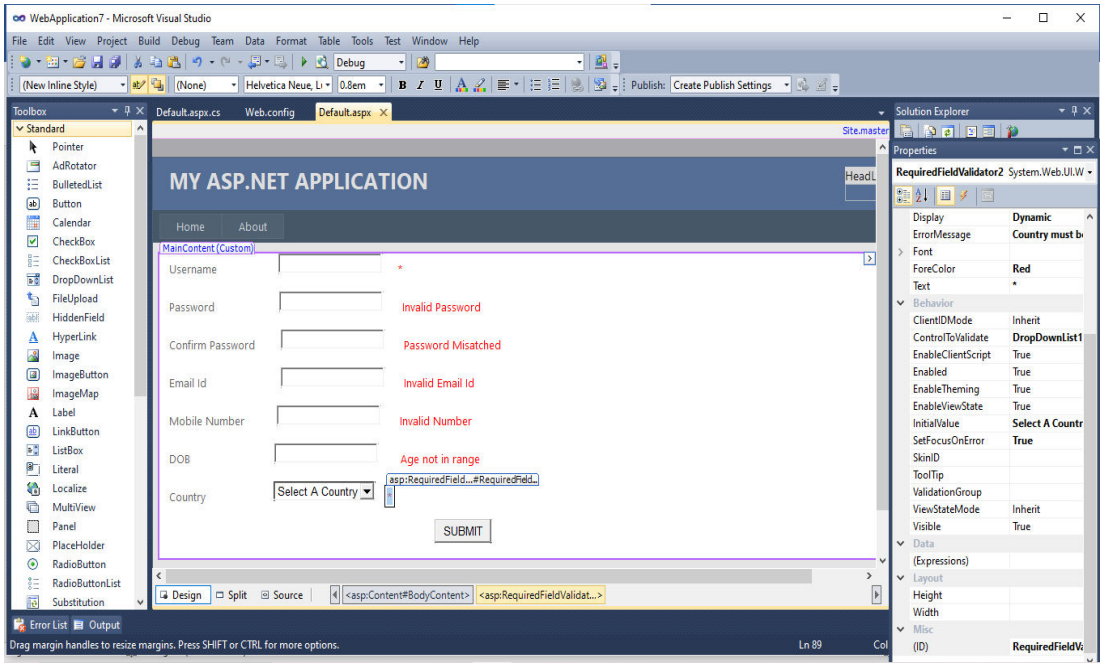
For Mobile Number add RegularExpressionValidator and change their properties.



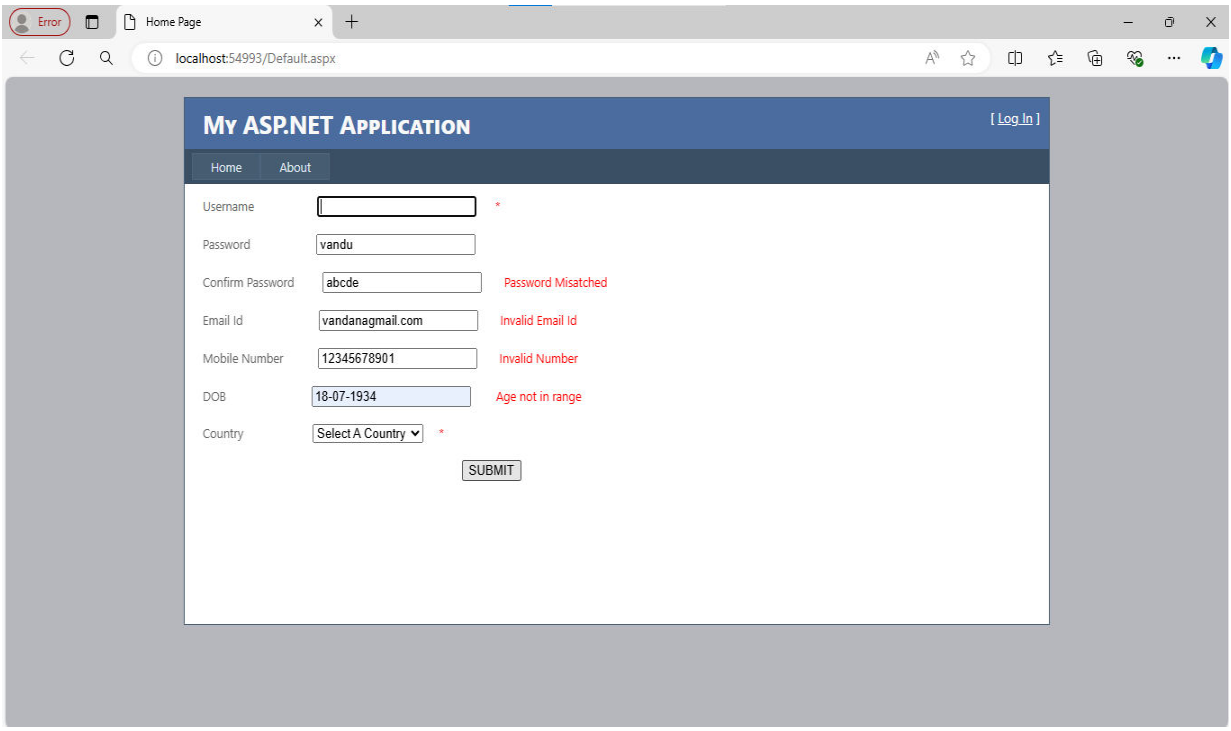
For DOB add RangeValidator and change their properties.

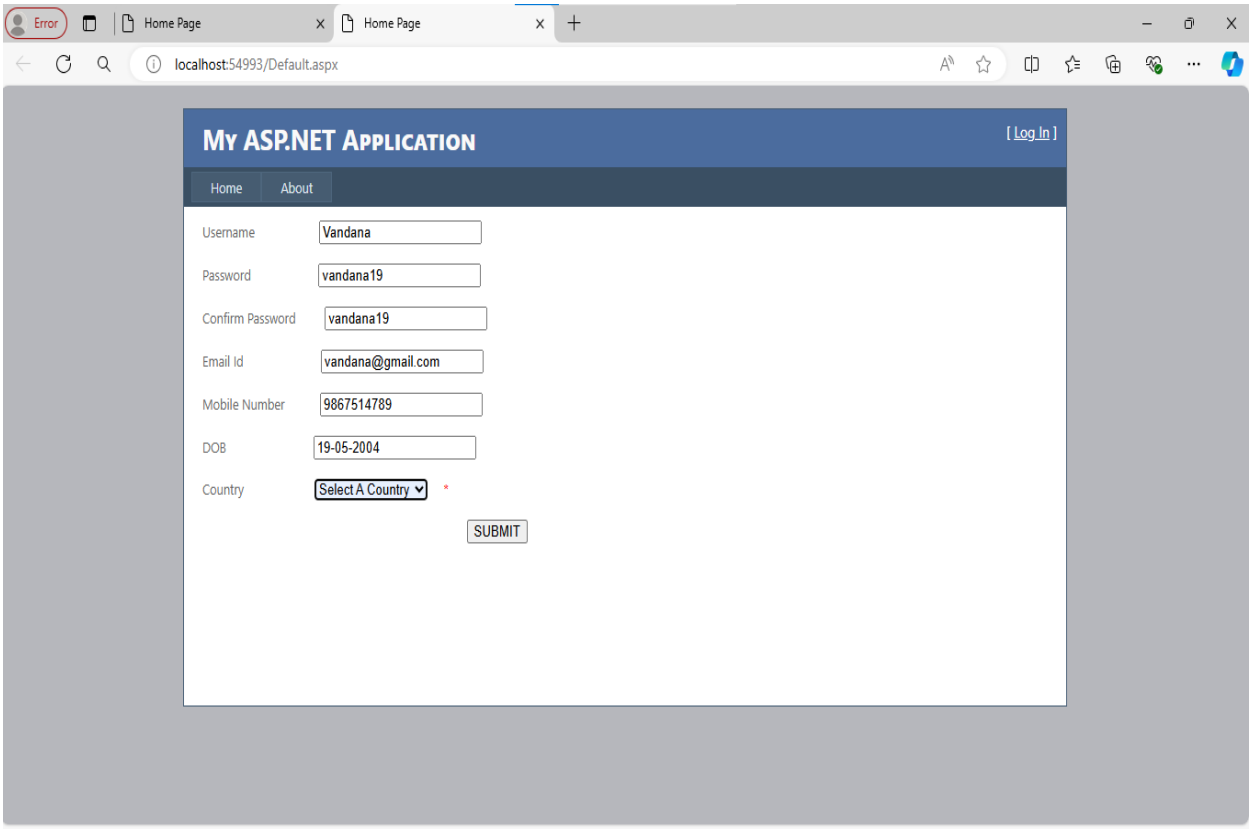


For Country add RequiredFieldValidator and change their properties.



OUTPUT :


Error
Home Page
localhost:54993/Default.aspx
My ASP.NET Application
[Log In]
Home
About
Username
Password
vandu
Confirm Password
abcde
Password Misatched
Email Id
vandanagmail.com
Invalid Email Id
Mobile Number
12345678901
Invalid Number
DOB
18-07-1934
Age not in range
Country
Select A Country
SUBMIT


Error
Home Page
Home Page
localhost:54993/Default.aspx
My ASP.NET Application
[Log In]
Home
About
Username
Vandana
Password
vandana19
Confirm Password
vandana19
Email Id
vandana@gmail.com
Mobile Number
9867514789
DOB
19-05-2004
Country
Select A Country
SUBMIT

Practical 4

b) Aim : Create Web Form to demonstrate use of Adrotator Control.

Code:

Default.aspx

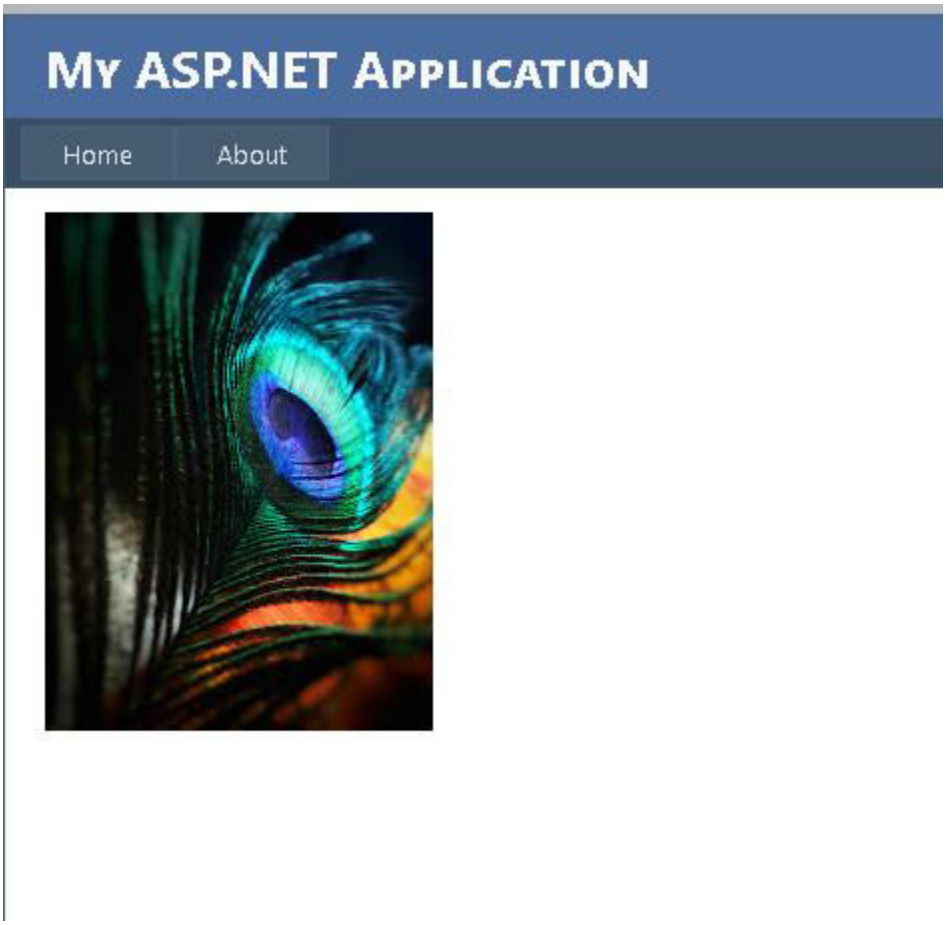
```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master"
AutoEventWireup="true" CodeBehind="Default.aspx.cs"
Inherits="WebApplication13._Default" %>

<asp:Content ID="HeaderContent" runat="server"
ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server"
ContentPlaceHolderID="MainContent">
    <asp:AdRotator ID="AdRotator1" runat="server" AdvertisementFile =
"~/XMLFile1.xml" />
</asp:Content>
```

XMLFile1.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
  <Ad>
    <ImageUrl>1.jpg</ImageUrl>
    <AlternateText>Add1</AlternateText>
    <NavigateUrl>http://www.google.com</NavigateUrl>

  </Ad>

  <Ad>
    <ImageUrl>2.jpg</ImageUrl>
    <AlternateText>Add2</AlternateText>
    <NavigateUrl>http://www.yahoo.com</NavigateUrl>

  </Ad>

  <Ad>
    <ImageUrl>3.jpg</ImageUrl>
    <AlternateText>Add3</AlternateText>
```

```
    <NavigateUrl>http://www.amazon.com</NavigateUrl>
  </Ad>
</Advertisements>
```

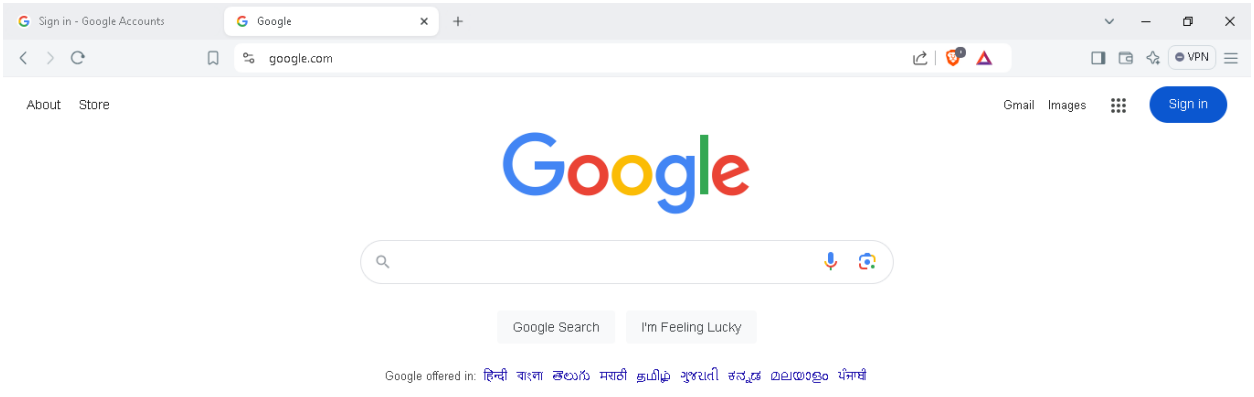
Output:

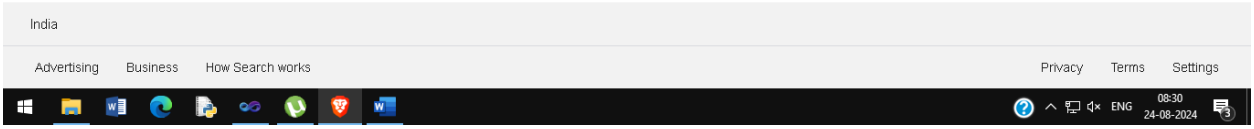


Class: TYBSc IT
Roll No.: iT22086

Advanced Web Development

Sem: V
Date: 17.08.2024

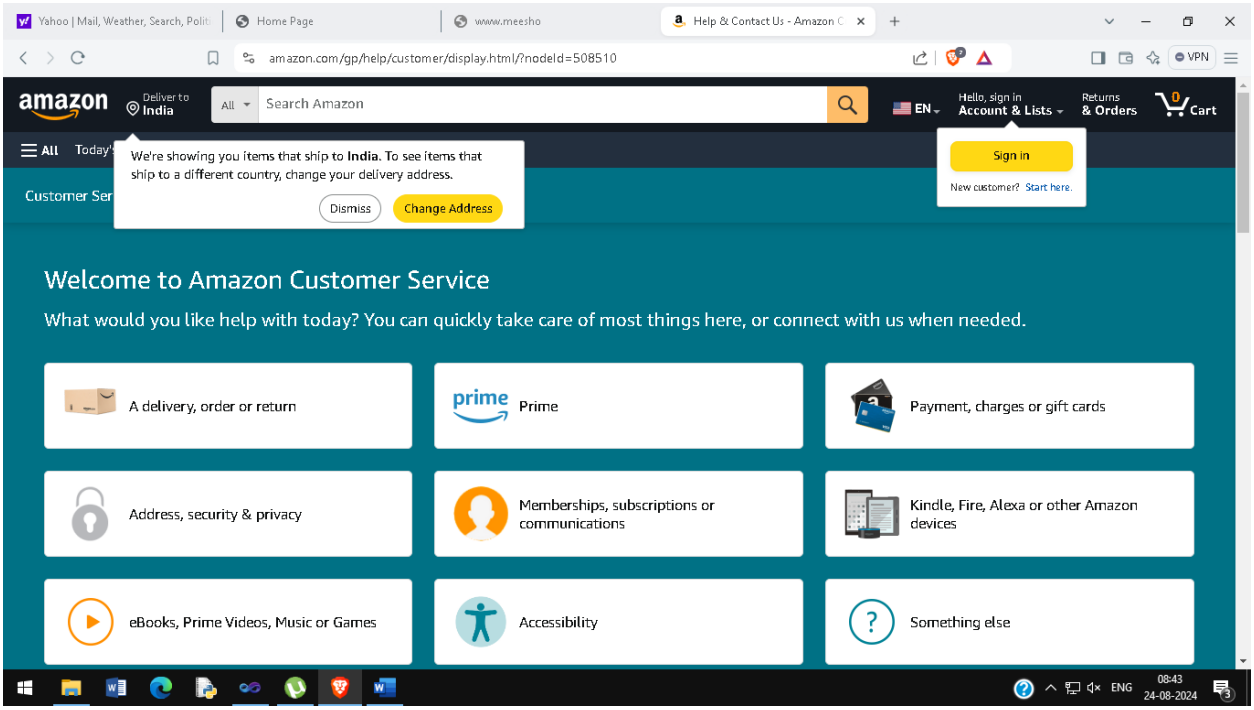


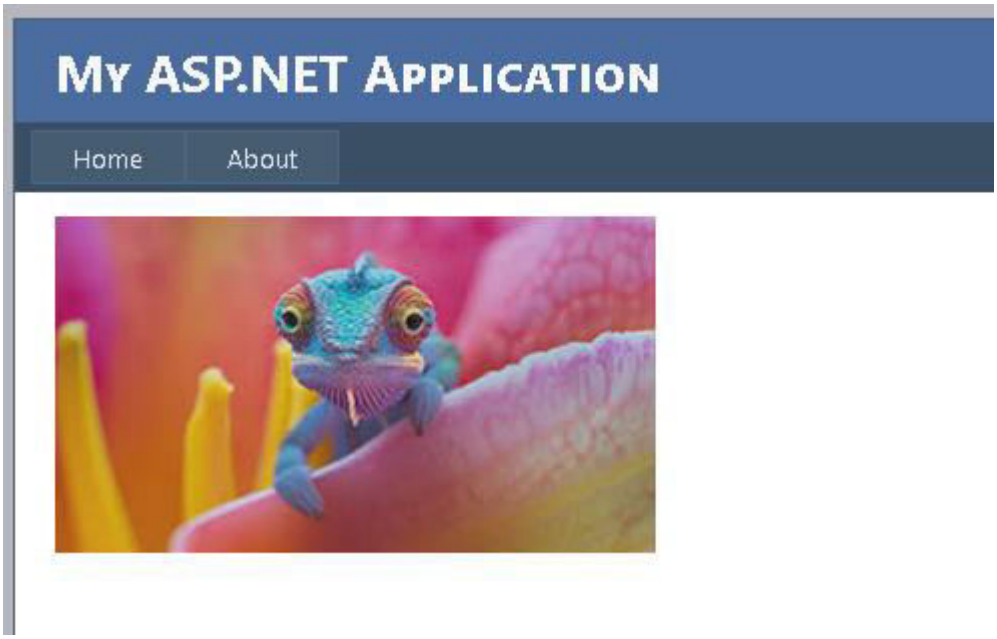


Class: TYBSc IT
Roll No.: iT22086

Advanced Web Development

Sem: V
Date: 17.08.2024

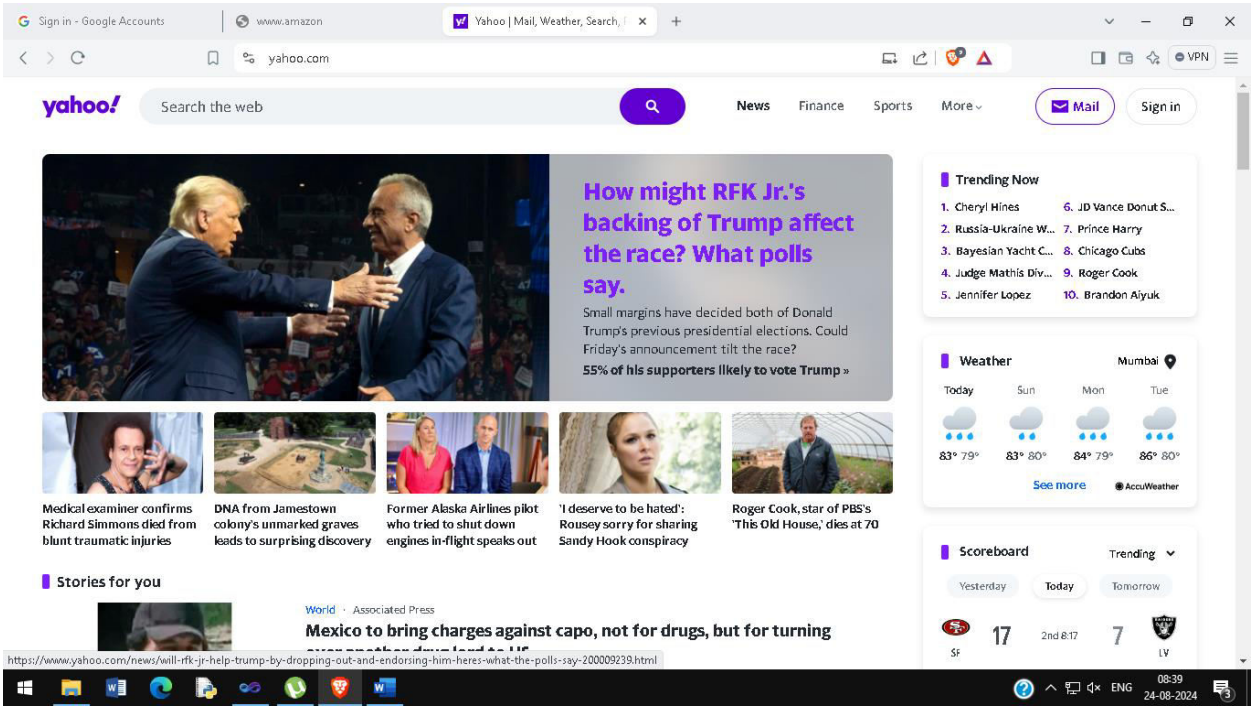




Class: TYBSc IT
Roll No.: iT22086

Advanced Web Development

Sem: V
Date: 17.08.2024



c) Aim: Create Web Form to demonstrate use of User Controls.

Code:

Default.aspx

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"
   CodeBehind="Default.aspx.cs" Inherits="WebApplication15._Default" %>
<%@ Register src="WebUserControl1.ascx" tagname="WebUserControl1" tagprefix="uc1" %>
<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">
   <uc1:WebUserControl1 ID="WebUserControl11" runat="server" />
</asp:Content>
```

WebUserControl1.ascx

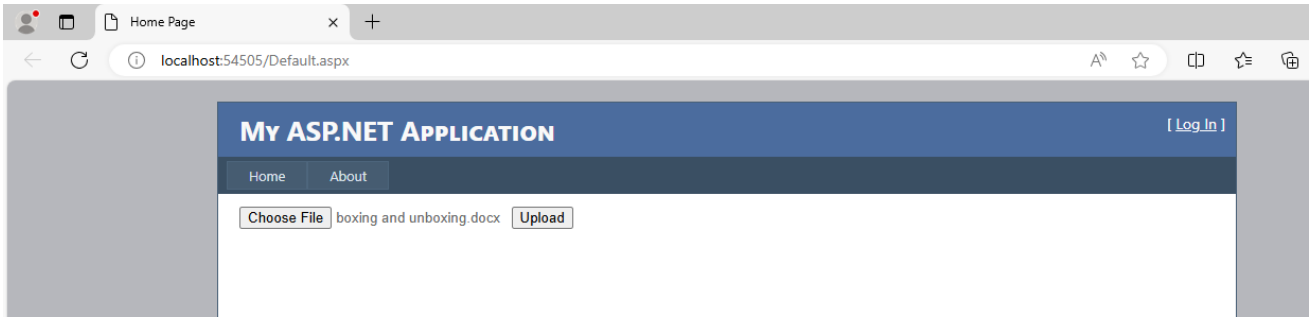
```
<%@ Control Language="C#" AutoEventWireup="true" CodeBehind="WebUserControl1.ascx.cs"
Inherits="WebApplication15.WebUserControl1" %>
<asp:FileUpload ID="FileUpload1" runat="server" />
<asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Upload" />
```

WebUserControl1.ascx.cs

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

namespace WebApplication15
{
```

```
 public partial class WebUserControl1 : System.Web.UI.UserControl
 {
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
       string path = Server.MapPath("~/");
       FileUpload1.SaveAs(path + FileUpload1.FileName);
    }
 }
}
```

Output:



Practical 5

a) Aim : Create Web Form to demonstrate use of Website Navigation controls.

Code:

Default.aspx

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"
   CodeBehind="Default.aspx.cs" Inherits="WebApplication6._Default" %>

<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">
   <asp:Menu ID="Menu1" runat="server" Orientation="Horizontal">
     <Items>
       <asp:MenuItem NavigateUrl="~/page1.aspx" Text="Home" Value="Home">
       </asp:MenuItem>
       <asp:MenuItem NavigateUrl="~/page2.aspx" Text="About Us" Value="About Us">
       <asp:MenuItem NavigateUrl="~/page3.aspx" Text="Help" Value="Help">
       </asp:MenuItem>
       </asp:MenuItem>
     </Items>
   </asp:Menu><br />
</asp:Content>
```

page1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page1.aspx.cs"
Inherits="WebApplication6.page1" %>

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

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div>
   <h1>Home</h1>
      <asp:SiteMapPath ID="SiteMapPath1" runat="server">
```

```
/asp:SiteMapPath>
   </div>
   </form>
</body>
</html>
```

page2.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page2.aspx.cs"
Inherits="WebApplication6.page2" %>

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

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
   <div>
   <h1>About Us</h1>
      <asp:SiteMapPath ID="SiteMapPath1" runat="server">
      </asp:SiteMapPath>
   </div>
   </form>
</body>
</html>
```

page3.aspx

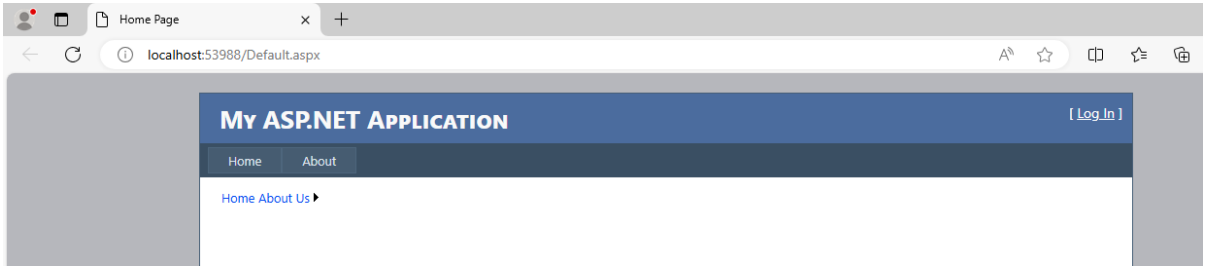
```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="page3.aspx.cs"
Inherits="WebApplication6.page3" %>

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

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

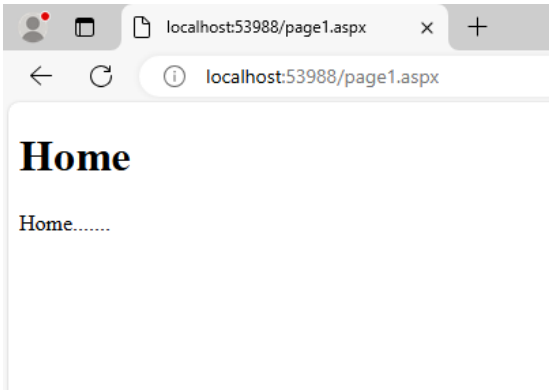
```
      <asp:SiteMapPath ID="SiteMapPath1" runat="server">
      </asp:SiteMapPath>
    </div>
    </form>
</body>
</html>
```

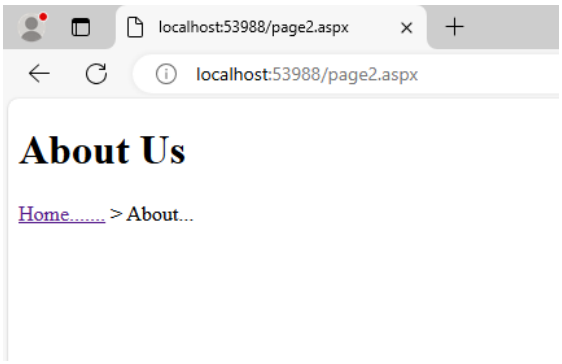
Web.sitemap

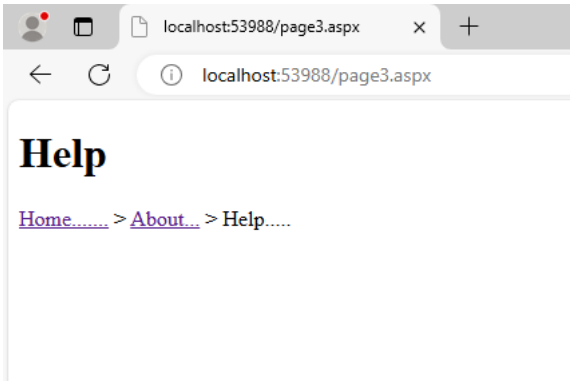
```
<?xml version="1.0" encoding="utf-8" ?>
<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >
    <siteMapNode url="page1.aspx" title="Home....."  description="">
      <siteMapNode url="page2.aspx" title="About..."  description="">
      <siteMapNode url="page3.aspx" title="Help....."  description="" />
    </siteMapNode>
    </siteMapNode>
</siteMap>
```

Output:






localhost:53988/page2.aspx
localhost:53988/page2.aspx
About Us
Home..... > About...


localhost:53988/page3.aspx
localhost:53988/page3.aspx
Help
Home..... > About... > Help.....

b) Aim: Create a web application to demonstrate use of Master Page and content page.

Code:

MasterPage.master

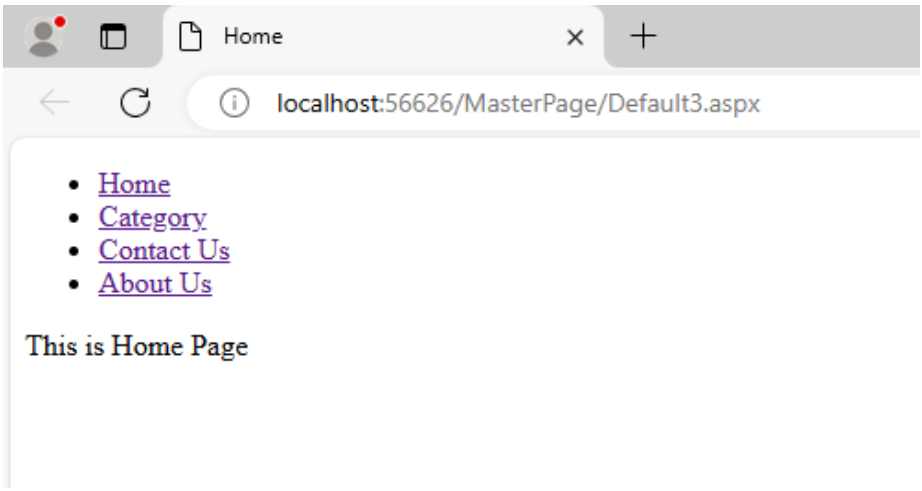
```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="MasterPage.master.cs" Inherits="MasterPage" %>

<!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>
      <asp:ContentPlaceHolder id="title" runat="server">
      </asp:ContentPlaceHolder>
   </title>
   <asp:ContentPlaceHolder id="head" runat="server">
   </asp:ContentPlaceHolder>
</head>
<body>
   <form id="form1" runat="server">
   <div class="wrapper">
      <div class="menu">
         <ul>
            <li><a href="Default3.aspx">Home</a></li>
            <li><a href="Default3.aspx">Category</a></li>
            <li><a href="Default3.aspx">Contact Us</a></li>
            <li><a href="Default3.aspx">About Us</a></li>
         </ul>
      </div>
```

```
      <div class="content">
        <asp:ContentPlaceHolder id="contentBody" runat="server">
        </asp:ContentPlaceHolder>
      </div>
   </div>
   </form>
</body>
</html>
```

Default3.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
AutoEventWireup="true" CodeFile="Default3.aspx.cs" Inherits="Default3" %>

<asp:Content ID="Content1" ContentPlaceHolderID="title" Runat="Server">
Home
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="contentBody" Runat="Server">
This is Home Page
</asp:Content>
```

Output:


Home
localhost:56626/MasterPage/Default3.aspx
Home
Category
Contact Us
About Us
This is Home Page

Practical 5

c) Aim: Create a web application to demonstrate various states of ASP.NET Pages.

1) View State

Code:

Default.aspx

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true" CodeBehind="Default.aspx.cs" Inherits="viewstate._Default" %>


<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">

</asp:Content>

<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">

   <p>

      <br />

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

   </p>

   <p>

      <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>

   </p>

</asp:Content>
```

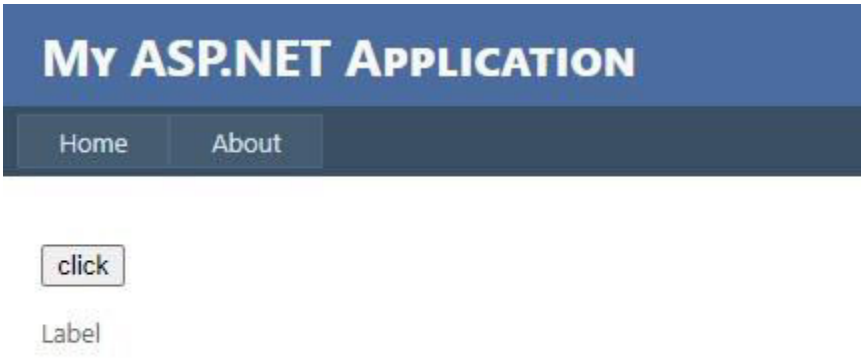
Default.aspx.cs

```
using System;

using System.Collections.Generic;
```

```
using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;


namespace viewstate

{

   public partial class _Default : System.Web.UI.Page

   {

      int i = 0;

      protected void Page_Load(object sender, EventArgs e)

      {

         if (!IsPostBack)

         {

            ViewState["data"] = i;

         }


      }


      protected void Button1_Click(object sender, EventArgs e)

      {

         i = (int)ViewState["data"];

         Label1.Text = (++i).ToString();

         ViewState["data"] = i;

      }
```

```
    }
}
```

Output:


My ASP.NET Application
Home
About
click
Label


My ASP.NET Application
Home
About
click
1


My ASP.NET Application
Home
About
click
2

2) Session State

Code:

Default.aspx

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"
    CodeBehind="Default.aspx.cs" Inherits="WebApplication25._Default" %>


<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">
</asp:Content>
<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">
    <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
    <br />
    <br />
    <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Button" />
    <br />
    <br />
</asp:Content>
```

Default.aspx.cs

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

```
WebApplication25
{
   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["data"] = TextBox1.Text;
         Response.Redirect("Default1.aspx");
      }
   }
}
```

Default1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Default1.aspx.cs"
Inherits="WebApplication25.Default1" %>


<!DOCTYPE html />
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
```

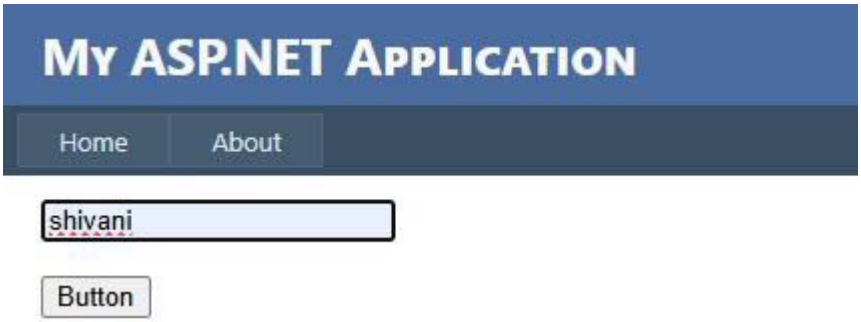
```
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
  </div>
  </form>
</body>
</html>
```

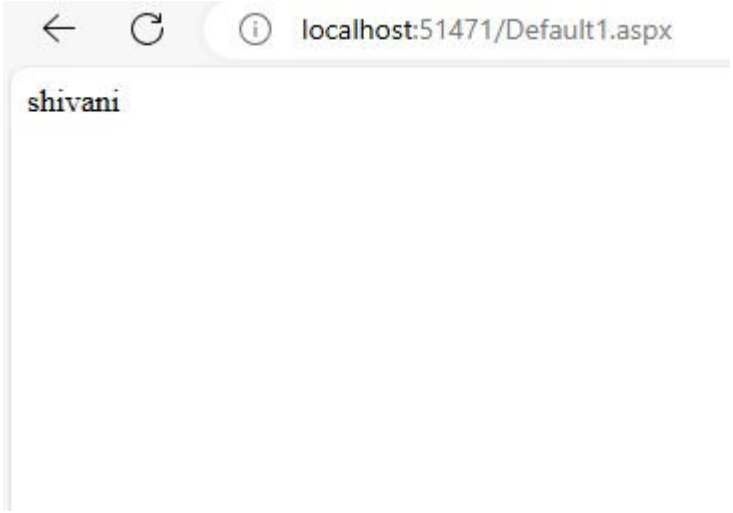
Default1.aspx.cs

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

namespace WebApplication25
{
  public partial class Default1 : System.Web.UI.Page
  {
    protected void Page_Load(object sender, EventArgs e)
    {
      if (!IsPostBack)
```

```
        {
            Response.Write(Session["data"].ToString());
        }
      }
   }
}
```

Output:





Practical 6

Aim: Create a web application for inserting and deleting records from a database.

Steps to perform:

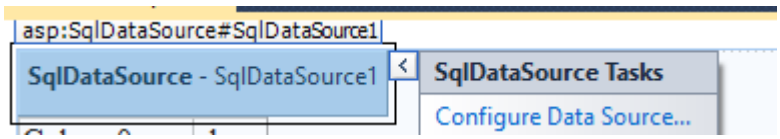
1) **First take the new Empty project**
2) **Then right-click on your project and Add New item Webform.aspx file into your project**
3) **From the toolbox take SqlDatasource and DetailsView from Data-toolbox**

Code:

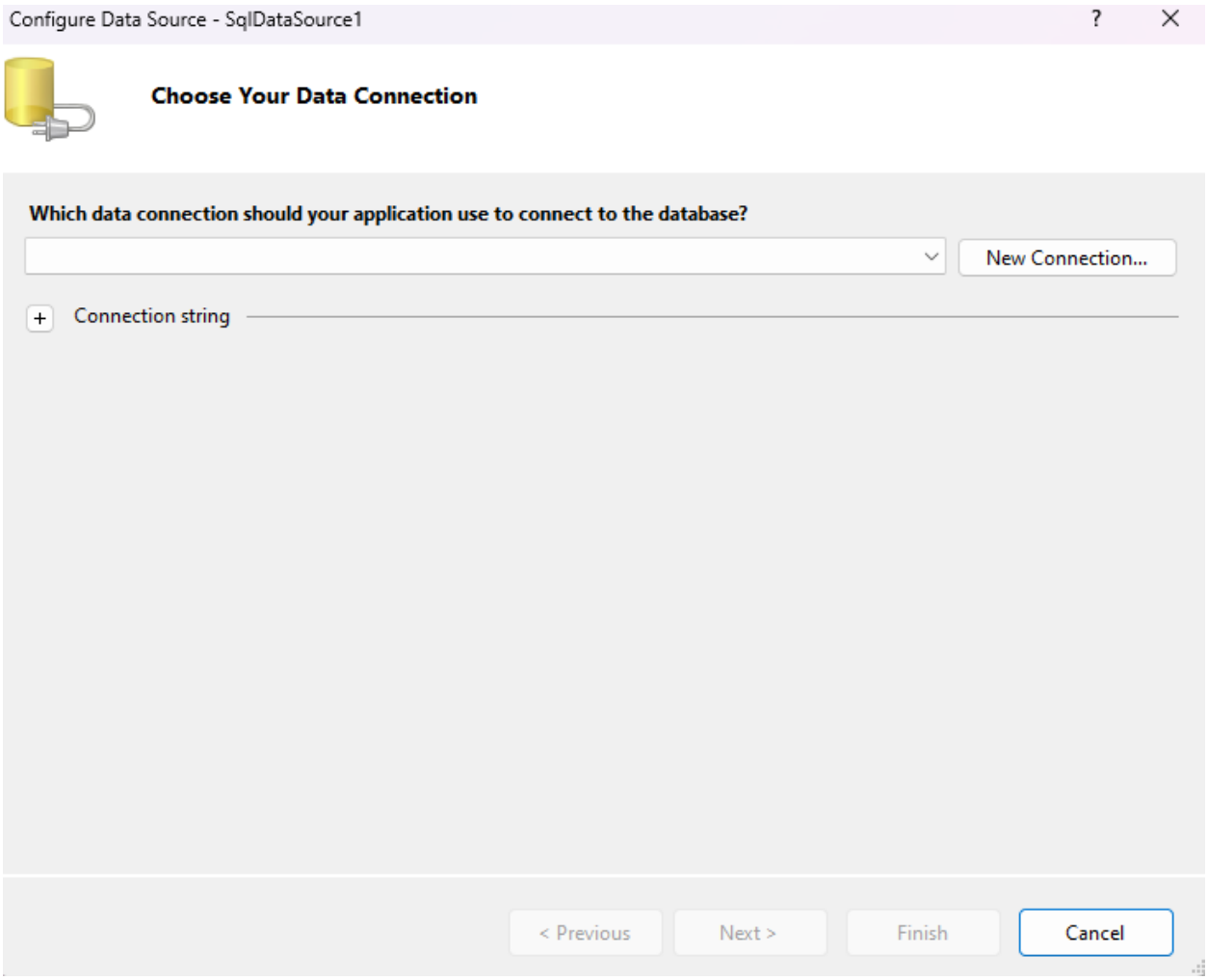
WebForm1.aspx

```
WebForm1.aspx*
Client Objects & Events | (No Events)
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="WebApplication4.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></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
        <asp:SqlDataSource ID="SqlDataSource1" runat="server"></asp:SqlDataSource>
        <asp:DetailsView ID="DetailsView1" runat="server" Height="50px" Width="125px">
        </asp:DetailsView>
    </div>
    </form>
</body>
</html>
```

4) **Go to the design, click on the arrow and click on Configure Data Source..**

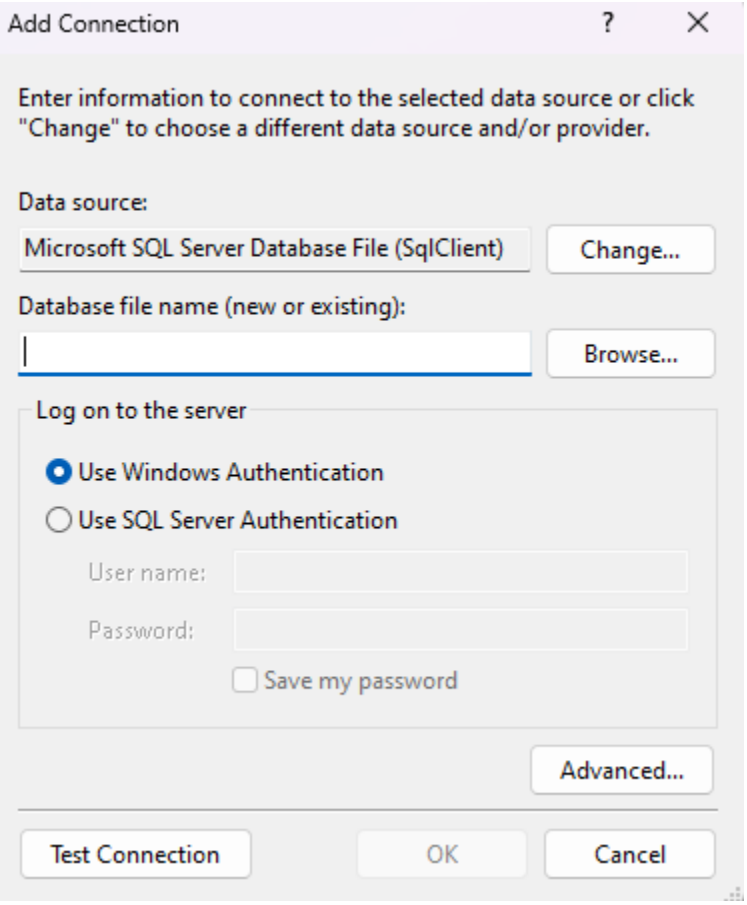


5) Click on New Connection.

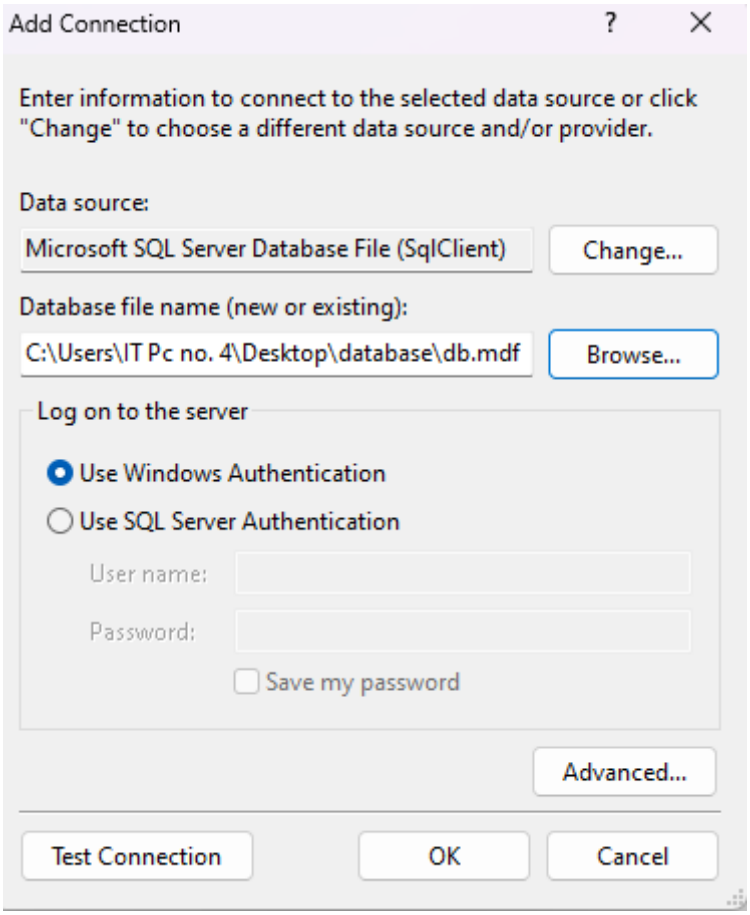


6)Select the MYSQL server database file.

7) Click on browse.



8) Create a new folder and save your file with .mdf extension inside the folder.



9) Click on ok and click on yes.

10) Click on next and then click on cancel button.

11)Open Server Explorer and then you will see db.mdf server then expand it.

12) Right click on Tables and add new table.

13) Create your desired columns.

dbo.Table1: Table...\DATABASE\DB.MDF | WebForm1.aspx*

Column Name	Data Type	Allow Nulls
Name	nchar(10)	☑
Class	nchar(10)	☑
[Roll no.]	nchar(10)	☑
		☐

14) Save the table.

15) Expand Tables and right click on your created table and right click on Show Table Data.

16) Insert data into the table.

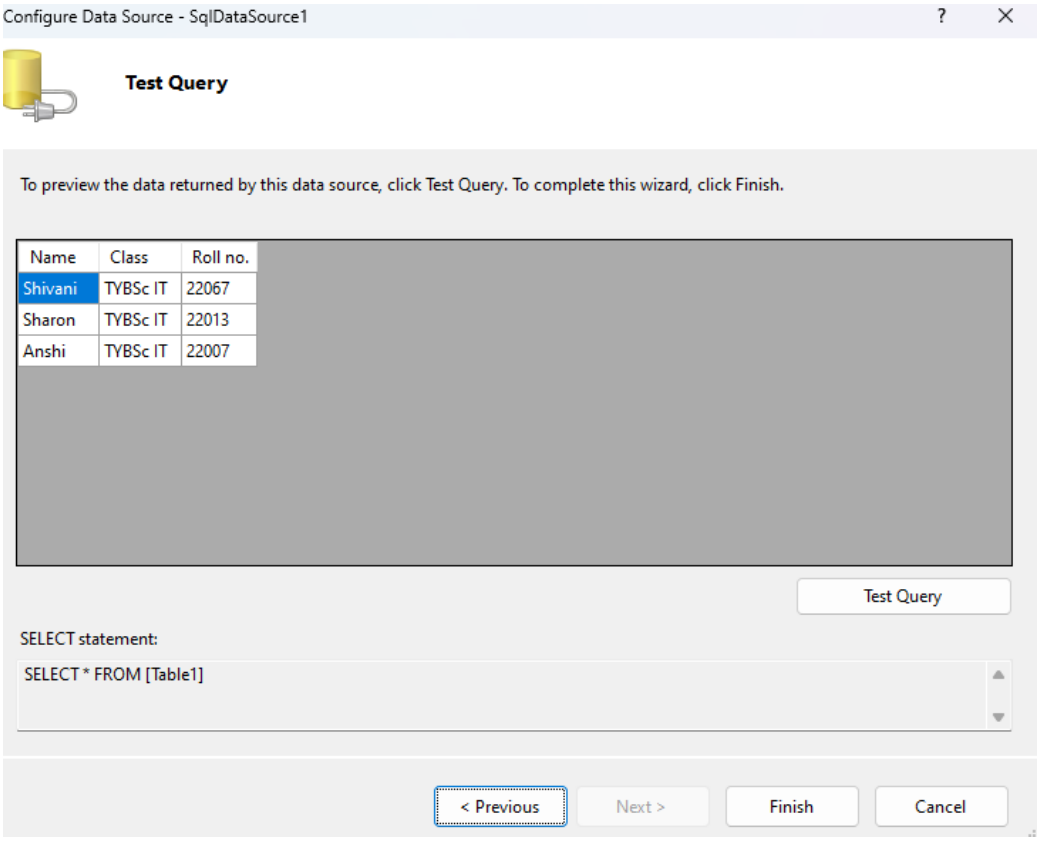
Table1: Query(des...\DATABASE\DB.MDF | dbo.Table1: Table...\DATA

Name	Class	Roll no.
Shivani	TYBSc IT	22067
Sharon	TYBSc IT	22013
Anshi	TYBSc IT	22007
NULL	*NULL*	*NULL*

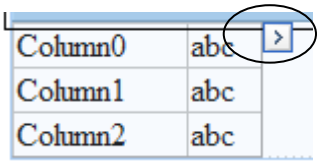
17) Execute the page by clicking on  **below.**

18) Repeat step 4 and click on down arrow and select db.mdf.

19) Click Next 3 times and then click on Test Query and click on Finish.

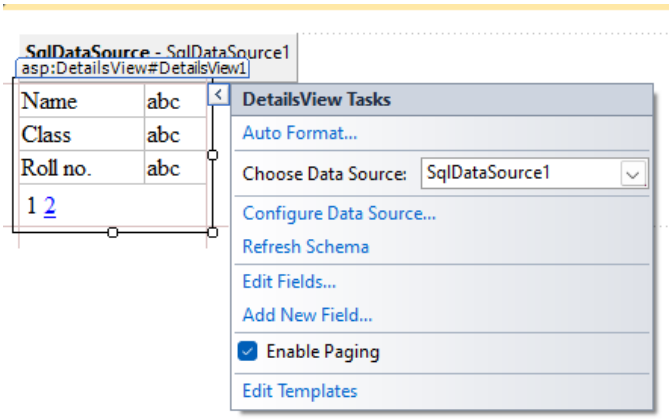


20) Click on the marked area.



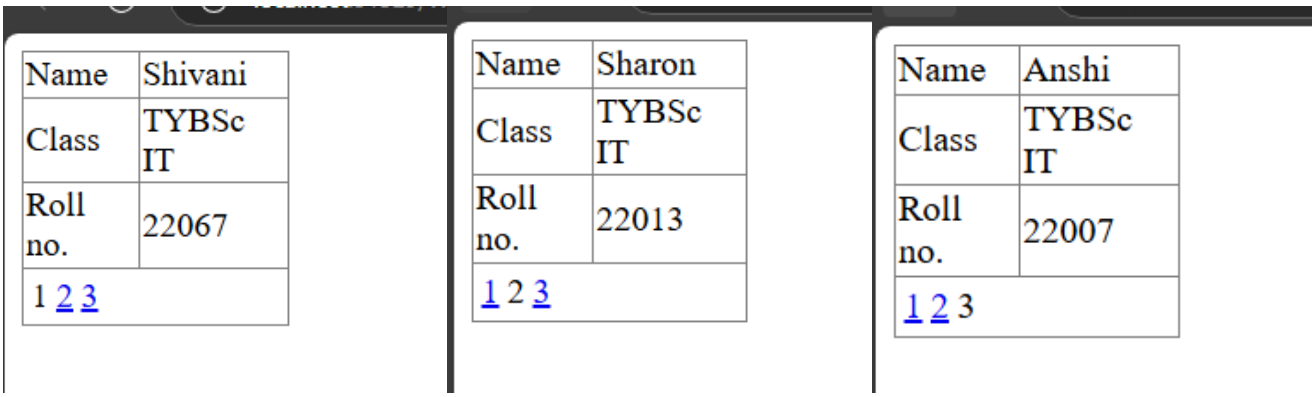
21) Click on Choose Data Source and select Sqldatasource1.

22) Check Enable Paging.



23) Run the file.

Output:



Roll No - iT 22086 Class : TYBSC IT

SEM-V

DATE: 05/10/24

ADVANCED WEB DEVELOPMENT

PRACTICAL 7

b) Create a web application to demonstrate Form Security and Window Security with proper Authentication and Authorization properties.

Code:

WebForm2.aspx | WebForm1.aspx.cs | WebForm1.aspx

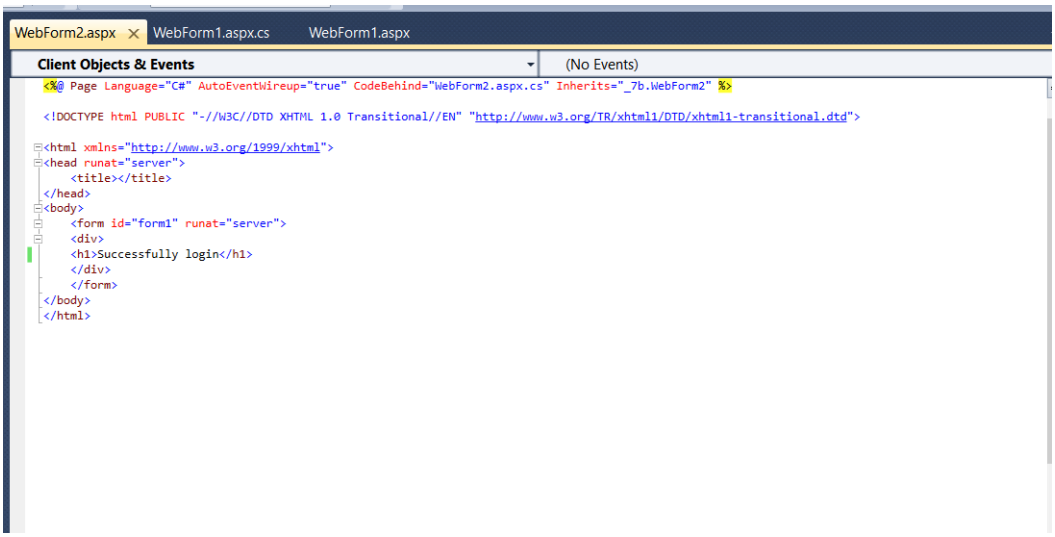
Client Objects & Events | (No Events)

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Default.aspx.cs"
Inherits="practical7b.Default" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<asp:Label ID="txtuser" runat="server" Text="User Name :"></asp:Label>
<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
<br />
<br />
<asp:Label ID="txtpwd" runat="server" Text="Password:"></asp:Label>
<asp:TextBox ID="TextBox2" runat="server" TextMode="Password"></asp:TextBox>
<br />

<br />
<asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Login" />
<br />
<asp:CheckBox ID="chkrem" runat="server" Text="[chkrem] Check here if this is not a public computer" />
<br />
<asp:Label ID="Label3" runat="server" Text="Label"></asp:Label>
</div>
</form>
</body>
</html>
```

WebForm2.aspx | WebForm1.aspx.cs | WebForm1.aspx

practical7b.Default | authenticate(String ur

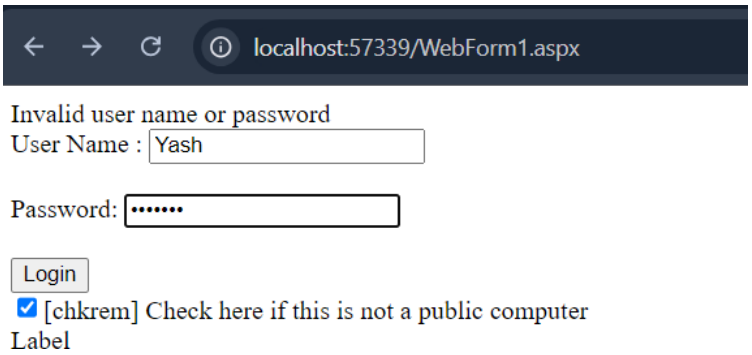
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
//using static System.Net.Mime.MediaTypeNames;
namespace practical7b
{
public partial class Default : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
}
protected bool authenticate(String uname, String pass)
{
if (uname == "Yash")
{
if (pass == "yash123")
    {
return true;
}
}
if (uname == "Ved")
{
if (pass == "ved123")
{
return true;
}
}
if (uname == "Sam")
{
if (pass == "sam123")
{
return true;
}
}
return false;
}
protected void Button1_Click(object sender, EventArgs e)
{
if (authenticate(TextBox1.Text, TextBox2.Text))
{
//FormsAuthentication.RedirectFromLoginPage(TextBox1.Text, chkrem.Checked);
Session["Username"] =TextBox1.Text;
Response.Redirect("WebForm2.aspx");
}
else
{
Response.Write("Invalid user name or password");
} } } }
```


WebForm2.aspx
WebForm1.aspx.cs
WebForm1.aspx
Client Objects & Events
(No Events)
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs" Inherits="_7b.WebForm2" %>
<!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">

<h1>Successfully login</h1>

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

OUTPUT:


localhost:57339/WebForm1.aspx
Invalid user name or password
User Name : Yash
Password: •••••••
Login
[chkrem] Check here if this is not a public computer
Label


localhost:57339/WebForm2.aspx
Successfully login

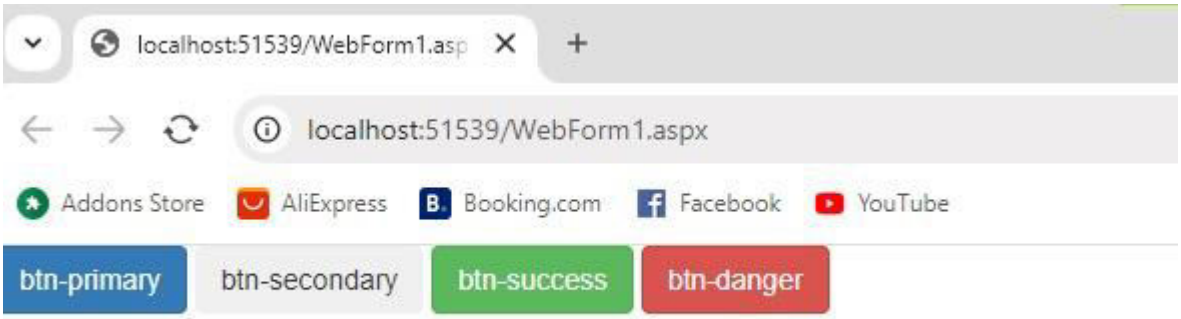
Practical 10

a) Aim: Create a web application to demonstrate JS Bootstrap Button.

Code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="_10a.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></title>
  <link rel="Stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css"/>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    <asp:Button ID="Button1" runat="server" Text="btn-primary" CssClass="btn btn-primary"/>
    <asp:Button ID="Button2" runat="server" Text="btn-secondary" CssClass="btn btn-secondary" />
    <asp:Button ID="Button3" runat="server" Text="btn-success"  CssClass="btn btn-success"/>
    <asp:Button ID="Button4" runat="server" Text="btn-danger" CssClass="btn btn-danger" />
  </div>
  </form>
</body>
</html>
```

Output:


localhost:51539/WebForm1.asp
localhost:51539/WebForm1.aspx
Addons Store
AliExpress
Booking.com
Facebook
YouTube
btn-primary
btn-secondary
btn-success
btn-danger

Practical 8

Aim: Create a web application for user defined exception handling.

Code:

WebForm1.aspx

```
<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="Label"></asp:Label>
   </div>
   <p>
      <asp:Label ID="Label2" runat="server" Text="Label"></asp:Label>
   </p>
   </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 WebApplication36

{

   public partial class WebForm1 : System.Web.UI.Page

   {

      protected void Page_Load(object sender, EventArgs e)

      {

         try

         {

            throw new userDefinedException("NEW USER DEFINED EXCEPTION");

         }

         catch (Exception ex)

         {

            Label1.Text = "Exception caught here" + ex.ToString();

         }

         Label2.Text = "Final statement that is executed";}


         class  userDefinedException  : Exception{
```

```
        public userDefinedException(string str)
        {
            Console.WriteLine("userDefinedException");
        }
    }
  class HandledException {
    public static void Main(){}
  }
}
```

Output: