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Subject: Advanced Web Programming

Practical No 1
Working with basic c# and ASP.NET

1a. Create an application that obtains four int values from the user and displays the product.

To Perform c# programs we need to set the path on cmd:

>set path=”C:\Windows\Microsoft.NET\Framework64\v4.0.30319”

Code:

```
using System;
class Demo {
        static void Main (String[] args)
        {
                int a=Convert.ToInt32(args[0]);
                int b=Convert.ToInt32(args[1]);
                int c=Convert.ToInt32(args[2]);
                int d=Convert.ToInt32(args[3]);

                int c = a*b*c*d;
                Console.WriteLine("Product = {0} ", c);
        }
}
```

Compile and Run:

```
D:\ty\awp\pracitcals>set path="C:\Windows\Microsoft.NET\Framework64\v4.0.30319"

D:\ty\awp\pracitcals>path
PATH="C:\Windows\Microsoft.NET\Framework64\v4.0.30319"

D:\ty\awp\pracitcals>csc practical1a.cs
Microsoft (R) Visual C# Compiler version 4.8.4084.0
for C# 5
Copyright (C) Microsoft Corporation. All rights reserved.

This compiler is provided as part of the Microsoft (R) .NET Framework, but only supports language versions up to C# 5, w
hich is no longer the latest version. For compilers that support newer versions of the C# programming language, see http
://go.microsoft.com/fwlink/?LinkID=533240


D:\ty\awp\pracitcals>practical1a 10 20 30 40
Product = 240000

D:\ty\awp\pracitcals>
```

1b. Create an application to demonstrate string operations.

Code:

```
using System;
using System.Globalization;
class StrOps {
   static void Main() {
      string str1 = "This is string 1.";
      string str2 = "This is string 2.";
      string str3 = "C# strings are powerful.";
      string strUp, strLow;
      int result, idx;

      Console.WriteLine("str1: " + str1);
      Console.WriteLine("Length of str1: " + str1.Length);
      // Create upper- and lowercase versions of str1.
      strLow = str1.ToLower(CultureInfo.CurrentCulture);
      strUp = str1.ToUpper(CultureInfo.CurrentCulture);
      Console.WriteLine("Lowercase version of str1:\n " +strLow);
      Console.WriteLine("Uppercase version of str1:\n " +strUp);
      Console.WriteLine();
      // Display str1, one char at a time.
      Console.WriteLine("Display str1, one char at a time.");
      for(int i=0; i < str1.Length; i++)
         Console.Write(str1[i]);

      Console.WriteLine("\n");
      // Compare strings using == and !=. These comparisons are ordinal.
      if(str1 == str2)
         Console.WriteLine("str1 == str2");
      else
         Console.WriteLine("str1 != str2");
      if(str1 == str3)
         Console.WriteLine("str1 == str3");
      else
         Console.WriteLine("str1 != str3");

      // This comparison is culture-sensitive.
      result = string.Compare(str1, str3, StringComparison.CurrentCulture);
      if(result == 0)
         Console.WriteLine("str1 and str3 are equal");
      else if(result < 0)
         Console.WriteLine("str1 is less than str3");
      else
         Console.WriteLine("str1 is greater than str3");

      Console.WriteLine();

   }
```

}

Output:

```
D:\ty\awp\pracitcals>csc 1b_string.cs
Microsoft (R) Visual C# Compiler version 4.8.4084.0
for C# 5
Copyright (C) Microsoft Corporation. All rights reserved.

This compiler is provided as part of the Microsoft (R) .NET Framework, but only supports language versions up to C#
that support newer versions of the C# programming language, see http://go.microsoft.com/fwlink/?LinkID=533240

1b_string.cs(9,21): warning CS0168: The variable 'idx' is declared but never used

D:\ty\awp\pracitcals>1b_string
str1: This is string 1.
Length of str1: 17
Lowercase version of str1:
 this is string 1.
Uppercase version of str1:
 THIS IS STRING 1.

Display str1, one char at a time.
This is string 1.

str1 != str2
str1 != str3
str1 is greater than str3
```

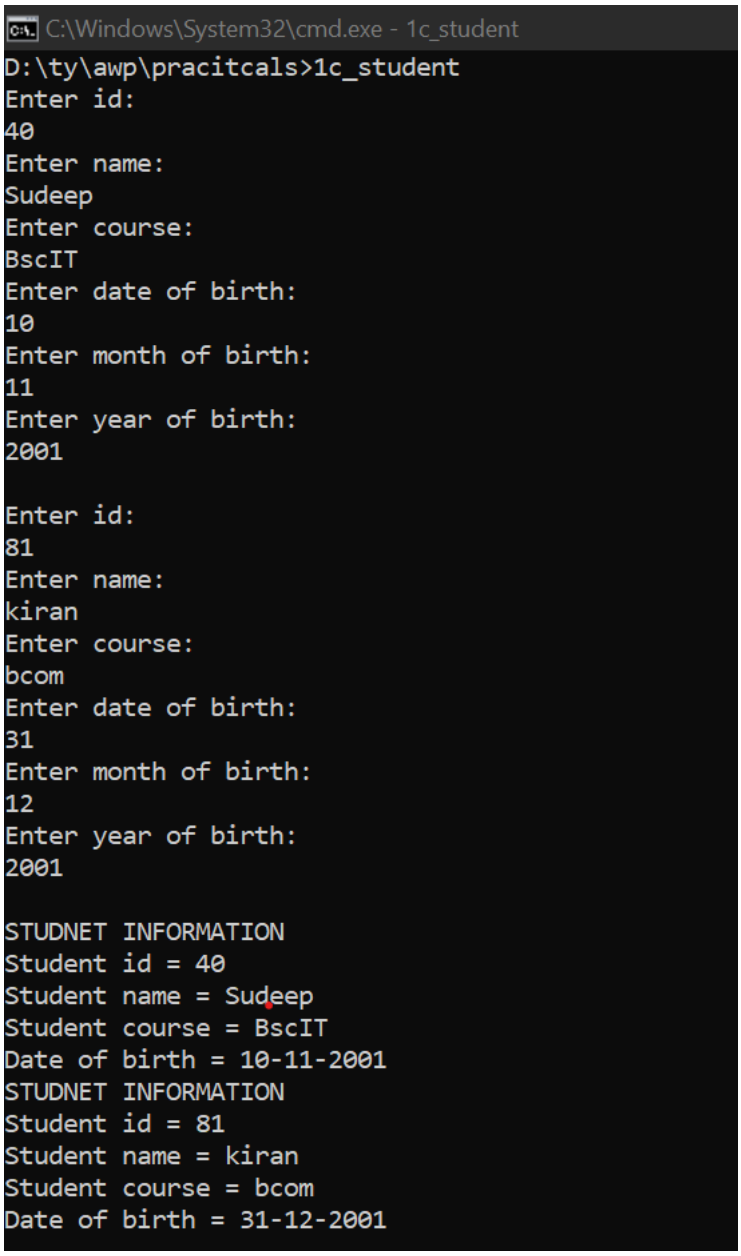
1c. Create an application that receives the (Student Id, Student Name, Course Name, Date of Birth) information from a set of students. The application should also display the information of all the students once the data entered.

Code:

```
using System;

struct Student{
   int id, dd, mm, yy;
   string name, course;
   public void Accept(){
      Console.WriteLine("Enter id: ");
      id = int.Parse(Console.ReadLine());
      Console.WriteLine("Enter name: ");
      name = Console.ReadLine();
      Console.WriteLine("Enter course: ");
      course = Console.ReadLine();

      Console.WriteLine("Enter date of birth: ");
      dd = int.Parse(Console.ReadLine());

      Console.WriteLine("Enter month of birth: ");
      mm = int.Parse(Console.ReadLine());

      Console.WriteLine("Enter year of birth: ");
      yy = int.Parse(Console.ReadLine());
      Console.WriteLine();
   }

   public void Display(){
      Console.WriteLine("STUDNET INFORMATION");
      Console.WriteLine("Student id = "+ id);
      Console.WriteLine("Student name = "+ name);
      Console.WriteLine("Student course = "+ course);
      Console.WriteLine("Date of birth = "+dd+"-"+mm+"-"+yy);
   }
}

public class School{
   public static void Main(){
      Student[] s = new Student[2];

      for(int i=0; i<s.Length; i++){
         s[i].Accept();
      }

      for(int i=0; i<s.Length; i++){
```

```
            s[i].Display();
        }
        Console.Read();
    }
}
```

Output:



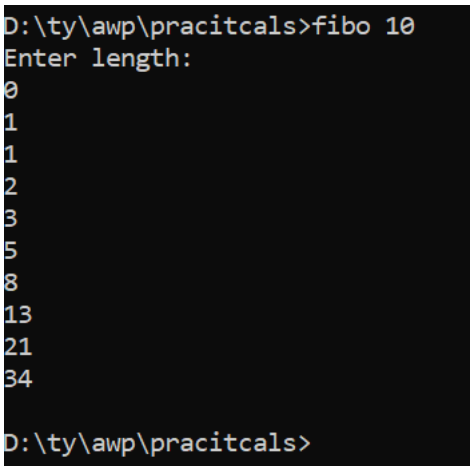
1d. Create an application to demonstrate following operations

i. Generate Fibonacci series.

code:

```
using System;

class Fibo{

static void Main(String[] args)
{
int a=0,b=1,sum,n;
n=Convert.ToInt32(args[0]);
Console.WriteLine(a);
Console.WriteLine(b);

for(int i=0; i<n-2; i++){
   sum=a+b;
   a=b;
   b=sum;
   Console.WriteLine(sum);
}
}
```

Output:



ii. Test for prime numbers.

Code:

```
using System;

class Prime{

   static void Main(String[] args)
   {
```

```
        int n;

        int n,mark=1;
        Console.WriteLine("Enter number:");
        n=Convert.ToInt32(Console.ReadLine());

        for(int i=2; i<n; i++){
          if(n%i==0){
            mark=0;
          }
        }
        if(mark==1 && n!=1){
          Console.WriteLine("Yes It is prime number");
        }
        else{
          Console.WriteLine("Not a prime number");
        }
    }

}
```

Output:

```
D:\ty\awp\pracitcals>prime
Enter number:
2
Yes It is prime number

D:\ty\awp\pracitcals>prime
Enter number:
7
Yes It is prime number

D:\ty\awp\pracitcals>prime
Enter number:
18
Not a prime number

D:\ty\awp\pracitcals>
```

iii. Testforvowels.

code:

```
using System;

class Vowel{
   static void Main(String[] args)
   {
      Char ch;
```

```
        Console.WriteLine("Enter character : ");
        ch=Convert.ToChar(Console.ReadLine());
        if(ch=='a'|| ch=='A'||ch=='e'|| ch=='E'||ch=='i'|| ch=='I'||ch=='o'||
ch=='O'||ch=='u'|| ch=='U'){
           Console.WriteLine(ch+" is vowel");
        }
        else{
           Console.WriteLine(ch+" is not a vowel");
        }
     }

}
```

Output:

```
D:\ty\awp\pracitcals>vowel
Enter character :
Q
Q is not a vowel

D:\ty\awp\pracitcals>vowel
Enter character :
E
E is vowel
```

iv. Use of foreach loop with arrays

Code:

```
using System;
class ForEachExample{
   public static void Main(){
      string[] names = {"kiran", "akash", "shreysh", "sharaddha", "pooja"};
      Console.WriteLine("Names:");
      foreach(string n in names){
         Console.WriteLine(n);
      }
   }
}
```

Output:

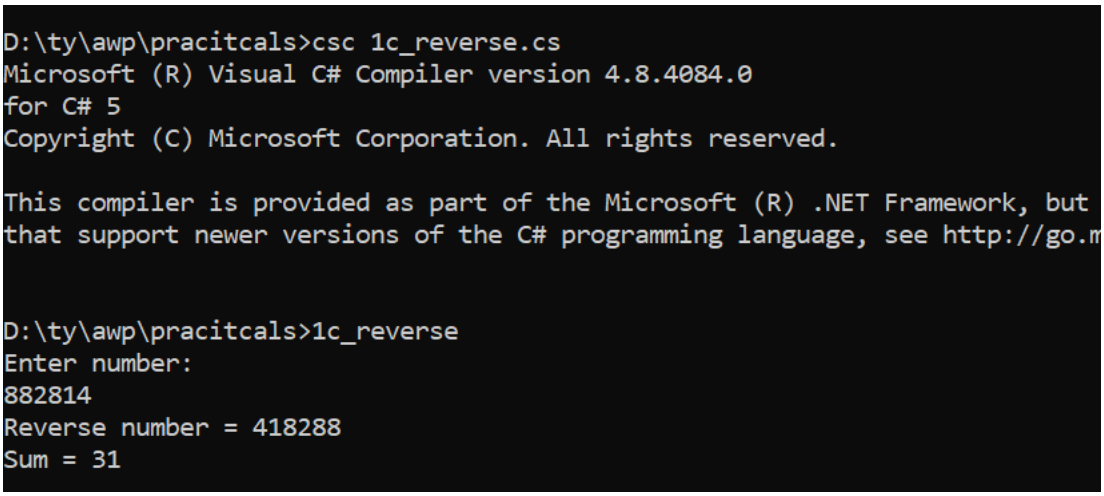
```
D:\ty\awp\pracitcals>foreach
Names:
kiran
akash
shreysh
sharaddha
pooja
```

v. **Reverse a number and find sum of digits of a number.**

Code:

```
using System;

class ReverseNumber{

   static void Main(String[] args){
      int n,rem,sum=0,rev=0;
      Console.WriteLine("Enter number: ");
      n=Convert.ToInt32(Console.ReadLine());
      while(n!=0){
      rem = n % 10;
      sum=sum+rem;
      rev = (rev * 10) + rem;
      n= n/ 10;
      }
      Console.WriteLine("Reverse number = "+ rev);
      Console.WriteLine("Sum = "+sum);
   }

}
```

Output:



Practical 2
Working with Object Oriented C# and ASP .NET

2a. Create simple application to perform following operation

Code:

```
using System;
class Program
 {
 static void Main(string[] args)
 {
 int i, num, fact;
 Console.WriteLine("Enter the Number");
 num = Convert.Int32(Console.ReadLine());
 fact = num;
 for (i = num - 1; i >= 1; i--)
 {
          fact = fact * i;
 }
 Console.WriteLine("\nFactorial of Given Number is: "+fact);
 Console.ReadLine();
 }
}
```

Output:

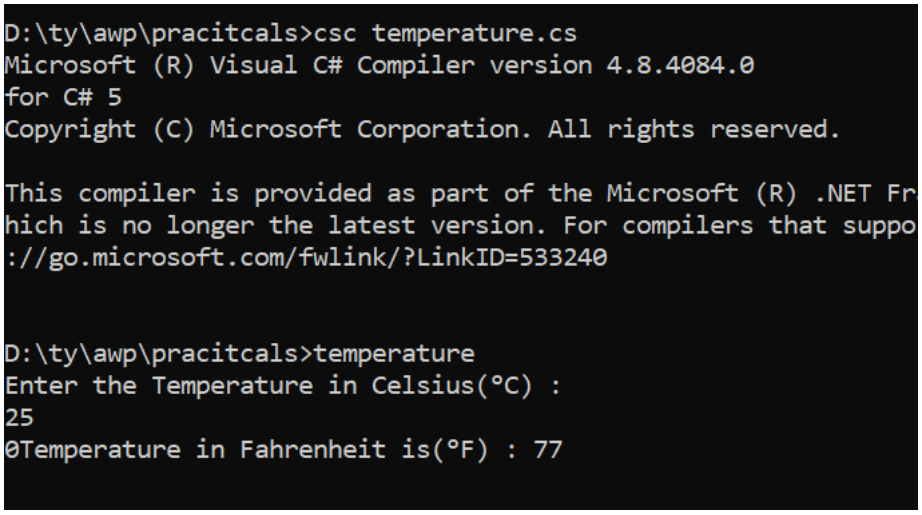
```
D:\ty\awp\pracitcals>csc factorial.cs
Microsoft (R) Visual C# Compiler version 4.8.4084.0
for C# 5
Copyright (C) Microsoft Corporation. All rights reserved.

This compiler is provided as part of the Microsoft (R) .NET Fr
hich is no longer the latest version. For compilers that suppo
://go.microsoft.com/fwlink/?LinkID=533240


D:\ty\awp\pracitcals>factorial
Enter the Number
5

Factorial of Given Number is: 120
```

iv. Temperature Converstion

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace temperatureconversion
{
 class Program
 {
 static void Main(string[] args)
 {
 int celsius, faren;
 Console.WriteLine("Enter the Temperature in Celsius(°C) : ");
 celsius = int.Parse(Console.ReadLine());
 faren = (celsius * 9) / 5 + 32;
 Console.WriteLine("0Temperature in Fahrenheit is(°F) : " + faren);
 Console.ReadLine();
 }
 }
}
```

Output:



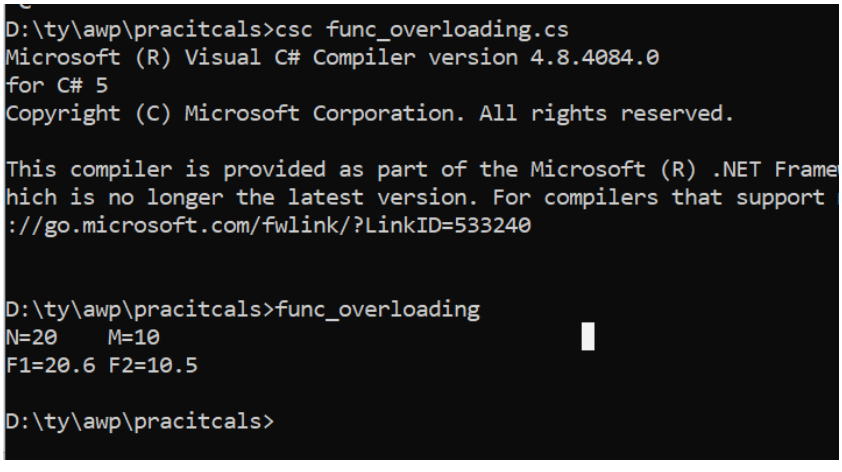
2b Create simple application to demonstrate use of following concepts

i. function overloading

code:

```
using System;
namespace swap
{
class Overloading
{
public void swap(ref int n, ref int m)
{
int t;
t = n;
n = m;
m = t;
}
public void swap(ref float f1, ref float f2)
{
float f;
f = f1;
f1 = f2;
f2 = f;
}
}
class program
{
static void Main(string[] args)
{
Overloading objOverloading = new Overloading();
int n = 10, m = 20;
objOverloading.swap(ref n, ref m);
Console.WriteLine("N=" + n + "\tM=" + m);
float f1 = 10.5f, f2 = 20.6f;
objOverloading.swap(ref f1, ref f2);
Console.WriteLine("F1=" + f1 + "\tF2=" + f2);
}
}
}
```

Output:



Practical 3
Working with Web Forms and Controls

3b. Demonstrate the use of Calendar control to perform following operations.

a. Display message in calender control

Webpage code:

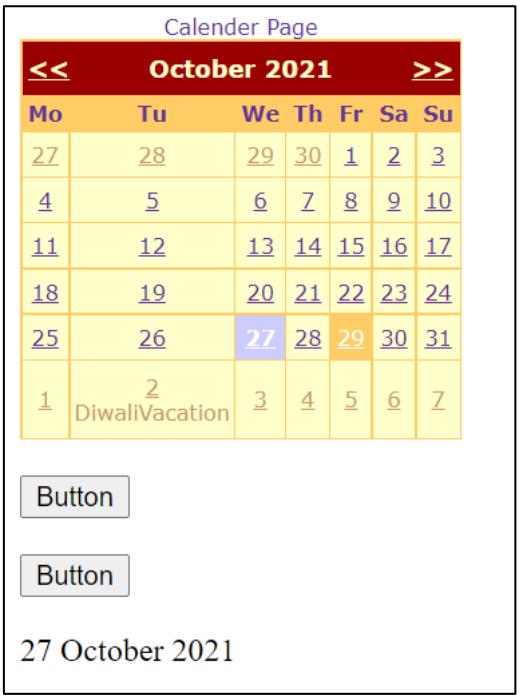
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="prac3b.aspx.cs"
Inherits="prac3b" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
  <asp:Calendar ID="Calendar1" runat="server" BackColor="#FFFFCC"
BorderColor="#FFCC66" BorderWidth="1px" Caption="Calender Page"
DayNameFormat="Shortest" FirstDayOfWeek="Monday" Font-Names="Verdana" Font-
Size="8pt" ForeColor="#663399" Height="200px" NextMonthText="&gt;&gt;"
PrevMonthText="&lt;&lt;" SelectedDate="2020-09-26" ShowGridLines="True"
Width="220px" onselectionchanged="Calendar1_SelectionChanged"
ondayrender="Calendar1_DayRender">
    <DayHeaderStyle BackColor="#FFCC66" Font-Bold="True" Height="1px" />
    <NextPrevStyle Font-Size="9pt" ForeColor="#FFFFCC" />
    <OtherMonthDayStyle ForeColor="#CC9966" />
    <SelectedDayStyle BackColor="#CCCCFF" Font-Bold="True" />
    <SelectorStyle BackColor="#FFCC66" />
    <TitleStyle BackColor="#990000" Font-Bold="True" Font-Size="9pt" ForeColor="#FFFFCC"
/>
     <TodayDayStyle BackColor="#FFCC66" ForeColor="White" />
 </asp:Calendar><br />

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

   <asp:Button ID="Button2" runat="server" Text="Button" onclick="Button2_Click"/>
   <br />
   <br />
   <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
      </form>

</body>
</html>
```

Code behind file:

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

public partial class prac3b : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {
        Label1.Text = Calendar1.SelectedDate.ToShortDateString();

    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        Label1.Text = "";
        foreach (DateTime dt in Calendar1.SelectedDates)
        {
            Label1.Text += dt.ToLongDateString() + "<br />";
        }


    }

    protected void Calendar1_SelectionChanged(object sender, EventArgs e)
    {
        Label1.Text = Calendar1.SelectedDate.ToShortDateString();
    }

    protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
    {
        // Check for May 5 in any year, and format it.
        if (e.Day.Date.Day == 10 && e.Day.Date.Month == 11)
        {
            e.Cell.BackColor = System.Drawing.Color.LimeGreen;
            // Add some static text to the cell.
            Label lbl = new Label();
            lbl.Text = "<br />My Birthday!";
            e.Cell.Controls.Add(lbl);
            Image img = new Image();
```

```
            img.Height = 10;
            img.Width = 10;
            e.Cell.Controls.Add(img);
        }


    }
}
```

Result:



b. Display vacation in a calendar control

WebPage code:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="prac3b.aspx.cs"
Inherits="prac3b" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
  <asp:Calendar ID="Calendar1" runat="server" BackColor="#FFFFCC"
BorderColor="#FFCC66" BorderWidth="1px" Caption="Calender Page"
```

```
DayNameFormat="Shortest" FirstDayOfWeek="Monday" Font-Names="Verdana" Font-
Size="8pt" ForeColor="#663399" Height="200px" NextMonthText="&gt;&gt;"
PrevMonthText="&lt;&lt;" SelectedDate="2020-09-26" ShowGridLines="True"
Width="220px" onselectionchanged="Calendar1_SelectionChanged"
ondayrender="Calendar1_DayRender">
    <DayHeaderStyle BackColor="#FFCC66" Font-Bold="True" Height="1px" />
    <NextPrevStyle Font-Size="9pt" ForeColor="#FFFFCC" />
    <OtherMonthDayStyle ForeColor="#CC9966" />
    <SelectedDayStyle BackColor="#CCCCFF" Font-Bold="True" />
    <SelectorStyle BackColor="#FFCC66" />
    <TitleStyle BackColor="#990000" Font-Bold="True" Font-Size="9pt" ForeColor="#FFFFCC"
/>
     <TodayDayStyle BackColor="#FFCC66" ForeColor="White" />
 </asp:Calendar><br />

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

   <asp:Button ID="Button2" runat="server" Text="Button" onclick="Button2_Click"/>
   <br />
   <br />
   <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
      </form>

</body>
</html>
```

Code behind file:

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

public partial class prac3b : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {

   }

   protected void Button1_Click(object sender, EventArgs e)
   {
      Label1.Text = Calendar1.SelectedDate.ToShortDateString();

   }
```

```
    protected void Button2_Click(object sender, EventArgs e)
    {
        Label1.Text = "";
        foreach (DateTime dt in Calendar1.SelectedDates)
        {
            Label1.Text += dt.ToLongDateString() + "<br />";
        }


    }

    protected void Calendar1_SelectionChanged(object sender, EventArgs e)
    {
        Label1.Text = Calendar1.SelectedDate.ToShortDateString();
    }

    protected void Calendar1_DayRender(object sender, DayRenderEventArgs e)
    {
        // Check for May 5 in any year, and format it.
        if (e.Day.Date.Day == 10 && e.Day.Date.Month == 11)
        {
            e.Cell.BackColor = System.Drawing.Color.LimeGreen;
            // Add some static text to the cell.
            Label lbl = new Label();
            lbl.Text = "<br />My Birthday!";
            e.Cell.Controls.Add(lbl);
            Image img = new Image();
            img.Height = 10;
            img.Width = 10;
            e.Cell.Controls.Add(img);
        }

        if (e.Day.Date.Day == 2 && e.Day.Date.Month == 11)
        {
            Calendar1.SelectedDate = new DateTime(2020, 2, 11);
            Calendar1.SelectedDates.SelectRange(Calendar1.SelectedDate,
Calendar1.SelectedDate.AddDays(10));
            Label lbl1 = new Label();
            lbl1.Text = "<br>DiwaliVacation";
            e.Cell.Controls.Add(lbl1);
        }
    }
}
```

Result:


Calender Page
<<
November 2021
>>
Mo Tu We Th Fr Sa Su
25 26 27 28 29 30 31
1 2 DiwaliVacation 3 4 5 6 7
8 9 10 My Birthday! 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 1 2 3 4 5
Button
Button
02 November 2021

Practical 4
Working with Form Controls

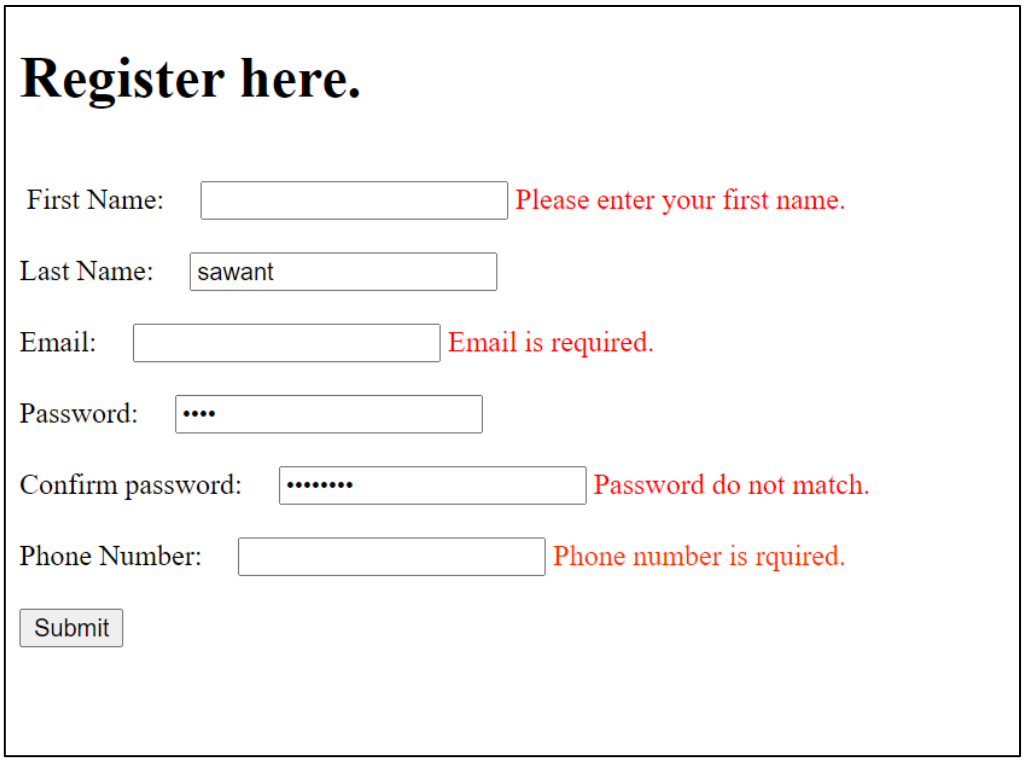
4a. Create a Registration form to demonstrate use of various Validation controls

WebPage:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Prac4a.aspx.cs" Inherits="Prac4a" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <h1>Register here.</h1>
      <br />
       <asp:Label ID="firstName" runat="server" Text="First Name:"></asp:Label>
         
    <asp:TextBox ID="tbFirstName" runat="server"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="tbFirstName" ErrorMessage="Please enter your first name."
ForeColor="Red"></asp:RequiredFieldValidator>
      <br />
      <br />
      <asp:Label ID="lastName" runat="server" Text="Last Name:"></asp:Label>
         
    <asp:TextBox ID="tbLastName" runat="server"></asp:TextBox>
      <br />
      <br />
      <asp:Label ID="labelEmail" runat="server" Text="Email:"></asp:Label>
         
    <asp:TextBox ID="tbEmail" runat="server" TextMode="Email"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator5" runat="server"
ControlToValidate="tbEmail" ErrorMessage="Email is required."
ForeColor="Red"></asp:RequiredFieldValidator>
      <br />
      <br />
      <asp:Label ID="labelPassword" runat="server" Text="Password:"></asp:Label>
         
    <asp:TextBox ID="tbPassword" runat="server" TextMode="Password"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
ControlToValidate="tbPassword" ErrorMessage="Password is required."
ForeColor="Red"></asp:RequiredFieldValidator>
      <br />
      <br />
```

```
        <asp:Label ID="labelConfirmPassword" runat="server" Text="Confirm
password:"></asp:Label>
           
      <asp:TextBox ID="tbConfirmPassword" runat="server" TextMode="Password"></asp:TextBox>
        <asp:CompareValidator ID="CompareValidator1" runat="server"
ControlToCompare="tbPassword" ControlToValidate="tbConfirmPassword"
ErrorMessage="Password do not match." ForeColor="Red"></asp:CompareValidator>
        <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
ControlToValidate="tbConfirmPassword" ErrorMessage="Please confirm your password"
ForeColor="Red"></asp:RequiredFieldValidator>
        <br />
        <br />
        <asp:Label ID="labelPhoneNumber" runat="server" Text="Phone Number:"></asp:Label>
           
      <asp:TextBox ID="tbPhoneNumber" runat="server" TextMode="Phone"></asp:TextBox>
        <asp:RequiredFieldValidator ID="RequiredFieldValidator4" runat="server"
ControlToValidate="tbPhoneNumber" ErrorMessage="Phone number is rquired."
ForeColor="#FF3300"></asp:RequiredFieldValidator>
        <br />
        <br />
        <asp:Button ID="btnSubmit" runat="server" Text="Submit" />

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

Result:



4b. Create Web Form to demonstrate use of Adrotator Control.

XMl File:

```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
 <Ad>
  <!-- First ad here. -->
  <ImageUrl>todo_checklist.png</ImageUrl>
  <NavigateUrl>https://google.com</NavigateUrl>
  <AlternateText>
   Order flowers, roses, gifts and more
  </AlternateText>
  <Impressions>20</Impressions>
  <Keyword>f</Keyword>

 </Ad>
 <Ad>
  <!-- Second ad here. -->
  <ImageUrl>warrior.jpg</ImageUrl>
  <NavigateUrl>ggg</NavigateUrl>
  <AlternateText>
   Order flowers, roses, gifts and more
  </AlternateText>
  <Impressions>20</Impressions>
  <keyword>f</keyword>
 </Ad>

 <Ad>
  <ImageUrl>road.jpg</ImageUrl>
  <NavigateUrl>gy</NavigateUrl>
  <AlternateText>Order roses and flowers</AlternateText>
  <Impressions>20</Impressions>
  <Keyword>f</Keyword>
 </Ad>
 <Ad>
  <ImageUrl>warrior.jpg</ImageUrl>
  <NavigateUrl>iii</NavigateUrl>
  <AlternateText>Send flowers to Russia</AlternateText>
  <Impressions>20</Impressions>
  <Keyword>f</Keyword>
 </Ad>
</Advertisements>
```

WebPage:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Prac4b.aspx.cs" Inherits="Prac4b"
%>

<!DOCTYPE html>
```

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


   <form id="form1" runat="server">
   <div>
         <asp:AdRotator ID=”AdRotator1” runat=”server” DataSourceIS=”XmlDataSource1” />
     <asp:XmlDataSource Id=”XmlDataSource1” runat =”server” DataFile="~/ADFILE.xml">
     <h1>Welcome!</h1>
   </div>
   </form>
</body>
</html>
```

4c. Create Web Form to demonstrate use User Controls.

UserControl File

WebPage:

```
<%@ Control Language="C#" AutoEventWireup="true" CodeFile="WebUserControl.ascx.cs"
Inherits="WebUserControl" %>
<h3>Web User Control Example</h3>
<h4>First Name <asp:TextBox ID="fname" runat="server"></asp:TextBox>
</h4>
<h4>Last Name <asp:TextBox ID="lname" runat="server"></asp:TextBox>
</h4>
<asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
<br />
<asp:Button ID="Button1" runat="server" Text="Save" onclick="Button1_Click" />
```

Code Behind File:

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

public partial class WebUserControl : System.Web.UI.UserControl
{
   protected void Page_Load(object sender, EventArgs e)
   {
   }
   protected void Button1_Click(object sender, EventArgs e)
```

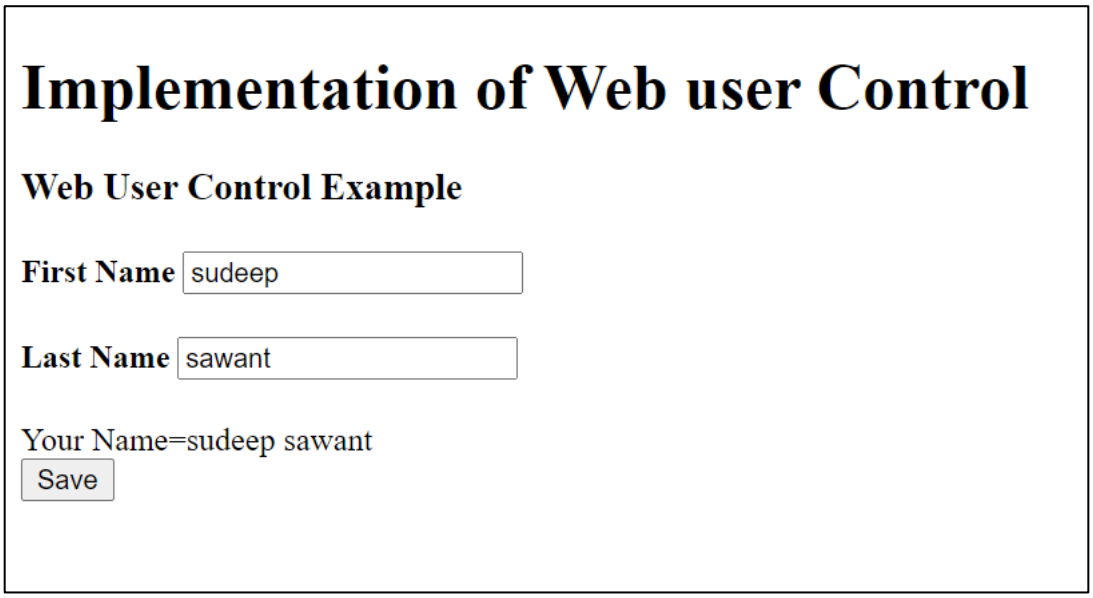
```
    {
        Label1.Text = "Your Name=" + fname.Text + " " + lname.Text;
    }
}
```

Using User control file

WebPage:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Prac4c.aspx.cs" Inherits="Prac4c" %>

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

<%@ Register Src="~/WebUserControl.ascx" TagName="Info" TagPrefix="in" %>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
    <h1>Implementation of Web user Control</h1>
    <in:Info ID="infocontrol" runat="server"></in:Info>
    </div>
    </form>
</body>
</html>
```

Result:



Practical 5
Working with Navigation, Beautification and Master page.

5a. Create Web Form to demonstrate use of Website Navigation controls and Site Map.

WebPage:

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Prac5a.aspx.cs" Inherits="Prac5a" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
      <div>
           <h1>TreeView Navigation Control.</h1>
         <asp:TreeView ID="TreeView1" runat="server" DataSourceID="SiteMapDataSource1">
         </asp:TreeView>
         <asp:SiteMapDataSource ID="SiteMapDataSource1" runat="server" />
         <h1>Menu Navigation Control.</h1>
           <asp:Menu ID="Menu1" runat="server" DataSourceID="SiteMapDataSource1">
           </asp:Menu>
          <br />
         <h1>SiteMapPath Navigation Control.</h1>
                 <asp:HyperLink ID="HyperLink1" runat="server" NavigateUrl="~/Prac5a2.aspx">Click
here to go to First Page</asp:HyperLink> 
         <asp:HyperLink ID="HyperLink2" runat="server" NavigateUrl="~/Prac5a.aspx">Click here to
go to Second Page</asp:HyperLink>
         <br />
         <br />
         <asp:Label ID="Label2" runat="server" Text="Click any link below to go to desired
page....."></asp:Label>
      </div>
   </form>
</body>
</html>
```

Output:

TreeView Navigation Control.

- Courses
  - Self_Finance
    - BScIT
    - BMM
  - General
    - Science
    - Arts

Menu Navigation Control.

Courses ▸

Practical 6
Working with Database

6b. Create a web application to display records by using database.
WebPage: DatabaseDemo.aspx

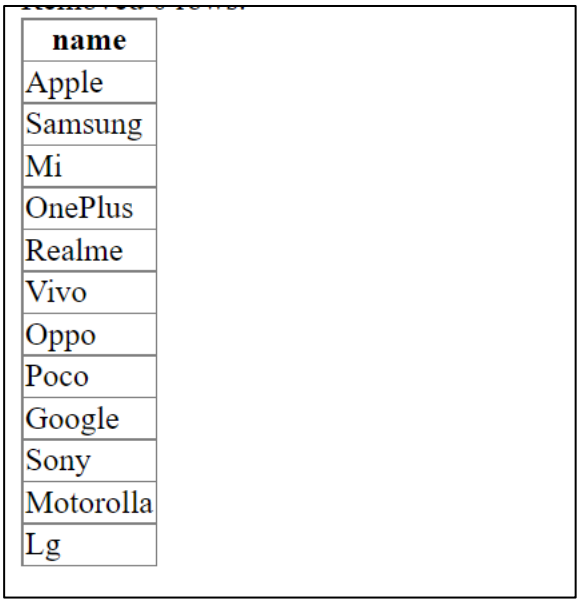
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="DatabaseDemo.aspx.cs"
Inherits="DatabaseDemo" %>

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

Code behind file:

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

public partial class DatabaseDemo : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      string s = "Data Source=DESKTOPB8D4US6;InitialCatalog=mobileshop;IntegratedSecurity=True";

      SqlConnection con = new SqlConnection();
      con.ConnectionString = s;

      SqlCommand cmd = new SqlCommand();
      default constructor
      cmd.CommandText = "select *from products";
```

```
        cmd.Connection = con;

        con.Close();

    }

}
```

Result:



name
Apple
Samsung
Mi
OnePlus
Realme
Vivo
Oppo
Poco
Google
Sony
Motorolla
Lg

Practical 7
Working with database

7a. Create a web application to display Databinding using dropdownlist control.

WebPage:

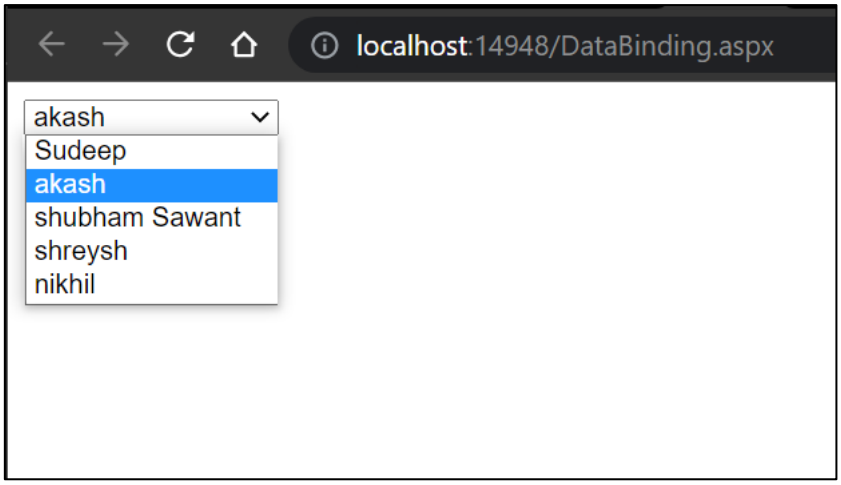
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="DataBinding.aspx.cs"
Inherits="DataBinding" %>

<!DOCTYPE html>

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

      <asp:DropDownList ID="DropDownList1" runat="server">
      </asp:DropDownList>

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

Code behind file:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
public partial class DataBinding : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      string s = "Data Source=DESKTOPB8D4US6;InitialCatalog=mobileshop;IntegratedSecurity=True";
      SqlConnection con = new SqlConnection(connection);
      SqlCommand cmd = new SqlCommand();
      cmd.CommandText = "select name, email from customer";
      cmd.Connection = con;
      con.Open();
      DropDownList1.DataSource = cmd.ExecuteReader();
      DropDownList1.DataTextField = "name";
      DropDownList1.DataValueField = "email";
```

```
        DropDownList1.DataBind();
        con.Close();
    }
}
```

Result:



7c. Create a web application for inserting and deleting record from a database. (Using Execute-Non-Query).

WebPage:

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

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

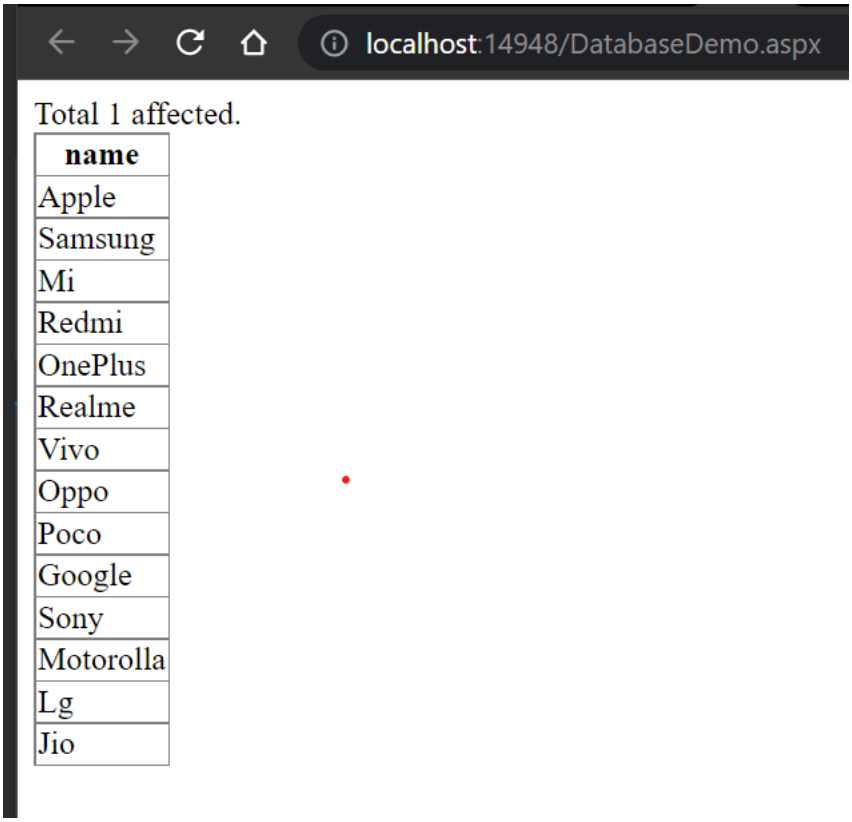
Code behind file:

1. **Inserting data**

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

public partial class DatabaseDemo : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      string s = "Data Source=DESKTOPB8D4US6;InitialCatalog=mobileshop;IntegratedSecurity=True";
            SqlConnection con = new SqlConnection(connection);
      //*************** inserting data *************
      SqlCommand cmd = new SqlCommand();
      cmd.CommandText = "insert into brands(name) values('Jio')";
      cmd.Connection = con;
      con.Open();
      int rowsAffected = cmd.ExecuteNonQuery();
```

```
    Response.Write("Total "+rowsAffected+" affected.");
    cmd.CommandText = "select *from brands";
    GridView1.DataSource = cmd.ExecuteReader();
    GridView1.DataBind();
    con.Close();
    con.Close();

  }
}
```

Result:



2. Deleting Row

Code behind File:

```
public partial class DatabaseDemo : System.Web.UI.Page
{
  protected void Page_Load(object sender, EventArgs e)
  {
    string s = "Data Source=DESKTOPB8D4US6;InitialCatalog=mobileshop;IntegratedSecurity=True";
        SqlConnection con = new SqlConnection(connection);
    //*************** inserting data *************
    SqlCommand cmd = new SqlCommand();
    cmd.CommandText = "insert into brands(name) values('Jio')";
    cmd.Connection = con;
    con.Open();
    int rowsAffected = cmd.ExecuteNonQuery();
    Response.Write("Total "+rowsAffected+" affected.");
    cmd.CommandText = "select *from brands";
```

```
    GridView1.DataSource = cmd.ExecuteReader();
    GridView1.DataBind();
    con.Close();
    con.Close();

  }
}
```

Result:

Removed 1 rows.

name
Apple
Samsung
Mi
OnePlus
Realme
Vivo
Oppo
Poco
Google
Sony
Motorolla
Lg
Jio

Practical 10

Working with AJAX and XML

10c. Create a web application to demonstrate use of various Ajax controls.

WebPage code:

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
    <asp:ScriptManager ID="ScriptManager1" runat="server" />
    <div>
      <asp:UpdatePanel ID="UpdatePanel1" runat="server" UpdateMode="Conditional">
        <ContentTemplate>
          <strong>Update Panel-1</strong>
          <asp:Label ID="lbl1" runat="server" ForeColor="green" /><br />
          <asp:Button ID="btnUpdate1" runat="server" Text="Update Both Panels"
            OnClick="btnUpdate1_Click" />
          <asp:Button ID="btnUpdate2" runat="server" Text="Update This Panel"
            OnClick="btnUpdate2_Click" />
        </ContentTemplate>
      </asp:UpdatePanel>
      <asp:UpdatePanel ID="UpdatePanel2" runat="server" UpdateMode="Conditional">
        <ContentTemplate>
          <strong>Update Panel-2</strong>
          <asp:Label ID="lbl2" runat="server" ForeColor="red" />
        </ContentTemplate>
        <Triggers>
          <asp:AsyncPostBackTrigger ControlID="btnUpdate1" EventName="Click" />
          <%-- <asp:PostBackTrigger ControlID="btnUpdate2"/>--%>
        </Triggers>
      </asp:UpdatePanel>
    </div>
  </form>
</body>
</html>
```

Code behind file:

```
using System;
```

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

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

   }

   protected void btnUpdate1_Click(object sender, EventArgs e)
   {
      lbl1.Text = DateTime.Now.ToLongTimeString();
      lbl2.Text = DateTime.Now.ToLongTimeString();

   }

   protected void btnUpdate2_Click(object sender, EventArgs e)
   {
      lbl1.Text = DateTime.Now.ToLongTimeString();
      lbl2.Text = DateTime.Now.ToLongTimeString();
   }
}
```

Result: