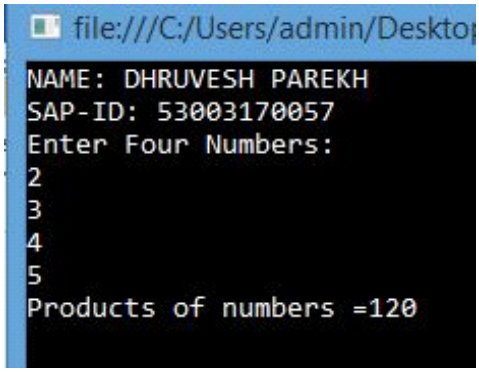
OUTPUT:


file:///C:/Users/admin/Deskto
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter Four Numbers:
2
3
4
5
Products of numbers =120

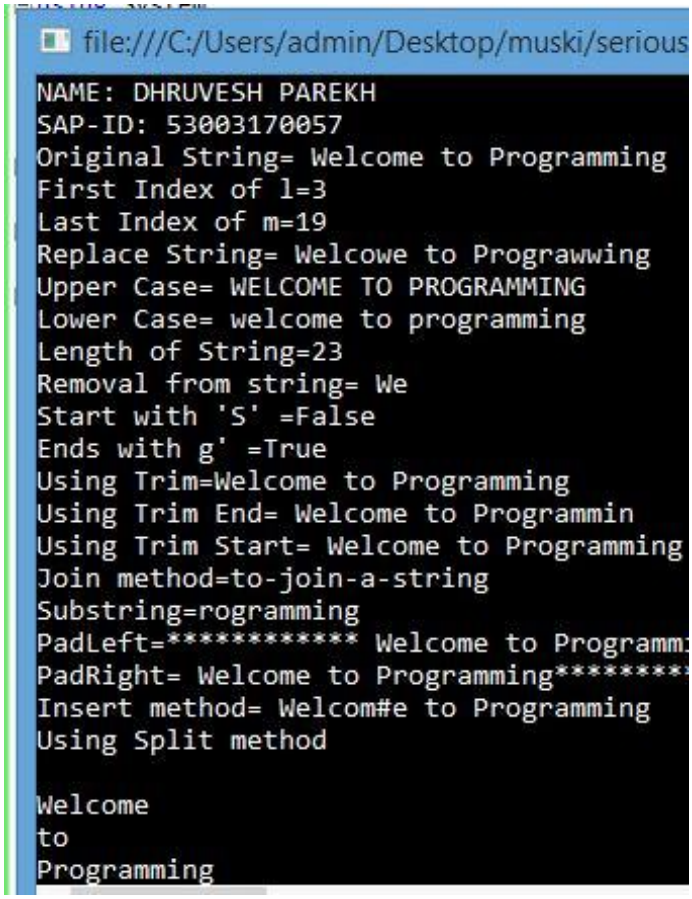
Practical No.1

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

Code:

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

namespace ConsoleApplication1
{
   class Program
   {
      static void Main(string[] args)
      {
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         int[] num = new int[4];
         int pro = 1;
         Console.WriteLine("Enter 4 numbers:");
            for(int i=0;i<4;i++)
            {
                  num[i]=Convert.ToInt32(Console.ReadLine());
                  pro*=num[i];
            }
         Console.WriteLine("product is:"+pro);
         Console.ReadKey();
      }
   }
}
```

OUTPUT:

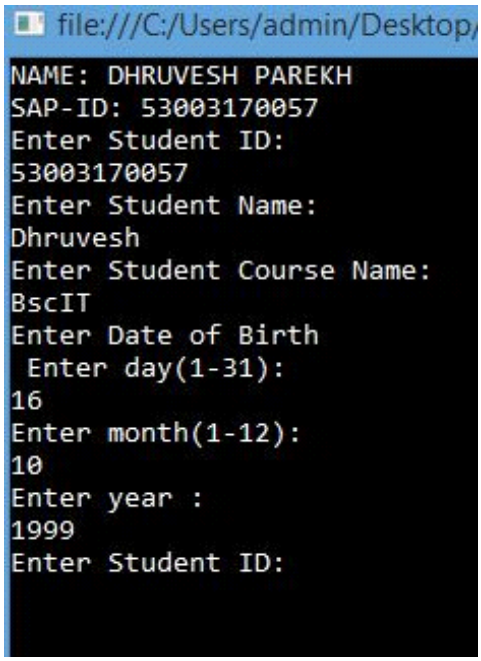

file:///C:/Users/admin/Desktop/muski/serious
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Original String= Welcome to Programming
First Index of l=3
Last Index of m=19
Replace String= Welcowe to Prograwwing
Upper Case= WELCOME TO PROGRAMMING
Lower Case= welcome to programming
Length of String=23
Removal from string= We
Start with 'S' =False
Ends with g' =True
Using Trim=Welcome to Programming
Using Trim End= Welcome to Programmin
Using Trim Start= Welcome to Programming
Join method=to-join-a-string
Substring=rogramming
PadLeft=********** Welcome to Programm
PadRight= Welcome to Programming*********
Insert method= Welcom#e to Programming
Using Split method
Welcome
to
Programming

1B. Create an application to demonstrate string operations.

Code:

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

namespace StrOperation
{
   class StrOperation
   {
      static void Main(string[] args)
      {
         string lname, fname;
         Console.WriteLine("Enter First name:");
         lname = Console.ReadLine();
         Console.WriteLine("Enter Last name:");
         fname = Console.ReadLine();
         Console.WriteLine("trim: "+lname.Trim());
         Console.WriteLine("clone: "+fname.Clone());
         Console.WriteLine("trimend: "+lname.TrimEnd());
         Console.WriteLine("trimstart: "+lname.TrimStart());
         Console.WriteLine("padleft: "+fname.PadLeft(8,'*'));
         Console.WriteLine("padright: "+fname.PadRight(8,'#'));
         Console.WriteLine("insert: "+lname.Insert(2,"abc"));
         Console.WriteLine("remove: "+lname.Remove(1,1));
         Console.WriteLine("replace: "+lname.Replace("y","a"));
         Console.WriteLine("substring: "+fname.Substring(1,4));
         Console.WriteLine("toupper: "+fname.ToUpper());
         string[] s1={"hello","hie","bye"};
         string s3=string.Join("-",s1);
         Console.WriteLine(s3);
         Console.ReadKey();
      }

   }
}
```

OUTPUT:

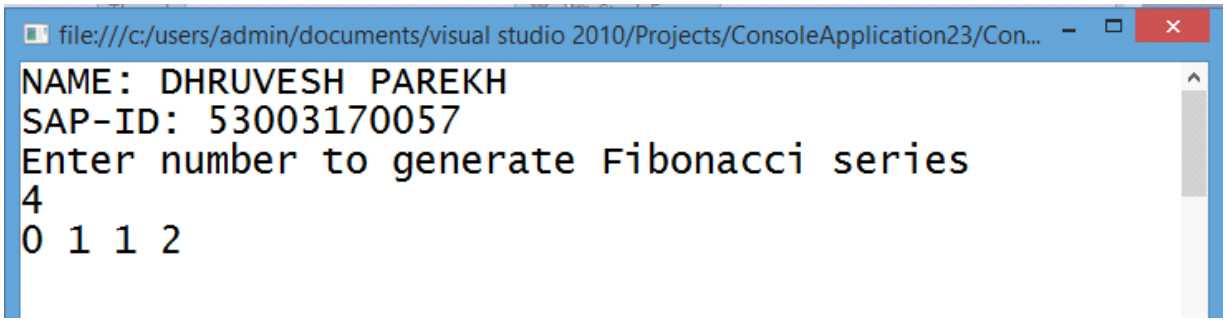

file:///C:/Users/admin/Desktop/
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter Student ID:
53003170057
Enter Student Name:
Dhruvesh
Enter Student Course Name:
BscIT
Enter Date of Birth
Enter day(1-31):
16
Enter month(1-12):
10
Enter year :
1999
Enter Student ID:

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;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace StudInfo{
   class StudInfo{
      struct Student{
         public string studid, name, cname;
         public int day, month, year;
      }
      static void Main(string[] args)
      {
         Student[] st= new Student[3];
         int i;
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         for(i=0;i<2;i++)
         {
            Console.Write("Enter student ID:");
            st[i].studid=Console.ReadLine();
            Console.Write("Enter student Name:");
            st[i].name=Console.ReadLine();
            Console.Write("Enter course Name:");
            st[i].cname=Console.ReadLine();
            Console.Write("Enter date of birth\n Enter day(1-31):");
            st[i].day=Convert.ToInt32(Console.ReadLine());
            Console.Write("Enter month(1-12):");
            st[i].month=Convert.ToInt32(Console.ReadLine());
            Console.Write("Enter year:");
            st[i].year=Convert.ToInt32(Console.ReadLine());
         }
         Console.WriteLine("\n\nStudent's List\n");
         for(i=0;i<2;i++)
         {
            Console.WriteLine("\nStudent ID:"+st[i].studid);
            Console.WriteLine("\nStudent name:"+st[i].name);
            Console.WriteLine("\nCourse name:"+st[i].cname);
            Console.WriteLine("\nDate of birth(dd-mm-yy):"+st[i].day+"-
"+st[i].month+"-"+st[i].year);
         }
         Console.ReadKey();

      }
   }
}
```

OUTPUT:


file:///c:/users/admin/documents/visual studio 2010/Projects/ConsoleApplication23/Con...
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter number to generate Fibonacci series
4
0 1 1 2

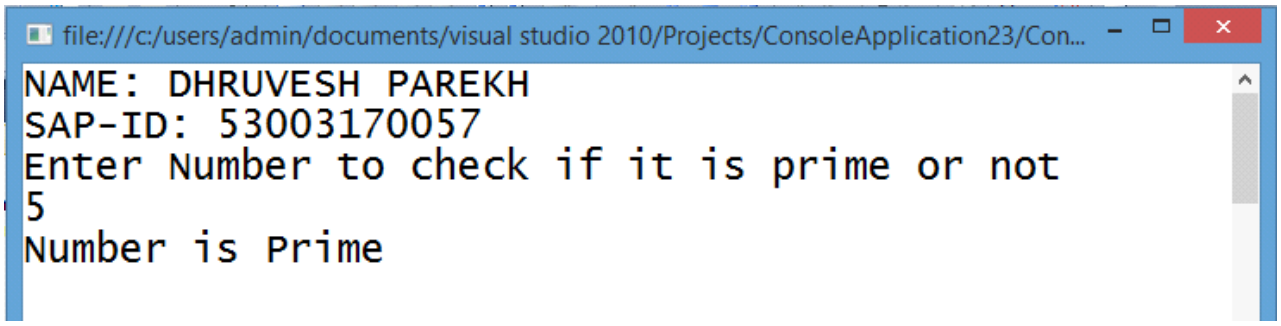
1D. Create an application to demonstrate following operations.

i. Generate Fibonacci series.

Code:

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

namespace Fibo
{
   class Fibonacci
   {
      static void Main(string[] args)
      {
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Console.WriteLine("Enter length");
         int n = Convert.ToInt32(Console.ReadLine());
         int t1 = 0;
         int t2 = 1;
         Console.WriteLine("Fibonacci series of given length is");
         Console.WriteLine(t1);
         Console.WriteLine(t2);
         for (int i = 2; i <= n; i++)
         {
            int sum = t1 + t2;
            t1 = t2;
            t2 = sum;
            Console.WriteLine(sum);
         }
         Console.ReadKey();
      }
   }
}
```

OUTPUT:

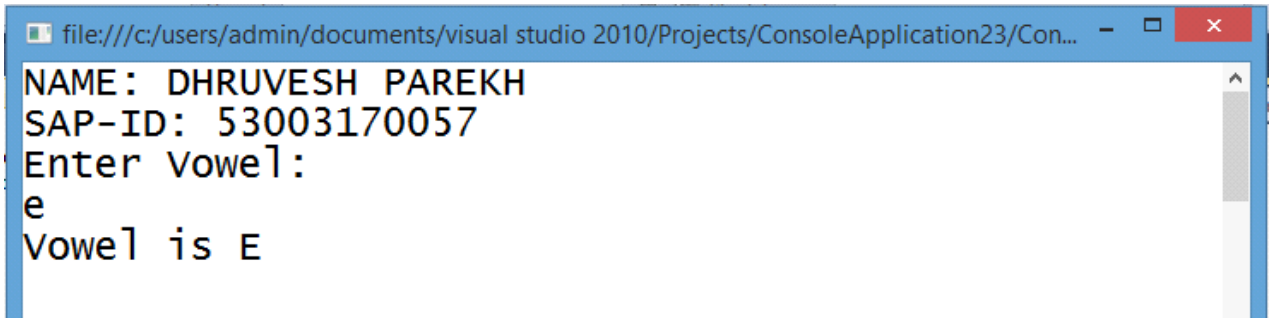

file:///c:/users/admin/documents/visual studio 2010/Projects/ConsoleApplication23/Con...
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter Number to check if it is prime or not
5
Number is Prime

ii. Test for prime numbers

Code:

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

namespace Prime
{
   class Prime
   {
      static void Main(string[] args)
      {
         Console.WriteLine(“#53003170057#\n #Dhruvesh Parekh#\n”);
         Console.WriteLine("Enter a number to check it is prime or not");
         int n, i;
         int flag = 0;
         n = Convert.ToInt32(Console.ReadLine());
         for (i = 2; i <= n / 2; i++)
         {
            if (n % i == 0)
            {
               Console.WriteLine("not prime");
               flag = 1;
               break;
            }
         }
         if (flag == 0)
         {
            Console.WriteLine("prime");
         }
         Console.ReadKey();
      }
   }
}
```

OUTPUT:

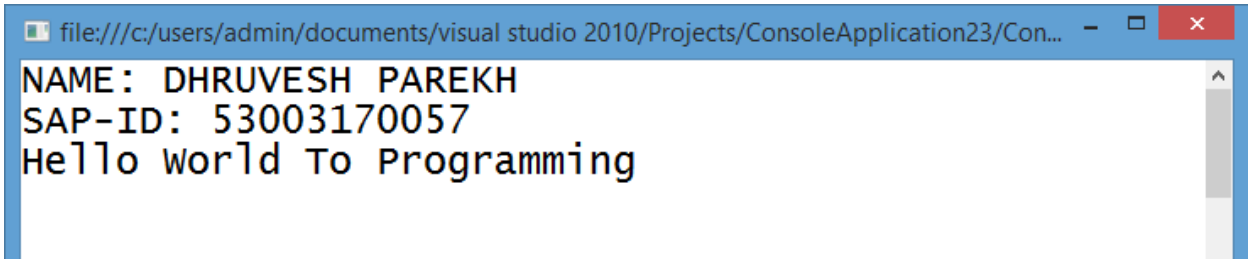

file:///c:/users/admin/documents/visual studio 2010/Projects/ConsoleApplication23/Con...
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter Vowel:
e
Vowel is E

iii. Test for vowels.

Code:

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

namespace Vowel
{
   class Vowel
   {
      static void Main(string[] args)
      {
         char ch;
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Console.WriteLine("Enter the alphabet");
         ch = Convert.ToChar(Console.ReadLine());
         if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')
         {
            Console.WriteLine(ch + "is vowel");
         }
         else
         {
            Console.WriteLine(ch + " is a consonant");
         }
         Console.ReadKey();
      }
   }
}
```

OUPUT:

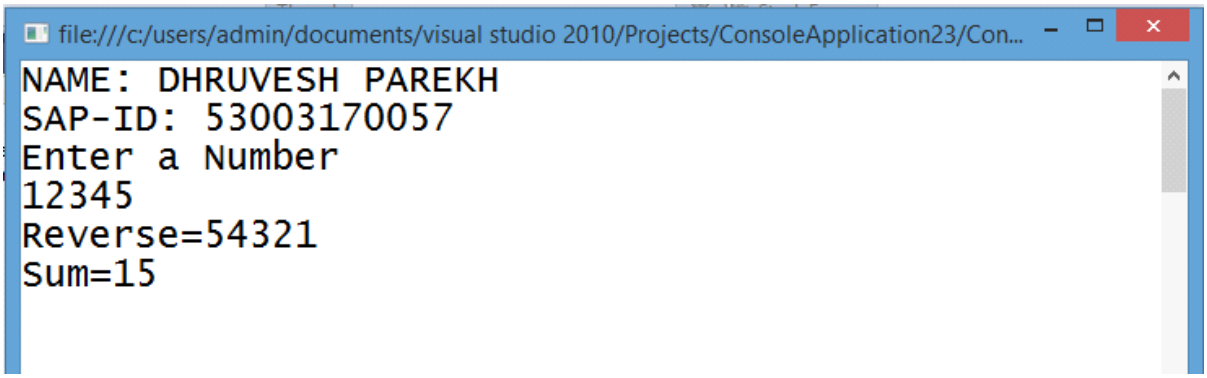

file:///c:/users/admin/documents/visual studio 2010/Projects/ConsoleApplication23/Con...
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Hello World To Programming

iv. Use of foreach loop with arrays

Code:

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

namespace For_each
{
   class ForEach
   {
      static void Main(string[] args)
      {
         int[] num= {1,2,3,4,5,6,7,8};
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Console.WriteLine("Even Numbers:");
         foreach(int i in num)
         {
            if(i%2==0)
            {
               Console.WriteLine(i);
            }

         }
         Console.ReadKey();
      }
   }
}
```

OUTPUT:

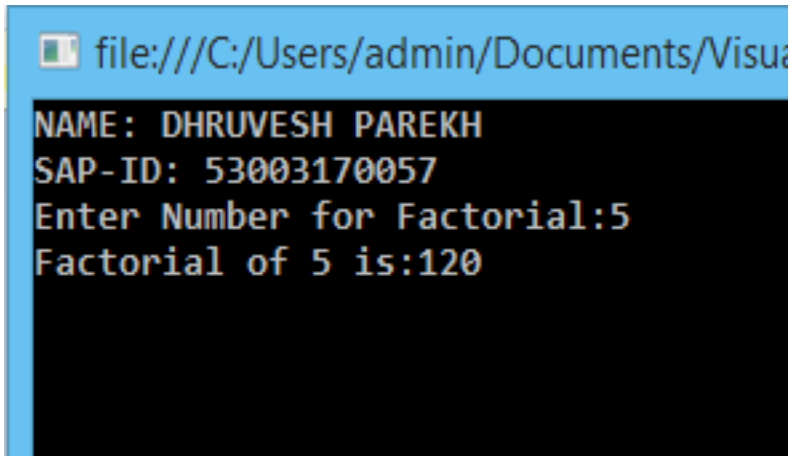

file:///c:/users/admin/documents/visual studio 2010/Projects/ConsoleApplication23/Con...
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter a Number
12345
Reverse=54321
Sum=15

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

Code:

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

namespace ReverseNo
{
   class Program
   {
      static void Main(string[] args)
      {
         Console.WriteLine(“#53003170057#\n #Dhruvesh Parekh#\n”);
         Console.WriteLine("Enter a number to reverse");
         int Number = Convert.ToInt32(Console.ReadLine());
         int Reverse = 0, Sum=0;
         while (Number > 0)
         {
            int remainder = Number % 10;
           Sum = Sum+remainder;
            Reverse = (Reverse * 10) + remainder;
            Number = Number / 10;
         }
         Console.WriteLine("Reverse No. is {0}", Reverse);
         Console.WriteLine("Sum of the number is {0}", Sum);
         Console.ReadKey();
      }
   }
}
```

Output:


file:///C:/Users/admin/Documents/Visua
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter Number for Factorial:5
Factorial of 5 is:120

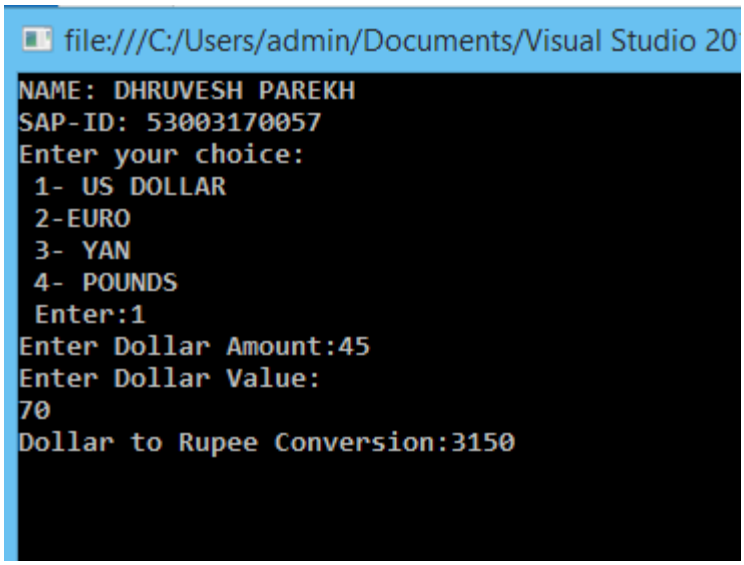
Practical No.2

a. Create simple application to perform following operations
i. Finding factorial Value

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Factorial{
   class Factorial{
         int fact(int n)
        {
           if(n==0||n==1)
           {
              return 1;
           }
           else if(n<0)
           {
              return -1;
           }
           else
           {
               return n*fact(n-1);
           }
        }
        static void Main(string[] args)
        {
           Factorial p = new Factorial();
             int m,pr;
             Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
             Console.WriteLine("enter no");
             m=Convert.ToInt32(Console.ReadLine());
              pr=p.fact(m);
            if(pr==0||pr==1)
             {
                Console.WriteLine("not negative");
             }
             else if (pr <0)
             {
                Console.WriteLine("negative no");
             }
             else
             {
                Console.WriteLine("factorial is " + pr);
             }
           Console.ReadKey();
        }
     }
  }
```

OUTPUT:

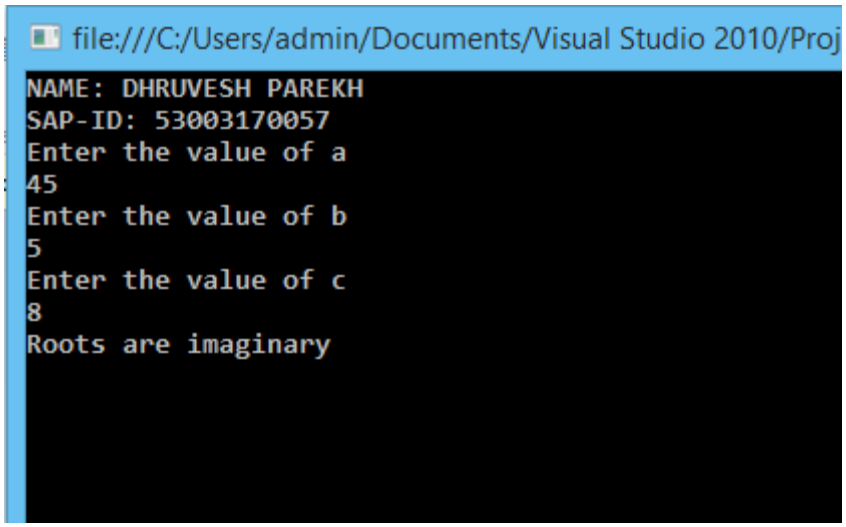

file:///C:/Users/admin/Documents/Visual Studio 20
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter your choice:
1- US DOLLAR
2-EURO
3- YAN
4- POUNDS
Enter:1
Enter Dollar Amount:45
Enter Dollar Value:
70
Dollar to Rupee Conversion:3150

ii. Money Conversion

Code:

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

namespace Currency_Conv
{
   class Currency_Conv
   {
      static void Main(string[] args)
      {
         int choice;
         Console.WriteLine(“#53003170057#\n #Dhruvesh Parekh#\n”);
         Console.WriteLine("Enter your choice:\n 1.Rupee to dollar\n 2. Rupee to
Euro\n 3.Rupee to pound");
         choice = Convert.ToInt32(Console.ReadLine());
         double rupee, dollar,euro,pound;
         switch (choice)
         {
            case 1:

                  Console.WriteLine("Enter rupee amount:");
                  rupee=Convert.ToDouble(Console.ReadLine());
                  dollar=rupee*0.015;
                  Console.WriteLine("Dollar:"+dollar);
                  break;
            case 2:

                  Console.WriteLine("Enter rupee amount:");
                  rupee=Convert.ToDouble(Console.ReadLine());
                  euro=rupee*0.013;
                  Console.WriteLine("Euro:"+euro);
                  break;
            case 3:

                  Console.WriteLine("Enter rupee amount:");
                  rupee=Convert.ToDouble(Console.ReadLine());
                  pound=rupee*0.012;
                  Console.WriteLine("Pound:" + pound);
                  break;
         }
   Console.ReadKey();

      }
   }
}
```

OUTPUT:



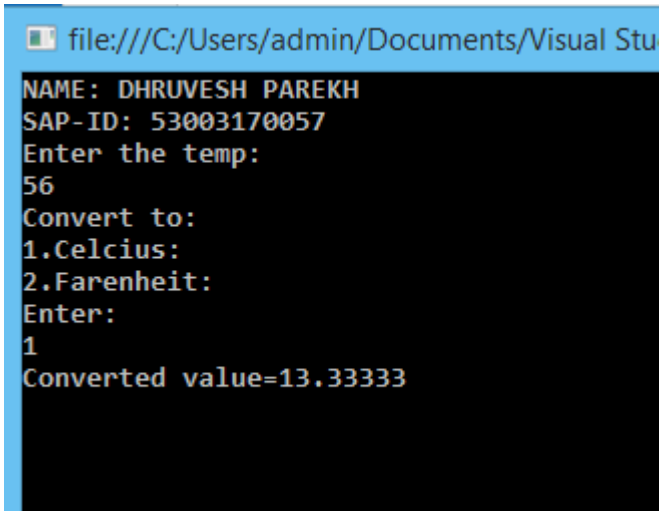

```
        static void Main(string[] args)
        {
            Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
            QuadEqn qe = new QuadEqn();
            qe.quadratic();
            Console.ReadKey();
        }
    }
}
```

iii. Quadratic Equation

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Quad_eqn {
   class QuadEqn {
      public void quadratic()
      {
         int a, b, c, d;
         double x, y;
         Console.WriteLine("Enter the value of a:");
         a=Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter the value of b:");
         b = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter the value of c:");
         c = Convert.ToInt32(Console.ReadLine());
         d = (b * b) - (4 * a * c);

         if (a == 0)
         {
            Console.WriteLine("Not a Quadratic Equation");

         }
         else if (d < 0)
         {
            d = -1 * d;
            Console.WriteLine("Roots are imaginary");
            x = -b / (2 * a);
            y = (Math.Sqrt(d) / (2 * a));
            Console.WriteLine(x + "+i" + y);
            Console.WriteLine(x + "-i" + y);
         }
         else if (d == 0)
         {
            Console.WriteLine("Roots are real and equal");
            Console.WriteLine("Roots are=" + (-b / (2 * a)));
         }
         else
         {
            Console.WriteLine("Roots are real and distinct");

            Console.WriteLine("Roots are=" + ((-b + Math.Sqrt(d)) / (2 * a)), ((-b -
Math.Sqrt(d)) / (2 * a)));

         }


      }
```

OUTPUT:

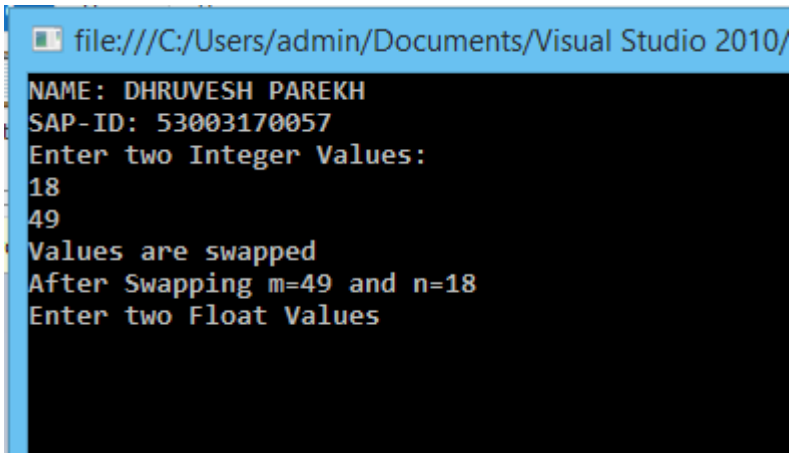

file:///C:/Users/admin/Documents/Visual Stu
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter the temp:
56
Convert to:
1.Celcius:
2.Farenheit:
Enter:
1
Converted value=13.33333

iv. Temperature Conversion

Code:

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

namespace TempConvertor
{
   class Temprature
   {
     public double cTof(double celsius)
      {
         return (celsius * (9 / 5)) + 32;
      }
      public double fToc(double farhenheit)
      {
         return (farhenheit - 32) * (5 / 9);
      }
   }
   class Program
   {
      static void Main(string[] args)
      {
         Temprature t = new Temprature();
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Console.WriteLine( "1. Celsius to Farhenheit\n 2.Farhenheit To Celsius");
         double val;
         int choice;
         choice = Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter value:");
         val = Convert.ToDouble(Console.ReadLine());
         switch (choice)
         {
            case 1:
               Console.WriteLine("Conversion is:" + t.cTof(val));
               break;
            case 2:
               Console.WriteLine("Conversion is:" + t.fToc(val));
               break;
         }
         Console.ReadKey();
      }
   }
}
```

OUTPUT:


file:///C:/Users/admin/Documents/Visual Studio 2010/
NAME: DHRUVESH PAREKH
SAP-ID: 53003170057
Enter two Integer Values:
18
49
Values are swapped
After Swapping m=49 and n=18
Enter two Float Values

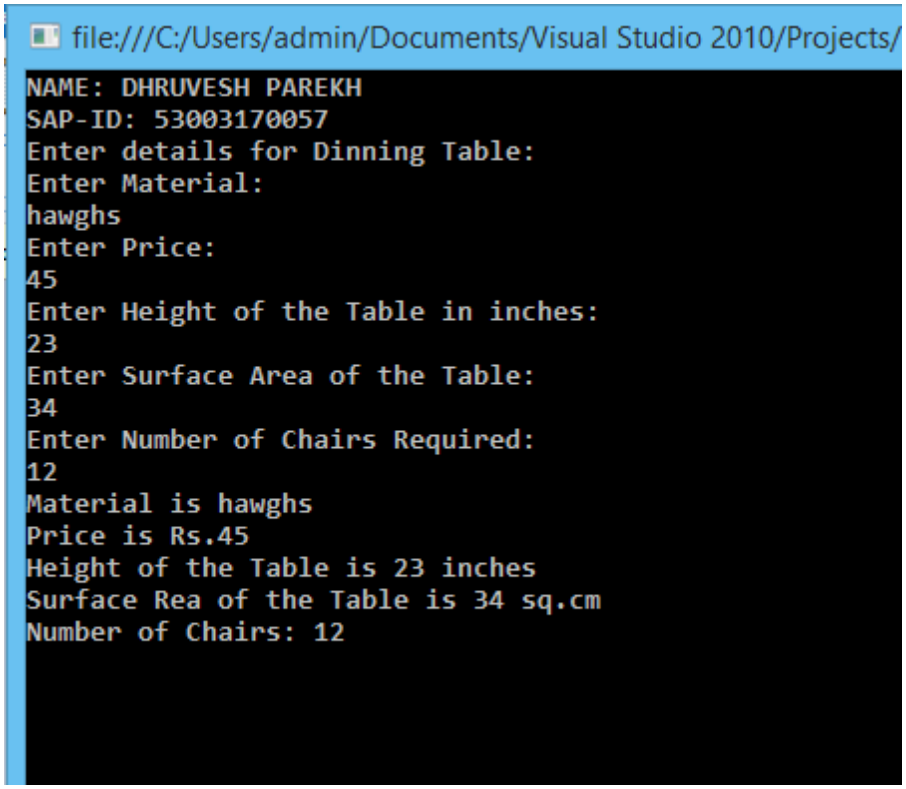
2B.Create simple application to demonstrate use of following concepts

i. Function Overloading

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Function_Over {
   class Overloading {
      public void swap(ref int n, ref int m)
      {
         int temp;
         temp = n;
         n = m;
         m = temp;
         Console.WriteLine("Values are swapped");
      }
      public void swap(ref float p, ref float q)
      {
         float temp;
         temp = p;
         p = q;
         q = temp;
         Console.WriteLine("Values are swapped");
      }
   }
   class Program
   {
      static void Main(string[] args)
      {
         Overloading o = new Overloading();
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Console.WriteLine("Enter two Integer Values: ");
         int m = Convert.ToInt32(Console.ReadLine());
         int n = Convert.ToInt32(Console.ReadLine());
         o.swap(ref m, ref n);
         Console.WriteLine("After Swapping m={0} and n={1}", m, n);
         Console.WriteLine("Enter two Float Values");
         float p = Convert.ToSingle(Console.ReadLine());
         float q = Convert.ToSingle(Console.ReadLine());
         o.swap(ref p, ref q);
         Console.WriteLine("After Swapping p={0} and q={1}", p, q);
         Console.ReadKey();
      }
   }
}
```

OUTPUT:



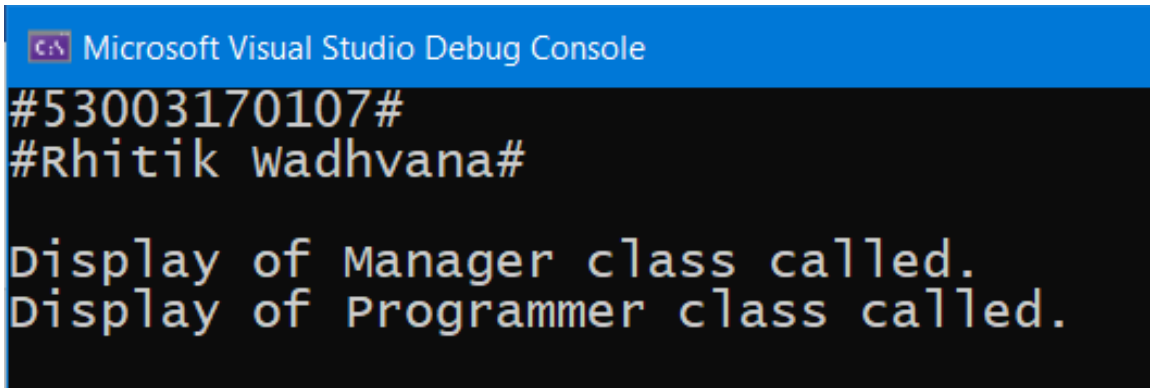

```
Console.WriteLine("Enter number Of Chairs:");
            noOfChairs = Convert.ToInt32(Console.ReadLine());
        }
         public void setData()
        {
            base.setData();
            Console.WriteLine("Number of Chair is:" + noOfChairs);
         }
    }
    class Program
    {
        static void Main(string[] args)
        {
            DinningTable dt=new DinningTable();
            Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
            Console.WriteLine("Enter details for Dinnng Table");
            dt.getData();
            dt.setData();
            Console.ReadKey();
        }
    }
}
```

ii. Inheritance (all types)
1.Single Inheritance and Multilevel Inheritance

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace MultilevelInh {
   class Furnitue {
      string material;
      float price;
      public void getData()
      {
         Console.WriteLine("Enter material:");
         material = Console.ReadLine();
         Console.WriteLine("Enter price:");
         price = Convert.ToSingle(Console.ReadLine());
      }
      public void setData()
      {
         Console.WriteLine("Material is:" + material);
         Console.WriteLine("Price is:" + price);
      }
   }
   class Table:Furnitue
   {
      float height;
      float surfaceArea;
      public void getData()
      {
         base.getData();
         Console.WriteLine("Enter height:");
         height = Convert.ToSingle(Console.ReadLine());
         Console.WriteLine("Enter SurfaceArea:");
         surfaceArea = Convert.ToSingle(Console.ReadLine());
      }
      public void setData()
      {
         base.setData();
         Console.WriteLine("Height is:" + height);
         Console.WriteLine("surfaceArea is:" + surfaceArea);
      }
   }
   class DinningTable:Table
   {
      int noOfChairs;
      public void getData()
      {
         base.getData();
```

OUTPUT:


Microsoft Visual Studio Debug Console
#53003170107#
#Rhitik Wadhvana#
Display of Manager class called.
Display of Programmer class called.

2.Hierarchical Inheritance

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Hierarchical_Inh
{
   class Employee
   {
      public virtual void display()
      {
         Console.WriteLine("Display of Employee class called.");
      }
   }
   class Programmer:Employee
   {
      public void display()
      {
         Console.WriteLine("Display of Programmer class called.");
      }
   }
   class Manager:Employee
   {
      public void display()
      {
         Console.WriteLine("Display of Manager class called.");
      }
   }
   class Program
   {
      static void Main(string[] args)
      {
         Manager m = new Manager();
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         m.display();
         Programmer p = new Programmer();
         p.display();
         Console.ReadKey();
      }

   }
}
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

Area of square is 12.25 sq. cm
Area of Rectangle is 19.25 sq. cm
```

iii. Constructor overloading

Code:

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

namespace Constructor_over
{
   class Area
   {
      public Area(float s)
      {
         Console.WriteLine("Area of Sqaure is "+s*s+" sq. cm.");
      }
      public Area(float l,float b)
      {
         Console.WriteLine("Area of Rectangle is " + l * b + " sq. cm.");
      }
   }
   class Program
   {
      static void Main(string[] args)
      {
         Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
         Area obj = new Area(2.5f);
         Area obj1 = new Area(2.5f,5.5f);
         Console.ReadKey();
      }

   }
}
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

name: Dhruvesh
Gross Sal: 1,50,000
```

```
        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)
        {
            Console.WriteLine("#53003170057#\n #Dhruvesh Parekh#\n");
            Salary s = new Salary("Rhitik", 10000);
            s.da = 20000;
            s.ta = 30000;
            s.dispSal();
            Console.ReadKey();
        }
    }
}
```

iv. Interfaces

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Multiple_Inh {
   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; }
      }
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

Yellow light signals to get ready
Green light signals to go
Red light signal to stop
Press any key to continue...
```

2C. Create simple application to demonstrate use of following concepts.

i. Using Delegates and events

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace TrafficDelegateExample{
public delegate void TrafficDel();
        class TrafficSignal
            {
            public static void Yellow()
            {
                Console.WriteLine("Yellow light signals to get ready");

            }
            public static void Green()
            {
                Console.WriteLine("Green light signals to go");
            }
            public static void Red()
            {
                Console.WriteLine("Red light signals to stop");
            }
            TrafficDel[] td = new TrafficDel[3];
            //to initialize an array of delegate with the above methods
            public void IdentifySignal()
            {
                td[0] = new TrafficDel(Yellow);
                td[1] = new TrafficDel(Green);
                td[2] = new TrafficDel(Red);
            }
            //to invoke members of the array of delegate
            public void display()
            {
                td[0]();
                td[1]();
                td[2]();
            }
            static void Main(string[] args)
            {
                Console.WriteLine("#53003170057#\n #Dhruvesh
            Parekh#\n");
                TrafficSignal ts = new TrafficSignal();
                ts.IdentifySignal();
                ts.display();    }}}
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

USA
INDIA
ENGLAND
```

Delegates Events

CODE:

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

namespace Delegates
{
        public delegate void DelEventHandler();
        public class Program
        {
        //an event to add that is associated to a single delegate
        DelEventHandler.
        public static event DelEventHandler add;

        public static void Main(string[] args)
         {
        //filling the delegate invocation lists with a couple of defined methods
        using the +=operator
                Console.WriteLine("#53003170057#\n #Dhruvesh
Parekh#\n");
                add += new DelEventHandler(USA);
                add += new DelEventHandler(India);
                add += new DelEventHandler(England);

                //invoke the event via the Invoke method
                add.Invoke();
                Console.ReadLine();
         }
        static void USA()
        {
                Console.WriteLine("USA");
         }

         static void India()
        {
                Console.WriteLine("India");
         }

        static void England()
        {
                 Console.WriteLine("England");
        }

        }
}
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

Exception caught: System.DivideByZeroException: Attempted to divide by zero.
    at ErrorHandlingApplication.DivNumbers.division(Int32 num1, Int32 num2) in
C:\Users\91704\OneDrive\VisualStudio2010\Projects\ConsoleApplication1\ConsoleApplication1\Program.cs:line 19

Result 0
```

ii. Exception Handling

CODE:

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

namespace ErrorHandlingApplication
{
        class DivNumbers
        {
                int result;
                DivNumbers()
                {
                        result = 0;
                }
                public void division(int num1, int num2)
                {
                        try
                        {
                                result = num1 / num2;
                        }
                        catch (DivideByZeroException e)
                        {
                                Console.WriteLine("Exception caught: {0}", e);
                        }
                        finally
                        {
                                Console.WriteLine("Result: {0}", result);
                        }
                }
                static void Main(string[] args)
                {
                        Console.WriteLine("#53003170057#\n #Dhruvesh
Parekh#\n");
                        DivNumbers d = new DivNumbers();
                        d.division(25, 0);
                        Console.ReadKey();
                }
        }
}
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

TempIsZeroException: Zero Temperature found
```

Creating User Defined Exception

CODE:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace UserDefinedException
{
    Class TestTemperature
    {
            static void Main(string[] args)
            {
                    Console.WriteLine("#53003170057#\n #Dhruvesh
Parekh#\n");
                    Temperature temp = new Temperature();
                    try
                    {
                            temp.showTemp();
                    }
                    catch (TempIsZeroException e)
                    {
                            Console.WriteLine("TempIsZeroException: {0}",
                            e.Message);
                    }
                    Console.ReadKey();
             }
     }
}
    public class TempIsZeroException : Exception
    {
            public TempIsZeroException(string message): base(message)
            {
            }
    }
    public class Temperature
    {
            int temperature = 0;
            public void showTemp()
            {
                    if (temperature == 0)
                    {
                            throw (new TempIsZeroException("Zero Temperature
                            found"));
                     }
                     else
                    {
                            Console.WriteLine("Temperature: {0}", temperature);
                    }
            } }
```

OUTPUT:

```
#53003170057#
#Dhruvesh Parekh#

Enter a number: 5
Not an even number
```

Write a program to accept a number from the user and throw an exception if the number is not an even number.

CODE:

```
using System;
namespace ExceptionHandlingExample
{
        class NotEvenException:Exception
        {
        public NotEvenException(string msg) : base(msg)
                {
                }
        }
}
namespace ExceptionHandlingExample
{
        class Program
        {
                static void Main(string[] args)
                {
                        Console.WriteLine("#53003170057#\n #Dhruvesh
                Parekh#\n");
                        int num;
                        try
                        {
                                Console.Write("Enter a number: ");
                                num = int.Parse(Console.ReadLine());
                                if ((num % 2) != 0)
                                        throw new NotEvenException("Not an even number ");
                                else
                                        Console.WriteLine("Its even number ");
                        }
                        catch (NotEvenException e)
                        {
                                Console.WriteLine(e.Message);
                        }
                }
         }
 }
```

OUTPUT:

Student Registration Form

Name:	User
Age	20
Course :	(•) BScIT ( ) BMM ( ) BMS
Email ID:	abc@gmail.com
Hobbies :	[x] Coding [ ] Reading [ ] Cooking
Division :	A
Feedback :	

Submit

Student Details

Name: User
Age: 20
Course: BScIT
Email: abc@gmail.com
Hobbies: Coding
Division: A
Feedback:

3A. Create a simple web page with various sever controls to demonstrate setting and use of their properties. (Example : AutoPostBack)

CODE:

Default.aspx

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

<!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>

  <style type="text/css">

    .style1

    {

      width: 119px;

      text-align:center;

    }

    .style3

    {

      height: 68px;

    }

    .style4

    {

      width: 119px;

      text-align: center;

      height: 68px;

    }

    .style5

    {

      width: 119px;

      text-align: center;
```

```
    height: 51px;
}
.style6
{
    height: 51px;
}
.style7
{
    width: 119px;
    text-align: center;
    height: 45px;
}
.style8
{
    height: 45px;
}
.style9
{
    width: 119px;
    text-align: center;
    height: 47px;
}
.style10
{
    height: 47px;
}
.style11
{
    width: 119px;
    text-align: center;
    height: 52px;
```

```
        }
        .style12
        {
            height: 52px;
        }
    </style>
</head>
<body>
    <form id="form1" runat="server">
    <table id="tbl1" text-align:center border="1" style="height: 786px; width: 777px"
align="center">
    <tr >
    <td class="style1" colspan="2"><asp:Label ID="Label1" runat="server"
            Text="Student Registration Form" Enabled="False" Font-Bold="True"
            Font-Italic="False" Height="45px" Width="501px"></asp:Label></td>
    </tr>
    <tr>
    <td class="style5">
            Name:
   </td>
    <td class="style6">
            <asp:TextBox ID="TextBox1" runat="server" BorderColor="Black"
           ></asp:TextBox>
     </td>
   </tr>
    <tr>
    <td class="style4">
            Age
     </td>
    <td class="style3">
           <asp:TextBox ID="TextBox2" runat="server"
           BorderColor="Black"></asp:TextBox>
```

```
</td>
</tr>
<tr>
<td class="style1">
        Course :
</td>
<td>
        <asp:RadioButtonList ID="RadioButtonList1" runat="server">
        <asp:ListItem>BScIT</asp:ListItem>
        <asp:ListItem>BMM</asp:ListItem>
        <asp:ListItem>BMS</asp:ListItem>
    </asp:RadioButtonList>
</td>
</tr>
<tr>
<td class="style7">
        Email ID:
</td>
<td class="style8">
<asp:TextBox ID="TextBox3" runat="server" BorderColor="Black"></asp:TextBox>
</td>
</tr>
<tr>
<td class="style9">
        Hobbies :
</td>
<td class="style10">
        <asp:CheckBoxList ID="CheckBoxList1" runat="server">
    </asp:CheckBoxList>
</td>
</tr>
```

```
<tr>
<td class="style9">
      Division :
 </td>
<td class="style10">
       <asp:DropDownList ID="DropDownList1" runat="server">
      <asp:ListItem>Select Division</asp:ListItem>
      <asp:ListItem>A</asp:ListItem>
      <asp:ListItem>B</asp:ListItem>
      </asp:DropDownList>
 </td>
</tr>
<tr>
<td class="style11">
   Feedback :</td>
   <td class="style12">
      <asp:TextBox ID="TextBox4" runat="server"
      TextMode="MultiLine"></asp:TextBox>
   </td>
</tr>
<tr>
<td class="style1" colspan="2">
      <asp:Button ID="Button1" runat="server" onclick="Button1_Click"
      Text="Submit" />
   </td>
</tr>
<tr>
<td class="style1" colspan="2">
      <asp:Label ID="Label2" runat="server"></asp:Label>
</td>
</tr>
```

```
    </table>
    </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;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!this.IsPostBack)
        {
            CheckBoxList1.Items.Add("Coding");
            CheckBoxList1.Items.Add("Reading");
            CheckBoxList1.Items.Add("Cooking");
        }
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        String str = "<b>Student Details</b><br/><br/>";
        str += "Name: " + TextBox1.Text+"<br/>";
        str += "Age: " + TextBox2.Text + "<br/>";
        str += "Course: " +
RadioButtonList1.Items[RadioButtonList1.SelectedIndex].Text+"<br/>";
        str += "Email: " + TextBox3.Text + "<br/>";
        str+="Hobbies: ";
```

```
        foreach(ListItem lst in CheckBoxList1.Items)
        {
           if(lst.Selected==true)
           {
              str += lst.Text + "<br/>";
           }
        }
        str+="Division: ";
        foreach(ListItem lst1 in DropDownList1.Items)
        {
           if(lst1.Selected==true)
           {
              str+=lst1.Text;
           }
        }
        str += "<br>";
        str += "<b>Feedback:  </b>" + TextBox4.Text+"<br/>";
        Label2.Text = str;

    }

}
```

OUTPUT:

53003170107 Rhitik Wadhvana

Aug		September				Oct
Su	Mo	Tu	We	Th	Fr	Sa
25	26	27	28	29	30	31
1	2	3	4	5 Teachers Day!	6	7
8	9	10	11	12	13 Ganpati!	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

reset

Your Selected Date:10-09-2019 00:00:00
Todays Date19-09-2019
Ganpati Vacation Start: 9-13-2018
Days Remaining For Ganpati Vacation:-371
Days Remaining for New Year:-262

3B. Demonstrate the use of Calendar control to perform following operations.
a) Display messages in a calendar control
b) Display vacation in a calendar control
c) Selected day in a calendar control using style
d) Difference between two calendar dates

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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:Calendar ID="Calendar1" runat="server" BackColor="#FFFFCC"
BorderColor="#FFCC66" BorderWidth="1px" DayNameFormat="Shortest"
Font-Names="Verdana" Font-Size="8pt" ForeColor="#663399" Height="200px"
NextPrevFormat="ShortMonth" OnDayRender="Calendar1_DayRender"
ShowGridLines="True" Width="300px"
OnSelectionChanged="Calendar1_SelectionChanged" >
<DayHeaderStyle BackColor="#FFCC66" Font-Bold="True" Height="1px" />
<NextPrevStyle BorderStyle="Solid" BorderWidth="2px" Font-Size="9pt"
ForeColor="#FFFFCC" />
<OtherMonthDayStyle BackColor="#FFCC99" BorderStyle="Solid"
ForeColor="#CC9966" />
<SelectedDayStyle BackColor="Red" Font-Bold="True" />
<SelectorStyle BackColor="#FFCC66" />
<TitleStyle BackColor="#990000" Font-Bold="True" Font-Size="9pt"
ForeColor="#FFFFCC" />
<TodayDayStyle BackColor="#FFCC66" ForeColor="White" />
<WeekendDayStyle Height="50px" />
</asp:Calendar>

   </div>
  <br />
   <br />
         <asp:Button ID="btnReset" runat="server" Text="reset"
        onclick="btnReset_Click" />
```

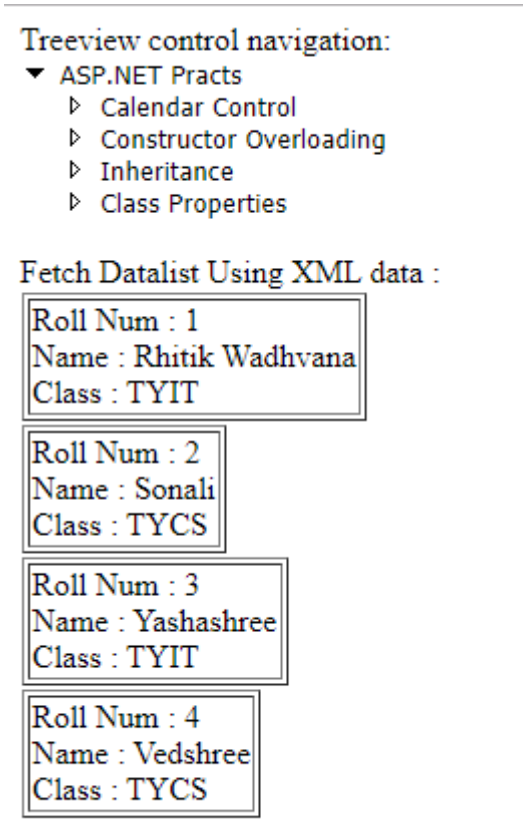
```
    <br />
        <asp:Label ID="Label1" runat="server"></asp:Label>
    <br />
        <asp:Label ID="Label2" runat="server"></asp:Label>
    <br />
        <asp:Label ID="Label3" runat="server"></asp:Label>
    <br />
        <asp:Label ID="Label4" runat="server"></asp:Label>
    <br />
        <asp:Label ID="Label5" runat="server"></asp:Label><br />
    </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;

public partial class _Default : System.Web.UI.Page
{
    protected void Calendar1_DayRender(object sender,
System.Web.UI.WebControls.DayRenderEventArgs e)
    {
        if (e.Day.Date.Day == 5 && e.Day.Date.Month == 9)
        {
            e.Cell.BackColor = System.Drawing.Color.Yellow;
            Label lbl = new Label();
            lbl.Text = "<br>Teachers Day!";
            e.Cell.Controls.Add(lbl);
            Image g1 = new Image();
            g1.ImageUrl = "td.jpg";
            g1.Height = 20;
            g1.Width = 20;
            e.Cell.Controls.Add(g1);
        }
        if (e.Day.Date.Day == 13 && e.Day.Date.Month == 9)
        {
            Calendar1.SelectedDate = new DateTime(2018, 9, 12);
            Calendar1.SelectedDates.SelectRange(Calendar1.SelectedDate,
Calendar1.SelectedDate.AddDays(10));
            Label lbl1 = new Label();
            lbl1.Text = "<br>Ganpati!";
            e.Cell.Controls.Add(lbl1);
```

```
    }
  }
  protected void btnReset_Click(object sender, EventArgs e)
  {
    Label1.Text = "";
    Label2.Text = "";
    Label3.Text = "";
    Label4.Text = "";
    Label5.Text = "";
    Calendar1.SelectedDates.Clear();
  }
  protected void Calendar1_SelectionChanged(object sender, EventArgs e)
  {
    Label1.Text = "Your Selected Date:" + Calendar1.SelectedDate.Date.ToString();
    Calendar1.Caption = "Title ";
    Calendar1.FirstDayOfWeek = FirstDayOfWeek.Sunday;
    Calendar1.NextPrevFormat = NextPrevFormat.ShortMonth;
    Calendar1.TitleFormat = TitleFormat.Month;
    Label2.Text = "Todays Date" + Calendar1.TodaysDate.ToShortDateString();
   Label3.Text = "Ganpati Vacation Start: 9-13-2018";

    TimeSpan d = new DateTime(2018, 9, 13) - DateTime.Now;
    Label4.Text = "Days Remaining For Ganpati Vacation:" + d.Days.ToString();
    TimeSpan d1 = new DateTime(2018, 12, 31) - DateTime.Now;
    Label5.Text = "Days Remaining for New Year:" + d1.Days.ToString();

    if(Calendar1.SelectedDate.ToShortDateString() == "9/13/2018")
      Label3.Text = "<b>Ganpati Festival Startss</b>";
    if(Calendar1.SelectedDate.ToShortDateString() == "9/23/2018")
      Label3.Text = "<b>Ganpati Festival End</b>";
  }

}
```

OUTPUT:


Treeview control navigation:
ASP.NET Practs
Calendar Control
Constructor Overloading
Inheritance
Class Properties
Fetch Datalist Using XML data :
Roll Num : 1
Name : Rhitik Wadhvana
Class : TYIT
Roll Num : 2
Name : Sonali
Class : TYCS
Roll Num : 3
Name : Yashashree
Class : TYIT
Roll Num : 4
Name : Vedshree
Class : TYCS

3C. Demonstrate the use of Treeview control perform following operations. A)Treeview control and datalist b)Treeview operations.

CODE:

Default.aspx

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

<!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 id="Head1" runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
        Treeview control navigation:
        <asp:TreeView ID = "TreeView1" runat = "server" Width =
"150px" ImageSet="Arrows">
<HoverNodeStyle Font-Underline="True" ForeColor="#5555DD" />
<Nodes>
<asp:TreeNode Text = "ASP.NET Practs" Value = "New Node">
<asp:TreeNode Text = "Calendar Control" Value = "RED" NavigateUrl="~/calndrCtrl.aspx">
</asp:TreeNode>
<asp:TreeNode Text = "Constructor Overloading" Value = "GREEN"
NavigateUrl="~/clsconstrc.aspx"> </asp:TreeNode>
<asp:TreeNode NavigateUrl="~/singleInh.aspx" Text="Inheritance"
Value="BLUE"></asp:TreeNode>
<asp:TreeNode NavigateUrl="~/clsProp.aspx" Text="Class Properties" Value="Class
Properties"></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>
<br />
Fetch Datalist Using XML data : </div>
<asp:DataList ID="DataList1" runat="server">
<ItemTemplate>
<table class = "table" border="1">
<tr>
<td>Roll Num : <%# Eval("sid") %><br />
Name : <%# Eval("sname") %><br />
Class : <%# Eval("sclass")%>
</td>
</tr>
</table>
</ItemTemplate>
</asp:DataList>
```

```
    </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;

using System.Data;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            BindData();
        }
    }
    protected void BindData()
    {
        DataSet ds = new DataSet();
        ds.ReadXml(Server.MapPath("XMLFile.xml"));
        if (ds != null && ds.HasChanges())
        {
            DataList1.DataSource = ds;
            DataList1.DataBind();
        }
        else
        {
            DataList1.DataBind();
        }
    }
}
```

XMFile.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<studentdetail>
  <student>
    <sid>1</sid>
    <sname>Tushar</sname>
    <sclass>TYIT</sclass>
  </student>
  <student>
    <sid>2</sid>
    <sname>Sonali</sname>
    <sclass>TYCS</sclass>
  </student>
  <student>
    <sid>3</sid>
    <sname>Yashashree</sname>
    <sclass>TYIT</sclass>
  </student>
  <student>
```

```
    <sid>4</sid>
    <sname>Vedshree</sname>
    <sclass>TYCS</sclass>
  </student>
</studentdetail>
```

OUTPUT:

Dhruvesh Parekh

4B. Create Web Form to demonstrate use of Adrotator Control. Add a XML File, name it “adds.xml”.

CODE:

Adds.xml

```
<Advertisements>
<Ad>
        <ImageUrl>rose1.jpg</ImageUrl>
       <NavigateUrl>http://www.1800flowers.com</NavigateUrl>
        <AlternateText>
          Order flowers, roses, gifts and more   </AlternateText>
        <Impressions>20</Impressions>
         <Keyword>flowers</Keyword>
</Ad>
<Ad>
        <ImageUrl>rose2.jpg</ImageUrl>
       <NavigateUrl>http://www.babybouquets.com.au</NavigateUrl>
        <AlternateText>Order roses and flowers</AlternateText>
        <Impressions>20</Impressions>
       <Keyword>gifts</Keyword>
</Ad>
<Ad>
         <ImageUrl>rose3.jpeg</ImageUrl>
       <NavigateUrl>http://www.flowers2moscow.com</NavigateUrl>
        <AlternateText>Send flowers to Russia</AlternateText>
         <Impressions>20</Impressions>
        <Keyword>russia</Keyword>
</Ad>
</Advertisements>
```

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication2.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:AdRotator ID="AdRotator1" runat="server"
DataSourceID="XmlDataSource1" />
            <asp:XmlDataSource ID="XmlDataSource1" runat="server"
DataFile="~/XMLFile1.xml"></asp:XmlDataSource>
        </div>
    </form>
</body> </html>
```

OUTPUT:


This is user Control
Name Dhruvesh
City Mumbai
Save
Your name is Dhruvesh and you are from Mumbai

4C. Create Web Form to demonstrate the use of User Controls. Add Web User Control Website -> Add -> Web User Control and name it 'MyUserControl'.

CODE:

Default.aspx

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

<%@ Register Src="~/WebUserControl.ascx" TagPrefix="uc"
TagName="Student"%>


<!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>

       <uc:Student ID="studentcontrol" runat="server" />

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

WebUserControl.ascx

```
<%@ Control Language="C#" AutoEventWireup="true"
CodeFile="WebUserControl.ascx.cs" Inherits="WebUserControl" %>
<h3>This is User Contro1 </h3>
<table>

<tr>
<td>Name</td>
<td>

 <asp:TextBox ID="txtName" runat="server"></asp:TextBox>
</td>
</tr>
<tr>
<td>City</td>
<td><asp:TextBox ID="txtcity" runat="server"></asp:TextBox></td>
</tr>
```

```
<tr>
<td></td>
<td>
 </td>
</tr>
<tr>
<td></td>

<td>
 <asp:Button ID="txtSave" runat="server" Text="Save" onclick="txtSave_Click" />
</td>
</tr>
</table><br />
 <asp:Label ID="Label1" runat="server"  Text=" "></asp:Label>
```

WebUserControl.ascx.cs

```
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 txtSave_Click(object sender, EventArgs e)
   {
      Label1.Text = "Your Name is " + txtName.Text + " and you are from " +
     txtcity.Text;
   }

}
```

OUTPUT:

Thanx for Clicking.This is my Second webpage by using SiteMapPath control.....#53003170107# Rhitik Wadhvana#

SiteMap: myhomepage > mysecondpage

Click here to go to Home page

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

CODE:

Default.aspx

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

<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="HeaderContent"
Runat="Server">
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="BodyContent"
Runat="Server">

<asp:SiteMapPath ID="SiteMapPath1" runat="server">
      </asp:SiteMapPath>
      <br />

      <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/myweb1.aspx">Click here to go to first page</asp:HyperLink>
      <br />
      <asp:HyperLink ID="HyperLink2" runat="server"
NavigateUrl="~/myweb2.aspx">Click here to go to second page</asp:HyperLink>

 </asp:Content>
```

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></title>
   <asp:ContentPlaceHolder id="head" runat="server">
   </asp:ContentPlaceHolder>
</head>
<body>
   <form id="form1" runat="server">
   <div>
      <asp:ContentPlaceHolder id="HeaderContent" runat="server">

      </asp:ContentPlaceHolder>
```

```
        <asp:ContentPlaceHolder id="BodyContent" runat="server">

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

myweb1.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="myweb1.aspx.cs"
Inherits="myweb1" %>

<!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:Label ID="Label1" runat="server"
          Text="Thank you for clicking.This is My First
Webpage.....">></asp:Label>
        <br />
        <br />

        <asp:Label ID="Label2" runat="server" Text="SiteMap:"></asp:Label>

        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
        </asp:SiteMapPath>
        <br />
        <br />

        <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/myweb2.aspx">click here to go to mywebpage2</asp:HyperLink>
    </div>

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

myweb2.aspx

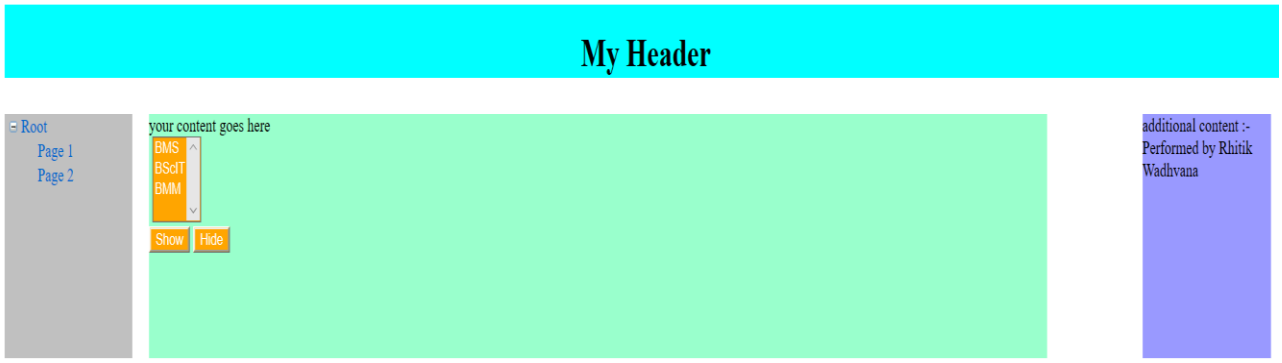
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="myweb2.aspx.cs"
Inherits="myweb2" %>

<!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:Label ID="Label1" runat="server"
            Text="Thanx for Clicking.This is my Second webpage by using
SiteMapPath control.....">
        </asp:Label>
    </div>
    <p>
        <asp:Label ID="Label2" runat="server" Text="SiteMap: "></asp:Label>

        <asp:SiteMapPath ID="SiteMapPath1" runat="server">
        </asp:SiteMapPath>
    </p>

   <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/Default.aspx">Click here to go to Home
page</asp:HyperLink> 
    </p>
    </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="Default.aspx" title="myhomepage"  description="">
  <siteMapNode url="myweb1.aspx" title="myfirstpage"  description="" />
  <siteMapNode url="myweb2.aspx" title="mysecondpage"  description="" />
 </siteMapNode>
</sitemap>
```

OUTPUT:


My Header
Root
Page 1
Page 2
your content goes here
BMS
BScIT
BMM
Show
Hide
additional content :-
Performed by Rhitik
Wadhvana

5B. Create a web application to demonstrate use of Master Page with applying Styles and Themes for page beautification.

CODE:

Default.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage5B.master"
AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="_Default"  Theme =
"SkinFile" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="MainContent"
Runat="Server">
   your content goes here<br />
 <asp:ListBox ID="ListBox1" runat="server">
      <asp:ListItem>BMS</asp:ListItem>
      <asp:ListItem>BScIT</asp:ListItem>
      <asp:ListItem>BMM</asp:ListItem>
   </asp:ListBox>

<br />
   <asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Show"
/>
   <asp:Button ID="Button2" runat="server" onclick="Button2_Click" Text="Hide"
/>
   <br />
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="AdditionalContent"
Runat="Server">
additional content :- Performed by Jay Modi
</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;


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

   }
   protected void Button1_Click(object sender, EventArgs e)
   {
```

```
        MasterPage5B master = (MasterPage5B)this.Master;
        master.ShowNavigationControls = true;

    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        MasterPage5B master = (MasterPage5B)this.Master;
        master.ShowNavigationControls = false;

    }
}
```

MasterPage5B.master

```
<%@ Master Language="C#" AutoEventWireup="true"
CodeFile="MasterPage5B.master.cs" Inherits="MasterPage5B" %>

<!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>
    <asp:ContentPlaceHolder id="head" runat="server">
    </asp:ContentPlaceHolder>
    <style type="text/css">
      body
      {
          width:80%;

          }
    .Header
{       position: absolute;
        top: 10px;
        left: 10px;
        height: 60px;
            text-align: center;
            background-color:Aqua;
            width:100%;
            text-align:center;
}
.LeftPanel
{
            position: absolute;
            top: 100px;
            left: 10px;
            /*width: 160px;*/
            background-color: #C0C0C0;
             width:10%;
```

```
        height:200px;
    }
.RightPanel
{
        position: absolute;
        top: 100px;
        right: 10px;
        /*width: 160px;*/
         width:10%;
        background-color: #9999FF;
        height:200px;
    }
.CenterPanel
{
        position: absolute;
        top: 100px;
        margin-left: 175px;
        margin-right: 180px;
        background-color: #99FFCC;
        width:70%;
        height:200px;
    }


  </style>
</head>
<body >

<form id = "form1" runat = "server">
<div class = "Header">
<h1> My Header</h1>
</div>
<div class = "LeftPanel">
<asp:TreeView ID = "TreeView1" runat = "server" Width = "150px">
<Nodes>
<asp:TreeNode Text = "Root" Value = "New Node">
<asp:TreeNode Text = "Page 1" Value = "Page 1"> </asp:TreeNode>
<asp:TreeNode Text = "Page 2" Value = "Page 2"> </asp:TreeNode>
</asp:TreeNode>
</Nodes>
</asp:TreeView>
</div>
<div class = "CenterPanel">
<asp:ContentPlaceHolder id = "MainContent" runat = "server">

</asp:ContentPlaceHolder>
</div>
<div class = "RightPanel">
<asp:ContentPlaceHolder id = "AdditionalContent" runat = "server">
</asp:ContentPlaceHolder>
</div>
```

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

MasterPage5B.master.cs

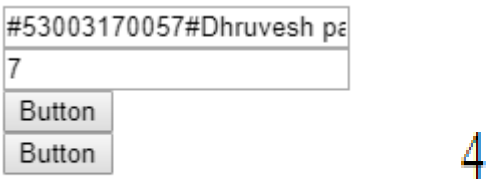
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class MasterPage5B : System.Web.UI.MasterPage
{
   public bool ShowNavigationControls
   {
      get
      {
         return TreeView1.Visible;
      }
      set
      {
         TreeView1.Visible = value;
      }
   } protected void Page_Load(object sender, EventArgs e)  { }
}
```

SkinFile.skin

```
<%--
Default skin template. The following skins are provided as examples only.

1. Named control skin. The SkinId should be uniquely defined because
   duplicate SkinId's per control type are not allowed in the same theme.

<asp:GridView runat="server" SkinId="gridviewSkin" BackColor="White" >
   <AlternatingRowStyle BackColor="Blue" />
</asp:GridView>

2. Default skin. The SkinId is not defined. Only one default
   control skin per control type is allowed in the same theme.

<asp:Image runat="server" ImageUrl="~/images/image1.jpg" />
--%>

<asp:ListBox runat = "server" ForeColor = "White" BackColor = "Orange"/>
<asp:TextBox runat = "server" ForeColor = "White" BackColor = "Orange"/>
<asp:Button runat = "server" ForeColor = "White" BackColor = "Orange"/>
```

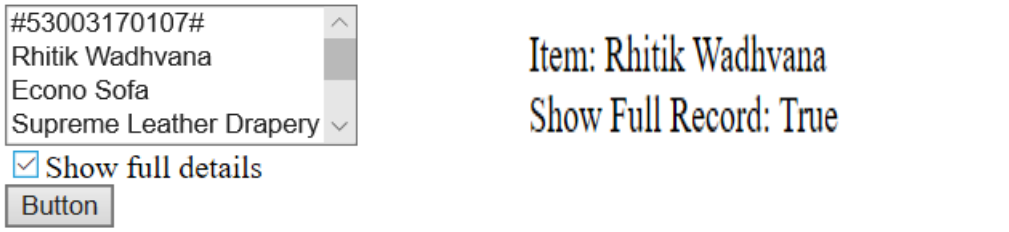
OUTPUT:

Session

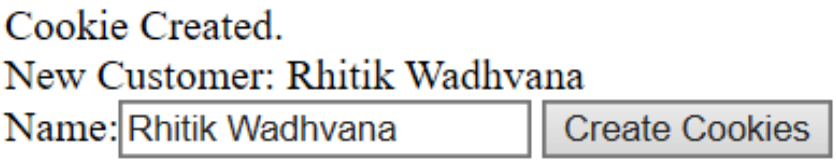


ViewState

QueryString



Cookies



5C. Create a web application to demonstrate various states of ASP.NET Pages.

CODE:

session.aspx

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

<!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:TextBox ID="JayModi" runat="server" Text="#53003170050#Jay
         Modi#"> </asp:TextBox>
         <br />

      <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
      <br />
      <asp:Button ID="Button1" runat="server" Text="Button"
onclick="Button1_Click" />

      <br />
      <asp:Button ID="Button2" runat="server" onclick="Button2_Click"
Text="Button" />
   </div>
   </form>
</body>
</html>
```

session.aspx.cs

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

public partial class session : System.Web.UI.Page
{


   protected void Page_Load(object sender, EventArgs e)
   {
```

```
        if (!IsPostBack)
        {
            if (Session["Counter"] == null)
            {
                Session["Counter"] = 0;
            }
            TextBox1.Text = Session["Counter"].ToString();

        }
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        if (Session["Counter"] != null)
        {
            int SessionCounter = (int)Session["Counter"] + 1;
            TextBox1.Text = SessionCounter.ToString();
            Session["Counter"] = SessionCounter;
        }
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        Response.Redirect("secondPage.aspx");
    }
}
```

secondPage.aspx

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

<!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:Label ID="Label1" runat="server" Text="Label"></asp:Label>
    </div>
    </form>
</body>
</html>
```

secondPage.aspx.cs

```
using System;
using System.Collections.Generic;
```

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

public partial class secondPage : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      if (Session["Counter"] != null)
      {
         Label1.Text = Session["Counter"].ToString();
      }
   }
}
```

ViewState.aspx

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

<!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:Button ID="Button1" runat="server" Text="Button"
onclick="Button1_Click" />
      <br />
      <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
   </div>
   </form>
</body>
</html>
```

ViewState.aspx.cs

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

public partial class ViewState : System.Web.UI.Page
{
```

```
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        int counter;
        if (ViewState["Counter"] == null)
        {
            counter = 1;
        }
        else
        {
            counter = (int)ViewState["Counter"] + 1;
        }
        ViewState["Counter"] = counter;
        Label1.Text = "Counter: " + counter.ToString();

    }
}
```

QueryString.aspx

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

<!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:ListBox ID="lstItems" runat="server"></asp:ListBox>

        <br />
        <asp:CheckBox ID="chkDetails" runat="server" Text="Show full details" />

        <br />
        <asp:Button ID="Button1" runat="server" Text="Button"
onclick="Button1_Click" />
        <br />
        <asp:Label ID="lblError" runat="server" ></asp:Label>
    </div>
    </form>
</body>
</html>
```

QueryString.aspx.cs

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

public partial class QueryString : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      if (!this.IsPostBack)
      {
         // Add sample values.
         lstItems.Items.Add("#53003170057#");
         lstItems.Items.Add("Dhruvesh Parekh");
         lstItems.Items.Add("Econo Sofa");
         lstItems.Items.Add("Supreme Leather Drapery");
         lstItems.Items.Add("Threadbare Carpet");
         lstItems.Items.Add("Antique Lamp");
         lstItems.Items.Add("Retro-Finish Jacuzzi");
      }

   }
   protected void Button1_Click(object sender, EventArgs e)
   {
       if (lstItems.SelectedIndex == -1)
         {
          lblError.Text = "You must select an item.";
       }
      else
       { // Forward the user to the information page,
         // with the query string data.
         string url = "QueryString2.aspx?";
         url += "Item=" + lstItems.SelectedItem.Text + "&";
          url += "Mode=" + chkDetails.Checked.ToString();
         Response.Redirect(url);
         }
 }
}
```

QueryString2.aspx

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="QueryString2.aspx.cs" Inherits="QueryString2" %>

<!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:Label ID="lblInfo" runat="server" ></asp:Label>
  </div>
  </form>
</body>
</html>
```

QueryString2.aspx.cs

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

public partial class QueryString2 : System.Web.UI.Page
{
  protected void Page_Load(object sender, EventArgs e)
  {
    lblInfo.Text = "Item: " + Request.QueryString["Item"];
        lblInfo.Text += "<br/>Show Full Record: ";
        lblInfo.Text += Request.QueryString["Mode"];

  }
}
```

cookies.aspx

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

<!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:Label ID="lblWelcome" runat="server" ></asp:Label>
    <br />
    Name:<asp:TextBox ID="txtName" runat="server"></asp:TextBox>
    <asp:Button ID="Button1" runat="server" onclick="Button1_Click"
```

```
        Text="Create Cookies" />
      <br />

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

cookies.aspx.cs

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


public partial class cookies : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
      HttpCookie cookie = Request.Cookies["Preferences"];
      if (cookie == null)
      {
         lblWelcome.Text = "Unknown Customer <br/>";
      }
      else
      {
         lblWelcome.Text = "Cookie Found. <br/>";
         lblWelcome.Text += "Welcome, " + cookie["Name"];
      }
   }
   protected void Button1_Click(object sender, EventArgs e)
   {
      // Check for a cookie, and create a new one only if one doesn't already exist.
         // retrieve the cookie, which is named Preferences
               HttpCookie cookie = Request.Cookies["Preferences"];
       if (cookie == null)
      {  cookie = new HttpCookie("Preferences");       }

      cookie["Name"] = txtName.Text;
       cookie.Expires = DateTime.Now.AddYears(1);
      Response.Cookies.Add(cookie);
       lblWelcome.Text = "Cookie Created.<br/>";
      lblWelcome.Text += "New Customer: " + cookie["Name"];
}
   }
```

OUTPUT:

```
select * from Table1
```

```
09
57
Dhruvesh Parekh
Malad
16
58
Ankit Patel
Goregaon
26
72
Aayush Shah
Jogeshwari
20
83
Ronak Shah
Andheri
07
96
Rishi Thakker
Vile Parle
01
97
Rutvik Thakrar
Santacruz
20
104
Jigar Vadhwana
Khar
27
106
Yash Vora
Bandra
20
107
Rhitik Wadhvana
Mahim
23
```

Button

6A. Create a web application bind data in a multiline textbox by querying in another textbox.

CODE:

Default.aspx

```
 <%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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:TextBox ID="TextBox1" runat="server" Height="91px" TextMode="MultiLine"
Width="323px"></asp:TextBox>
<br />
<br />
<asp:ListBox ID="ListBox1" runat="server"></asp:ListBox>
<br />
<br />
<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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
}
protected void Button1_Click(object sender, EventArgs e)
{
string connStr =
```

```
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
SqlConnection con = new SqlConnection(connStr);
con.Open();
SqlCommand cmd = new SqlCommand(TextBox1.Text, con);
SqlDataReader reader = cmd.ExecuteReader();
ListBox1.Items.Clear();
while (reader.Read())
{
//To add new blank line in the text area
int j = reader.FieldCount;
for (int i = 0; i < j; i++)
{
ListBox1.Items.Add(reader[i].ToString());
}
}
reader.Close();
con.Close();
}
}
```

Web.config

```
 <?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>
<system.web>
<compilation debug="false" targetFramework="4.0" />
</system.web>
<connectionStrings>
<add name="connStr" connectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename='C:\Users\admin\Documents\Visual
Studio 2010\WebSites\WebSite13\App_Data\Database.mdf';Integrated
Security=True;User Instance=True" />

</connectionString>
</configuration>
```

OUTPUT:

Click Button to show records:

Button

Click Button to show records:

Yash Lathigara
Jay Modi
Dhruvesh Parekh
Ankit Patel
Aayush Shah
Ronak Shah
Rishi Thakker
Rutvik Thakrar
Jigar Vadhwana
Yash Vora
Rhitik Wadhvana

Button

6B. Create a web application to display records by using database.

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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 id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
  Click Button to show records:<br />
<br />
  <asp:Label ID="Label1" runat="server" Text=""></asp:Label>
<br />
<br />
<br />
<asp:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Button"
/>
</div>
</form>
</body>
</html>
```

Default.aspx.cs

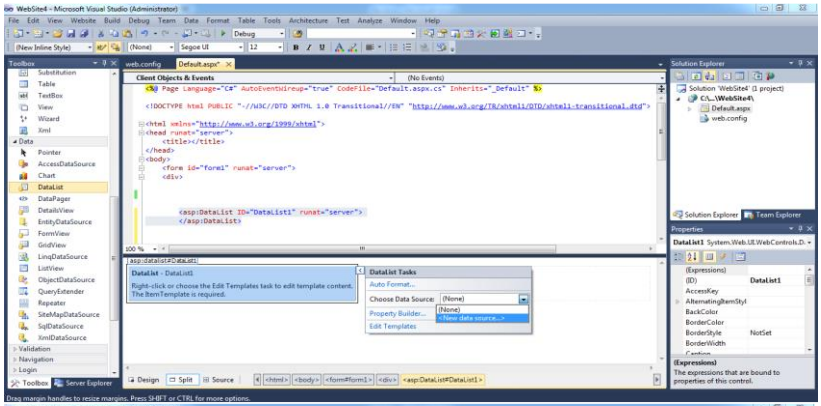
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
}
protected void Button1_Click(object sender, EventArgs e)
{
string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
```

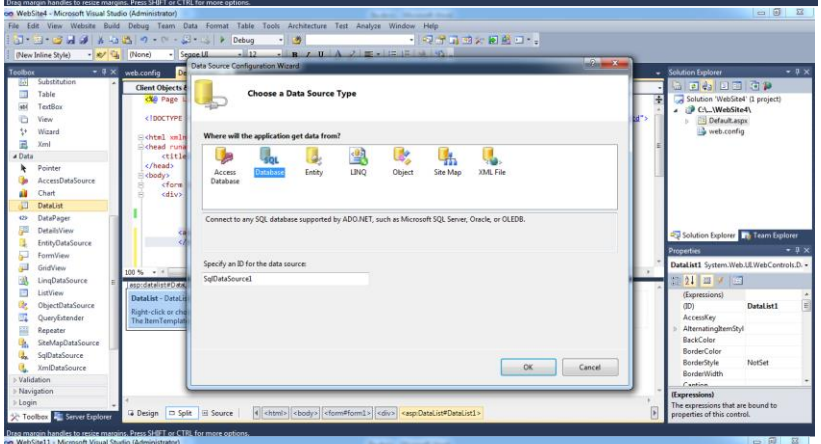
```
SqlConnection con = new SqlConnection(connStr); SqlCommand cmd = new
SqlCommand("Select City, State from Customer", con);
con.Open();
SqlDataReader reader = cmd.ExecuteReader();
while (reader.Read()) { Label1.Text += reader["City"].ToString() + " " +
reader["State"].ToString() + "<br>";
}
reader.Close(); con.Close();
}
```

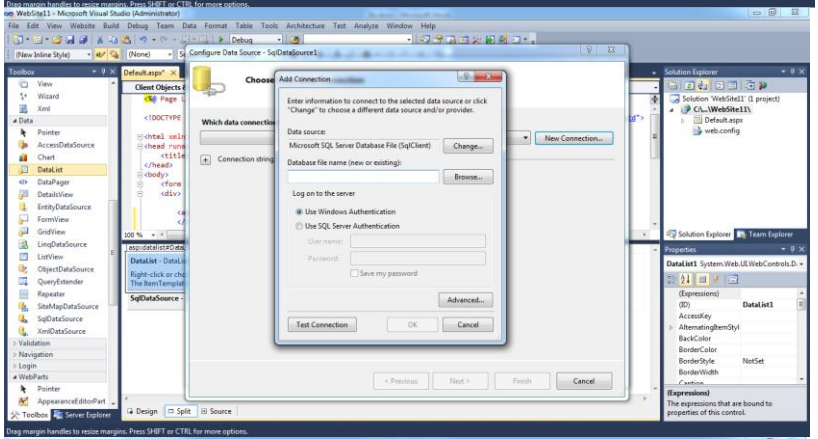
Web.config

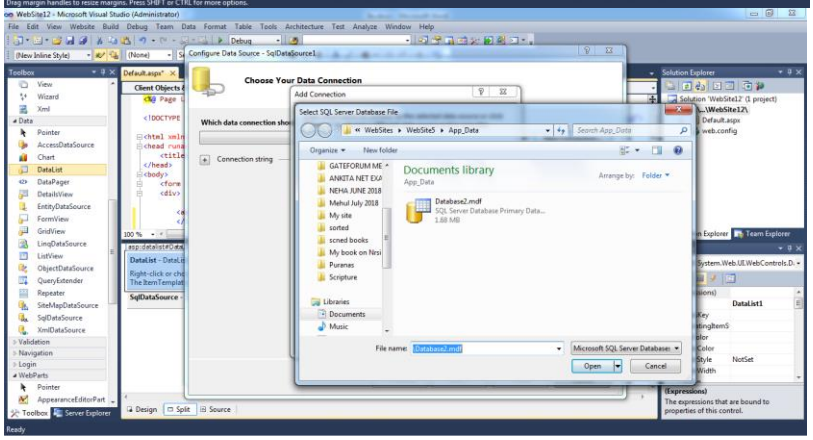
```
 <?xml version="1.0"?>
<!--
For more information on how to configure your ASP.NET application, please visit
http://go.microsoft.com/fwlink/?LinkId=169433
-->
<configuration>
<system.web>
<compilation debug="false" targetFramework="4.0" />
</system.web>
<connectionStrings>
<add name="connStr" connectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename='C:\Users\admin\Documents\Visual
Studio 2010\WebSites\WebSite13\App_Data\Database.mdf';Integrated
Security=True;User Instance=True" />

</connectionString>
</configuration>
```

OUTPUT:

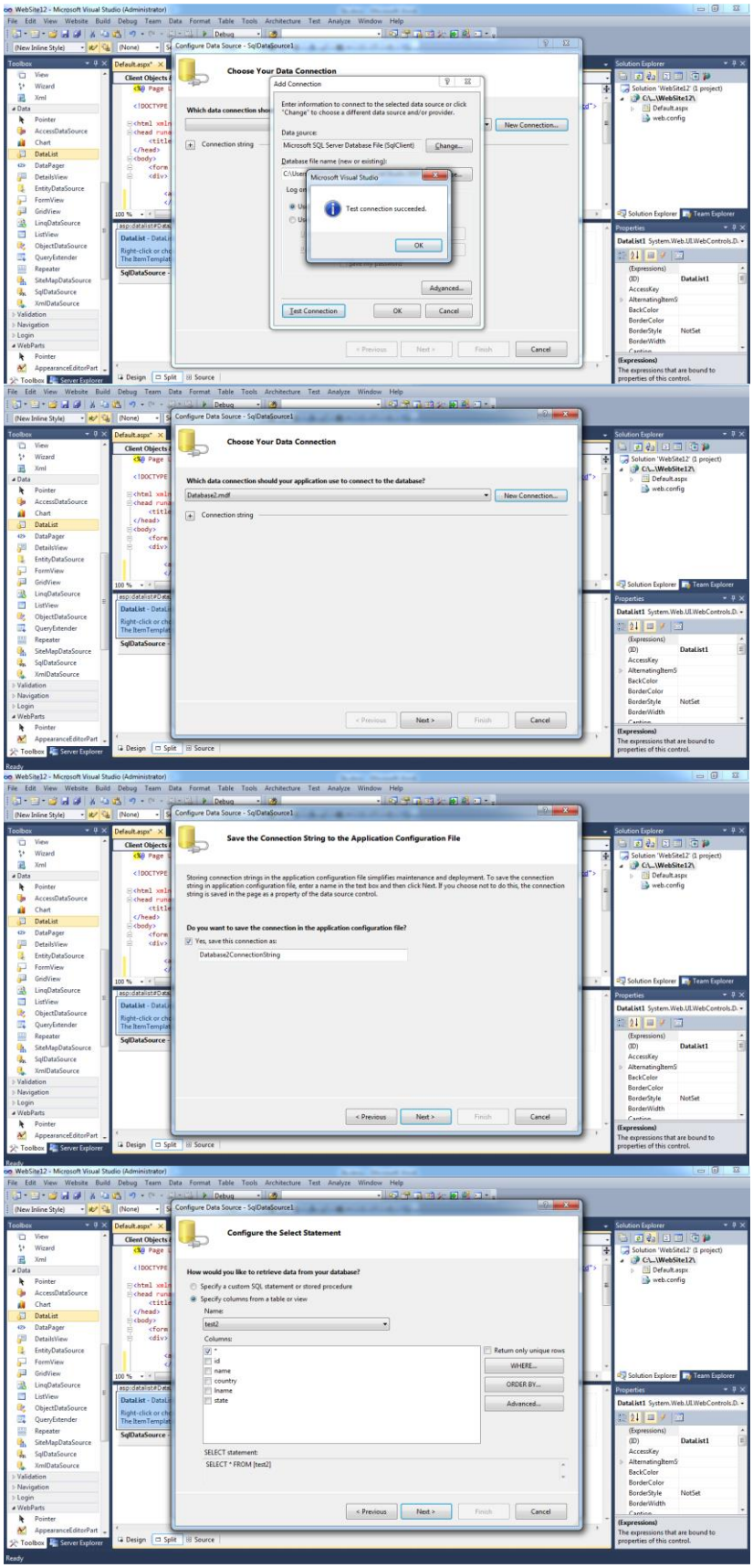



Data Source Configuration Wizard
Choose a Data Source Type
Where will the application get data from?
Access Database
Database
Entity
LINQ
Object
Site Map
XML File
Connect to any SQL database supported by ADO.NET, such as Microsoft SQL Server, Oracle, or OLEDB.
Specify an ID for the data source:
SqlDataSource1
OK
Cancel


Configure Data Source - SqlDataSource1
Add Connection
Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.
Data source:
Microsoft SQL Server Database File (SqlClient)
Change...
Database file name (new or existing):
Browse...
Log on to the server
Use Windows Authentication
Use SQL Server Authentication
User name:
Password:
Save my password
Advanced...
Test Connection
OK
Cancel
New Connection...
< Previous
Next >
Finish
Cancel


Configure Data Source - SqlDataSource1
Choose Your Data Connection
Add Connection
Select SQL Server Database File
Documents library
App_Data
Database2.mdf
SQL Server Database Primary Data...
1.68 MB
File name:
Microsoft SQL Server Database
Open
Cancel

6C. Create a web application to display records using database.



OUTPUT:

7A. Create a web application to display Databinding using Dropdownlist control.

CODE:

Default.aspx

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

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

    </div>
    <p>
        <asp:Button ID="Button1" runat="server" Text="Click Me !"
onclick=”Button1_Click” />
    </p>
    <p>
         </p>
    <p>
        <asp:Label ID="Label1" runat="server" Text=""></asp:Label>
    </p>
    </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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (IsPostBack == false)
        {
            string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
            SqlConnection con = new SqlConnection(connStr);
```

```
            SqlCommand cmd = new SqlCommand("Select Distinct City from Customer",
con);
            con.Open();
            SqlDataReader reader = cmd.ExecuteReader();
            DropDownList1.DataSource = reader;
            DropDownList1.DataTextField = "City";
            DropDownList1.DataBind();
            reader.Close();
            con.Close();
        }
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        Label1.Text = "The Country You Have Selected Is: " +
DropDownList1.SelectedValue;
    }
}
```

OUTPUT:

Your Phone No is: 123

7B. Create a web application to display the postal code no of customer using database.

CODE:

Default.aspx

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

<!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:ListBox ID="ListBox1" runat="server" Height="185px"
Width="121px"></asp:ListBox>
        <br />

    </div>
    <p>
        <asp:Button ID="Button1" runat="server" Text="Get Phone No" />
    </p>
    <p>
         </p>
    <p>
        <asp:Label ID="Label1" runat="server" Text=""></asp:Label>
    </p>
    </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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
    protected void Button1_Click(object sender, EventArgs e)
    {
        Label1.Text = "Your Postal Code is: " + ListBox1.SelectedValue;
    }
    protected void Page_Load(object sender, EventArgs e)
    {
        if (IsPostBack == false)
        {
```

```
            string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
            SqlConnection con = new SqlConnection(connStr);
            SqlCommand cmd = new SqlCommand("Select Distinct POSTAL_CODE from
Customer", con);
            con.Open();
            SqlDataReader reader = cmd.ExecuteReader();
            ListBox1.DataSource = reader;
            ListBox1.DataTextField = "City";
            ListBox1.DataValueField = "POSTAL_CODE";
            ListBox1.DataBind();
            reader.Close();
            con.Close();
        }
    }
}
```

OUTPUT:

#53003170057#
#Dhruvesh Parekh#

Bank Address: Vile Parle

Bank City: Mumbai

Bank Branch Name: UPG

State: Maharashtra

ZIP Code: 123456

Insert Delete

Record Inserted Successfuly.

#53003170057#
#Dhruvesh Parekh#

Bank Address: Vile Parle

Bank City: Mumbai

Bank Branch Name: UPG

State: Maharashtra

ZIP Code: 123456

Insert Delete

Record Deleted Successfuly.

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

CODE:

Default.aspx

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

<!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>

        #53003170057#<br />
        #Dhruvesh Parekh#<br />
        <br />

        Bank Address:
        <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
        <br />
        <br />
        Bank City:
        <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
        <br />
        <br />
        Bank Branch Name:
        <asp:TextBox ID="TextBox3" runat="server"></asp:TextBox>
        <br />
        <br />
        State:
        <asp:TextBox ID="TextBox4" runat="server"></asp:TextBox>
        <br />
        <br />
        ZIP Code:
        <asp:TextBox ID="TextBox5" runat="server"></asp:TextBox>
        <br />
        <br />
        <asp:Button ID="Button1" runat="server" Text="Insert"
            onclick="Button1_Click" />
  
        <asp:Button ID="Button2" runat="server" Text="Delete"
            onclick="Button2_Click"/>

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

    </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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
    protected void Button1_Click(object sender, EventArgs e)
    {
        string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
        SqlConnection con = new SqlConnection(connStr);
        string InsertQuery = "insert into BRANCH values(@ADDRESS, @CITY, @NAME,
@STATE,@ZIP_CODE)";
        SqlCommand cmd = new SqlCommand(InsertQuery, con);
        cmd.Parameters.AddWithValue("@ADDRESS", TextBox1.Text);
        cmd.Parameters.AddWithValue("@CITY", TextBox2.Text);
        cmd.Parameters.AddWithValue("@NAME", TextBox3.Text);
        cmd.Parameters.AddWithValue("@STATE", TextBox4.Text);
        cmd.Parameters.AddWithValue("@ZIP_CODE", TextBox5.Text);
        con.Open();
        cmd.ExecuteNonQuery();
        Label1.Text = "Record Inserted Successfuly.";
        con.Close();
    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
        SqlConnection con = new SqlConnection(connStr);
        string InsertQuery = "delete from branch where NAME=@NAME";
        SqlCommand cmd = new SqlCommand(InsertQuery, con);
        cmd.Parameters.AddWithValue("@NAME", TextBox1.Text);
        con.Open();
        cmd.ExecuteNonQuery();
        Label1.Text = "Record Deleted Successfuly.";
        con.Close();
    }
}
```

OUTPUT:


Dhruvesh
ID
2
fname
Dhruvesh
country
India
lname
Parekh
state
GOA

8A. Create a web application to demonstrate various uses and properties of SqlDataSource.

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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 id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<asp:DropDownList ID="DropDownList1" runat="server"
DataSourceID="SqlDataSource1" DataTextField="name" DataValueField="name"
onselectedindexchanged="DropDownList1_SelectedIndexChanged"
AutoPostBack="True">
</asp:DropDownList>
<asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\Database.mdf;Integrated
Security=True;User Instance=True"
SelectCommand="SELECT [name] FROM [test2]"
ProviderName="System.Data.SqlClient"></asp:SqlDataSource>
<br />
<asp:DetailsView ID="DetailsView1" runat="server" Height="50px" Width="125px"
AutoGenerateRows="False" DataSourceID="SqlDataSource3" >
<Fields>
<asp:BoundField DataField="id" HeaderText="id" SortExpression="id" />
<asp:BoundField DataField="name" HeaderText="name" SortExpression="name" />
<asp:BoundField DataField="country" HeaderText="country"
SortExpression="country" />
<asp:BoundField DataField="lname" HeaderText="lname" SortExpression="lname" />
<asp:BoundField DataField="state" HeaderText="state" SortExpression="state" />
</Fields>
</asp:DetailsView>
<asp:SqlDataSource ID="SqlDataSource3" runat="server"
ConnectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\Database.mdf;Integrated
Security=True;User Instance=True"
SelectCommand="SELECT * FROM [test2]"
ProviderName="System.Data.SqlClient"></asp:SqlDataSource>
</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;
```

```
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
protected void Page_Load(object sender, EventArgs e)
{
}
protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
{
SqlDataSource3.SelectCommand="select * from test2 where
name='"+DropDownList1.SelectedValue +"'";
}
}
```

OUTPUT:

Dhruvesh ▼

Details view

ID	2
fname	Dhruvesh
country	India
lname	Parekh
state	GOA

Form view

ID	2
fname	Dhruvesh
country	India
lname	Parekh
state	GOA

8B. Create a web application to demonstrate data binding using DetailsView and FormView control.

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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 id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<asp:DropDownList ID="DropDownList1" runat="server"
DataSourceID="SqlDataSource1" DataTextField="name" DataValueField="name"
onselectedindexchanged="DropDownList1_SelectedIndexChanged"
AutoPostBack="True">
</asp:DropDownList>
<asp:SqlDataSource ID="SqlDataSource1" runat="server"
ConnectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\Database.mdf;Integrated
Security=True;User Instance=True"
SelectCommand="SELECT [name] FROM [test2]"
ProviderName="System.Data.SqlClient"></asp:SqlDataSource>
<br />

<h3>DetailsView</h3>
<asp:DetailsView ID="DetailsView1" runat="server" Height="50px" Width="125px"
AutoGenerateRows="False" DataSourceID="SqlDataSource3" >
<Fields>
<asp:BoundField DataField="id" HeaderText="id" SortExpression="id" />
<asp:BoundField DataField="name" HeaderText="name" SortExpression="name" />
<asp:BoundField DataField="country" HeaderText="country"
SortExpression="country" />
<asp:BoundField DataField="lname" HeaderText="lname" SortExpression="lname" />
<asp:BoundField DataField="state" HeaderText="state" SortExpression="state" />
</Fields>
</asp:DetailsView>

<h3>FormView</h3>
<asp:FormView ID="FormView1" runat="server" Height="50px" Width="125px"
AutoGenerateRows="False" DataSourceID="SqlDataSource3" >
<ItemTemplate>
<table border="2">
<tr>
<td>id</td>
<td><%# Eval("id") %></td>
</tr>
<tr>
<td>name</td>
<td><%# Eval("name") %></td>
</tr>
<tr>
<td>country</td>
<td><%# Eval("country") %></td>
</tr>
```

```
<tr>
<td>lname</td>
<td><%# Eval("lname") %></td>
</tr>
<tr>
<td>state</td>
<td><%# Eval("state") %></td>
</tr>
</table>
</ItemTemplate>
</asp:FormView>
<asp:SqlDataSource ID="SqlDataSource3" runat="server"
ConnectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\Database.mdf;Integrated
Security=True;User Instance=True"
SelectCommand="SELECT * FROM [test2]"
ProviderName="System.Data.SqlClient"></asp:SqlDataSource>
</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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
    {
        SqlDataSource3.SelectCommand = "select * from test2 where name='" +
DropDownList1.SelectedValue + "'";
    }
}
```

OUTPUT:

Button

id	name	lname
1	Rhitik	Wadhvana
2	Yash	Lathigara
3	Jay	Modi
4	Dhruvesh	Parekh
5	Ankit	Patel
6	Aayush	Shah
7	Ronak	Shah
8	Rishi	Thakker
9	Rutvik	Thakrar
10	Jigar	Vadhwana
11	Yash	Vora

8C. Create a web application to display using disconnected data access and data binding using GridView.

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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 id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<asp:Button ID="Button1" runat="server" Text="Button" onclick="Button1_Click" />
<br />
<asp:GridView ID="GridView1" runat="server">
</asp:GridView>
</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;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        string connStr =
ConfigurationManager.ConnectionStrings["connStr"].ConnectionString;
        SqlConnection con = new SqlConnection(connStr);
        SqlCommand objCmd = new SqlCommand("select * from test2", con);
        SqlDataAdapter objDa = new SqlDataAdapter();
        DataSet objDs = new DataSet();
        objCmd.CommandType = CommandType.Text;
        objDa.SelectCommand = objCmd;
        objDa.Fill(objDs, "test2");
        GridView1.DataSource = objDs.Tables[0];
        GridView1.DataBind();
    }
}
```

OUTPUT:

	name	country	lname	state
1	Rhitik	India	Wadhvana	Maharashtra
2	Jay	India	Modi	Maharashtra
3	Yash	India	Lathigara	Maharashtra
4	Dhruvesh	India	Parekh	Maharashtra
5	Ankit	India	Patel	Maharashtra
6	Aayush	India	Shah	Maharashtra
7	Ronak	India	Shah	Maharashtra
8	Rishi	India	Thakker	Maharashtra
9	Rutvik	India	Thakrar	Maharashtra
10	Jigar	India	Vadhwana	Maharashtra
11	Yash	India	Vora	Maharashtra
12	Rhitik	India	Wadhvana	Maharashtra
13	Raunak	India	Pandey	Maharashtra
14	Rajesh	India	Vishwakarma	Maharashtra

9A. Create a web application to demonstrate use of GridView control template and GridView hyperlink.

CODE:

Default.aspx

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

<!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:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
        BackColor="White" BorderColor="#CC9966" BorderStyle="None" BorderWidth="1px"
        CellPadding="4" DataSourceID="SqlDataSource1">
        <Columns>
            <asp:HyperLinkField DataNavigateUrlFields="name"
                DataNavigateUrlFormatString="~/Default2.aspx?name={0}"
DataTextField="id" />
            <asp:BoundField DataField="name" HeaderText="name" SortExpression="name"
/>
            <asp:BoundField DataField="country" HeaderText="country"
                SortExpression="country" />
            <asp:BoundField DataField="lname" HeaderText="lname"
SortExpression="lname" />
            <asp:BoundField DataField="state" HeaderText="state"
SortExpression="state" />
        </Columns>
        <FooterStyle BackColor="#FFFFCC" ForeColor="#330099" />
        <HeaderStyle BackColor="#990000" Font-Bold="True" ForeColor="#FFFFCC" />
        <PagerStyle BackColor="#FFFFCC" ForeColor="#330099" HorizontalAlign="Center"
/>
        <RowStyle BackColor="White" ForeColor="#330099" />
        <SelectedRowStyle BackColor="#FFCC66" Font-Bold="True" ForeColor="#663399" />
        <SortedAscendingCellStyle BackColor="#FEFCEB" />
        <SortedAscendingHeaderStyle BackColor="#AF0101" />
        <SortedDescendingCellStyle BackColor="#F6F0C0" />
        <SortedDescendingHeaderStyle BackColor="#7E0000" />
    </asp:GridView>
    <asp:SqlDataSource ID="SqlDataSource1" runat="server"
        ConnectionString="<%$ ConnectionStrings:ConnectionString %>"
        SelectCommand="SELECT * FROM [test2]"></asp:SqlDataSource>
        </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;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
   GridView1.PageIndex = e.NewPageIndex;
        methodname();
    }
}
```

OUTPUT:

id	name	country	lname	state	Edit
1	Rhitik	India	Wadhvana	Maharashtra	Edit
2	Jay	India	Modi	Maharashtra	Edit
3	Yash	India	Lathigara	Maharashtra	Edit
4	Dhruvesh	India	Parekh	Maharashtra	Edit
5	Ankit	India	Patel	Maharashtra	Edit
6	Aayush	India	Shah	Maharashtra	Edit
7	Ronak	India	Shah	Maharashtra	Edit
8	Rishi	India	Thakker	Maharashtra	Edit
9	Rutvik	India	Thakrar	Maharashtra	Edit
10	Jigar	India	Vadhwana	Maharashtra	Edit
11	Yash	India	Vora	Maharashtra	Edit
12	Rhitik	India	Wadhvana	Maharashtra	Edit
13	Raunak	India	Pandey	Maharashtra	Edit
14	Rajesh	India	Vishwakarma	Maharashtra	Edit

id	name	country	lname	state	Edit
1	Rhitik	India	Wadhvana	Maharashtra	Update Cancel
2	Jay	India	Modi	Maharashtra	Edit
3	Yash	India	Lathigara	Maharashtra	Edit
4	Dhruvesh	India	Parekh	Maharashtra	Edit
5	Ankit	India	Patel	Maharashtra	Edit
6	Aayush	India	Shah	Maharashtra	Edit
7	Ronak	India	Shah	Maharashtra	Edit
8	Rishi	India	Thakker	Maharashtra	Edit
9	Rutvik	India	Thakrar	Maharashtra	Edit
10	Jigar	India	Vadhwana	Maharashtra	Edit
11	Yash	India	Vora	Maharashtra	Edit
12	Rhitik	India	Wadhvana	Maharashtra	Edit
13	Raunak	India	Pandey	Maharashtra	Edit
14	Rajesh	India	Vishwakarma	Maharashtra	Edit

9B. Create a web application to demonstrate use of GridView button column and GridView events.

CODE:

Default.aspx

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

<!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">

    <asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
        DataSourceID="SqlDataSource1">
        <Columns>
            <asp:BoundField DataField="id" HeaderText="id" SortExpression="id" />
            <asp:BoundField DataField="name" HeaderText="name" SortExpression="name"
/>
            <asp:BoundField DataField="country" HeaderText="country"
                SortExpression="country" />
            <asp:BoundField DataField="lname" HeaderText="lname"
SortExpression="lname" />
            <asp:BoundField DataField="state" HeaderText="state"
SortExpression="state" />
            <asp:CommandField ButtonType="Button" HeaderText="Edit"
ShowEditButton="True"
                ShowHeader="True" />
        </Columns>
    </asp:GridView>

    <asp:SqlDataSource ID="SqlDataSource1" runat="server"
        ConnectionString="<%$ ConnectionStrings:ConnectionString %>"
        SelectCommand="SELECT * FROM [test2]"></asp:SqlDataSource>

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

OUTPUT:

ID	Name	Country
1	Rhitik Wadhvana	United States
2	Yash Lathigara	India
3	Jay Modi	France
4	Dhruvesh Parekh	Russia
5	Ankit Patel	United States
1 2 3		

ID	Name	Country
6	Aayush Shah	India
7	Ronak Shah	France
8	Rishi Thakker	Russia
9	Rutvik Thakrar	United States
10	Jigar Vadhwana	India
1 2 3		

9C. Create a web application to demonstrate use of GridView paging and creating own table format using GridView.

CODE:

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="_Default" %>
<!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 id="Head1" runat="server">
<title></title>
</head>
<body>
<form id="form1" runat="server">
<div>
<table runat="server" style="color: White; background-color: #3A4F63;"
id="headerTable">
<tr>
<td style="width: 200px; background-color: #3A4F63; color: White;">
ID
</td>
<td style="width: 200px;">
Name
</td>
<td style="width: 200px;">
Country
</td>
</tr>
</table>
<!-- These are the actual data items -->
<!-- Bind to your specific properties i.e. Employees. -->
<asp:GridView ID="GridView1" runat="server" HeaderStyle-ForeColor="White"
AutoGenerateColumns="false" AllowPaging="True"
onpageindexchanging="GridView1_PageIndexChanging" PageSize="5">
<columns>
<asp:TemplateField>
<ItemTemplate>
<table>
<tr>
<td style="width: 200px;"> <asp:Label ID="lblid" runat="server" Text='<%#Eval("Id")
%>'></asp:Label>
</td>
<td style="width: 200px;"> <asp:Label ID="lblName" runat="server"
Text='<%#Eval("Name") %>'></asp:Label>
</td>
<td style="width: 200px;"> <asp:Label ID="Country" runat="server"
Text='<%#Eval("Country") %>'></asp:Label>
</td>
</tr>
</table>
</ItemTemplate>
</asp:TemplateField>
</columns>
</asp:GridView>
</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;
using System.Data;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!this.IsPostBack)
        {
            methodname();
        }
    }
    public void methodname()
    {
        DataTable dt = new DataTable();
        dt.Columns.AddRange(new DataColumn[3] { new DataColumn("Id", typeof(int)),
new DataColumn("Name", typeof(string)),
new DataColumn("Country",typeof(string)) });
        dt.Rows.Add(1, "Rhitik Wadhvana", "United States");
        dt.Rows.Add(2, "Yash Lathigara", "India");
        dt.Rows.Add(3, "Jay Modi", "France");
        dt.Rows.Add(4, "Dhruvesh Parekh", "Russia");
        dt.Rows.Add(5, "Ankit Patel", "United States");
        dt.Rows.Add(6, "Aayush Shah", "India");
        dt.Rows.Add(7, "Ronak Shah", "France");
        dt.Rows.Add(8, "Rishi Thakker", "Russia");
        dt.Rows.Add(9, "Rutvik Thakrar", "United States");
        dt.Rows.Add(10, "Jigar Vadhwana", "India");
        dt.Rows.Add(11, "Yash Vora", "France");
        dt.Rows.Add(12, "Raunak Pandey", "Russia");
        dt.Rows.Add(11, "Rajesh Vishwakarma", "France");
        GridView1.DataSource = dt;
        GridView1.DataBind();
    }
    protected void GridView1_PageIndexChanging(object sender, GridViewPageEventArgs e)
    {
        GridView1.PageIndex = e.NewPageIndex;
        methodname();
    }
}
```

OUTPUT:

Rhitik Wadhvana

XML writer

XML Reader

Data written Successfully

XML writer

XML Reader

Data written Successfully

XML writer

```
<SuperProProductList>
<Product>
<Price>
<49.33>
```

XML Reader

10A. Create a web application to demonstrate reading and writing operation with XML.

CODE:

Default.aspx

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

<!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 id="Head1" runat="server">     <title></title> </head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Rhitik Wadhvana"></asp:Label>
<br />         <br />
            <asp:Button ID="Button1" runat="server" Text="XML writer"
onclick="Button1_Click" />
        <br />
        <asp:ListBox ID="ListBox1" runat="server"></asp:ListBox>
        <br />         <br />         <br />         <br />

        <asp:Button ID="Button2" runat="server" Text="XML Reader"
onclick="Button2_Click" />
        </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;
using System.Xml;

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

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        String fs = "C:\\Users\\asus\\Documents\\Visual Studio
2010\\WebSites\\WebSite1\\XMLFile.xml";
        XmlTextWriter w = new XmlTextWriter(fs, null);
        w.WriteStartDocument();
        w.WriteStartElement("SuperProProductList");
        w.WriteComment("This file generated by the XmlTextWriter class.");
// Write the first product.
```

```
        w.WriteStartElement("Product");
        w.WriteAttributeString("ID", "1");
        w.WriteAttributeString("Name", "Chair");
        w.WriteStartElement("Price");
        w.WriteString("49.33");
        w.WriteEndElement();
        w.WriteEndElement();
        // Write the second product.
        w.WriteStartElement("Product");
        w.WriteAttributeString("ID", "2");
        w.WriteAttributeString("Name", "Car");
        w.WriteStartElement("Price");
        w.WriteString("43399.55");
        w.WriteEndElement();
        w.WriteEndElement();
        // Write the third product.
        w.WriteStartElement("Product");
        w.WriteAttributeString("ID", "3");
        w.WriteAttributeString("Name", "Fresh Fruit Basket");
        w.WriteStartElement("Price");
        w.WriteString("49.99");
        w.WriteEndElement();
        w.WriteEndElement();
        // Close the root element.
        w.WriteEndElement();
        w.WriteEndDocument();
        w.Close();
        Label1.Text = "Data written Successfully";
    }
    protected void Button2_Click(object sender, EventArgs e)
    {
        String fs = "C:\\Users\\asus\\Documents\\Visual Studio
2010\\WebSites\\WebSite1\\XMLFile.xml";
        XmlTextReader reader = new XmlTextReader(fs); while (reader.Read())
        {
            switch (reader.NodeType)
            {
                case XmlNodeType.Element: ListBox1.Items.Add("<" + reader.Name + ">");
break;
                case XmlNodeType.Text: ListBox1.Items.Add("<" + reader.Value + ">");
break;
                case XmlNodeType.EndElement: ListBox1.Items.Add("<" + reader.Name +
">"); break;
            }
        }
    }
}
```

OUTPUT:


Login Page
Username:
Rhitik
Password:
Remember me?
Log In


Welcome Rhitik

10B. Create a web application to demonstrate Form Security and Windows Security with proper Authentication and Authorization properties.

CODE:

Default.aspx

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

<!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 id="Head1" runat="server">           <title></title>       </head>
<body>
    <form id="form1" runat="server">
    <h3>Login Page</h3>
    <table>
        <tr>
            <td>Username:</td>
            <td><asp:TextBox ID="UserName" runat="server" /></td>
            <td><asp:RequiredFieldValidator ID="RequiredFieldValidator1"
ControlToValidate="UserName" Display="Dynamic" ErrorMessage="Cannot be empty."
runat="server" /></td>
        </tr>
        <tr>
            <td>Password:</td>
            <td><asp:TextBox ID="UserPass" TextMode="Password" runat="server" /></td>
            <td><asp:RequiredFieldValidator ID="RequiredFieldValidator2"
ControlToValidate="UserPass" ErrorMessage="Cannot be empty." runat="server" /></td>
        </tr>
        <tr>
            <td>Remember me?</td>
            <td><asp:CheckBox ID="chkboxPersist" runat="server" /></td>
        </tr>
    </table>
    <asp:Button ID="Submit1" OnClick="Login_Click" Text="Log In" runat="server" />
    <p><asp:Label ID="Msg" ForeColor="red" runat="server" /></p>
    </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;
using System.Web.Security;
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
```

```
    {

    }
    protected void Login_Click(object sender, EventArgs e)
    {
        if (FormsAuthentication.Authenticate(UserName.Text, UserPass.Text))
        {
            FormsAuthentication.RedirectFromLoginPage(UserName.Text,
chkboxPersist.Checked);
            Session["username"] = UserName.Text; Response.Redirect("Welcome.aspx");
        }
        else { Msg.Text = "Invalid User Name and/or Password"; }
    }
}
```

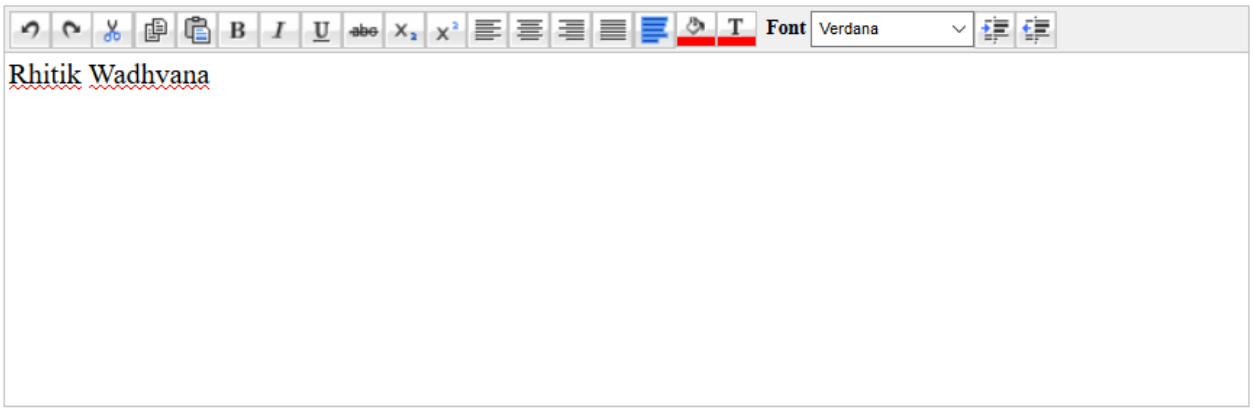
Web.config

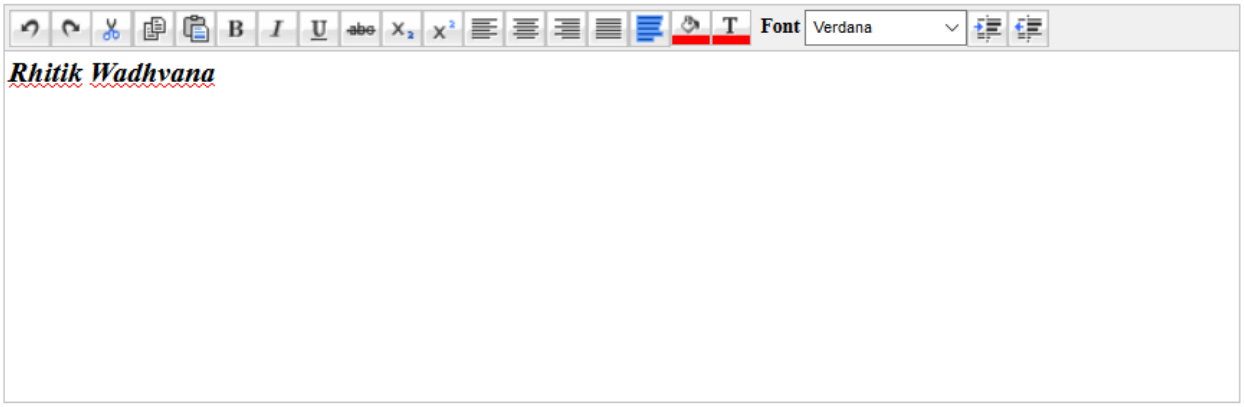
```
<?xml version="1.0"?>

<!--   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" />
  </appSettings>
  <system.web>
    <compilation debug="false" targetFramework="4.0" />
    <authentication mode="Forms">
      <forms loginUrl="Default.aspx" defaultUrl="Welcome.aspx">
        <credentials passwordFormat="Clear">
          <user name="Jay" password="Jay" />
          <user name="Yash" password="Yash"/>
          <user name="Dhruvesh" password="Dhruvesh"/>
          <user name="Ankit" password="Ankit"/>
          <user name="Aayush" password="Aayush"/>
          <user name="Ronak" password="Ronak"/>
          <user name="Rishi" password="Rishi"/>
          <user name="Rutvik" password="Rutvik"/>
          <user name="Jigar" password="Jigar"/>
          <user name="Rhitik" password="Rhitik"/>
        </credentials>
      </forms>
    </authentication>
    <authorization>
      <deny users="?"/>
    </authorization>
  </system.web>

</configuration>
```

Welcome.aspx.cs

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

public partial class Welcome : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        Response.Write("Welcome " + Session["username"]);
    }
}
```

OUTPUT:


Font
Verdana
Rhitik Wadhvana


Font
Verdana
Rhitik Wadhvana

10C(i). Create a web application to demonstrate use of various Ajax controls.

CODE:

Default.aspx

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

<%@ Register Assembly="AjaxControlToolkit" Namespace="AjaxControlToolkit"
TagPrefix="ajaxToolkit" %>


<!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 id="Head1" runat="server">     <title></title> </head>
<body>
<form id="form1" runat="server">
<div>
<asp:ScriptManager runat="server" ID="MainScriptManager" />
<asp:TextBox ID="TextBox1" runat="server" Height="210px" TextMode="MultiLine"
Width="683px"></asp:TextBox>
<ajaxToolkit:HtmlEditorExtender ID="HtmlEditorExtender1" runat="server"
EnableSanitization="False" TargetControlID="TextBox1">
<Toolbar>
<ajaxToolkit:Undo />
<ajaxToolkit:Redo />
<ajaxToolkit:Cut />
<ajaxToolkit:Copy />
<ajaxToolkit:Paste />
<ajaxToolkit:Bold />
<ajaxToolkit:Italic />
<ajaxToolkit:Underline />
<ajaxToolkit:StrikeThrough />
<ajaxToolkit:Subscript />
<ajaxToolkit:Superscript />
<ajaxToolkit:JustifyLeft />
<ajaxToolkit:JustifyCenter />
<ajaxToolkit:JustifyRight />
<ajaxToolkit:JustifyFull />
<ajaxToolkit:SelectAll />
<ajaxToolkit:BackgroundColorSelector />
<ajaxToolkit:ForeColorSelector />
<ajaxToolkit:FontNameSelector />
<ajaxToolkit:Indent />
<ajaxToolkit:Outdent />
</Toolbar>
</ajaxToolkit:HtmlEditorExtender>
</div>
</form>
</body>
</html>
```

OUTPUT:

Rhitik Wadhvana

10C(ii). Create a web application to demonstrate dynamic AdRotator.

CODE:

Default.aspx

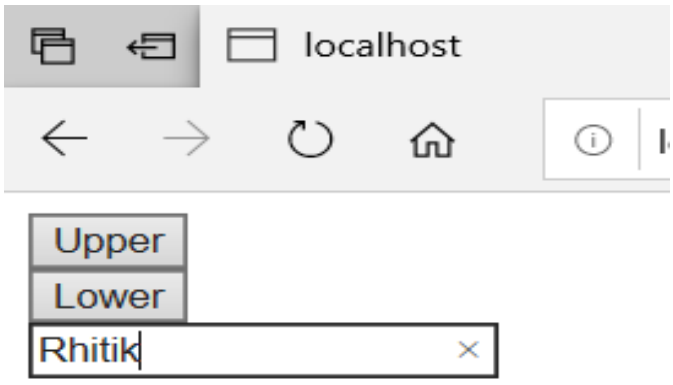
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs"
Inherits="Default" %>

<!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 id="Head1" runat="server">     <title></title> </head>
<body>
<form id="form1" runat="server">
<div>
<asp:ScriptManager ID="ScriptManager1" runat="server">   </asp:ScriptManager>
<asp:Timer ID="Timer1" runat="server" Interval="2000">   </asp:Timer>
<asp:UpdatePanel ID="UpdatePanel1" runat="server">
<Triggers>
<asp:AsyncPostBackTrigger ControlID="Timer1" EventName="Tick" />
</Triggers>
<ContentTemplate>
<asp:AdRotator ID="AdRotator1" runat="server" DataSourceID="XmlDataSource1"
Height="200px" Width="200px" />
<asp:XmlDataSource ID="XmlDataSource1" runat="server" DataFile="~/XMLFile.xml">
</asp:XmlDataSource>
    <br />
    <br />
    <asp:Label ID="Label1" runat="server" Text="Rhitik Wadhvana"></asp:Label>
</ContentTemplate>
</asp:UpdatePanel>
</div>
</form>
</body>
</html>
```

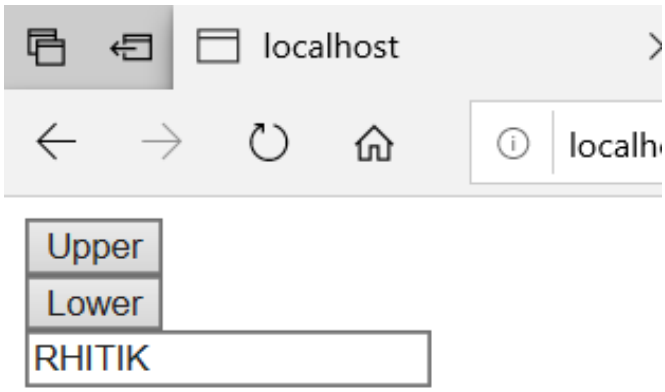
XMLFile.xml

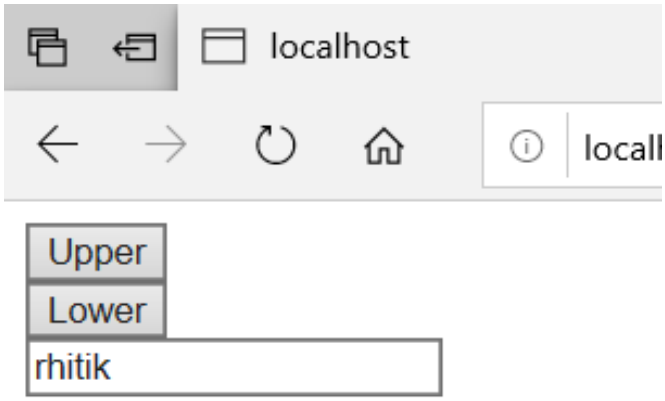
```
<?xml version="1.0" encoding="utf-8" ?>
<Advertisements>
  <Ad>
    <ImageUrl>rose1.jpg</ImageUrl>
    <NavigateUrl>http://www.1800flowers.com</NavigateUrl>
    <AlternateText>       Order flowers, roses, gifts and more     </AlternateText>
    <Impressions>20</Impressions>
    <Keyword>flowers</Keyword>
  </Ad>
  <Ad>
    <ImageUrl>rose2.jpg</ImageUrl>
```

```
    <NavigateUrl>http://www.babybouquets.com.au</NavigateUrl>
    <AlternateText>Order roses and flowers</AlternateText>
    <Impressions>20</Impressions>
    <Keyword>gifts</Keyword>
  </Ad>
  <Ad>
    <ImageUrl>rose3.jpg</ImageUrl>
    <NavigateUrl>http://www.flowers2moscow.com</NavigateUrl>
    <AlternateText>Send flowers to Russia</AlternateText>
    <Impressions>20</Impressions>
    <Keyword>russia</Keyword>
  </Ad>
</Advertisements>
```

OUTPUT:


localhost
Upper
Lower
Rhitik


localhost
Upper
Lower
RHITIK


localhost
Upper
Lower
rhitik

Practical No.11

A. Write a program to create and use DLL.

Code:

AWPClassLib.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace AWPClassLib
{
public class AWP
{
public string UpperConvert(string text)
{
return text.ToUpper();
}
public string LowerConvert(string text)
{
return text.ToLower();
}
}
}
```

Default.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="_Default"
%>
<!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:Button ID="Button1" runat="server" onclick="Button1_Click" Text="Upper" />
<br />
<asp:Button ID="Button2" runat="server" onclick="Button2_Click" Text="Lower" />
<br />
<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
   </div>
   </form>
</body>
</html>
```

Default.aspx.cs

```
using System;
using AWPClassLib;
public partial class _Default : System.Web.UI.Page
{
   protected void Page_Load(object sender, EventArgs e)
   {
   }
   protected void Button1_Click(object sender, EventArgs e)
   {
      AWP c1 = new AWP();
      TextBox1.Text = c1.UpperConvert(TextBox1.Text);
   }
   protected void Button2_Click(object sender, EventArgs e)
   {   AWP c1 = new AWP();
      TextBox1.Text = c1.LowerConvert(TextBox1.Text);
   } }
```