

Practical No.: 1

AIM:- Working with basic C# and ASP .NET

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

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

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            int num1, num2, num3, num4, prod;
            Console.Write("Enter number 1: ");
            num1 = Int32.Parse(Console.ReadLine());
            Console.Write("Enter number 2: ");
            num2 = Convert.ToInt32(Console.ReadLine());
            Console.Write("Enter number 3: ");
            num3 = Convert.ToInt32(Console.ReadLine());
            Console.Write("Enter number 4: ");
            num4 = Convert.ToInt32(Console.ReadLine());
            prod = num1 * num2 * num3 * num4;
            Console.WriteLine(num1 + "*" + num2 + "*" + num3 + "*" + num4 +
"=" + prod);
            Console.ReadKey();
        }
    }
}
```

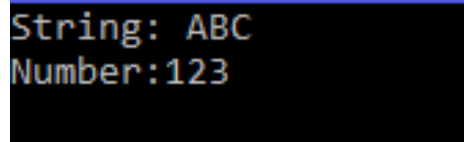
a.) OUTPUT:-

```
Enter number 1: 7
Enter number 2: 6
Enter number 3: 5
Enter number 4: 3
7*6*5*3=630
```

B) Create an application to demonstrate string operations.

```
using System;
namespace cmdLineArgs
{
    class Program
    {
        static void Main(string[] args)
        {
            string str;
            str=" ABC"
            string n;
            n="123"
            Console.WriteLine("String:" + str);
            Console.WriteLine("Number:" + n);
        }
    }
}
```

OUTPUT:

A screenshot of a console window with a black background and yellow text. It displays the output of the program: "String: ABC" on the first line and "Number:123" on the second line.

```
String: ABC
Number:123
```

C) 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.

```
using System;
namespace ArrayOfStructs
{
    class Program
    {
        struct Student
        {
            public string studid, name, cname;
            public int day, month, year;
        }
        static void Main(string[] args)
        {
            Student[] s = new Student[3];
            int i;
            for (i = 0; i < 3; i++)
            {
                Console.Write("Enter Student Id:");
                s[i].studid = Console.ReadLine();
                Console.Write("Enter Student name : ");
                s[i].name = Console.ReadLine();
                Console.Write("Enter Course name : ");
                s[i].cname = Console.ReadLine();
                Console.Write("Enter date of birth\n Enter day(1-31):");
                s[i].day = Convert.ToInt32(Console.ReadLine());
                Console.Write("Enter month(1-12):");
```

```

s[i].month = Convert.ToInt32(Console.ReadLine());
Console.Write("Enter year:");
s[i].year = Convert.ToInt32(Console.ReadLine());
}
Console.WriteLine("\n\nStudent's List\n");
for (i = 0; i < 3; i++)
{
    Console.WriteLine("\nStudent ID : " + s[i].studid);
    Console.WriteLine("\nStudent name : " + s[i].name);
    Console.WriteLine("\nCourse name : " + s[i].cname);
    Console.WriteLine("\nDate of birth(dd-mm-yy) : " + s[i].day + "-" + s[i].month
+
    "-" + s[i].year);
} } } }

```

OUTPUT:

```

Enter Student Id:121
Enter Student name : DIKSHA
Enter Course name : B.Sc.I.T
Enter date of birth
  Enter day(1-31):5
Enter month(1-12):11
Enter year:2003
Enter Student Id:122
Enter Student name : POOJA
Enter Course name : Information Technology
Enter date of birth
  Enter day(1-31):8
Enter month(1-12):7
Enter year:2000
Enter Student Id:123
Enter Student name : XYZ
Enter Course name : abc
Enter date of birth
  Enter day(1-31):5
Enter month(1-12):8
Enter year:1999

```

Student's List

Student ID : 121

Student name : DIKSHA

Course name : B.Sc.I.T

Date of birth(dd-mm-yy) : 5-11-2003

Student ID : 122

Student name : POOJA

Course name : Information Technology

Date of birth(dd-mm-yy) : 8-7-2000

Student ID : 123

Student name : XYZ

Course name : abc

Date of birth(dd-mm-yy) : 5-8-1999

D) Create an application to demonstrate following operations

[i] Fibonacci Series

```
using System;
```

```
namespace ConsoleApplication3
```

```
{
```

```
class Program
```

```
{
```

```
static void Main(string[] args)
```

```
{
```

```
int num1=0,num2=1,num3,num4,num,count;
```

```
Console.Write ("Upto how many number you want fibonacci series:");
```

```
num=int.Parse(Console.ReadLine());
```

```
count=3;
```

```
Console.Write(num1+"\t"+num2);
```

```
while(count<=num)
```

```
{
```

```
num3 = num1 + num2;
```

```
if (count >= num)
```

```
break;
```

```
Console.Write("\t" + num3);
```

```
num1 = num2;
```

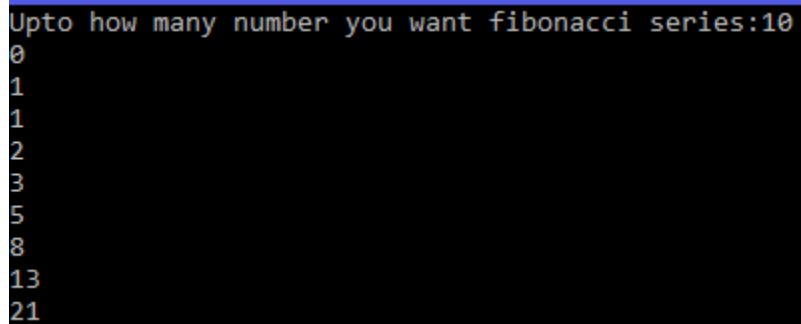
```
num2 = num3;
```

```
count++;
```

```
}
```

```
}  
}  
}
```

OUTPUT:



```
Upto how many number you want fibonacci series:10  
0  
1  
1  
2  
3  
5  
8  
13  
21
```

[ii] Test for prime numbers.

CODE:

```
using System;  
namespace testprime  
{  
    class Program  
    {  
        static void Main(string[] args)  
        {  
            int num, counter;  
            Console.Write("Enter number:");  
            num = int.Parse(Console.ReadLine());  
            for (counter = 2; counter <= num / 2; counter++)
```



```
{  
if ((num % counter) == 0)  
break;  
}  
if (num == 1)  
Console.WriteLine(num + "is neither prime nor composite");  
else if(counter<(num/2))  
Console.WriteLine(num+"is not prime number");  
else  
Console.WriteLine(num+"is prime number");  
}  
}  
}
```

OUTPUT:

(1st attempt)

```
Enter number:6  
6 is not prime number
```

(2nd)

```
Enter number: 1  
1 is neither prime nor composite
```

(3rd)

```
Enter number: 11  
11 is prime number
```

[iii] Test for vowels.

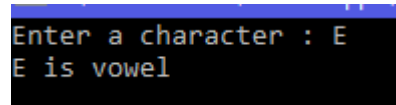
CODE:

```
using System;
namespace vowels
{
    class Program
    {
        static void Main(string[] args)
        {
            char ch;
            Console.Write("Enter a character : ");
            ch = (char)Console.Read();
            switch (ch)
            {
                case 'a':
                case 'A':
                case 'e':
                case 'E':
                case 'i':
                case 'I':
                case 'o':
                case 'O':
                case 'u':
                case 'U':
```

```
Console.WriteLine(ch + "is vowel");  
break;  
default:  
Console.Write(ch + "is not a vowel");  
break;  
}  
Console.ReadKey();  
}  
}  
}
```

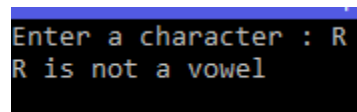
OUTPUT:

(1st attempt)



```
Enter a character : E  
E is vowel
```

(2nd attempt)



```
Enter a character : R  
R is not a vowel
```

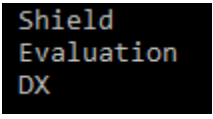
[iv]Use of foreach loop with arrays.

CODE:

```
using System;

class ExampleForEach
{
    public static void Main()
    {
        string[] str = { "Shield", "Evaluation", "DX" };
        foreach (String s in str)
        {
            Console.WriteLine(s);
        }
    }
}
```

OUTPUT:



```
Shield
Evaluation
DX
```

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

CODE:

```
using System;
namespace reverseNumber
{
    class Program
    {
        static void Main(string[] args)
        {
            int num,actualnumber,revnum=0,digit,sumDigits=0;
            Console.Write("Enter number:");
            num = int.Parse(Console.ReadLine());
            actualnumber = num;
            while (num > 0)
            {
                digit = num % 10;
                revnum = revnum * 10 + digit;
                sumDigits=sumDigits+digit;
                num = num / 10;
            }
            Console.WriteLine("Reverse of " + actualnumber + "=" + revnum);
            Console.WriteLine("Sum of its digits:" + sumDigits);}}}
```

OUTPUT:

```
Enter number:458  
Reverse of 458 = 854  
Sum of its digits: 17
```

Practical No.: 2

AIM: Working with Object Oriented C# and ASP .NET

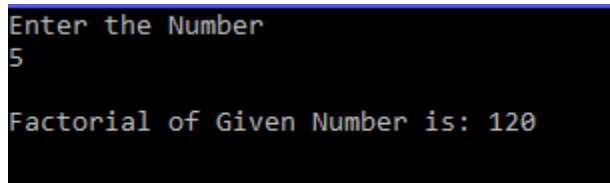
A) Create simple application to perform following operations.

[i] Finding Factorial Value

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

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

Output:



```
Enter the Number
5
Factorial of Given Number is: 120
```

[ii] Money Conversion

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

namespace CurrencyConversion
{
    class Program
    {
        static void Main(string[] args)
        {
            int choice;
            Console.WriteLine("&quot;Enter your Choice :\n 1- Dollar to Rupee \n 2-  
Euro to Rupee \n 3- Malaysian  
Ringgit to Rupee &quot;");
            choice = int.Parse(Console.ReadLine());
            switch (choice)
            {
                case 1:
                    Double dollar, rupee, val;
                    Console.WriteLine("&quot;Enter the Dollar Amount :&quot;");
                    dollar = Double.Parse(Console.ReadLine());
                    Console.WriteLine("&quot;Enter the Dollar Value :&quot;");
                    val = double.Parse(Console.ReadLine());
                    rupee = dollar * val;

                    Console.WriteLine("&quot;{0} Dollar Equals {1} Rupees&quot;;, dollar,  
rupee);
                    break;
                case 2:
                    Double Euro, rupe, valu;
                    Console.WriteLine("&quot;Enter the Euro Amount :&quot;");
                    Euro = Double.Parse(Console.ReadLine());
```



```

Console.WriteLine("&quot;Enter the Euro Value :&quot;");
valu = double.Parse(Console.ReadLine());
rupe = Euro * valu;
Console.WriteLine("&quot;{0} Euro Equals {1} Rupees&quot;;, Euro, rupe);
break;
case 3:
Double ringit, rup, value;
Console.WriteLine("&quot;Enter the Ringgit Amount :&quot;");
ringit = Double.Parse(Console.ReadLine());
Console.WriteLine("&quot;Enter the Ringgit Value :&quot;");
value = double.Parse(Console.ReadLine());
rup = ringit * value;
Console.WriteLine("&quot;{0} Malaysian Ringgit Equals {1} Rupees&quot;;,
ringit, rup);
break;
}
Console.ReadLine();
}
}
}
}
2)A)[ii]

```

```

file:///C:/Users/Computer19/Documents/Visual Studio 2008/Projects/CurrencyConversion/Curren...
Enter your Choice :
1- Dollar to Rupee
2- Euro to Rupee
3- Malaysian Ringgit to Rupee
1
Enter the Dollar Amount :
72
1 Dollar Equals 72 Rupees

```

[iii] Quadratic Equation

```
using System;

namespace example
{
    class Quadraticroots
    {
        double a, b, c;

        public void read()
        {
            Console.WriteLine(" \n To find the roots of a quadratic equation of
the form  $a*x*x + b*x + c = 0$ ");
            Console.WriteLine("\n Enter value for a : ");
            a = double.Parse(Console.ReadLine());
            Console.WriteLine("\n Enter value for b : ");
            b = double.Parse(Console.ReadLine());
            Console.WriteLine("\n Enter value for c : ");
            c = double.Parse(Console.ReadLine());
        }

        public void compute()
        {
            int m;
            double r1, r2, d1;
            d1 = b * b - 4 * a * c;
            if (a == 0)
                m = 1;
            else if (d1 > 0)
                m = 2;
            else if (d1 == 0)
                m = 3;
            else
                m = 4;
            switch (m)
```

```

        {
            case 1: Console.WriteLine("\n Not a Quadratic equation, Linear
equation");
                Console.ReadLine();
                break;
            case 2: Console.WriteLine("\n Roots are Real and Distinct");
                r1 = (-b + Math.Sqrt(d1)) / (2 * a);
                r2 = (-b - Math.Sqrt(d1)) / (2 * a);
                Console.WriteLine("\n First root is {0:###}", r1);
                Console.WriteLine("\n Second root is {0:###}", r2);
                Console.ReadLine();
                break;
            case 3: Console.WriteLine("\n Roots are Real and Equal");
                r1 = r2 = (-b) / (2 * a);
                Console.WriteLine("\n First root is {0:###}", r1);
                Console.WriteLine("\n Second root is {0:###}", r2);
                Console.ReadLine();
                break;
            case 4: Console.WriteLine("\n Roots are Imaginary");
                r1 = (-b) / (2 * a);
                r2 = Math.Sqrt(-d1) / (2 * a);
                Console.WriteLine("\n First root is {0:###} + i {1:###}", r1, r2);
                Console.WriteLine("\n Second root is {0:###} - i {1:###}", r1,
r2);

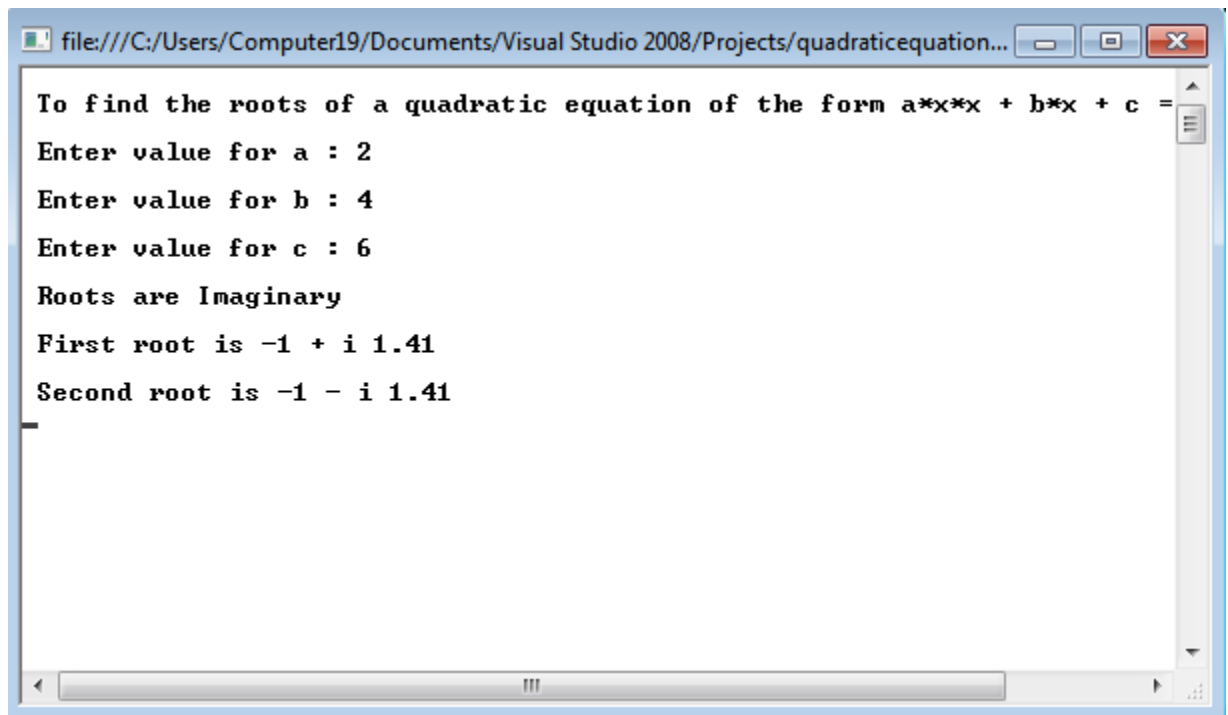
                Console.ReadLine();
                break;
        }
    }
}

class Roots
{
    public static void Main()
    {
        Quadraticroots qr = new Quadraticroots();
        qr.read();
    }
}

```

```
        qr.compute();  
    }  
}  
}
```

2)A)[iii]

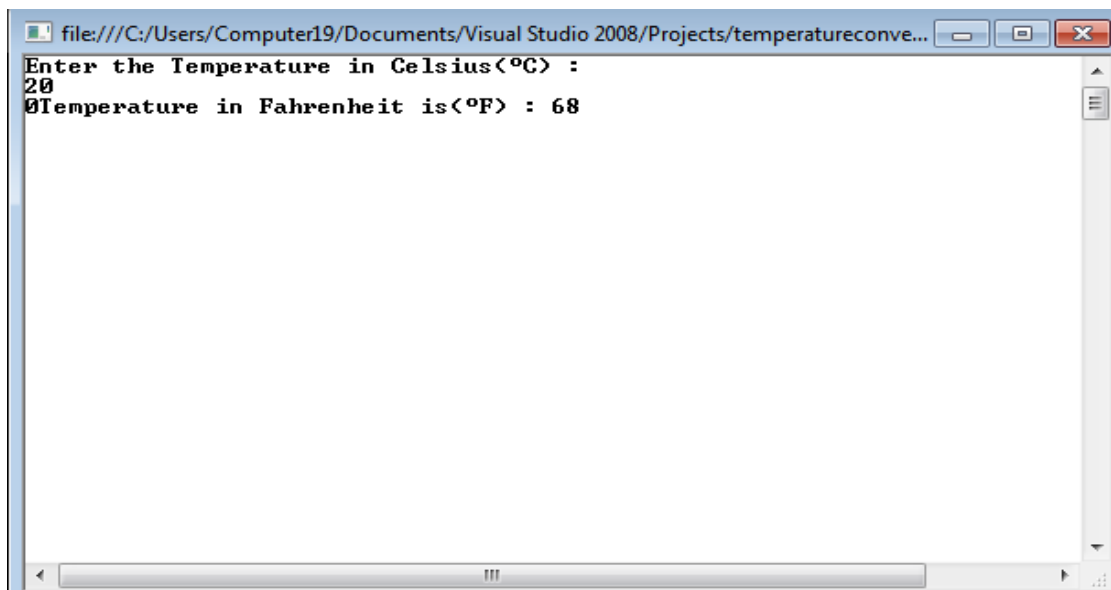


[iv] Temperature Conversion

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

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

2)A)[iv]



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

[i] Function Overloading

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

```
}  
}  
}
```

OUTPUT:

```
N=20      M=10  
F1=20.6   F2=10.5
```

[ii] Inheritance

(a) Single Inheritance

Write a program to implement single inheritance from following figure. Accept and display data for one table.

CODE:

Furniture.cs

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

Table.cs

```
using System;
namespace SingleInheritance
{
    class Table:Furniture
    {
        int height, surface_area;
        public void getdata()
        {
```



```

base.getdata();
Console.Write("Enter height: ");
height = int.Parse(Console.ReadLine());
Console.Write("Enter surface area: ");
surface_area = int.Parse(Console.ReadLine());
}
public void showdata()
{
base.showdata();
Console.WriteLine("Height : " + height);
Console.WriteLine("Surface Area : " + surface_area);
} } }

```

Program.cs

```

using System;
namespace SingleInheritance
{
class Program
{
static void Main(string[] args)
{
Table t1 = new Table();
t1.getdata();
t1.showdata();
} } }

```

OUTPUT:

```

Enter material : wood
Enter price : 1220
Enter height: 35
Enter surface area: 26
Material : wood
Price : 1220
Height : 35
Surface Area : 26

```

[ii](b) Multiple inheritance

CODE:

Gross.cs

```
using System;
namespace MultipleInheritance
{
    interface Gross
    {
        int ta
        {
            get;
            set;
        }
        int da
        {
            get;
            set;
        }
        int GrossSal();
    }
}
```

Employee.cs

```
using System;
namespace MultipleInheritance
{
    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);
        }
    }
}
```

Salary.cs

```
using System;
namespace MultipleInheritance
{
    class Salary:employee,Gross
    {
        int hra;
        public Salary(string name, int hra):base(name)
        { this.hra = hra; }
        public int ta
        {
            get {return S_ta; }
            set { S_ta = value; }
        }
        private int S_ta;
        public int da
        {
            get { return S_da; }
            set { S_da = value; }
        }
        private int S_da;
        public int GrossSal()
        {
            int gSal;
            gSal = hra + ta + da + BasicSal(15000);
            return gSal;
        }
        public void dispSal()
        { base.ShowData();
        Console.WriteLine("Gross Sal : " + GrossSal());
        } } }
```

Program.cs

```
using System;
namespace MultipleInheritance
{
    class Program
```

```

{
static void Main(string[] args)
{
Salary s = new Salary("Prachit", 35000);
s.da = 20000;
s.ta = 30000;
s.dispSal();
}}}

```

OUTPUT:

Name :Prachit

Gross Sal :100000

(ii)[c] Heirarchical Inheritance

CODE:

Employee.cs

```

using System;
namespace HeirarchicalInheritance
{
class employee
{
public virtual void display()
{
Console.WriteLine("Display of employee class called ");
}}}

```

Programmer.cs

```

using System;
namespace HeirarchicalInheritance
{
class Programmer:employee
{

```

```

public void display()
{
    Console.WriteLine(" Display of Programmer class called ");
} } }

```

Manager.cs

```

using System;
namespace HeirarchicalInheritance
{
    class Manager
    {
        public void display()
        {
            Console.WriteLine("Display of manager class called ");
        } } }

```

Program.cs

```

using System;
namespace HeirarchicalInheritance
{
    class Program
    {
        static void Main(string[] args)
        {
            Programmer objProgrammer;
            Manager objManager;
            Console.Write("Whose details you want to use to see \n
            1.Programmer \n
            2.Manager");
            int choice=int.Parse(Console.ReadLine());
            if(choice==1)
            {
                objProgrammer=new Programmer();
                objProgrammer.display();
            }
            else if(choice==2)
            {

```

```
objManager=new Manager();  
objManager.display();  
}  
else  
{  
Console.WriteLine("Wrong choice entered");  
}}}}
```

OUTPUT:

Whose details you want to use to see

1.Programmer

2.Manager1

Display of Programmer class called

Whose details you want to use to see

1.Programmer

2.Manager2

Display of manager class called

Whose details you want to use to see

1.Programmer

2.Manager6

Wrong choice entered

(ii)[d] **Multilevel Inheritance**

Result.cs

```
using System;
namespace multilevelinheritance
{
    class Result:Test
    {
        int total;
        public Result(int roll_no, string name, int marks1, int marks2)
        : base(roll_no, name, marks1, marks2)
        {
            total = getMarks1() + getMarks2();
        }
        public void display()
        {
            base.display();
            Console.WriteLine("Total: " + total);
        }
    }
}
```

Test.cs

```
using System;
namespace multilevelinheritance
{
    class Test:student
    {
        int marks1, marks2;
        public Test(int roll_no, string name, int marks1, int marks2)
        : base(roll_no, name)
        {
            this.marks1 = marks1;
            this.marks2 = marks2;
        }
    }
}
```

```

public int getMarks1()
{
    return marks1;
}
public int getMarks2()
{
    return marks2;
}
public void display()
{
    base.display();
    Console.WriteLine("Marks1: " + marks1);
    Console.WriteLine("Marks2: " + marks2);
} } }

```

Student.cs

```

using System;
namespace multilevelinheritance
{
    class student
    {
        int roll_no;
        string name;
        public student(int roll_no, string name)
        {
            this.roll_no = roll_no;
            this.name = name;
        }
        public student() { }
        public void display()
        {
            Console.WriteLine("Roll no: " + roll_no);
            Console.WriteLine("Name: " + name);
        } } }

```


Program.cs

```
using System;
namespace multilevelinheritance
{
    class Program
    {
        static void Main(string[] args)
        {
            Result r1 = new Result(101, "Prachit", 50, 70);
            r1.display();
        }
    }
}
```

OUTPUT:

Roll no: 101

Name: Prachit

Marks1: 50

Marks2: 70

Total: 120

[iii] Constructor Overloading**Salary.cs**

```
using System;
namespace SalaryConstructure
{
    class Salary
    {
        int basic, ta, da, hra;
        public Salary()
        {
            da = 9000;
        }
    }
}
```

```

hra = 6000;
}
public void getdata()
{
    Console.Write("Enter basic salary : ");
    basic = int.Parse(Console.ReadLine());
    Console.Write("Enter travelling allowance : ");
    ta = int.Parse(Console.ReadLine());
}
public void showdata()
{
    Console.WriteLine("Basic salary : " + basic);
    Console.WriteLine("Dearness allowance : " + da);
    Console.WriteLine("Housing rent allowance : " + hra);
    Console.WriteLine("Travelling allowance : " + ta);
    Console.WriteLine("Gross Salary : " + (basic + da + hra + ta));
} } }

```

Program.cs

```

using System;
namespace SalaryConstructure
{
    class Program
    {
        static void Main(string[] args)
        {
            Salary s = new Salary();
            s.getdata();
            s.showdata();
        } } }

```

OUTPUT:

Enter basic salary : 52000
Enter travelling allowance : 3000
Basic salary : 52000
Dearness allowance : 9000
Housing rent allowance : 6000
Travelling allowance : 3000
Gross Salary : 70000

(iv) Interfaces**ODDEVEN.cs**

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace InterFaceDemo {

    interface IOne {

        void ONE(); //Pure Abstract Method Signature

    }

    interface ITwo {

        void TWO();

    }

    interface IThree: IOne {

        void THREE();

    }

}
```

```

interface IFour {

    void FOUR();

}

interface IFive: IThree {

    void FIVE();

}

interface IEVEN: ITwo, IFour {}

class ODDEVEN: IEVEN, IFive //Must Implement all the abstract method, in
Derived class.

{

    public void ONE() //Implementation of Abstract Method.

    {

        Console.WriteLine("This is ONE");

    }

    public void TWO() {

        Console.WriteLine("This is TWO");

    }

    public void THREE() {

        Console.WriteLine("This is THERE");

    }

    public void FOUR() {

        Console.WriteLine("This is FOUR");

```

```

    }

    public void FIVE() {

        Console.WriteLine("This is FIVE");

    }

}

```

Program.cs

```

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace InterFaceDemo {

    class Program {

        static void Main(string[] args) {

            Console.WriteLine("This is ODD");

            IFive obj1 = new ODDEVEN();

            obj1.ONE();

            obj1.THREE();

            obj1.FIVE();

            Console.WriteLine("\n\nThis is EVEN");

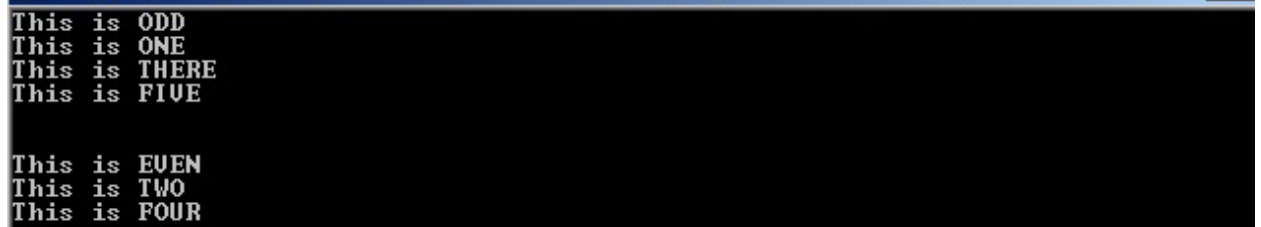
            IEVEN obj2 = new ODDEVEN();

            obj2.TWO();

```

```
        obj2.FOUR();  
  
        Console.ReadLine();  
  
    }  
  
}
```

(iv) output- interface

A screenshot of a console window with a black background and white text. The text is organized into two groups, each preceded by a blank line. The first group contains four lines: 'This is ODD', 'This is ONE', 'This is THERE', and 'This is FIVE'. The second group contains three lines: 'This is EUEN', 'This is TWO', and 'This is FOUR'.

```
This is ODD  
This is ONE  
This is THERE  
This is FIVE  
  
This is EUEN  
This is TWO  
This is FOUR
```

(C) Create simple application to demonstrate use of following concepts

[i] Using Delegates and events

TrafficSignal.cs

```
using System;

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];
    }
}
```

```

public void IdentifySignal()
{
    td[0] = new TrafficDel(Yellow);
    td[1] = new TrafficDel(Green);
    td[2] = new TrafficDel(Red);
}

public void display()
{
    td[0]();
    td[1]();
    td[2]();
}
}
}

```

Program.cs

```

using System;

namespace TrafficDelegateExample
{
    class Program
    {
        static void Main(string[] args)
        {

```



```
TrafficSignal ts = new TrafficSignal();  
  
ts.IdentifySignal();  
  
ts.display();  
  
}}}
```

OUTPUT:

Yellow light signals to get ready

Green light signals to go

Red light signals to stop

[ii] Exception handling

NotEvenException.cs

```
using System;  
  
namespace ExceptionHandlingExample  
{  
  
class NotEvenException:Exception  
{  
  
public NotEvenException(string msg)  
: base(msg)  
{  
  
}  
  
}}}
```

Program.cs

```
using System;
```

```
namespace ExceptionHandlingExample
{
    class Program
    {
        static void Main(string[] args)
        {
            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:

Enter a number: 5

Not an even number

Practical No.: 3

AIM:- Working with Web Forms and Controls.

A) 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

Calendar properties set for this example:

aspx code:

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeBehind="calendar.aspx.cs"
Inherits="YourNamespace.CalendarExample" %>
```

```
<!DOCTYPE html>
```

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

```
<head runat="server">
```

```
<title>Calendar Example</title>
```

```
</head>
```

```
<body>
```

```
<form id="form1" runat="server">
```

```
<div>
```

```
<!-- Selected day in a calendar control using style -->
```

```
<asp:Calendar ID="calendarSelectedDay" runat="server"
```

```
OnSelectionChanged="calendarSelectedDay_SelectionChanged"
```

```
OnDayRender="calendarVacation_DayRender"
```

```
OnayRender="calendarMessages_DayRender"></asp:Calendar>
```

```
<!-- Calculate difference between two calendar dates -->
```

```

        <asp:TextBox ID="txtDate1" runat="server" placeholder="Date 1
(yyyy-MM-dd)"></asp:TextBox>
        <asp:TextBox ID="txtDate2" runat="server" placeholder="Date 2
(yyyy-MM-dd)"></asp:TextBox>
        <asp:Button ID="btnCalculateDifference" runat="server"
Text="Calculate Difference" OnClick="btnCalculateDifference_Click" />
        <asp:Label ID="lblDateDifference" runat="server"
Text=""></asp:Label>
    </div>
</form>
</body>
</html>

```

aspx.cs code:

```

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

namespace YourNamespace
{
    public partial class CalendarExample : Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if (!IsPostBack)
            {
                // Add messages for specific dates
                DateTime dateWithMessage1 = new DateTime(2023, 10, 5);
                DateTime dateWithMessage2 = new DateTime(2023, 10, 10);

                List<DateTime> messageDates = new List<DateTime> {
dateWithMessage1, dateWithMessage2 };
                Session["MessageDates"] = messageDates;
            }
        }
    }
}

```

```

        // Add vacation dates
        DateTime vacationDate1 = new DateTime(2023, 09, 15);
        DateTime vacationDate2 = new DateTime(2023, 10, 20);

        List<DateTime> vacationDates = new List<DateTime> {
vacationDate1, vacationDate2 };
        Session["VacationDates"] = vacationDates;
    }
}

protected void calendarMessages_DayRender(object sender,
DayRenderEventArgs e)
{
    List<DateTime> messageDates =
(List<DateTime>)Session["MessageDates"];

    if (messageDates != null)
    {
        foreach (DateTime date in messageDates)
        {
            if (e.Day.Date == date)
            {
                e.Cell.BackColor = System.Drawing.Color.Yellow;
                e.Cell.Controls.Add(new LiteralControl("<br />messege
here"));
            }
        }
    }
}

protected void calendarVacation_DayRender(object sender,
DayRenderEventArgs e)
{
    List<DateTime> vacationDates =
(List<DateTime>)Session["VacationDates"];

```

```

        if (vacationDates != null)
        {
            foreach (DateTime date in vacationDates)
            {
                if (e.Day.Date == date)
                {
                    e.Cell.BackColor = System.Drawing.Color.Green;
                    e.Cell.Controls.Add(new LiteralControl("<br />Ganpati
vection"));
                }
            }
        }
    }

    protected void calendarSelectedDay_SelectionChanged(object sender,
EventArgs e)
    {
        calendarSelectedDay.SelectedDayStyle.BackColor =
System.Drawing.Color.Red;
    }

    protected void btnCalculateDifference_Click(object sender, EventArgs
e)
    {
        if (DateTime.TryParse(txtDate1.Text, out DateTime date1) &&
DateTime.TryParse(txtDate2.Text, out DateTime date2))
        {
            TimeSpan difference = date1 - date2;
            int daysDifference = difference.Days;
            lblDateDifference.Text = $"Days difference: {daysDifference}";
        }
        else
        {
            lblDateDifference.Text = "Invalid date format";
        }
    }
}

```

}
}

OUTPUT:-

October 2023						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20 Ganpati vention	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
Date 1 (yyyy-MM-dd)	Date 2 (yyyy-MM-dd)	Calculate Difference		Invalid date format		

September 2023						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15 Ganpati vention	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8
Date 1 (yyyy-MM-dd)	Date 2 (yyyy-MM-dd)	Calculate Difference		Invalid date format		

B) Demonstrate the use of Treeview control perform following operations.

a) Treeview control and datalist b) Treeview operations

Add XML File

Website -> Add -> XML File and Name it 'stdetail'.

stdetail.xml

XML CODE

NAME YOUR FILE AS "stdetail.xml"

```
<?xml version="1.0" encoding="utf-8"?>
<studentdetail xmlns="http://example.com/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>
```

ASPX code

NAME YOUR FILE AS "Treeview.aspx"


```

<%@ Page Language="C#" AutoEventWireup="true"
CodeBehind="Treeview.aspx.cs" Inherits="exp2b.Treeview" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head 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 Practice" Value="PracticeNode">
                    <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 Text="Inheritance" Value="BLUE"
NavigateUrl="~/singleInh.aspx"></asp:TreeNode>
                                <asp:TreeNode Text="Class Properties" Value="ClassProperties"
NavigateUrl="~/clsProp.aspx"></asp:TreeNode>
                                    </asp:TreeNode>
                                </Nodes>
                            <NodeStyle Font-Families="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>
```

ASPX.cs CODE

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

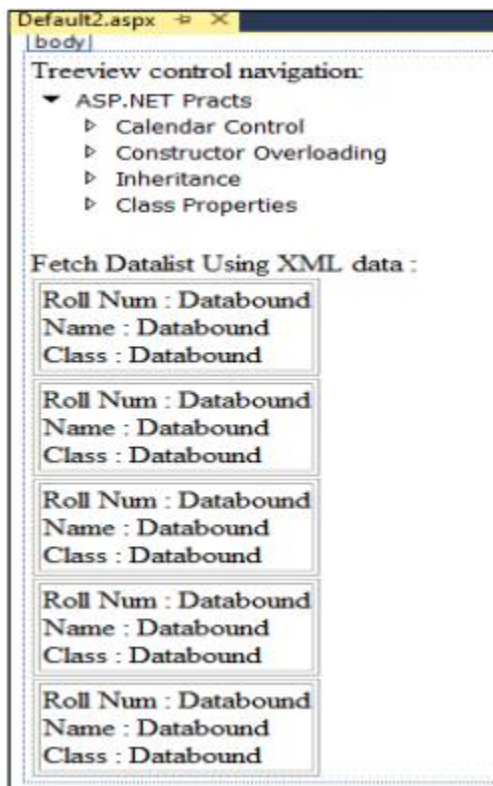
namespace exp2b
{
    public partial class Treeview : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            if (!IsPostBack)
            {

```

```

        BindData();
    }
}
protected void BindData()
{
    DataSet ds = new DataSet();
    ds.ReadXml(Server.MapPath("stdetail.xml"));
    if (ds != null && ds.HasChanges())
    {
        DataList1.DataSource = ds;
        DataList1.DataBind();
    }
    else
    {
        DataList1.DataBind();
    }
}
}
}

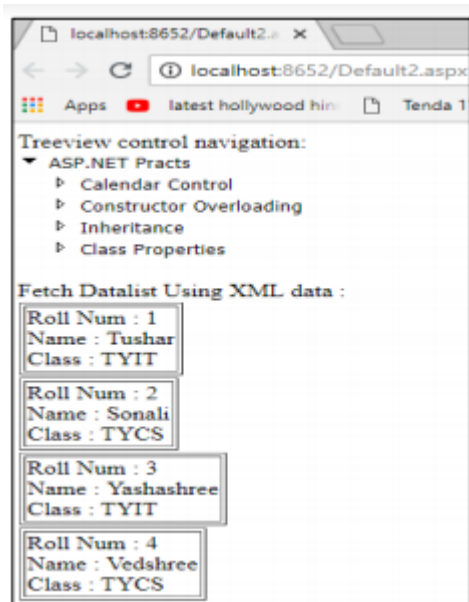
```



Default2.aspx.cs

```
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("stdetail.xml"));
        if (ds != null && ds.HasChanges())
        {
            DataList1.DataSource = ds;
            DataList1.DataBind();
        }
        else
        {
            DataList1.DataBind();
        }
    }
}
```

OUTPUT:-



Practical No.: 4

AIM: Working with form controls

A) Create a web form to demonstrate the Adrotator Control.

XML File

```
<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

```
<asp:AdRotator ID="AdRotator1" runat="server"
DataSourceID="XmlDataSource1" />
<asp:XmlDataSource ID="XmlDataSource1" runat="server"
DataFile="~/ADFILE.xml"></asp:XmlDataSource>
```

OUTPUT:



B) Create web form to demonstrate use User Controls.

MyUserControl.ascx

```
<%@ Control Language="C#" AutoEventWireup="true"
CodeFile="MyUserControl.ascx.cs" Inherits="MyUserControl" %>
<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>
</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" ForeColor="White" Text="
"></asp:Label>
```

MyUserControl.ascx.cs

```
protected void txtSave_Click(object sender, EventArgs e)
```



```
{
Label1.Text = "Your Name is " + txtName.Text + " and you are from " +
txtcity.Text;
}
```

UserControlDisplay.aspx

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="UserControlDisplay.aspx.cs" Inherits="UserControlDisplay"
%>
<%@ Register Src="~/MyUserControl.ascx" TagPrefix="uc"
TagName="Student"%>
<!DOCTYPE html>
<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>
```

OUTPUT :



This is User Control1

Name

City

Your Name is Vithal Wadje and you are from Latur

Practical No.: 5

AIM:- Working with Navigation, Beautification and Master page

- A) Create a web application to demonstrate use of Master Page with applying Styles and Themes for page beautification.

MasterPage.master

```
<%@ Master Language="C#" AutoEventWireup="true"
CodeFile="MasterPage.master.cs"
Inherits="MasterPage" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">

<title>Master Page Demo</title>
<link href="css/my.css" rel="stylesheet" />
<asp:ContentPlaceHolder ID="head" runat="server">
</asp:ContentPlaceHolder>
<style type="text/css">
.auto-style1 {
position: absolute;
top: 373px;
left: 1028px;
bottom: 303px;
}
.auto-style2 {
position: absolute;
top: 537px;
left: 1016px;
z-index: 1;
}
</style>
</head>
<body>
```

```

<!DOCTYPE html>
<form id="form1" runat="server">
<html>
<head>
<title>Master</title>
<link rel="stylesheet" type="text/css" href="StyleSheet.css">
</head>
<body>
<header id="header">
<h1>Demo Of Master Page</h1>
</header>
<nav id="nav">
<ul>
<li><a href="home.aspx">Insight</a></li>
<li><a href="#">Products</a></li>
<li><a href="#">Downloads</a></li>
<li><a href="#">Contact Us</a></li>
</ul>
</nav>
<aside id="side">
<h1>Info</h1>
<a href="#"><p>Product Type 1</p></a>
<a href="#"><p>Product Type 2</p></a>
<a href="#"><p>Product Type 3<a href="#"><asp:ScriptManager
ID="ScriptManager1"
runat="server">
</asp:ScriptManager>
</a>
</p>
<asp:Button ID="Button2" runat="server" CssClass="auto-style1"
style="z-index: 1"
Text="Button" />
<asp:Button ID="Button1" runat="server" CssClass="auto-style2"
Text="Button" />
</aside>
<div id="con">

```

```

<asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
</asp:ContentPlaceHolder>
</div>
<footer id="footer">
copyright @Sambare
</footer>
</body>
</html>
</form>
</body>
</html>

```

MasterDisplay.aspx

```

<%@ Page Title="" Language="C#"
MasterPageFile="~/MasterPage.master"
AutoEventWireup="true" CodeFile="MasterDisplay.aspx.cs"
Inherits="MasterDisplay" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head"
runat="server">
</asp:Content>
<asp:Content ID="Content2"
ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
<h1>Home page</h1>
</asp:Content>

```

```

StyleSheet.css
#header{
color: blueviolet;
text-align: center;
font-size: 20px;
}
#nav{
background-color:darkseagreen;
padding: 5px;

```

```
}
ul{
list-style-type: none;
}
li a {
color:crimson ;
font-size: 30px;
column-width: 5%;
}
li
{
display: inline;
padding-left: 2px;
column-width: 20px;
}
a{
text-decoration: none;
margin-left:20px
}

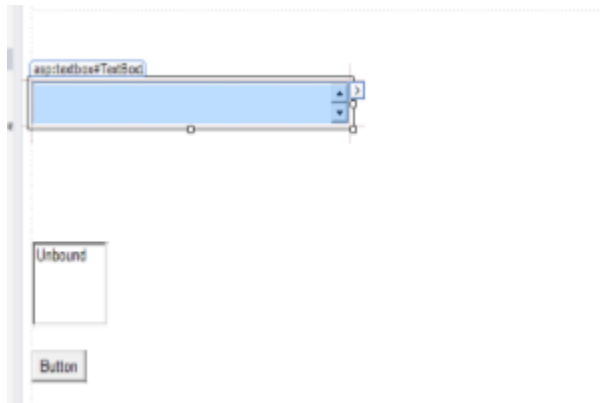
li a:hover{
background-color: aqua;
color:coral ;
padding:1%;
}
#side{
text-align: center;
float: right;
width: 15%;
padding-bottom: 79%;
background-color: #F1FAEE;
}
#article{
background-color: burlywood;
padding: 10px;
padding-bottom: 75%;
```

```
}  
#footer{  
background-color: #C7EFCF;  
text-align:center;  
padding-bottom: 5%;  
font-size: 20px;  
}  
#con{  
border:double;  
border-color:burlywood;  
}
```

Practical no 6 :

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

Default.aspx (create a web page with following design):-



Web.config:-

```
<configuration>
```

```
<system.web>
```

```
<compilation debug="true" targetFramework="4.5.2" />
```

```
<httpRuntime targetFramework="4.5.2" />
```

```
</system.web>
```

```
<connectionStrings>
```

```
<add name="connStr" connectionString="Data
```

```
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename='C:\Users\tushars\Documents\Visual Studio
```

```
2015\WebSites\Workshop\App_Data\Database.mdf';Integrated Security=True" />
```

```
</connectionStrings>
```

```
</configuration>
```

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 DataBinding : 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();
```



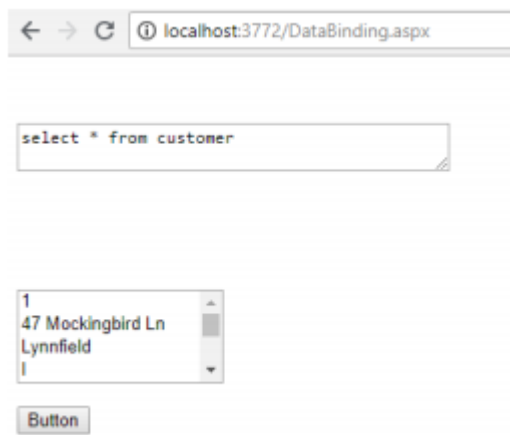
```

while (reader.Read())
{
    //To add new blank line in the text area

    for (int i = 0; i < reader.FieldCount - 1; i++)
    {
        ListBox1.Items.Add(reader[i].ToString());
    }
}
reader.Close();
con.Close();
}
}

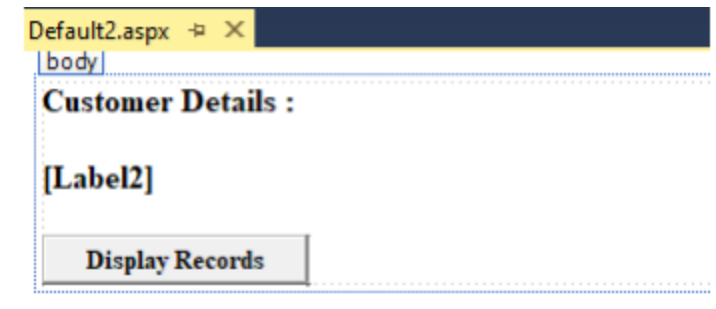
```

6a) output:-



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

Default.aspx (create a web page with following design):-



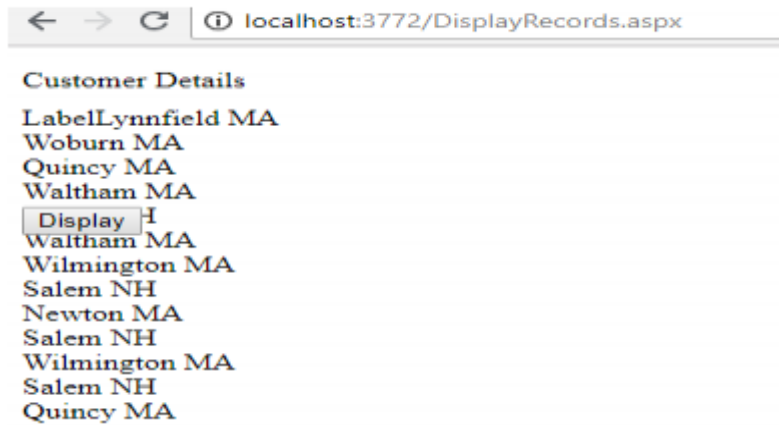
Default.aspx.cs :-

```
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();  
    }
```

6 b) output



Practical no 7:-

7 (a): Create a web application to display Databinding using Dropdownlist control.

Default.aspx (create a web page with following design):-

1. Create a web page with DropDownList control, one Button and one Label control.
2. Use code to bind the data to DropDownList.



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 DBDropDown : System.Web.UI.Page
{
```

```

protected void Page_Load(object sender, EventArgs e)
{
    if (IsPostBack == false)
    {
        string connStr =
            ConfigurationManager.ConnectionStrings["connStr"].Connection
            String;

        SqlConnection con = new SqlConnection(connStr);

        SqlCommand cmd = new SqlCommand("Select Distinct City
            from Customer", con);

        con.Open();

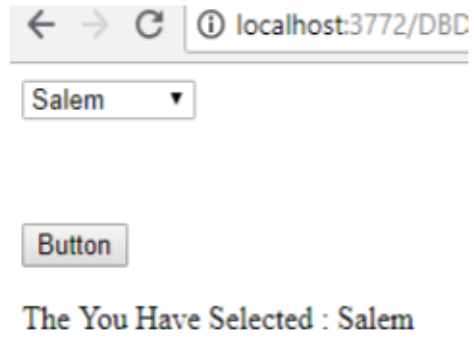
        SqlDataReader reader = cmd.ExecuteReader();

        DropDownList1.DataSource = reader;
        DropDownList1.DataTextField = "City";
        DropDownList1.DataBind();
        reader.Close();
        con.Close();
    }
}

protected void Button1_Click(object sender, EventArgs e)
{
    Label1.Text = "The You Have Selected : " + DropDownList1.SelectedValue;  }}

```

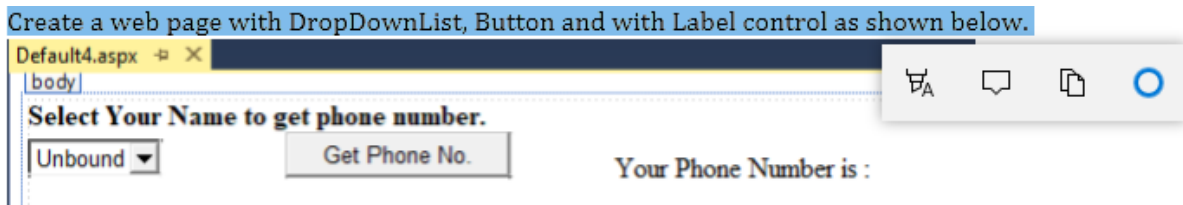
7 a) output:-



7 (b): Create a web application for to display the phone no of an author using database.

Default.aspx (create a web page with following design):-

Create a web page with DropDownList, Button and with Label control as shown below.



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 PostalCodeByCity : System.Web.UI.Page

{

protected void Button1_Click(object sender, EventArgs e)

{

Label1.Text = ListBox1.SelectedValue;

```

    }

    protected void Page_Load(object sender, EventArgs e)
    {
        if (IsPostBack == false)
        {
            string connStr =
                ConfigurationManager.ConnectionStrings["connStr"].Connection
                String;

            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();

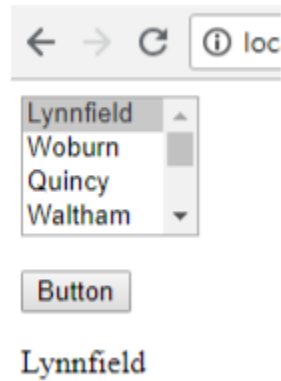
            reader.Close();

            con.Close();

        }
    }
}

```

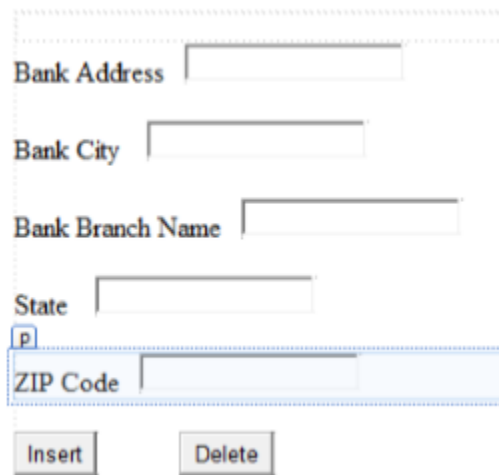

7b) output :-



A screenshot of a web application interface. At the top, there is a navigation bar with back, forward, and refresh icons, and a label 'loc'. Below this is a dropdown menu with the following options: Lynnfield, Woburn, Quincy, and Waltham. The 'Lynnfield' option is currently selected. Below the dropdown menu is a button labeled 'Button'. At the bottom, the text 'Lynnfield' is displayed.

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

Default.aspx (create a web page with following design):-



A screenshot of a web form. The form contains five text input fields with labels: 'Bank Address', 'Bank City', 'Bank Branch Name', 'State', and 'ZIP Code'. The 'ZIP Code' field is highlighted with a blue border. Below the input fields are two buttons: 'Insert' and 'Delete'.

Default.aspx.cs:-

```

using System;
using System.Collections.Generic;
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 ExecuteNonQuery : 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 Successfully.";

        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 Successfully.";

    con.Close( ); } }

```

8)b) Create a web application To demonstrate data binding using DetailsView and FormView control.

```

using System;
using System.Data;
using System.Data.SqlClient;
using System.Linq;
using System.Web;
using System.Web.UI;

```

```

using System.Web.UI.WebControls;
using System.Collections.Generic;
namespace WebApplication1
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        SqlDataAdapter da = new SqlDataAdapter();
        SqlConnection con = new SqlConnection();
        SqlCommand cmd = new SqlCommand();
        DataSet ds = new DataSet();
        string str;
        protected void Page_Load(object sender, EventArgs e)
        {
            con.ConnectionString = "Data
            Source=(LocalDB)\\v11.0;AttachDbFilename=C:\\Users\\SAHIL\\Documents\\Stud
            ents.mdf;Inte
            grated Security=True;Connect Timeout=30";
            con.Open();
            Label4.Text = "Connected To Server";
            con.Close();
        }
        protected void Button1_Click(object sender, EventArgs e)
        {
            str = "insert into stud_mast values(" + TextBox1.Text + " , ' " + TextBox2.Text + " ' ,
            " +
            TextBox3.Text + ")";

```

```

con.Open();
cmd = new SqlCommand(str,con);
cmd.ExecuteNonQuery();
con.Close();
Label4.Text = " Save Successfull ";

TextBox1.Text = " ";
TextBox2.Text = " ";
TextBox3.Text = " ";
}

protected void DropDownList1_SelectedIndexChanged(object sender, EventArgs e)
{
}

protected void Button4_Click(object sender, EventArgs e)
{
str = "select * from stud_mast where stud_id= " + DropDownList1.Text + " ";
da = new SqlDataAdapter(str, con);
ds = new DataSet();
da.Fill(ds,"stud_mast");
TextBox1.Text = ds.Tables["stud_mast"].Rows[0]["stud_id"].ToString();
TextBox2.Text = ds.Tables["stud_mast"].Rows[0]["stud_name"].ToString();
TextBox3.Text = ds.Tables["stud_mast"].Rows[0]["phn_no"].ToString();
}

protected void Button2_Click(object sender, EventArgs e)

```

```

{
str = "update stud_mast set stud_name= ' " + TextBox2.Text + " ', phn_no= "
+TextBox3.Text+" where stud_id= "+DropDownList1.Text+" ";
con.Open();
cmd = new SqlCommand(str, con);
cmd.ExecuteNonQuery();
con.Close();
Label4.Text = " Update Successfull ";
}

protected void Button3_Click(object sender, EventArgs e)
{
str = "delete from stud_mast where stud_id=" + DropDownList1.Text + " ";
con.Open();
cmd = new SqlCommand(str, con);
cmd.ExecuteNonQuery();
con.Close();
Label4.Text = " Update Successfull ";
}}

```

Output:-

File Edit View History Bookmarks Tools Help

http://localho...WebForm1.aspx X +

localhost:50309/WebForm1.aspx

ID

Name

Phone No

Add Update Delete

Connected To Server 1 ▾

Search

File Edit View History Bookmarks Tools Help

http://localho...WebForm1.aspx X +

localhost:50309/WebForm1.aspx

ID 4

Name abcd

Phone No 9876543210

Add Update Delete

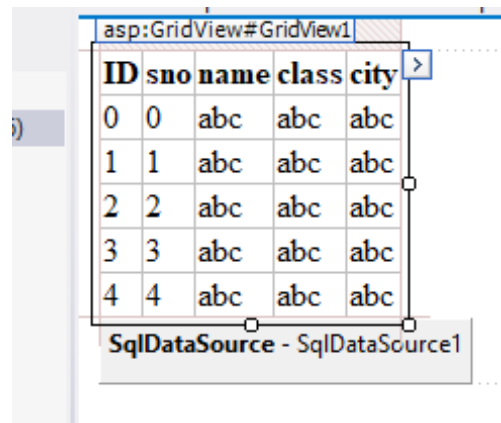
Connected To Server 4 ▾

Search

Practical no.9

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

Grid_view.aspx:-



ID	sno	name	class	city
0	0	abc	abc	abc
1	1	abc	abc	abc
2	2	abc	abc	abc
3	3	abc	abc	abc
4	4	abc	abc	abc

SqlDataSource - SqlDataSource1

Grid_view.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.Drawing;

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

    }

    protected void GridView1_RowCommand(object sender,
    GridViewCommandEventArgs e)
    {
        if (e.CommandName == "b1")
        {
            Response.Write(e.CommandName);
            GridView1.SelectedRowStyle.BackColor=System.Drawing.Color.Brown;
        }
    }
}
```

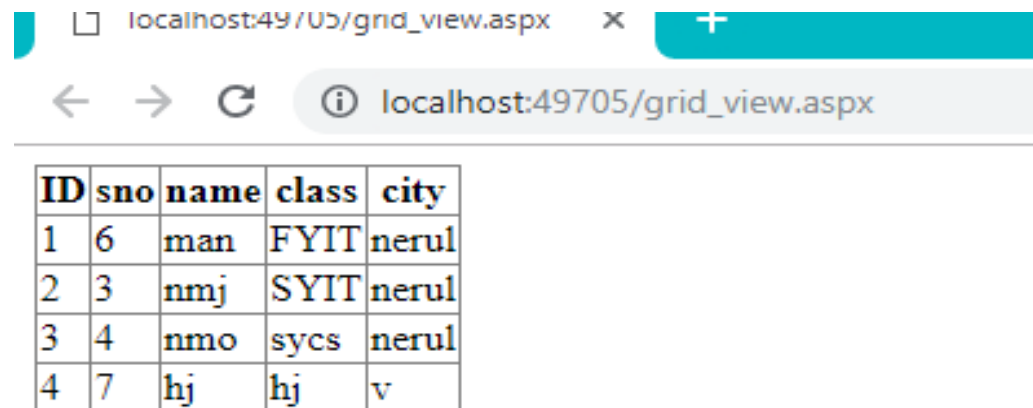


```

GridView1.Rows[Convert.ToInt16(e.CommandArgument)].BackColor =
System.Drawing.Color.Blue;
    }
}
}

```

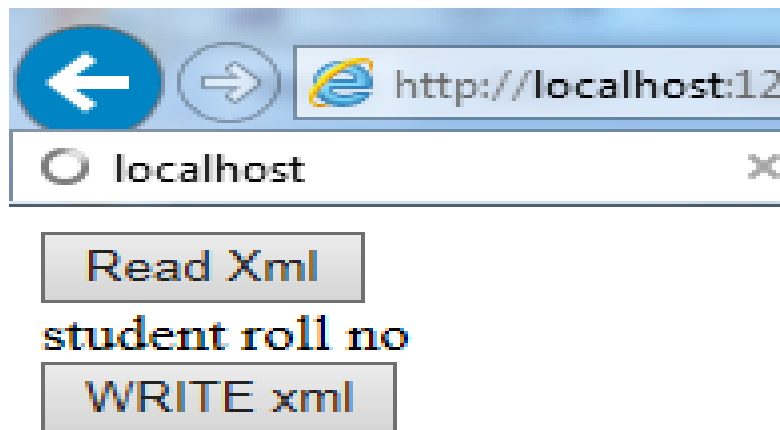
9) output:-



The screenshot shows a web browser window with the address bar displaying 'localhost:49705/grid_view.aspx'. Below the browser window, a table is displayed with the following data:

ID	sno	name	class	city
1	6	man	FYIT	nerul
2	3	nmj	SYIT	nerul
3	4	nmo	sycs	nerul
4	7	hj	hj	v

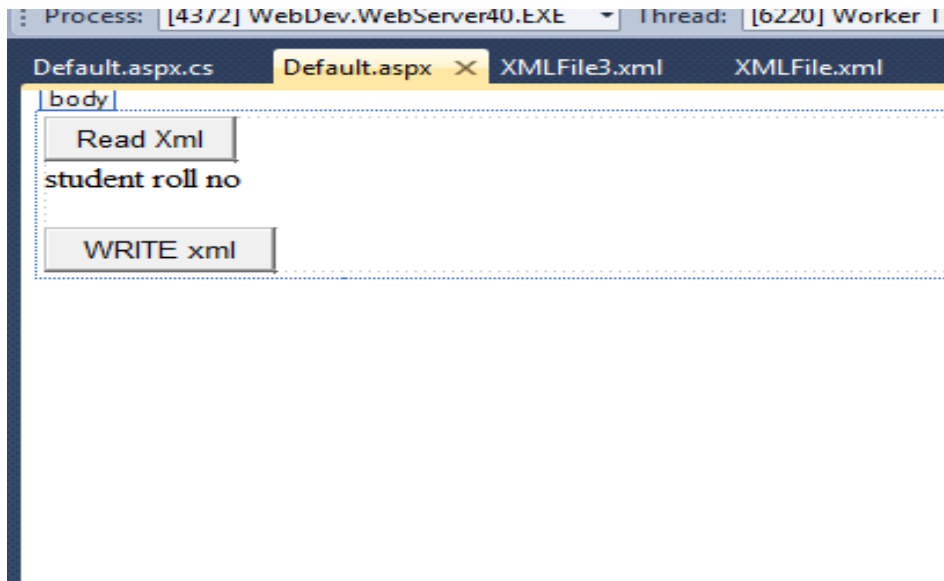
10 a) output:-



Practical no 10

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

Default.aspx:-



Default.aspx.cs:-

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

public partial class _Default : System.Web.UI.Page
{
    protected void Button1_Click(object sender, EventArgs e)
    {

```

```

XmlReader red = XmlReader.Create(@"C:\Users\Admin\Documents\Visual Studio
2010\WebSites\WebSite24\XMLFile.xml");
while (red.Read())
{
if (red.NodeType.Equals(XmlNodeType.Element))
{
string s = Label1.Text + "";
    Label1.Text = s + red.Name;
}
}
red.Close();
}
protected void Button2_Click(object sender, EventArgs e)
{
XmlWriterSettings set = new XmlWriterSettings();
set.Indent = true;
XmlWriterwr = XmlWriter.Create(@"C:\Users\Admin\Documents\Visual Studio
2010\WebSites\WebSite24\XMLFile3.xml",set);
wr.WriteStartDocument();
wr.WriteComment("EXAMPLE OF WRITE A XML DOCUMENT");
wr.WriteStartElement("student");
wr.WriteEndElement();
}
}

```

Practical 11:-

11) Programs to create and use DLL

Class1.cs:-

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

```
namespace ClassLibrary5
{
    public class Class1
    {
        public int add(int a, int b)
        {
            int c = a + b;
            return c;
        }
    }
}
```

ConsoleApplication5.cs:-

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

```
namespace ConsoleApplication5
{
    class Program
    {
        static void Main(string[] args)
        {
            ClassLibrary5.Class1 c = new ClassLibrary5.Class1();
            int t = c.add(1, 2);
            Console.WriteLine("addition={0}", t);
            Console.ReadKey();
        }
    }
}
```

```
}  
}  
}
```

11) output:-

