.NET TECHNOLOGY Lab Practical

EnrollmentNo:
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Contents

Practical 1

AIM:

Introduction to C#

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;


namespace Program1

{

    class vector

    {

        public int value;

    }

    class Program1

    {

        static int i = 25;

        public enum TimeOfDay

        {

            Morning = 0,

            Afternoon = 1,

            Evening = 2

        }

        static void Main(string[] args)

        {

            Console.WriteLine("This is first program");

            //Scope of variables

            int i=5;
```

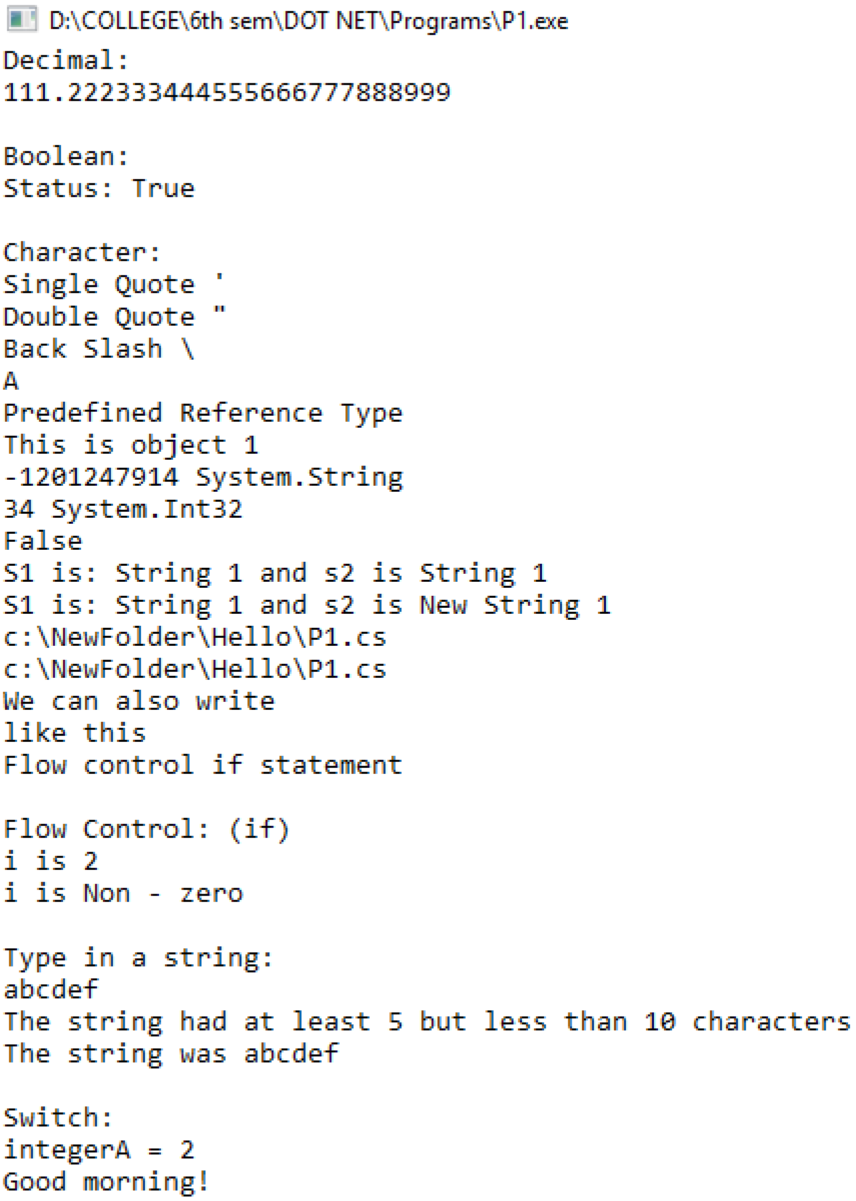
```
Console.WriteLine("Scope of the variable {0}",i);
for (i = 0; i < 2; i++)
{
    Console.WriteLine("{0} {1}",i,Program1.i);
}
for (int k = 0; k < 2; k++)
{
    Console.WriteLine("{0}",k);
}
//Constant
const int valueConst=25;
Console.WriteLine("{0}",valueConst);
//valueConst = 15;
const int valueConst2 = 15;
Console.WriteLine("{0}", valueConst2);
//valueConst = valueConst2;
Console.WriteLine("{0}",valueConst);
//Value Type DataTypes
Console.WriteLine("Value Type");
int val1, val2;
val1 = 50;
Console.WriteLine("val1= {0}",val1);
val2 = val1;
Console.WriteLine("val1= {0} val2= {1}", val1,val2);
//Reference Type
Console.WriteLine("Reference Type");
vector x, y;
x = new vector();
x.value = 15;
y = x;
```

```
            Console.WriteLine("x = {0}  y = {1}", x.value,y.value);

            y.value = 151;

            Console.WriteLine("x = {0}  y = {1}", x.value, y.value);

            Console.WriteLine("\n Interger Types");

            sbyte sb = 22;

            short s = 22;

            int i1 = 22;

            long l = 22L;

            Console.WriteLine("{0} sbtye\n{1} short\n{2} int\n{3}
long\n",sb,s,i1,l);

            Console.WriteLine("Unsigned Integers");

            byte b = 21;

            ushort us = 21;

            uint ui = 21;

            ulong ul = 21;

            Console.WriteLine("{0} btye\n{1} ushort\n{2} uint\n{3} ulong\n", b,
      us, ui, ul);

            Console.WriteLine("Floating Point");

            float f = 11.22334455F;

            double d = 11.2233445566778899;

            Console.WriteLine("{0} float\n{1} double", f, d);

            decimal dec = 111.222333444555666777888999M;

            Console.WriteLine("Decimal:\n{0}", dec);

            Console.WriteLine("\nBoolean:");

            bool valBoolean = true;

            Console.WriteLine("Status: " + valBoolean);

            Console.WriteLine("\nCharacter:\nSingle Quote \'");

            Console.WriteLine("Double Quote \"");

            Console.WriteLine("Back Slash \\");

            char charA = 'A';

            Console.WriteLine(charA);
```

```
int integerA = 2;

Console.WriteLine("Predefined Reference Type");

Object o1 = "This is object 1";

Object o2 = 34;

String strObj = o1 as string;

Console.WriteLine(strObj);

Console.WriteLine(o1.GetHashCode() + " " + o1.GetType());

Console.WriteLine(o2.GetHashCode() + " " + o2.GetType());

Console.WriteLine(o1.Equals(o2));

string s1, s2;

s1 = "String 1";

s2 = s1;

Console.WriteLine("S1 is: {0} and s2 is {1}", s1, s2);

s2 = "New String 1";

Console.WriteLine("S1 is: {0} and s2 is {1}", s1, s2);

s1 = "c:\\NewFolder\\Hello\\P1.cs";

Console.WriteLine(s1);

s1 = @"c:\NewFolder\Hello\P1.cs";

Console.WriteLine(s1);

s1 = @"We can also write

like this";

Console.WriteLine(s1);

Console.WriteLine("Flow control if statement");

bool isZero;

Console.WriteLine("\nFlow Control: (if)\ni is " + i);

if (i == 0)

{

    isZero = true;

    Console.WriteLine("i is Zero");

}
```

```
            else
            {
                isZero = false;
                Console.WriteLine("i is Non - zero");
            }
            //else if
            Console.WriteLine("\nType in a string:");
            string input;
            input = Console.ReadLine();
            if (input == "")
            {
                Console.WriteLine("You typed in an empty string");
            }
            else if (input.Length < 5)
            {
                Console.WriteLine("The string had less than 5 characters");
            }
            else if (input.Length < 10)
            {
                Console.WriteLine("The string had at least 5 but less than 10
characters");
            }
            Console.WriteLine("The string was " + input);
            Console.WriteLine("\nSwitch:");

            switch (integerA)
            {
                case 1:
                    Console.WriteLine("integerA = 1");
                    break;
                case 2:
                    Console.WriteLine("integerA = 2");
                    //goto case 3;
                    break;
                case 3:
                    Console.WriteLine("integerA = 3");
                    break;
                default:
                    Console.WriteLine("integerA is not 1, 2, or 3");
                    break;
            }

            WriteGreeting(TimeOfDay.Morning);
            Console.WriteLine("Argument is: {0}", args[1]);
            Console.ReadLine();
        }
        static void WriteGreeting(TimeOfDay timeOfDay)
        {
            switch (timeOfDay)
            {
                case TimeOfDay.Morning:
                    Console.WriteLine("Good morning!");
                    break;
                case TimeOfDay.Afternoon:
                    Console.WriteLine("Good afternoon!");
                    break;
                case TimeOfDay.Evening:
                    Console.WriteLine("Good evening!");
                    break;
                default:
                    Console.WriteLine("Hello!");

                    break;

            }

        }

    }


}
```

Output:



```
D:\COLLEGE\6th sem\DOT NET\Programs\P1.exe
Decimal:
111.222333444555666777888999

Boolean:
Status: True

Character:
Single Quote '
Double Quote "
Back Slash \
A
Predefined Reference Type
This is object 1
-1201247914 System.String
34 System.Int32
False
S1 is: String 1 and s2 is String 1
S1 is: String 1 and s2 is New String 1
c:\NewFolder\Hello\P1.cs
c:\NewFolder\Hello\P1.cs
We can also write
like this
Flow control if statement

Flow Control: (if)
i is 2
i is Non - zero

Type in a string:
abcdef
The string had at least 5 but less than 10 characters
The string was abcdef

Switch:
integerA = 2
Good morning!
```

Practical 2

Program 1:

AIM:

Print given Pattern

@ @ @ @ @

@ @ @ @

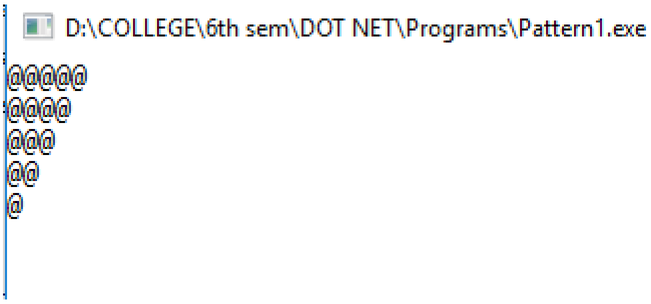
@ @ @

@ @

@

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

namespace Pattern1
{
    class Program
    {
        static void Main(string[] args)
        {
            for (int i = 5; i > 0; i--)
            {
                for (int j = 0; j <i; j++)
                {
                    Console.Write("@");
                }
                Console.WriteLine();
            }
            Console.ReadKey();
        }
    }
}
```

Output:



```
D:\COLLEGE\6th sem\DOT NET\Programs\Pattern1.exe
@@@@@
@@@@
@@@
@@
@
```

Program 2

AIM:

Print given Pattern.

1

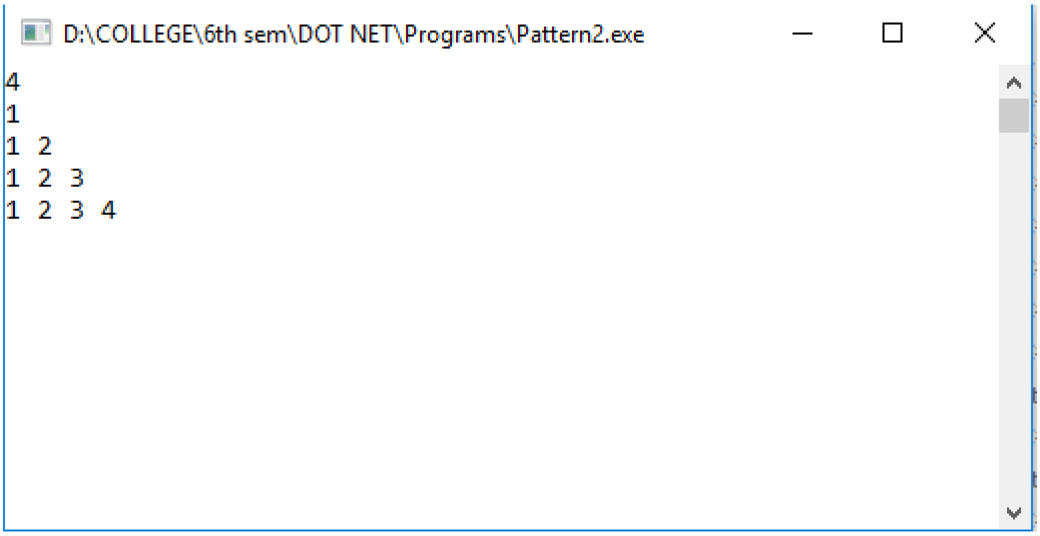
1 2

1 2 3

1 2 3 4

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

namespace Pattern2
{
    class Program
    {
        static void Main(string[] args)
        {
            String s = Console.ReadLine();
            int value = int.Parse(s);
            for (int i = 1; i <= value; i++)
            {
                for (int j = 1; j <=i; j++)
                {
                    Console.Write("{0} ",j);
                }
                Console.WriteLine();
            }
            Console.ReadKey();
        }
    }
}
```

Output:-



```
4
1
1 2
1 2 3
1 2 3 4
```

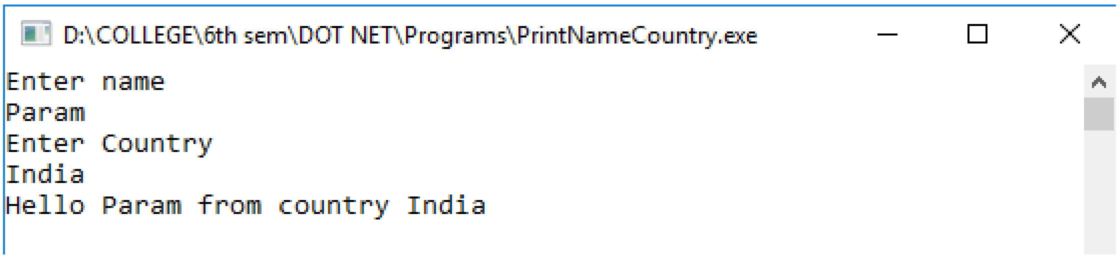
Program 3

AIM:

Prompt a user to input his/her name and country name and print on console Hello Ram from country India

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;


namespace PrintNameCountry

{

    class Program

    {

        static void Main(string[] args)

        {

            Console.WriteLine("Enter name");

            String name = Console.ReadLine();

            Console.WriteLine("Enter Country");

            String country = Console.ReadLine();

            Console.WriteLine("Hello {0} from country {1}", name, country);

            Console.ReadKey();

        }

    }

}
```

Output:



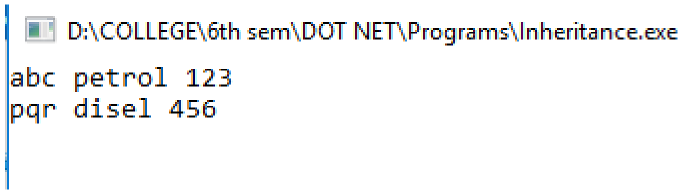
```
Enter name
Param
Enter Country
India
Hello Param from country India
```

Program 4

AIM: Create C# console application to define Car class and derive Maruti and Mahindra from it to Demonstrate Inheritance.

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;


namespace Inheritance

{

    class Car

    {

       protected String name, fuel,id;

    }

    class Maruti: Car

    {

        internal Maruti(String name, String fuel, String id)

        {

            this.name = name;

            this.fuel = fuel;

            this.id = id;

            Console.WriteLine("{0} {1} {2}",this.name, this.fuel, this.id);

        }

    }

    class Mahindra : Car

    {

        internal Mahindra(String name, String fuel, String id)

        {

            this.name = name;

            this.fuel = fuel;
            this.id = id;

            Console.WriteLine("{0} {1} {2}",this.name, this.fuel, this.id);

        }

    }

    class Program

    {

        static void Main(string[] args)

        {

            Maruti obj1= new Maruti("abc","petrol","123");

            Mahindra obj2 =new Mahindra("pqr","disel","456");

            Console.ReadKey();

        }

    }

}
```

Output:



```
abc petrol 123
pqr disel 456
```

Practical 3

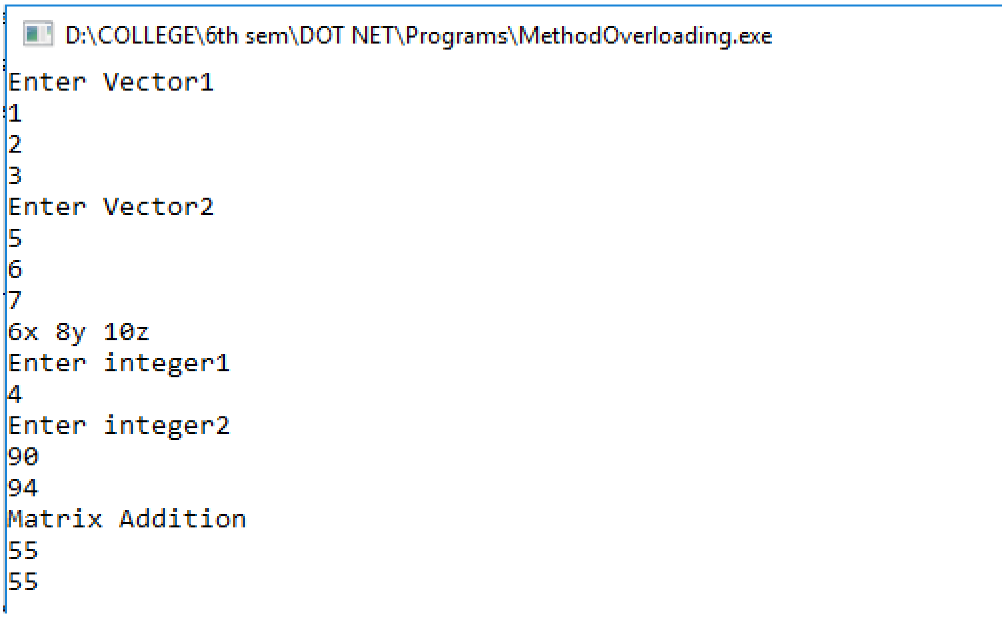
Program 1

Method Overloading

AIM: Write a c# program to add two integers, two vectors and two metric using Method Overloading.

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;


namespace MethodOverloading

{

    class Vector

    {

        internal int x, y, z;

        internal Vector(int x, int y, int z)

        {

            this.x = x;

            this.y = y;

            this.z = z;

        }

        internal Vector() { }

    }

    class Matrix

    {

        internal int [,] m = new int[2,2];

        internal Matrix(){}

    }

    class Program
    {
        static void add(int a, int b)
        {
            int temp = a + b;
            Console.WriteLine(temp);
        }
        static void add(Vector a, Vector b)
        {
            Vector temp = new Vector();
            temp.x = a.x + b.x;
            temp.y = a.y + b.y;
            temp.z = a.z + b.z;
            Console.WriteLine("{0}x {1}y {2}z", temp.x, temp.y, temp.z);

        }
        static void add(Matrix a, Matrix b)
        {
            Matrix temp = new Matrix();
            for (int i = 0; i < 2; i++)
            {
                for (int j = 0; j < 2; j++)
                {
                    temp.m[i, j]=a.m[i,j]+b.m[i,j];
                    Console.Write(temp.m[i, j]);
                }
                Console.WriteLine();
            }
        }
        static void Main(string[] args)
        {
            Console.WriteLine("Enter Vector");

            Vector a = new Vector(int.Parse(Console.ReadLine()),
int.Parse(Console.ReadLine()), int.Parse(Console.ReadLine()));

            Vector b = new Vector(int.Parse(Console.ReadLine()),
int.Parse(Console.ReadLine()), int.Parse(Console.ReadLine()));

            add(a, b);

            Console.WriteLine("Enter integer");

            int x = int.Parse(Console.ReadLine());

            int y = int.Parse(Console.ReadLine());

            add(x, y);

            Matrix m1 = new Matrix();

            Matrix m2 = new Matrix();

            m1.m[0, 0] = 2;

            m1.m[0, 1] = 2;

            m1.m[1, 0] = 2;

            m1.m[1, 1] = 2;

            m2.m[0, 0] = 3;

            m2.m[0, 1] = 3;

            m2.m[1, 0] = 3;

            m2.m[1, 1] = 3;

            add(m1, m2);

            Console.ReadKey();

        }

    }

}
```

Output:



D:\COLLEGE\6th sem\DOT NET\Programs\MethodOverloading.exe

```
Enter Vector1
1
2
3
Enter Vector2
5
6
7
6x 8y 10z
Enter integer1
4
Enter integer2
90
94
Matrix Addition
55
55
```

Program 2

Constructor Overloading

AIM: Write a c# program that create student object. Overload Constructor to create new instant with following details.

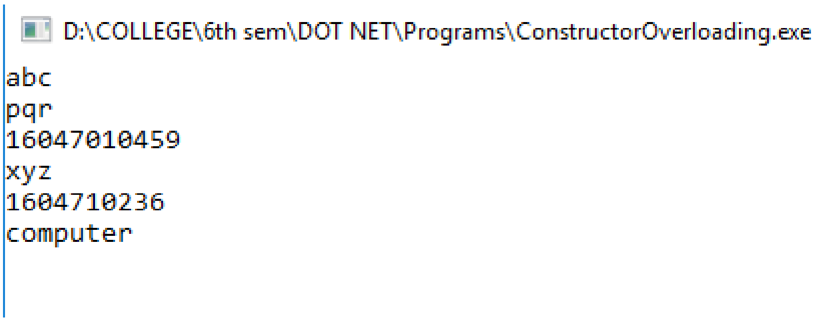
1. Name

2. Name, Enrollment

3. Name, Enrollment, Branch

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;


namespace ConstructorOverloading

{

    class Student

    {

        String name,enroll_no,branch;
        public Student(String name)
        {
            this.name = name;
        }
        public Student(String name, String enroll_no)
        {
            this.name = name;
            this.enroll_no = enroll_no;
        }
        public Student(String name, String enroll_no, String branch)
        {
            this.name = name;
            this.enroll_no = enroll_no;
            this.branch = branch;
        }
        internal String getName()
        {
            return this.name;
        }
        internal String getEnroll()
        {
            return this.enroll_no;
        }
        internal String getBranch()
        {
            return this.branch;
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Student s1 = new Student("abc");
            Console.WriteLine(s1.getName());
            Student s2 = new Student("pqr", "16047010459");
            Console.WriteLine(s2.getName());
            Console.WriteLine(s2.getEnroll());
            Student s3 = new Student("xyz", "1604710236", "computer");
            Console.WriteLine(s3.getName());
            Console.WriteLine(s3.getEnroll());
            Console.WriteLine(s3.getBranch());
            Console.ReadKey();
        }
    }
}
```

Output:



D:\COLLEGE\6th sem\DOT NET\Programs\ConstructorOverloading.exe

```
abc
pqr
16047010459
xyz
1604710236
computer
```

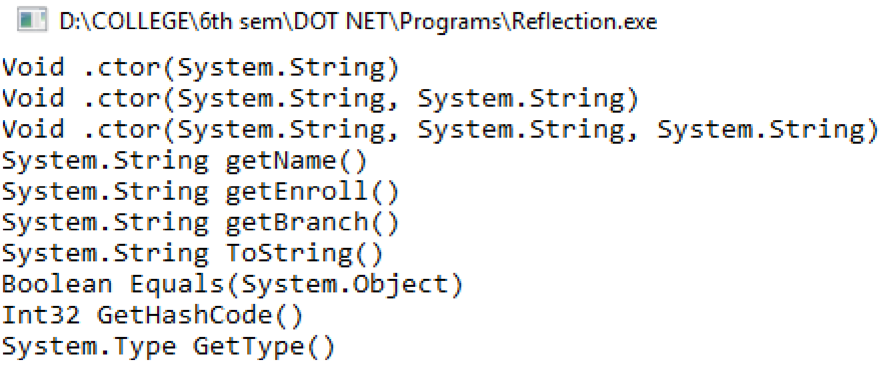
Practical 4

Reflection API

AIM: Create a c# program to find Methods, Properties and Constructors from class of running program using Reflection API.

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Reflection;


namespace Reflection

{

    class Student

    {

        String name, enroll_no, branch;

        public Student(String name)

        {

            this.name = name;

        }

        public Student(String name, String enroll_no)

        {

            this.name = name;

            this.enroll_no = enroll_no;

        }

        public Student(String name, String enroll_no, String branch)

        {

            this.name = name;

            this.enroll_no = enroll_no;

            this.branch = branch;
        }
        public String getName()
        {
            return this.name;
        }
        public String getEnroll()
        {
            return this.enroll_no;
        }
        public String getBranch()
        {
            return this.branch;
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Type t = Type.GetType("Reflection.Student");
            ConstructorInfo[] ci = t.GetConstructors();
            MethodInfo[] mi = t.GetMethods();
            foreach (ConstructorInfo c in ci)
            {
                Console.WriteLine(c.ToString());
            }
            foreach (MethodInfo m in mi)
            {
                Console.WriteLine(m.ToString());
            }
            Console.ReadLine();
        }

    }

}
```

Output:



D:\COLLEGE\6th sem\DOT NET\Programs\Reflection.exe

```
Void .ctor(System.String)
Void .ctor(System.String, System.String)
Void .ctor(System.String, System.String, System.String)
System.String getName()
System.String getEnroll()
System.String getBranch()
System.String ToString()
Boolean Equals(System.Object)
Int32 GetHashCode()
System.Type GetType()
```

Practical 5

AIM:

Program to copy data from one file to another using StreamReader and StreamWriter class.

Program 1

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.IO;

namespace CopyFile1

{

    class Program

    {

        static void Main(string[] args)

        {

            String file1 = @"F:\16ce043\source.txt";

            String file2 = @"F:\16ce043\destination1.txt";

            using (StreamReader reader = new StreamReader(file1))

            {

                using (StreamWriter writer = new StreamWriter(file2))

                {

                    writer.Write(reader.ReadToEnd());

                }

            }

        }

    }

}
```

Program to Read Lines from a File until the End of File is Reached.

Program 2

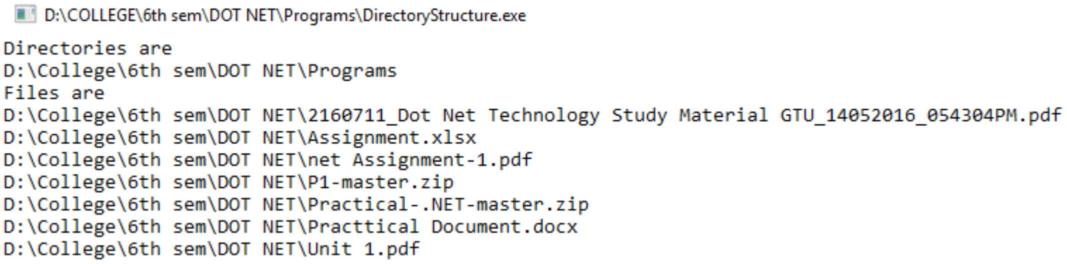
```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.IO;

namespace CopyFile2

{

    class Program

    {

        static void Main(string[] args)

        {

            String file1 = @"F:\16ce043\source.txt";

            String file2 = @"F:\16ce043\destination2.txt";

            String content = null;

            using (StreamReader reader = new StreamReader(file1))

            {

                using (StreamWriter writer = new StreamWriter(file2))

                {

                    while ((content = reader.ReadLine())!= null)

                    {

                        writer.WriteLine(content);

                    }

                }

            }

        }
    }
}
```

Program to List Files in a Directory.

Program 3

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.IO;
namespace DirectoryStructure
{
    class Program
    {
        static void Main(string[] args)
        {
            String[] directories = Directory.GetDirectories(@"F:\16ce043");
            String[] files = Directory.GetFiles(@"F:\16ce043");
            Console.WriteLine("Directories are");
            foreach (String dir in directories)
                Console.WriteLine(dir);
            Console.WriteLine("Files are");
            foreach (String file in files)
                Console.WriteLine(file);
            Console.ReadKey();
        }
    }
}
```

Output:



```
Directories are
D:\College\6th sem\DOT NET\Programs
Files are
D:\College\6th sem\DOT NET\2160711_Dot Net Technology Study Material GTU_14052016_054304PM.pdf
D:\College\6th sem\DOT NET\Assignment.xlsx
D:\College\6th sem\DOT NET\net Assignment-1.pdf
D:\College\6th sem\DOT NET\P1-master.zip
D:\College\6th sem\DOT NET\Practical-.NET-master.zip
D:\College\6th sem\DOT NET\Practtical Document.docx
D:\College\6th sem\DOT NET\Unit 1.pdf
```

Practical 6

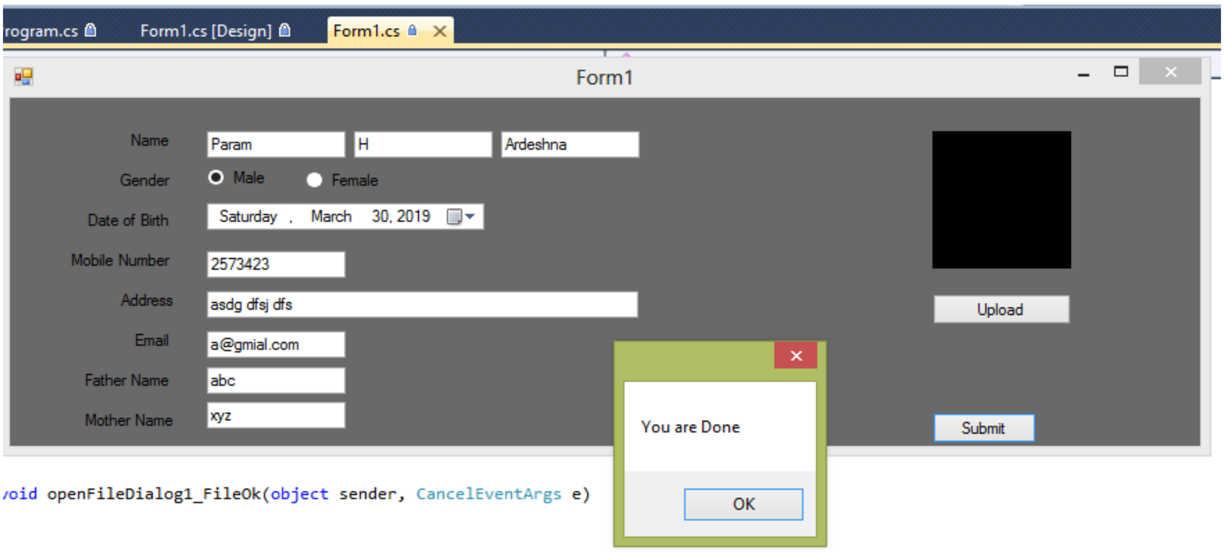
WindowsFromApplication

Create Windows Form Application for Student Registration and store student Details in DataBase.

Form1.cs

```
using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Data.SqlClient;


namespace StudentRegistrationForm

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        private void Gender_Click(object sender, EventArgs e)

        {

        }

        private void Submit_Click(object sender, EventArgs e)

        {

            String gender;
            if (rdoMale.Checked == true)

            {

                gender = "Male";

            }

            else

            {

                gender = "Female";

            }

            String source = @"Data Source=mycomputer\sqlexpress;Initial
Catalog=DBstudent;Integrated Security=True;Pooling=False";

            String select = "select count(*) from tblStudent;";

            SqlConnection conn=new SqlConnection(source);

            SqlCommand cmd=new SqlCommand(select,conn);

            conn.Open();

            int i=Convert.ToInt32(cmd.ExecuteScalar());

            int pkStudent=i+1;

            string insert="insert into
tblStudent(pkStudent,fname,mname,lname,dob,Address,email,Father_name,Mother_name,M
obile_Number,Gender)
values("+pkStudent+",'"+txtFirstName.Text+"','"+txtMiddleName.Text+"','"+txtLastNa
me.Text+"','"+datepickDOB.Value.Date+"','"+txtAddress.Text+"','"+txtEmail.Text+"',
'"+txtFatherName.Text+"','"+txtMotherName.Text+"',"+txtMobNo.Text+",'"+gender+"')"
;

            cmd= new SqlCommand(insert,conn);

            int a= cmd.ExecuteNonQuery();

            MessageBox.Show("You are Done");

            InitializeComponent();

        }

        private void openFileDialog1_FileOk(object sender, CancelEventArgs e)

        {

        }

        private void btnUpload_Click(object sender, EventArgs e)

        {
                openFileDialog1.Filter = "Jpg|*.jpg";

            if (openFileDialog1.ShowDialog() == DialogResult.OK)

            {

                String imgPath;

                imgPath = @"F:\16ce043\StudentRegistrationForm"+
openFileDialog1.SafeFileName;

                imgStudent.Image = Image.FromFile(openFileDialog1.FileName);

            }

        }

        private void Form1_Load(object sender, EventArgs e)

        {

            rdoMale.Checked = true;

        }

    }

}
```

Output:-



Name: Param | H | Ardeshna

Gender: ● Male ○ Female

Date of Birth: Saturday , March 30, 2019

Mobile Number: 2573423

Address: asdg dfsj dfs

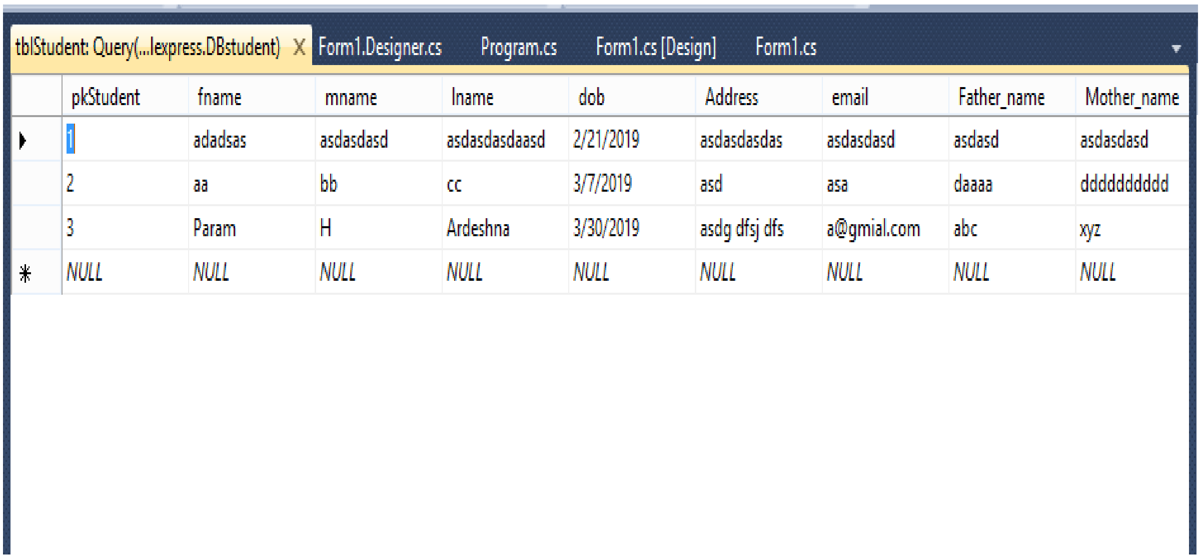
Email: a@gmial.com

Father Name: abc

Mother Name: xyz

You are Done

```
void openFileDialog1_FileOk(object sender, CancelEventArgs e)
```



	pkStudent	fname	mname	lname	dob	Address	email	Father_name	Mother_name
▶	1	adadsas	asdasdasd	asdasdasdaasd	2/21/2019	asdasdasdas	asdasdasd	asdasd	asdasdasd
	2	aa	bb	cc	3/7/2019	asd	asa	daaaa	dddddddddd
	3	Param	H	Ardeshna	3/30/2019	asdg dfsj dfs	a@gmial.com	abc	xyz
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Practical 7

AIM:

ASP.NET Validation Control
RequiredFieldValidator, CompareValidator, RegularExpressionValidator, CustomValidator,
RangeValidator, ValidationSummary.

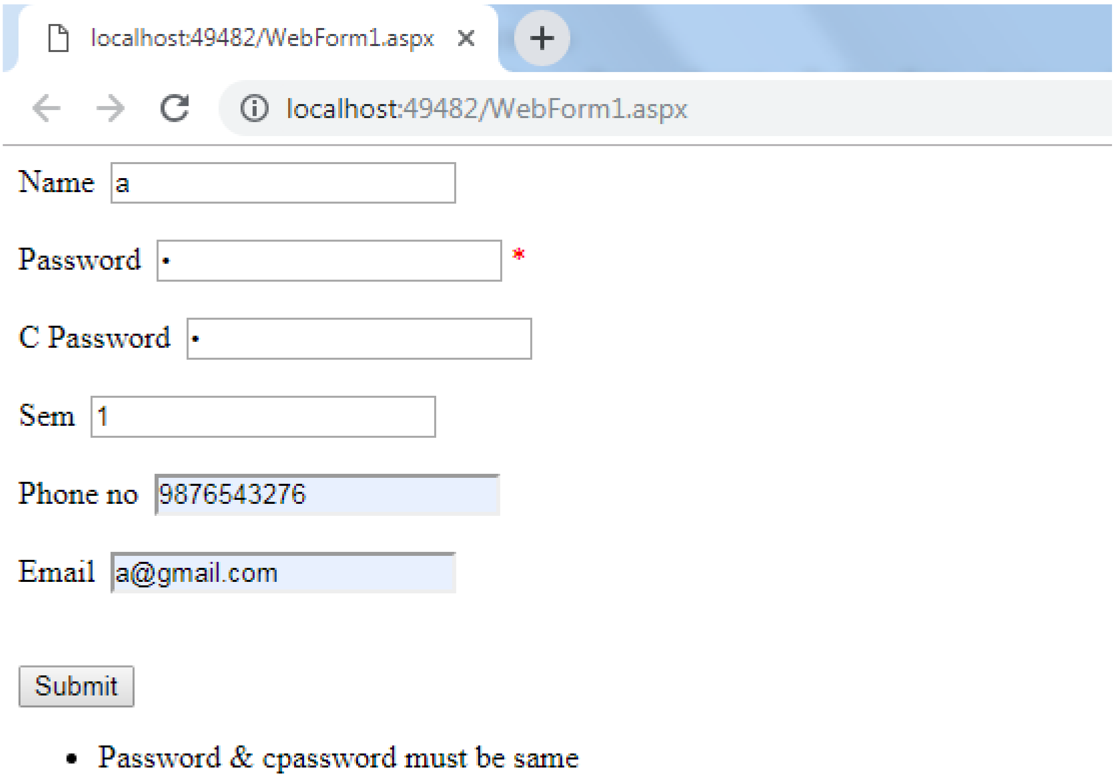
WebForm1.aspx

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



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



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

<head runat="server">

    <title></title>

</head>

<body>

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

    <div>


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

        <asp:TextBox ID="txtName" runat="server"></asp:TextBox>

        <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"

            ControlToValidate="txtName" Display="Dynamic" ErrorMessage="Please
Enter Name"

            ForeColor="Red">*</asp:RequiredFieldValidator>

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

    <asp:TextBox ID="txtEmail" runat="server"></asp:TextBox>

    <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
runat="server"

        ControlToValidate="txtEmail" Display="Dynamic" ErrorMessage="Enter valid
email"

        ForeColor="Red"

        ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-
.]\w+)*">*</asp:RegularExpressionValidator>

    <p>

        <asp:Label ID="Label3" runat="server" Text="Mobile"></asp:Label>

        <asp:TextBox ID="txtMobile" runat="server"></asp:TextBox>

        <asp:RegularExpressionValidator ID="RegularExpressionValidator2"
runat="server"

            ControlToValidate="txtMobile" ErrorMessage="Enter valid Mobile number"

            ForeColor="Red" ValidationExpression="[0-
9]{10}"></asp:RegularExpressionValidator>

    </p>

    <p>

        <asp:Label ID="Label4" runat="server" Text="Password"></asp:Label>

        <asp:TextBox ID="txtPassword" runat="server"></asp:TextBox>

    </p>

    <p>

        <asp:Label ID="Label5" runat="server" Text="Confirm Password"></asp:Label>

        <asp:TextBox ID="txtConfirm" runat="server"></asp:TextBox>

        <asp:CompareValidator ID="CompareValidator1" runat="server"

            ControlToCompare="txtPassword" ControlToValidate="txtConfirm"
Display="Dynamic"

            ErrorMessage="CompareValidator"
ForeColor="Red"></asp:CompareValidator>

    </p>

    <p>

        <asp:Label ID="Label6" runat="server" Text="Semester"></asp:Label>
        <asp:TextBox ID="txtSemester" runat="server"></asp:TextBox>

        <asp:RangeValidator ID="RangeValidator1" runat="server"

            ControlToValidate="txtSemester" ErrorMessage="RangeValidator"
ForeColor="Red"

            MaximumValue="8" MinimumValue="1" Type="Integer"></asp:RangeValidator>

    </p>

    <p>

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

    </p>

    <asp:ValidationSummary ID="ValidationSummary1" runat="server" />

    </form>

</body>

</html>
```

WebForm1.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace ValidationControls

{

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

    {

        protected void Page_Load(object sender, EventArgs e)

        {

        }

        protected void Button1_Click(object sender, EventArgs e)

        {
            }
        }
    }
```

Output:-



Name a

Password • *

C Password •

Sem 1

Phone no 9876543276

Email a@gmail.com

Submit

- Password & cpassword must be same

Practical 8

AIM:

Introduction to Master Pages

Site1.Master

```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="Site1.master.cs"
Inherits="MasterPages.Site1" %>



<!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>

        <table style="height:400px;width:400px">

            <tr>

                <td>

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

                </td>

            </tr>

            <tr>

                <td><asp:Button ID="btnSearch" runat="server"

                            Text="Search" />

                    <asp:TextBox ID="txtSearch" runat="server"></asp:TextBox>
                    <asp:ContentPlaceHolder ID="ContentPlaceHolder1" 
runat="server">
                        <p>
                            Web Content
                        </p>
                    </asp:ContentPlaceHolder>
                </td>
            </tr>
            <tr>
                <td>Footer
                </td>
            </tr>
        </table>
    </div>
    </form>
</body>
</html>
```

Site1.Master.cs

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

namespace MasterPages
{
    public partial class Site1 : System.Web.UI.MasterPage
    {
        protected void Page_Load(object sender, EventArgs e)

        {

        }

        public Label LblHeader

        {

            get { return lblHeader; }

        }

        public Button BtnSearch

        {

            get { return btnSearch; }

        }

        public TextBox TxtSearch

        {

            get { return txtSearch; }

        }

    }

}
```

WebForm1.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="MasterPages.WebForm1" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

    <asp:TextBox ID="txtHeader" runat="server"></asp:TextBox>

<asp:Button ID="btnHeader" runat="server" onclick="btnHeader_Click"

    Text="Change Header" />

&nbsp;

</asp:Content>
```

WebForm1.aspx.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;


namespace MasterPages

{

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

    {

        protected void Page_Load(object sender, EventArgs e)

        {

        }

        protected void btnHeader_Click(object sender, EventArgs e)

        {

            ((Site1)Master).LblHeader.Text = txtHeader.Text;

        }

    }

}
```

WebForm2.aspx

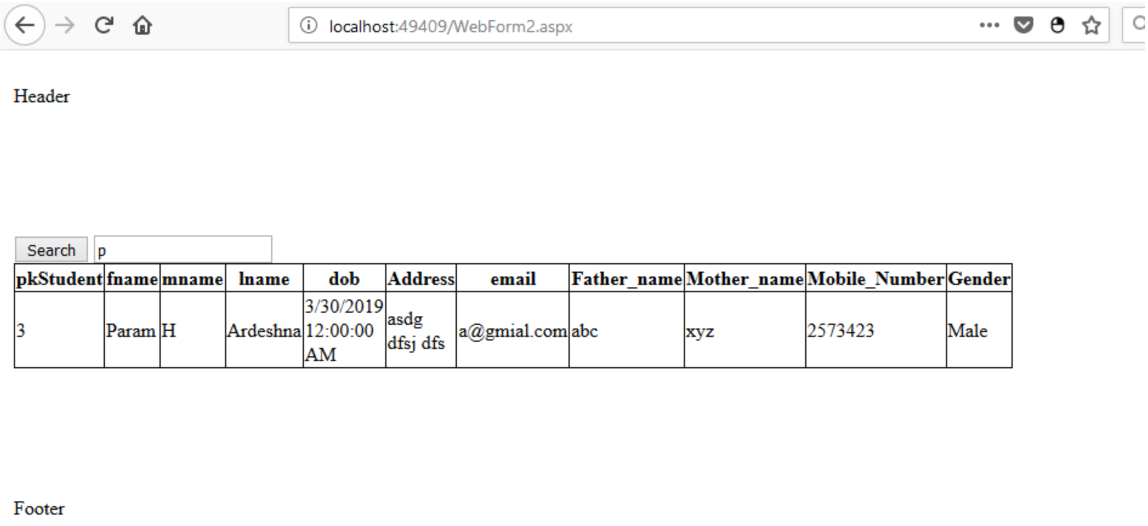
```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs"
Inherits="MasterPages.WebForm2" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">

</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">

    <asp:GridView ID="grdStudent" runat="server">
```

```
</asp:GridView>

</asp:Content>
```

WebForm2.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.SqlClient;


namespace MasterPages

{

    public partial class WebForm2 : System.Web.UI.Page

    {

        protected void Page_Init(object sender, EventArgs e)

        {

            ((Site1)Master).BtnSearch.Click += new EventHandler(BtnSearch_Click);

        }


        void BtnSearch_Click(object sender, EventArgs e)

        {

            getData();

        }

        protected void Page_Load(object sender, EventArgs e)

        {


        }

        void getData()
        {

            String source = @"Data Source=mycomputer\sqlexpress;Initial
Catalog=DBstudent;Integrated Security=True;Pooling=False";

            SqlConnection conn = new SqlConnection(source);

            String search = ((Site1)Master).TxtSearch.Text;

            String query = "select * from tblStudent where fname like
'%"+search+"%'";

            SqlCommand cmd = new SqlCommand(query, conn);

            conn.Open();

            SqlDataReader reader = cmd.ExecuteReader();

            grdStudent.DataSource = reader;

            grdStudent.DataBind();

            conn.Close();

        }


    }

}
```

Output:-



Header

Search p

pkStudent	fname	mname	lname	dob	Address	email	Father_name	Mother_name	Mobile_Number	Gender
3	Param	H	Ardeshna	3/30/2019 12:00:00 AM	asdg dfsj dfs	a@gmial.com	abc	xyz	2573423	Male

Footer

Practical 9

AIM:

Introduction to Web Service.
Web service to create a Calculator.

WebService1.asmx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Services;

namespace ServiceApplication
{
    /// <summary>
    /// Summary description for WebService1
    /// </summary>
    [WebService(Namespace = "http://tempuri.org/")]
    [WebServiceBinding(ConformsTo = WsiProfiles.BasicProfile1_1)]
    [System.ComponentModel.ToolboxItem(false)]
    // To allow this Web Service to be called from script, using ASP.NET AJAX, 
uncomment the following line.
    // [System.Web.Script.Services.ScriptService]
    public class WebService1 : System.Web.Services.WebService
    {

        [WebMethod]
        public string HelloWorld()
        {
            return "Hello World";
        }
        [WebMethod]
        public int add(int a, int b)
        {
            return a+b;
        }
        [WebMethod]
        public int sub(int a, int b)
        {
            return a - b;
        }
        [WebMethod]
        public int mult(int a, int b)
        {
            return a * b;
        }
        [WebMethod]
        public int div(int a, int b)
        {
            return a / b;
        }
    }
}
```

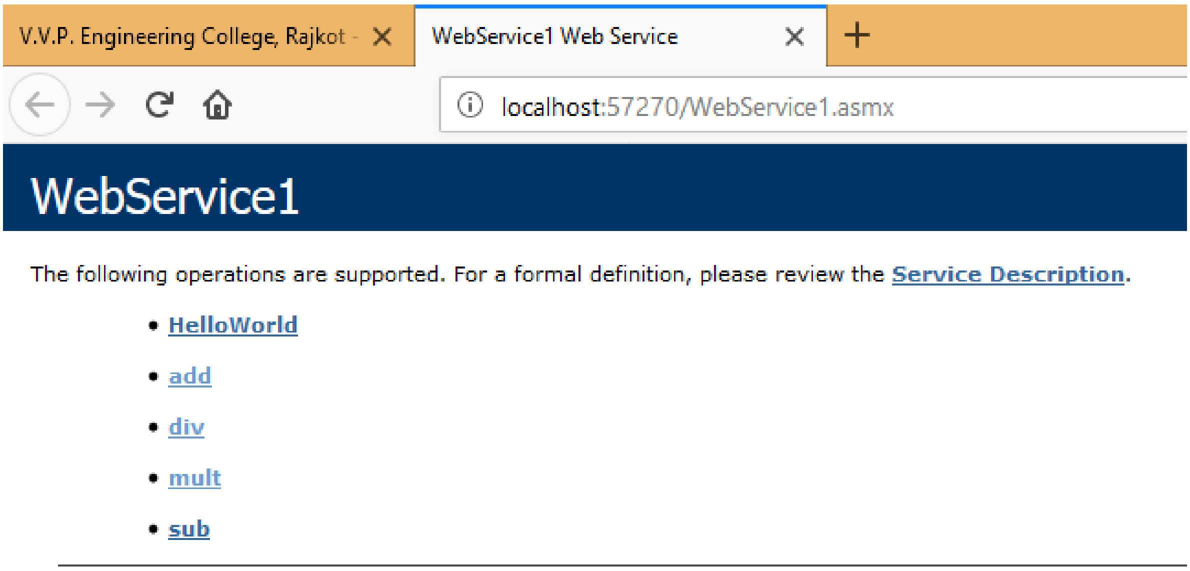
WebForm1.aspx

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

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

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

        <asp:TextBox ID="txtA" runat="server"></asp:TextBox>
        <asp:RequiredFieldValidator ID="rfValidator1" runat="server"
            ControlToValidate="txtA" Display="Dynamic" ErrorMessage="Required
Field"
            ForeColor="Red"></asp:RequiredFieldValidator>
        <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
runat="server"
            ControlToValidate="txtA" Display="Dynamic" ErrorMessage="Only Numbers
Allowed"
            ForeColor="Red" ValidationExpression="^(0|[1-
9]\d*)$"></asp:RegularExpressionValidator>

    </div>
    <asp:TextBox ID="txtB" runat="server"></asp:TextBox>
    <asp:RequiredFieldValidator ID="rfValidator2" runat="server"
        ControlToValidate="txtB" Display="Dynamic" ErrorMessage="Required Field"
        ForeColor="Red"></asp:RequiredFieldValidator>
    <asp:RegularExpressionValidator ID="RegularExpressionValidator2"
runat="server"
        ControlToValidate="txtB" ErrorMessage="Only Numbers Allowed"
ForeColor="Red"
        ValidationExpression="^(0|[1-9]\d*)$"></asp:RegularExpressionValidator>
    <br />
    <asp:Button ID="btnAdd" runat="server" onclick="btnAdd_Click" Text="+" />
    <asp:Button ID="btnSub" runat="server" onclick="btnSub_Click" Text="-" />
    <asp:Button ID="btnMultiply" runat="server" onclick="btnMultiply_Click"
        Text="*" />
    <asp:Button ID="btnDivide" runat="server" onclick="btnDivide_Click" Text="/"
/>
    <br />
    <asp:Label ID="lblResult" runat="server" Text="Label"></asp:Label>
    </form>
</body>
</html>
```

WebForm1.aspx.cs

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

namespace WebService
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        serviceCalc.WebService1 calc = new serviceCalc.WebService1();
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void btnAdd_Click(object sender, EventArgs e)
        {
            lblResult.Text = calc.add(Convert.ToInt16(txtA.Text), 
Convert.ToInt16(txtB.Text)).ToString();
        }

        protected void btnSub_Click(object sender, EventArgs e)
        {
            lblResult.Text = calc.sub(Convert.ToInt16(txtA.Text), 
Convert.ToInt16(txtB.Text)).ToString();
        }

        protected void btnMultiply_Click(object sender, EventArgs e)
        {
            lblResult.Text = calc.mult(Convert.ToInt16(txtA.Text), 
Convert.ToInt16(txtB.Text)).ToString();
        }

        protected void btnDivide_Click(object sender, EventArgs e)
        {
            lblResult.Text = calc.div(Convert.ToInt16(txtA.Text), 
Convert.ToInt16(txtB.Text)).ToString();
        }
    }
}
```

Output:-

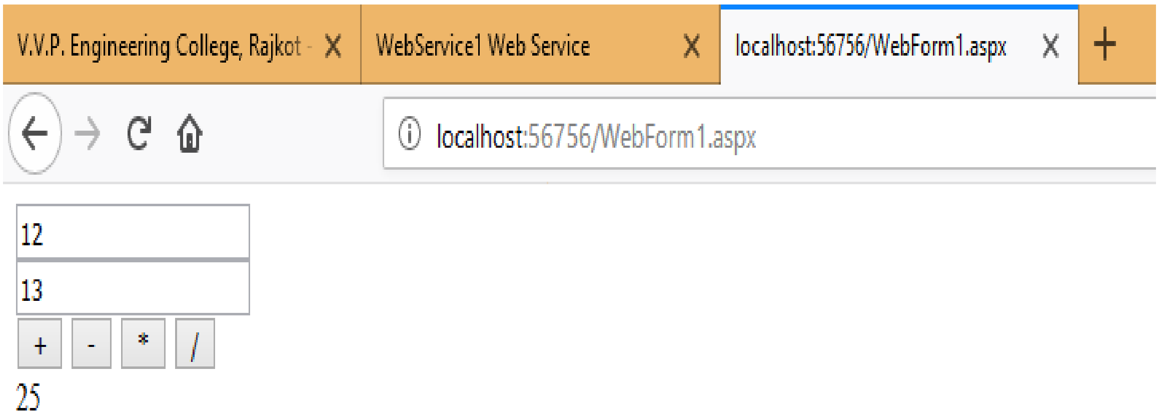


V.V.P. Engineering College, Rajkot -
WebService1 Web Service
localhost:57270/WebService1.asmx

WebService1

The following operations are supported. For a formal definition, please review the Service Description.

- HelloWorld
- add
- div
- mult
- sub



V.V.P. Engineering College, Rajkot -
WebService1 Web Service
localhost:56756/WebForm1.aspx
localhost:56756/WebForm1.aspx

12

13

25