(Autonomous)

.NET Programming

(Skill Advanced Course-1)

(R19)

Department of Computer Science & Engineering

VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY

Accredited by NAAC & NBA, Approved by AICTE, Affiliated to JNTUK

VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY, NAMBUR

(Autonomous)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Vision of the Department

Providing quality education to enable the generation of socially conscious software engineers who can contribute to the advancement in the field of computer science and engineering.

Mission of the Department

- *To equip the graduates with the knowledge and skills required to enable them to be industry ready.*
- *To train socially responsible, disciplined engineers who work with good leadership skills and can contribute for nation building.*
- *To make our graduates proficient in cutting edge technologies through student centric teaching-learning process and empower them to contribute significantly to the software industry*
- *To shape the department into a centre of academic and research excellence*

Program Educational Objectives

PEO-1	To provide the graduates with **solid foundation** in Computer Science and Engineering along with the fundamentals of Mathematics and Sciences with a view to impart in them **high quality technical skills** like **modeling, analysing, designing, programming and implementation** with **global competence** and helps the graduates for **life-long learning**.
PEO-2	To prepare and motivate graduates with **recent technological developments related to core subjects** like Programming, Databases, Design of Compilers and Network Security aspects and future technologies so as to contribute effectively for Research & Development by participating in professional activities like publishing and seeking copy rights.
PEO-3	To train graduates to choose a **decent career option either in high degree of employability/Entrepreneur or, in higher education** by empowering students with ethical administrative acumen, ability to handle critical situations and training to excel in competitive examinations.
PEO-4	To train the graduates to have basic **interpersonal skills** and **sense of social responsibility** that paves them a way to become good team members and leaders.

Program Specific Outcomes (PSOs)

PSO-1: Professional Skills: The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity.

PSO-2: Successful Career and Entrepreneurship: The ability to employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Computer Science & Engineering.

Program Outcomes:

1. Engineering knowledge: apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems. **(L3-Apply)**

2. Problem analysis: identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural science and engineering sciences. **(L4-Analysis)**

3. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal and environmental considerations. **(L6-Create)**

4. Conduct investigations of complex problems: use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. **(L5-Evaluation)**

5. Modern tool usage: create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations. **(L3-Apply)**

6. The engineer and society: apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice**. (L3-Apply)**

7. Environment sustainability: understand the impact of the professional engineering solutions in the societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. **(L2-Understand)**

8. Ethics: apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. **(L1-Remember)**

9. Individual and team work: function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings. **(L1-Remember)**

10. Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. **(L1-Remember)**

11. Project management and finance: demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. **(L3-Apply)**

12. Lifelong learning: recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broader context of technological change**. (L1-Remember)**

Course	**B. TECH**
Branch	**Computer Science & Engineering**
Regulation	**R19**
Course Code	
Lab Name	**.NET Programming**
Total Marks	**50**
Internal Marks	**15**
External Marks	**35**

SCHEME OF EVALUATION

INTERNAL MARKS			
CONTINUOUS EVALUATION	**RECORD**	**5**	**15**
	DAY-TO-DAY WORK (Based on Lab Attendance, Discipline, Observations)	**5**	
	PROGRAM & TEST CASES & REPORT	**3**	
	VIVA-VOCE	**2**	

EXTERNAL MARKS			
EXAM-TIME PERFORMANCE (ETP)	**DESCRIPTION**	**10**	**35**
	PROGRAM	**10**	
	EXECUTION & RESULTS	**10**	
	VIVA-VOCE	**5**	
TOTAL			**50**

COURSE OBJECTIVES
This Lab course will help students to achieve the following objectives: 1. Introduce to .Net IDE Component Framework. 2. Programming concepts in .Net Framework. 3. Creating website using ASP.Net Controls
COURSE OUTCOMES
At the end of this Lab course students will be able to: CO-1: Create user interactive web pages using ASP.Net. CO-2: Create simple data binding applications using ADO.Net connectivity. CO-3: Performing Database operations for Windows Form and web applications

LIST OF EXPERIMENTS

	Experiments
1	Program to display the addition, subtraction, multiplication and division of two number using console application.
2	Program to display the first 10 natural numbers and their sum using console application.
3	Program to display the addition using the windows application.
4	Write a program to convert input string from lower to upper and upper to lower case.
5	Write a program to simple calculator using windows application.
6	Write a program working with Page using ASP.Net.
7	Write a program working with forms using ASP.NET.
8	Write a program to connectivity with Oracle database.
9	Write a program to access data source through ADO.NET.
10	Write a program to manage the session.

Q.1 Program to display the addition, subtraction, multiplication and division of two numbers using console application.

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


namespace Add_Sub_Mul_Div
{

class Program
                {

                static void Main(string[] args)
                {

                         int a = 10, b = 4;

                        Console.WriteLine("Addition = {0}", a + b);

                         Console.WriteLine("Subtraction = {0}", a - b);

                        Console.WriteLine("Multiplication = {0}", a * b);

                        Console.WriteLine("Division = {0}", (float)a / b);

                }

        }

 }
```

Output :

Questions :

1. What is the Console.WriteLine() function?

Q.2 Program to display the first 10 natural numbers and their sum using console application.

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


namespace First_Ten_No
{

        class Program
        {

        static void Main(string[] args)
        {

                int s = 0;

               for (int i = 1; i <= 10; i++)
               {

                        Console.WriteLine(i);
                        s = s + i;


               }

                    Console.WriteLine("Sum of Numbers = {0}", s);
        }

        }
 }
```

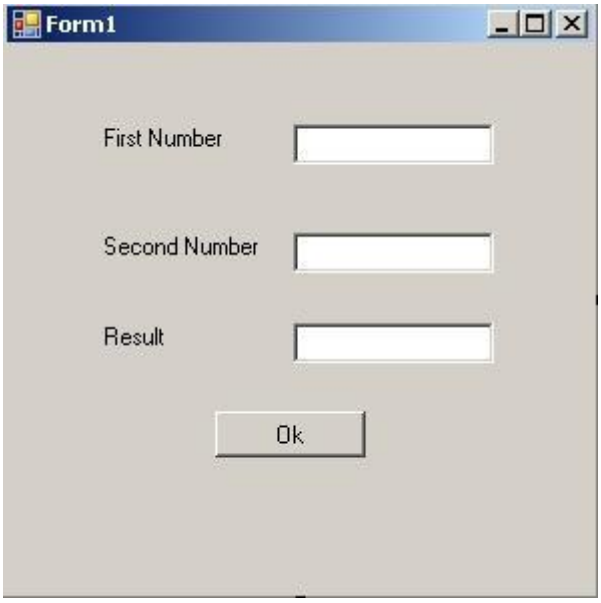
Output :


C:\WINDOWS\system32\cmd.exe
1
2
3
4
5
6
7
8
9
10
Sum of Numbers = 55
Press any key to continue . . .

Q.3 Program to display the addition using the windows application.

```
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;

namespace Addition
{

        public partial class Form1 : Form
        {

        public Form1()
        {

                InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {

                string data1 = textBox1.Text;
                string data2 = textBox2.Text;
                int a1 = int.Parse(data1);
                int a2 = int.Parse(data2);
                int a3 = a1 + a2;
                textBox3.Text = a3.ToString();
}
}}
```

Output :



Questions :

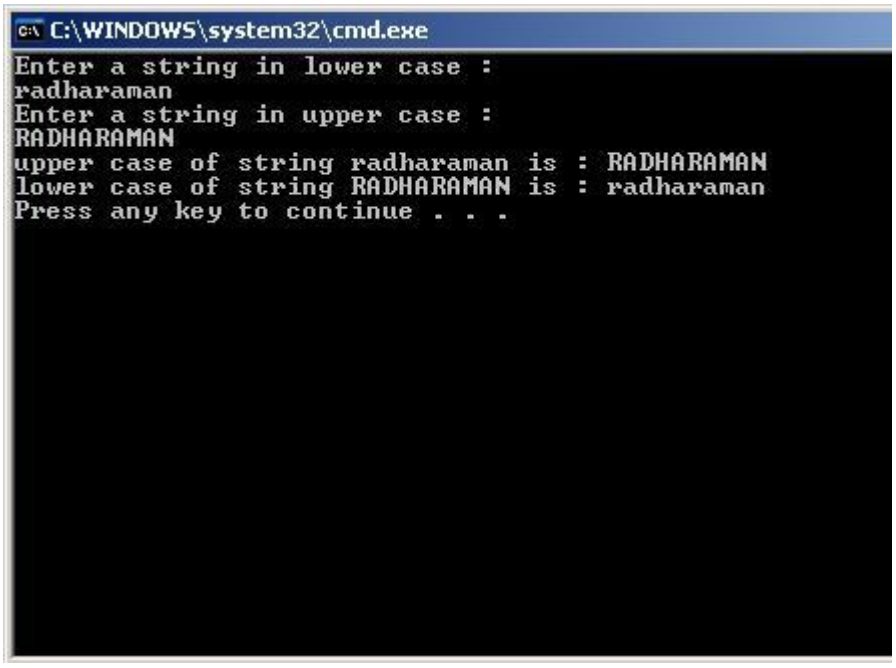
1. Why are you using int.Parse() function.

2. Why are you using ToString() function.

Q. 4 Write a program to convert input string from lower to upper and upper to lower case.

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

namespace ConsoleApplication5
{
        class Program
        {
        static void Main(string[] args)
        {
          Console.WriteLine("Enter a string in lower case :");
        string s1 = Console.ReadLine();

          Console.WriteLine("Enter a string in upper case :");
        string s2 = Console.ReadLine();

          Console.WriteLine("upper case of string {0} is : {1}", s1,
s1.ToUpper());
          Console.WriteLine("lower case of string {0} is : {1}", s2,
s2.ToLower());


        }
        }
}
```

Output :



Questions :

1. What is the Console.ReadLine() function?

Q. 5 Write a program to simple calculator using windows application.

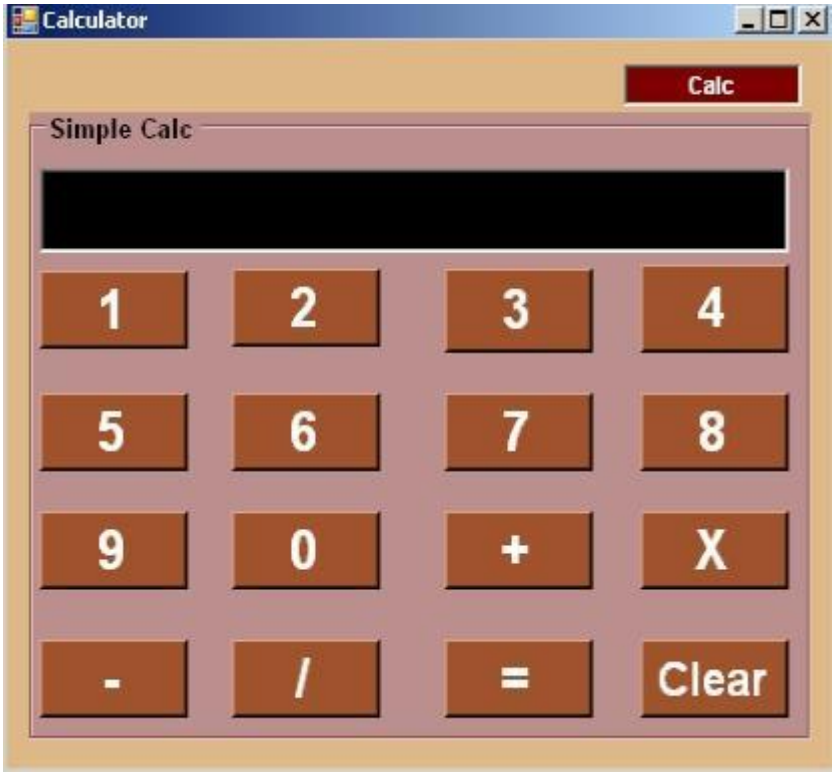
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Text;
using System.Windows.Forms;

namespace Calculator
{
        public partial class Form1 : Form
        {
        string m1, m3, m5, m7, m9;
        int x;
        public Form1()
        {
        InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
        textBox1.Text = textBox1.Text + "1";

        }

        private void button2_Click(object sender, EventArgs e)
        {
        textBox1.Text = textBox1.Text + "2";
        }

        private void button3_Click(object sender, EventArgs e)
        {
        textBox1.Text = textBox1.Text + "3";
        }
```

```
private void button4_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "4";
}

private void button5_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "5";
}

private void button6_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "6";
}

private void button7_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "7";
}

private void button8_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "8";
}

private void button9_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "9";
}

private void button10_Click(object sender, EventArgs e)
{
textBox1.Text = textBox1.Text + "0";
}

private void button11_Click(object sender, EventArgs e)
{
m1 = textBox1.Text;
textBox1.Clear();
x = 1;
}
```

```
private void button12_Click(object sender, EventArgs e)
{
m3 = textBox1.Text;
textBox1.Clear();
x = 2;
}

private void button13_Click(object sender, EventArgs e)
{
m5 = textBox1.Text;
textBox1.Clear();
x = 3;
}

private void button14_Click(object sender, EventArgs e)
{
m7 = textBox1.Text;
textBox1.Clear();
x = 4;
}

private void button16_Click(object sender, EventArgs e)
{
textBox1.Clear();
}

private void button15_Click(object sender, EventArgs e)
{
if (x == 1)
{
        string m2 = textBox1.Text;
        int c =  int.Parse(m1) +  int.Parse(m2);
        textBox1.Text = c.ToString();
}
else if (x == 3)
{
        string m4 = textBox1.Text;
        int b =  int.Parse(m5) -  int.Parse(m4);
        textBox1.Text = b.ToString();
    }
else if (x == 2)
{
```

```
                string m6 = textBox1.Text;
                int d =  int.Parse(m3) *  int.Parse(m6);
                textBox1.Text = d.ToString();
        }
        else if (x == 4)
        {
                string m8 = textBox1.Text;
                int a1 = int.Parse(m8);
                if (a1 == 0)
                MessageBox.Show("Can't divide by zero");
                else
                {
                int m = int.Parse(m7) / a1;
                textBox1.Text = m.ToString();
                }
        }
        }

        private void textBox2_TextChanged(object sender, EventArgs e)
        {

        }

        private void groupBox1_Enter(object sender, EventArgs e)
        {

        }
        }
}
```

Output :



Q. 6 Write a program working with Page using ASP.Net.

```
using System.Configuration;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Xml.Linq;

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

        }
        protected void Button1_Click(object sender, EventArgs e)
        {
       Response.Redirect("Next Page.aspx");
        }
}
```

-

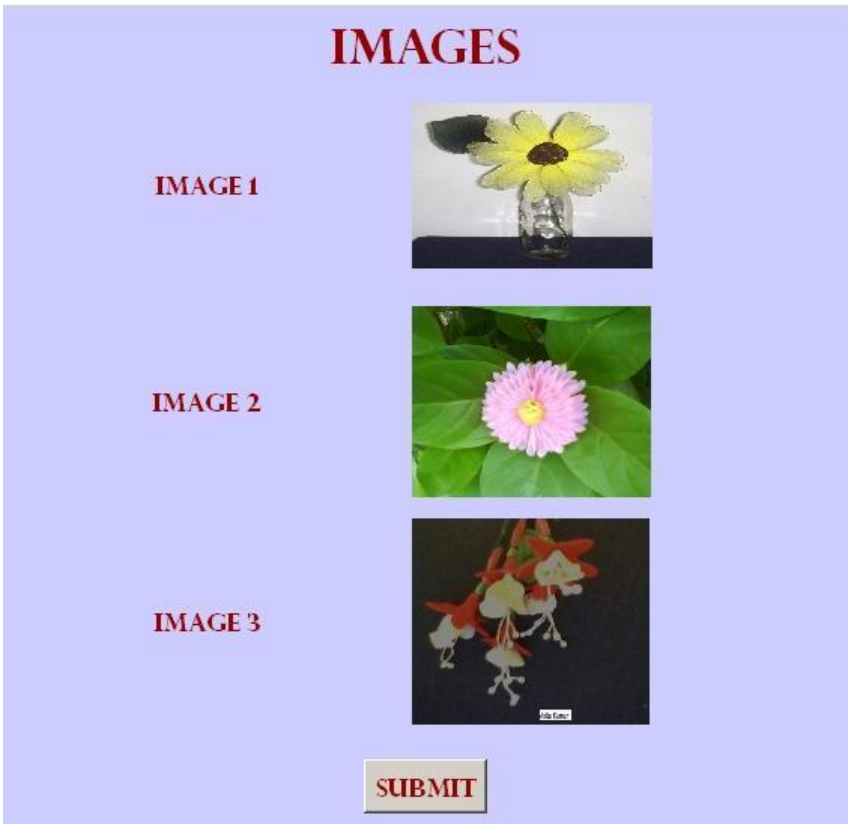
-

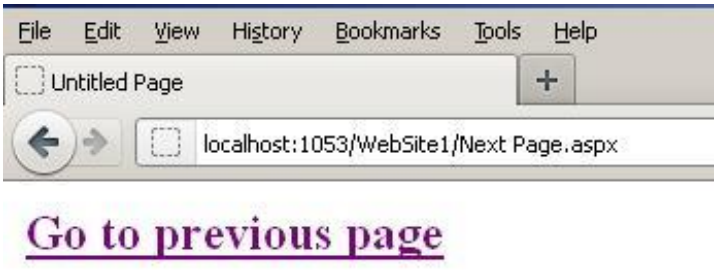
-

-

-

Output :





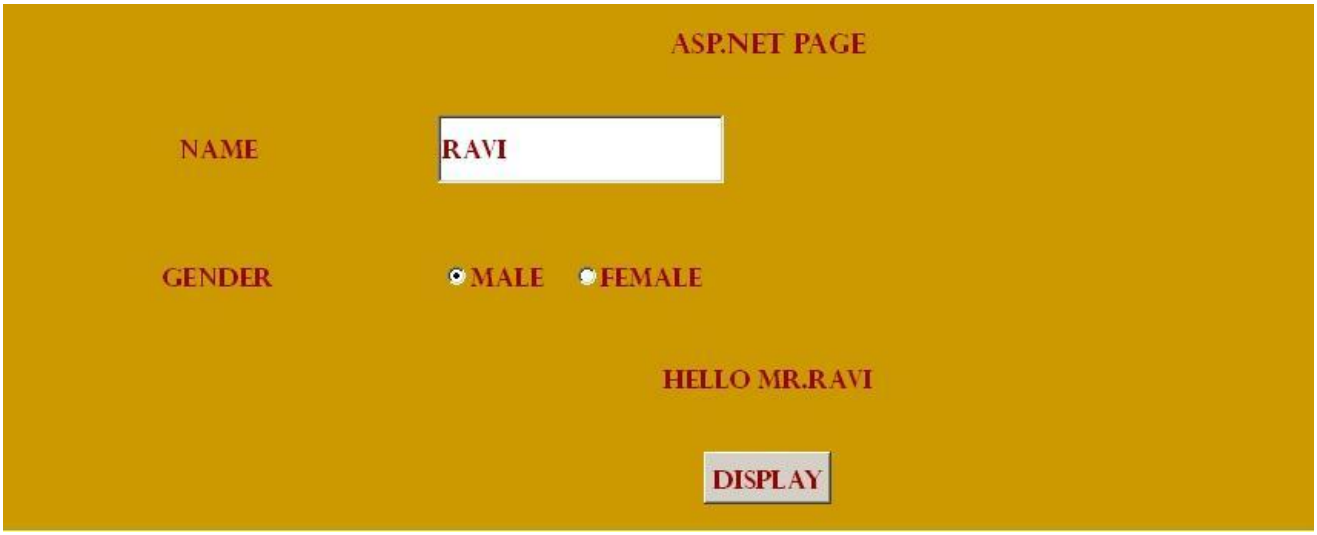
Questions :

1. What is the Response.Redirect() function?
2. What is a difference between Response.Redirect() and Server.Response()?

Q. 7 Write a program working with forms using ASP.NET.

```
using System;
using System.Configuration;
using System.Data;
using System.Linq;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Xml.Linq;

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

        }
        protected void Button1_Click(object sender, EventArgs e)
        {
        if (RadioButton1.Checked)
          Label3.Text = "Hello Mr." + TextBox1.Text;
        else if (RadioButton2.Checked)
          Label3.Text = "Hello Ms. " + TextBox1.Text;

        }
}
```

Output :



Questions :

1. What is a ASP.NET.

Q. 8 Write a program to connectivity with Oracle database.

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Text;
using System.Windows.Forms;
using System.Data.OleDb;


namespace Oracle_form
{
                    public partial class Form1 : Form
                    {
        OleDbConnection con = new OleDbConnection
        ("Provider=MSDAORA; User Id=System; Password=manager");

                    OleDbCommand cmd = new OleDbCommand();

                    public Form1()
                    {
                        InitializeComponent();
                    }

                    private void Form1_Load(object sender, EventArgs e)
                    {
                        con.Open();
                        cmd.Connection = con;



                    }
private void button1_Click(object sender, EventArgs e)
          {

        string s = "insert into emp11 values('" + textBox1.Text + " ' , "
+textBox2.Text     + ")";

                            MessageBox.Show(s);

                            cmd.CommandText = s;
```

```
                    cmd.ExecuteNonQuery();

                    MessageBox.Show("Information Inserted");

                    textBox1.Clear();
                    textBox2.Clear();

                }

            }

}
```

Q. 9 Write a program to access data source through ADO.NET.

```
using System;
using System.Data;
using System.Configuration;
using System.Collections;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using System.Data.OleDb;

public partial class marksheet : System.Web.UI.Page
{
        OleDbConnection con = new OleDbConnection("Provider=MSDAORA;
User Id=result; Password=college");
        OleDbCommand cmd = new OleDbCommand();
        OleDbCommand cmd1 = new OleDbCommand();
        OleDbDataReader dr,dr1;
        protected void Page_Load(object sender, EventArgs e)
        {
       cmd.Connection = con;
       cmd1.Connection = con;
        con.Open();

        string s1 = Session["rollno"].ToString();
        string s2 = Session["sem"].ToString();
        string s3 = Session["branch"].ToString();

       cmd.CommandText = "select * from DATABASE where
ROLLNO='"+s1+"' and SEM='"+s2+"' and BRANCH='"+s3+"' ";
        dr = cmd.ExecuteReader();
        if (dr.Read())
        {


         string d1 = dr.GetValue(0).ToString();
        string d2 = dr.GetValue(1).ToString();
        string d3 = dr.GetValue(2).ToString();
        string d4 = dr.GetValue(3).ToString();
        string d5 = dr.GetValue(4).ToString();
```

```
        string d6 = dr.GetValue(5).ToString();
        string d7 = dr.GetValue(6).ToString();
        string d8 = dr.GetValue(7).ToString();

          TextBox1.Text = d1;
          TextBox2.Text = d2;
          TextBox3.Text = d3;
          Label16.Text = d4;
          Label17.Text = d5;
          Label18.Text = d6;
          Label19.Text = d7;
          Label20.Text = d8;
          dr.Dispose();
}
cmd1.CommandText = "select * from SEM_BRANCH_SUB where
sem='"+s2+"' and branch='"+s3+"' ";
       OleDbDataReader dr1 = cmd1.ExecuteReader();
        if (dr1.Read())
        {
        string d9 = dr1.GetValue(2).ToString();
        string d10 = dr1.GetValue(3).ToString();

        string d11 = dr1.GetValue(4).ToString();
        string d12 = dr1.GetValue(5).ToString();
        string d13 = dr1.GetValue(6).ToString();

          Label10.Text = d9;
          Label11.Text = d10;
          Label12.Text = d11;
          Label13.Text = d12;
          Label14.Text = d13;

        }

        }
 }
```

Questions :

1. What is a ADO.NET.

Q.10 Write a program to manage the session.

```
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;


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

                protected void Page_Load(object sender, EventArgs e)
        {

                }

                protected void Button1_Click(object sender, EventArgs e)
                {

                Session["ename"] = TextBox1.Text;
                Session["eaddress"] = TextBox2.Text;

                Response.Redirect("Default2.aspx");
                }

}




using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;


public partial class Default2 : System.Web.UI.Page
{
        protected void Page_Load(object sender, EventArgs e)
```

```
        {
                Label1.Text = Session.SessionID.ToString();

         }

                protected void Button1_Click(object sender, EventArgs e)
                {

                Session["eage"] = TextBox1.Text;
                Session["esalary"] = TextBox2.Text;

                Response.Redirect("Default3.aspx");
                }

}









using System;
using System.Data;
using System.Configuration;
using System.Collections;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;


public partial class Default3 : System.Web.UI.Page
{
                protected void Page_Load(object sender, EventArgs e)
                {

                Label1.Text = Session.SessionID.ToString();
```

```
            TextBox1.Text = Session["ename"].ToString();
            TextBox2.Text = Session["eaddress"].ToString();
            TextBox3.Text = Session["eage"].ToString();
            TextBox4.Text = Session["esalary"].ToString();


        }
}
```

-

Questions :

1. What is the session management.
2. Write the various type of session management techniques.