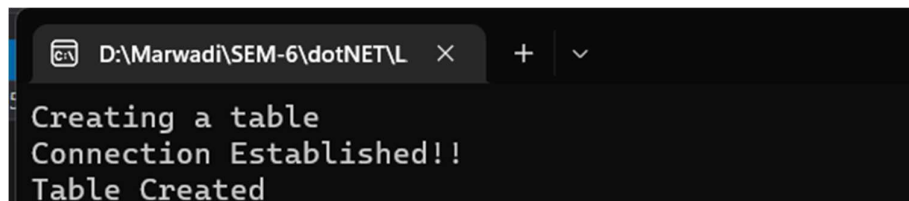# LAB - 5

Program 1: Write a C# Console based application to create following table using ADO. Net.

Code:

```csharp
using System;
using System.Data.SqlClient;

namespace Practical5
{
    2 references
    class Database
    {
        string connection_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=master;Integrated Security=True;Connect
          Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False";
        1 reference
        public void create()
        {
            try
            {
                SqlConnection conn = new SqlConnection(connection_str);
                conn.Open();
                Console.WriteLine("Connection Established!!");
                string sql = @"create table employee (Emp_id int IDENTITY(1,1) PRIMARY KEY , Name varchar(30), Designation
                  varchar(30), Department varchar(30), Salary int)";
                SqlCommand command = new SqlCommand(sql, conn);
                Console.WriteLine("Table Created");
                command.ExecuteNonQuery();
                command.Dispose();
                conn.Close();
            }
            catch(Exception e)
            {
                Console.WriteLine("Table already existing in database!!!");
            }
        }
    }
}
```

Output:

```
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Creating a table
Connection Established!!
Table Created
```
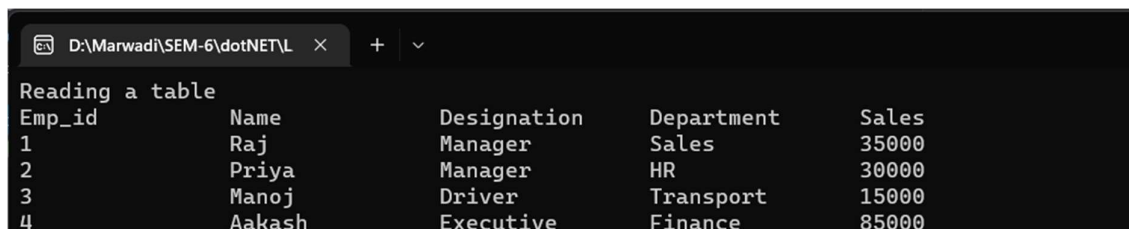
Program 2: Write a C# Console based application to display all the records of a table.

Emp_id	Name	Designation	Department	Salary
1	Raj	Manager	Sales	35000
2	Priya	Manager	HR	30000
3	Manoj	Driver	Transport	15000
4	Aakash	Executive	Finance	85000

Code:

```csharp
1 reference
public void read()
{
    try
    {
        string output = "";
        SqlConnection conn = new SqlConnection(connection_str);
        conn.Open();
        string sql = "SELECT * FROM employee";
        //string sql = "SELECT * FROM employee WHERE Emp_id=1";
        SqlCommand command = new SqlCommand(sql, conn);
        SqlDataReader dataReader = command.ExecuteReader();
        Console.Write(format("Emp_id") + format("Name")+ format("Designation")+ format("Department")+ format("Sales") + "\n" );
        while (dataReader.Read())
        {
            output = output + format(dataReader.GetValue(0).ToString()) + format(dataReader.GetValue(1).ToString()) + format
                (dataReader.GetValue(2).ToString()) + format(dataReader.GetValue(3).ToString()) + format(dataReader.GetValue(4).ToString())
                + "\n";
        }
        Console.Write(output);
        dataReader.Close();
        command.Dispose();
        conn.Close();
    }
    catch (Exception e)
    {
        Console.WriteLine(e);
    }
}
```

Output:

```
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Reading a table
Emp_id          Name            Designation     Department      Sales
1               Raj             Manager         Sales           35000
2               Priya           Manager         HR              30000
3               Manoj           Driver          Transport       15000
4               Aakash          Executive       Finance         85000
```
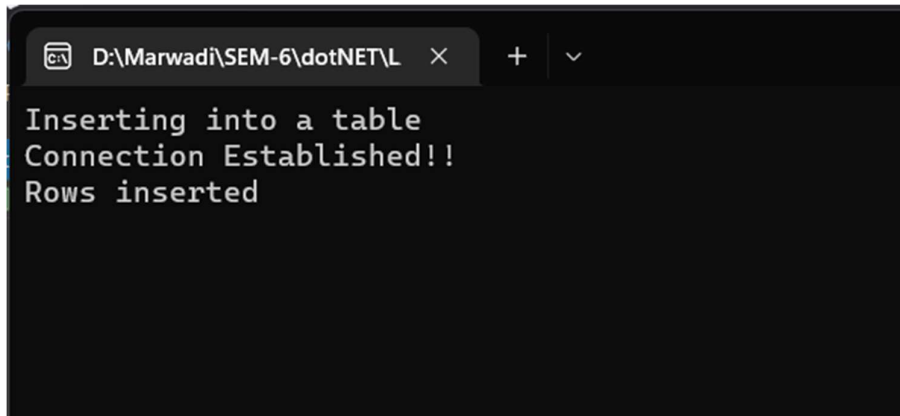
LAB - 6

Program 1: Write a C# Console based application to implement a functionality to insert a new record in the table

Code:

```
0 references
public void insert()
{
    try
    {
        SqlConnection conn = new SqlConnection(connection_str);
        conn.Open();
        Console.WriteLine("Connection Established!!");
        string sql = @"INSERT INTO employee ( Name, Designation, Department, Salary) VALUES ('Raj', 'Manager', 'Sales', 35000);
                    insert into employee(Name, Designation, Department, Salary) values('Priya', 'Manager', 'HR', 30000);
                    insert into employee(Name, Designation, Department, Salary) values('Manoj', 'Driver', 'Transport', 15000);
                    insert into employee(Name, Designation, Department, Salary) values('Aakash', 'Executive', 'Finance', 85000); ";
        SqlCommand command = new SqlCommand(sql, conn);
        Console.WriteLine("Rows inserted");
        command.ExecuteNonQuery();
        command.Dispose();
        conn.Close();
    }
    catch (Exception e)
    {
        Console.WriteLine(e);
    }
}
```

Output:

```
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Inserting into a table
Connection Established!!
Rows inserted
```

Program 2: Write a C# Console based application to implement a functionality to display specific record from the table
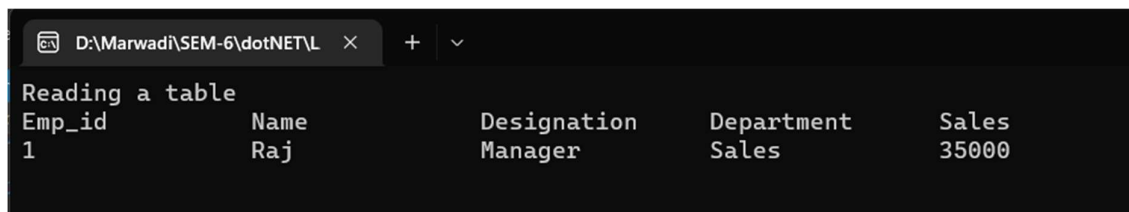
Code:

```
public void read()
{
    try
    {
        string output = "";
        SqlConnection conn = new SqlConnection(connection_str);
        conn.Open();
        //string sql = "SELECT * FROM employee";
        string sql = "SELECT * FROM employee WHERE Emp_id=1";
        SqlCommand command = new SqlCommand(sql, conn);
        SqlDataReader dataReader = command.ExecuteReader();
        Console.Write(format("Emp_id") + format("Name")+ format("Designation")+ format("Department")+ format("Sales") + "\n" );
        while (dataReader.Read())
        {
            output = output + format(dataReader.GetValue(0).ToString()) + format(dataReader.GetValue(1).ToString()) + format
              (dataReader.GetValue(2).ToString()) + format(dataReader.GetValue(3).ToString()) + format(dataReader.GetValue(4).ToString()
                + "\n";
        }
        Console.Write(output);
        dataReader.Close();
        command.Dispose();
        conn.Close();
    }
    catch (Exception e)
    {
        Console.WriteLine(e);
    }
}
```

```
class Program
{
    0 references
    static void Main(string[] args)
    {
        Database db1 = new Database();
        //Console.WriteLine("Creating a table");
        //db1.create();
        //Console.WriteLine("Inserting into a table");
        //db1.insert();
        Console.WriteLine("Reading a table");
        db1.read();
        //Console.WriteLine("Deleting all entries");
        //db1.delete();
        //Console.WriteLine("Reading a table");
        //db1.read();

        Console.ReadKey();
    }
}
```

Output:

```
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Reading a table
Emp_id          Name          Designation     Department      Sales
1               Raj           Manager         Sales           35000
```

LAB - 7

Program 1: Create a Simple Calculator using Windows Forms.

Code:

```csharp
using System;
using System.Windows.Forms;

namespace WindowsForms_Calc
{
    3 references
    public partial class Form1 : Form
    {
        double FirstNumber;
        double SecondNumber;
        double Result;
        string Operation;

        1 reference
        public Form1()
        {
            InitializeComponent();
            this.MinimizeBox = false;
            this.MaximizeBox = false;
            this.FormBorderStyle = FormBorderStyle.FixedSingle;
        }

        1 reference
        private void num_0_Click(object sender, EventArgs e)
        {
            if (textBox1.Text == "0" && textBox1.Text != null)
            {
                textBox1.Text = "0";
            }
            else
            {
                textBox1.Text = textBox1.Text + "0";
            }
        }
```

```csharp
private void subtract_click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "-";
}

1 reference
private void num_3_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "3";
    }
    else
    {
        textBox1.Text = textBox1.Text + "3";
    }
}

1 reference
private void clear_Click(object sender, EventArgs e)
{
    textBox1.Text = "0";
}
```

```csharp
private void point_Click(object sender, EventArgs e)
{
    if (textBox1.Text != null)
    {
        textBox1.Text = textBox1.Text + ".";
    }
}

1 reference
private void num_2_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "2";
    }
    else
    {
        textBox1.Text = textBox1.Text + "2";
    }
}
```

```csharp
1 reference
private void num_1_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "1";
    }
    else
    {
        textBox1.Text = textBox1.Text + "1";
    }
}

1 reference
private void num_4_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "4";
    }
    else
    {
        textBox1.Text = textBox1.Text + "4";
    }
}
```

```csharp
private void num_5_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "5";
    }
    else
    {
        textBox1.Text = textBox1.Text + "5";
    }
}

1 reference
private void num_6_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "6";
    }
    else
    {
        textBox1.Text = textBox1.Text + "6";
    }
}
```

```csharp
1 reference
private void equals_Click(object sender, EventArgs e)
{
    SecondNumber = Convert.ToDouble(textBox1.Text);
    if (Operation == "+") {
        Result = (FirstNumber + SecondNumber);
        textBox1.Text = Convert.ToString(Result);
        FirstNumber = Result;
    }
    if (Operation == "-") {
        Result = (FirstNumber - SecondNumber);
        textBox1.Text = Convert.ToString(Result);
        FirstNumber = Result;
    }
    if (Operation == "*") {
        Result = (FirstNumber * SecondNumber);
        textBox1.Text = Convert.ToString(Result);
        FirstNumber = Result;
    }
    if (Operation == "/") {
        if (SecondNumber == 0) {
            textBox1.Text = "Cannot divide by zero";
        }
        else {
            Result = (FirstNumber / SecondNumber);
            textBox1.Text = Convert.ToString(Result);
            FirstNumber = Result;
        }
    }
}
```

```csharp
1 reference
private void add_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "+";
}

1 reference
private void multiply_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "*";
}

1 reference
private void divide_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "/";
}

1 reference
private void subtract_Click(object sender, EventArgs e)
{
    FirstNumber = Convert.ToDouble(textBox1.Text);
    textBox1.Text = "0";
    Operation = "-";
}
```
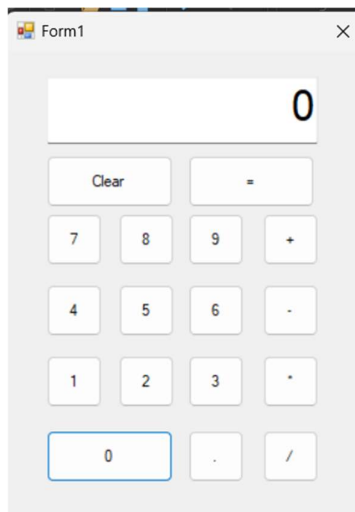
```csharp
1 reference
private void num_7_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "7";
    }
    else
    {
        textBox1.Text = textBox1.Text + "7";
    }
}

1 reference
private void num_8_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "8";
    }
    else
    {
        textBox1.Text = textBox1.Text + "8";
    }
}
```

```csharp
1 reference
private void num_9_Click(object sender, EventArgs e)
{
    if (textBox1.Text == "0" && textBox1.Text != null)
    {
        textBox1.Text = "9";
    }
    else
    {
        textBox1.Text = textBox1.Text + "9";
    }
}
```

Output:

Program 2: Create a Windows Forms that will change the background color, forecolor and styling of the given text
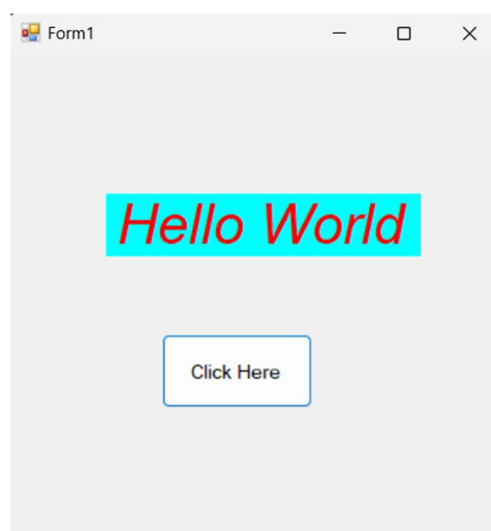
Code:

```csharp
using System;
using System.Drawing;
using System.Windows.Forms;

namespace WindowsForm_color
{
    3 references
    public partial class Form1 : Form
    {
        1 reference
        public Form1()
        {
            InitializeComponent();
        }

        1 reference
        private void button1_Click(object sender, EventArgs e)
        {
            label1.BackColor = Color.Aqua;
            label1.ForeColor = Color.Red;
            label1.Font = new Font("Arial", 30, FontStyle.Italic);
        }
    }
}
```
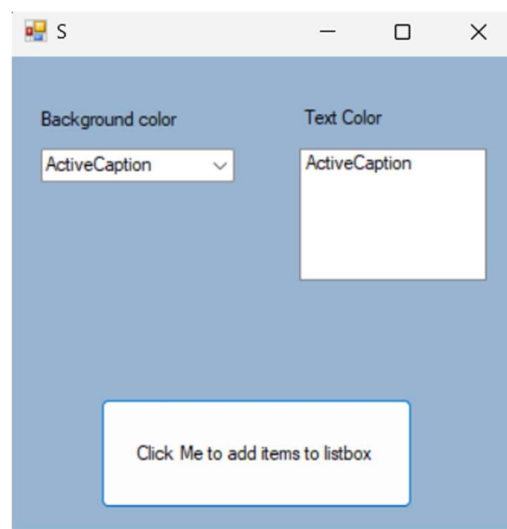
Output:

LAB - 8

Program 1: Create a Windows Form that will move the data from one tool to other tool (Usage of ComboBox and ListBox)

Code:

```
1    using System;
2    using System.Drawing;
3    using System.Windows.Forms;
4
5    namespace ComboBox
6    {
7        public partial class Form1 : Form
8        {
9            public Form1()
10           {
11               InitializeComponent();
12               foreach (string s in Enum.GetNames(typeof(KnownColor)))
13                   comboBox1.Items.Add(s);
14           }
15
             1 reference
16           private void button1_Click(object sender, EventArgs e)
17           {
18               this.BackColor = Color.FromName(comboBox1.SelectedItem.ToString());
19               listBox1.Items.Add(comboBox1.SelectedItem.ToString());
20           }
21       }
22   }
23
```
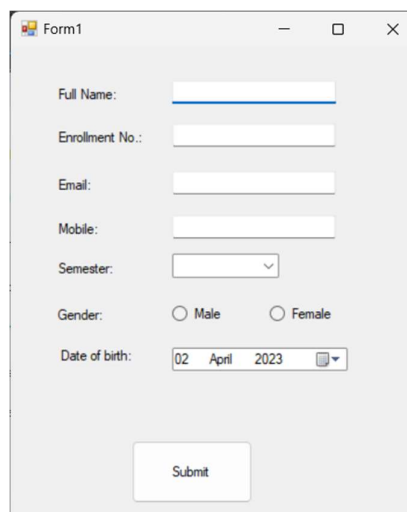
Output:

Program 2: Create a GUI for the following: Consider textbox(txt1) for Full Name, textbox(txt2) for enrolment, textbox(txt3) for email, textbox(txt4) for mobile, combobox(cmb1) for Semester, radiobutton(rd1,rd2) for Gender and datetimepicker(dtp1) for birthdate and button(btn1). Write backend code for taking input of each and display all values in pop-up box with proper message on button (btn1) click.

Code:

```csharp
using System;
using System.Windows.Forms;

namespace Student_Form
{
    3 references
    public partial class Form1 : Form
    {
        string name,en,email,mob,sem,gender,dob;
        1 reference
        public Form1()
        {
            InitializeComponent();
        }
        1 reference
        private void bt1_Click(object sender, EventArgs e)
        {
            name = txt1.Text;
            en = txt2.Text;
            email = txt3.Text;
            mob = txt4.Text;
            sem = cmb1.SelectedItem.ToString();
            if (rd1.Checked)
                gender = rd1.Text;
            else
                gender = rd2.Text;
            dob = dtp1.Text;
            MessageBox.Show("Name: "+name+"\nEnrollment No: "+en+"\nEmail:"+email+"\nMobile Number:" +mob
                +"\nSemester: "+sem+"\nGender: "+gender+"\nDOB:"+dob);
        }
    }
}
```

Output:

LAB - 9

Program 1: Create a GUI for the following: Consider textbox(txt1) for Full Name, textbox(txt2) for enrolment, textbox(txt3) for email, textbox(txt4) for mobile, textArea(txtarea1) for Address, textbox(txt5) for City, combobox(cmb1) for Semester, radiobutton(rd1,rd2) for Gender and datetimepicker(dtp1) for birthdate, checkbox(ck1) for Agree to Register and button(btn1). Write backend code for taking input of each control and if Agree checkbox is checked, then store all these data in the database. Show Pop-Up message: "Registration Successful".

Code:

```csharp
using System;
using System.Data.SqlClient;
using System.Windows.Forms;

3 references
public partial class Form1 : Form
{
    internal string gender;

    1 reference
    public Form1()
    {
        InitializeComponent();
    }

    1 reference
    private void bt1_Click(object sender, EventArgs e)
    {
        string tc = chk_tc.Checked.ToString();
        string conn_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
            Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False
        SqlConnection conn = new SqlConnection(conn_str);
        string sql = @"INSERT INTO student VALUES ('" + txt1.Text + "', " + txt2.Text + ", '" + txt3.Text + "'," +
            txt4.Text + "," + cmb1.SelectedItem.ToString() + ",'" + gender + "','" + dtp1.Text + "','" + tc + "');";
        SqlCommand cmd = new SqlCommand(sql, conn);

        if (rd1.Checked)
            gender = rd1.Text;
        else
            gender = rd2.Text;
        if (chk_tc.Checked == true)
        {
            try
            {
                conn.Open();
                cmd.ExecuteNonQuery();
                conn.Close();
                MessageBox.Show("Records Inserted!");
            }
            catch (Exception err)
            {
                MessageBox.Show("" + err);
            }
        }
        else
        {
            MessageBox.Show("Accept T&C!");
        }
    }
```
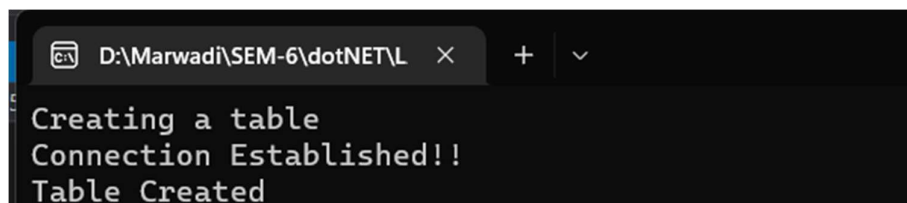
LAB - 10

Program 1: Write a Windows based application to create following table using ADO. Net.

Code:

```
using System;
using System.Data.SqlClient;

namespace Practical5
{
    2 references
    class Database
    {
        string connection_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=master;Integrated Security=True;Connect
          Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False";
        1 reference
        public void create()
        {
            try
            {
                SqlConnection conn = new SqlConnection(connection_str);
                conn.Open();
                Console.WriteLine("Connection Established!!");
                string sql = @"create table employee (Emp_id int IDENTITY(1,1) PRIMARY KEY , Name varchar(30), Designation
                  varchar(30), Department varchar(30), Salary int)";
                SqlCommand command = new SqlCommand(sql, conn);
                Console.WriteLine("Table Created");
                command.ExecuteNonQuery();
                command.Dispose();
                conn.Close();
            }
            catch(Exception e)
            {
                Console.WriteLine("Table already existing in database!!!");
            }
        }
    }
}
```

Output:

```
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Creating a table
Connection Established!!
Table Created
```
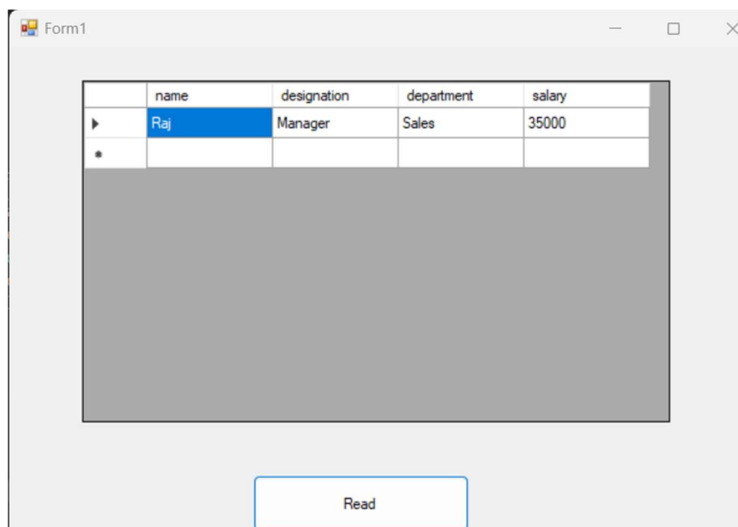
Program 2: Write a C# Windows based application to display all the records of a table.

Code:

```csharp
1 reference
public Form1()
{
    InitializeComponent();
}
1 reference
private void button1_Click(object sender, EventArgs e)
{
    string conn_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
      Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False"
      ;
    SqlConnection conn = new SqlConnection(conn_str);
    string sql = @"SELECT name,designation,department,salary from employee where emp_id=1;";
    //SqlCommand cmd = new SqlCommand(sql, conn);
    DataTable dt=null;

    SqlDataAdapter da;
    try
    {
        conn.Open();
        dt = new DataTable();
        da = new SqlDataAdapter(sql, conn);
        da.Fill(dt);
        da.Dispose();
        dataGridView1.DataSource = dt;
        conn.Close();
    }
    catch (Exception err)
    {
        MessageBox.Show("" + err);
    }
}
```
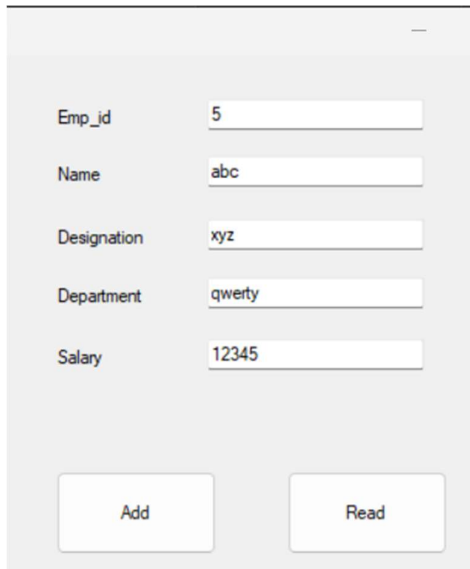
Output:

LAB - 11

Program 1: Write a C# Windows based application to implement a functionality to insert a new record in the table

Code:

```
3 references
public partial class Form1 : Form
{
    1 reference
    public Form1()
    {
        InitializeComponent();
    }

    1 reference
    private void bt1_Click(object sender, EventArgs e)
    {
        string conn_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
          Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False"
          ;
        SqlConnection conn = new SqlConnection(conn_str);
        string sql = @"INSERT INTO employee VALUES ( '" + txt2.Text + "', '" + txt3.Text + "','" + txt4.Text + "'," +
          txt5.Text + ");";
        SqlCommand cmd = new SqlCommand(sql, conn);
        try
        {
            conn.Open();
            cmd.ExecuteNonQuery();
            conn.Close();
            MessageBox.Show("Record Inserted");
        }
        catch(Exception err)
        {
            MessageBox.Show(""+err);
        }
    }
```

Output:

Emp_id	5
Name	abc
Designation	xyz
Department	qwerty
Salary	12345

Add   Read

Program 2: Write a C# Windows based application to implement a functionality to display specific record from the table

Code:

```
public partial class Form1 : Form
{
    1 reference
    public Form1()
    {
        InitializeComponent();
    }
    int cr = 0;
    DataTable dt=null;
    1 reference
    private void Form1_Load(object sender, EventArgs e)
    {
        cr = 0;
        dt = new DataTable();
        string connstring = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
            Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False";
        using (SqlConnection conn = new SqlConnection(connstring))
        {
            string query = @"select * from employee;";
            SqlDataAdapter da = new SqlDataAdapter(query, conn);
            try
            {
                conn.Open();
                da.Fill(dt);
                da.Dispose();
                LoadRow();
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }
        }
    }
    3 references
    private void LoadRow()
    {
        DataRow dr = dt.Rows[cr];
        txt1.Text = dr["emp_id"].ToString();
        txt2.Text = dr["Name"].ToString();
        txt3.Text = dr["Designation"].ToString();
        txt4.Text = dr["Department"].ToString();
        txt5.Text = dr["salary"].ToString();
    }
    1 reference
    private void button1_Click(object sender, EventArgs e)
    {
        if (cr - 1 >= 0)
            cr -= 1;
        LoadRow();
    }

    1 reference
    private void button2_Click(object sender, EventArgs e)
    {
        if (cr + 1 < dt.Rows.Count)
            cr += 1;
        LoadRow();
    }
}
```

Output:

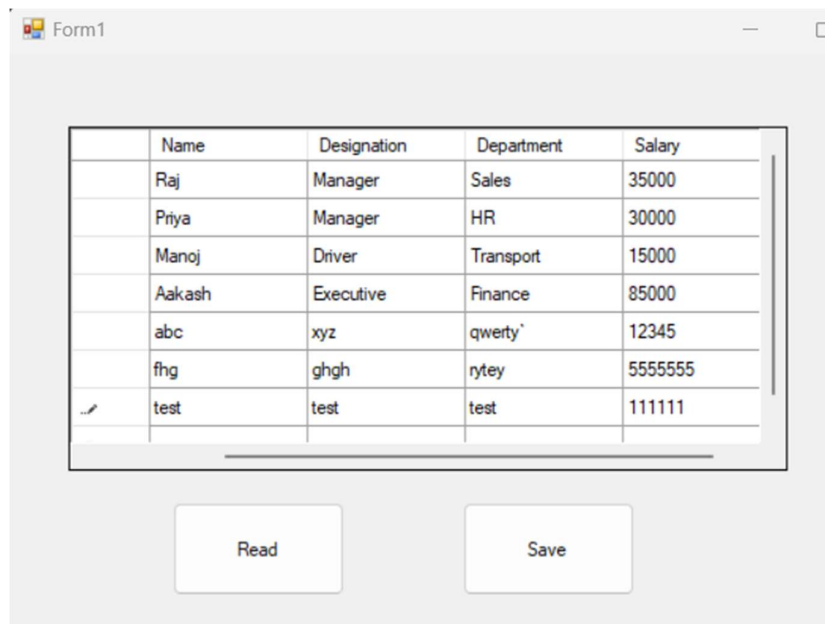|	
Emp_id	2
Name	Priya
Designation	Manager
Department	HR
Salary	30000
Prev	Next

LAB - 12

Program 1: Write a C# Windows based application to implement a functionality to insert a new record in the table

Code:

```csharp
1 reference
private void button2_Click(object sender, EventArgs e)
{
    string conn_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
        Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False";
    SqlConnection conn = new SqlConnection(conn_str);
    conn.Open();
    // Allow the user to add new rows to the DataGridView
    dataGridView1.AllowUserToAddRows = true;
    SqlDataAdapter adapter = new SqlDataAdapter("SELECT * FROM employee", conn);
    SqlCommandBuilder builder = new SqlCommandBuilder(adapter);
    adapter.Update((DataTable)dataGridView1.DataSource);
    conn.Close();
}
```

Output:

Name	Designation	Department	Salary
Raj	Manager	Sales	35000
Priya	Manager	HR	30000
Manoj	Driver	Transport	15000
Aakash	Executive	Finance	85000
abc	xyz	qwerty`	12345
fhg	ghgh	rytey	5555555
test	test	test	111111

Read   Save

Program 2: Write a C# Windows based application to implement a functionality to display specific record from the table
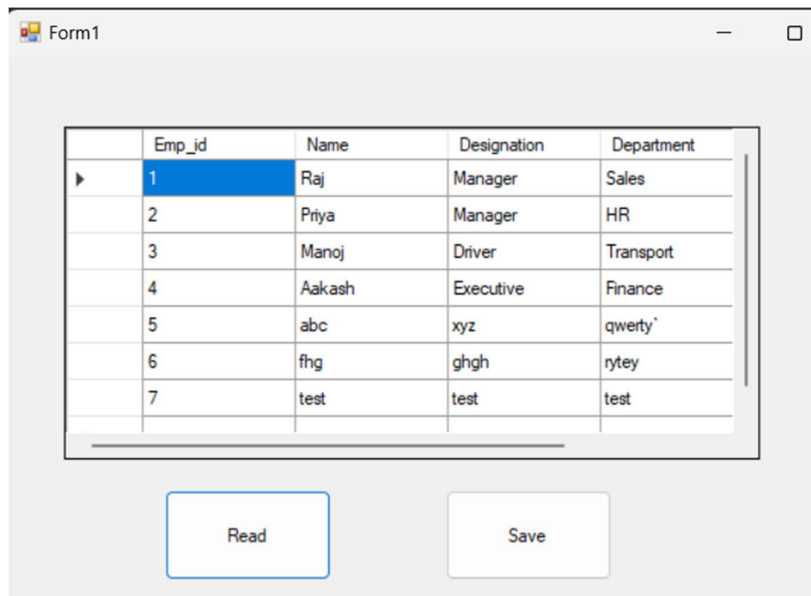
Code:

```
3 references
public partial class Form1 : Form
{
    1 reference
    public Form1()...

    1 reference
    private void button1_Click(object sender, EventArgs e)
    {
        string conn_str = @"Data Source=(localdb)\ProjectsV13;Initial Catalog=Demodb;Integrated Security=True;Connect
          Timeout=30;Encrypt=False;TrustServerCertificate=False;ApplicationIntent=ReadWrite;MultiSubnetFailover=False";
        SqlConnection conn = new SqlConnection(conn_str);
        string sql = @"SELECT * from employee";
        DataTable dt = null;

        SqlDataAdapter da;
        try
        {
            conn.Open();
            dt = new DataTable();
            da = new SqlDataAdapter(sql, conn);
            da.Fill(dt);
            da.Dispose();
            dataGridView1.DataSource = dt;
            conn.Close();
        }
        catch (Exception err)
        {
            MessageBox.Show("" + err);
        }
    }
}
```

Output:

Emp_id	Name	Designation	Department
1	Raj	Manager	Sales
2	Priya	Manager	HR
3	Manoj	Driver	Transport
4	Aakash	Executive	Finance
5	abc	xyz	qwerty`
6	fhg	ghgh	rytey
7	test	test	test

Read   Save

LAB - 13

Program 1: Write a C# code to generate 3 different lines of different colors
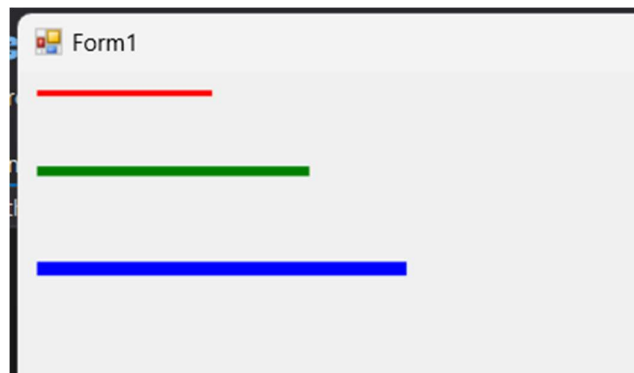
Code:

```csharp
3 references
public partial class Form1 : Form
{
    1 reference
    public Form1()
    {
        InitializeComponent();
    }
    1 reference
    private void Form1_Paint_1(object sender, PaintEventArgs e)
    {
        Graphics g = e.Graphics;

        // red line
        Pen redPen = new Pen(Color.Red, 3);
        Point startPoint1 = new Point(10, 10);
        Point endPoint1 = new Point(100, 10);
        g.DrawLine(redPen, startPoint1, endPoint1);

        // green line
        Pen greenPen = new Pen(Color.Green, 5);
        Point startPoint2 = new Point(10, 50);
        Point endPoint2 = new Point(150, 50);
        g.DrawLine(greenPen, startPoint2, endPoint2);

        // blue line
        Pen bluePen = new Pen(Color.Blue, 7);
        Point startPoint3 = new Point(10, 100);
        Point endPoint3 = new Point(200, 100);
        g.DrawLine(bluePen, startPoint3, endPoint3);
    }
}
```

Output:

Program 2: Write a C# code to generate 4 different lines of Multicolor Rectangle

Code:

```csharp
public Form1()
{
    InitializeComponent();
}
1 reference
private void Form1_Paint(object sender, PaintEventArgs e)
{
    Graphics g = e.Graphics;

    // Define the rectangle
    Rectangle rectangle = new Rectangle(10, 10, 200, 100);

    // Define the pens for each side
    Pen leftPen = new Pen(Color.Red, 5);
    Pen topPen = new Pen(Color.Green, 5);
    Pen rightPen = new Pen(Color.Blue, 5);
    Pen bottomPen = new Pen(Color.Yellow, 5);

    // Draw the rectangle with the multicolor sides
    g.DrawLine(leftPen, rectangle.Left, rectangle.Top, rectangle.Left, rectangle.Bottom);
    g.DrawLine(topPen, rectangle.Left, rectangle.Top, rectangle.Right, rectangle.Top);
    g.DrawLine(rightPen, rectangle.Right, rectangle.Top, rectangle.Right, rectangle.Bottom);
    g.DrawLine(bottomPen, rectangle.Left, rectangle.Bottom, rectangle.Right, rectangle.Bottom);

    // Dispose the pens
    leftPen.Dispose();
    topPen.Dispose();
    rightPen.Dispose();
    bottomPen.Dispose();
}
```
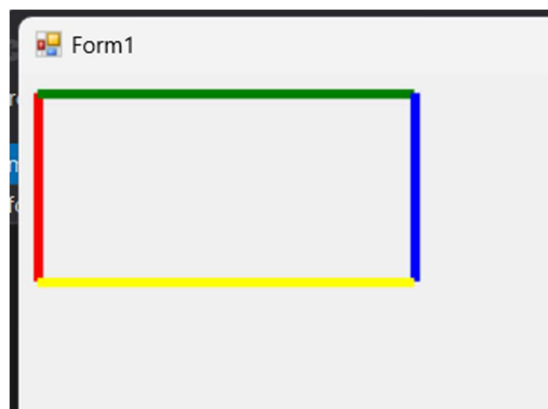
Output:

Program 3: Write a C# code to generate 2 ellipses on a windows form.

Code:

```csharp
public Form1()
{
    InitializeComponent();
}


private void Form1_Paint(object sender, PaintEventArgs e)
{
    Graphics g = e.Graphics;

    // first ellipse
    Rectangle ellipse1Rect = new Rectangle(50, 50, 100, 200);
    g.DrawEllipse(Pens.Red, ellipse1Rect);

    // second ellipse
    Rectangle ellipse2Rect = new Rectangle(200, 100, 200, 100);
    g.DrawEllipse(Pens.Green, ellipse2Rect);
}
```

Output: