**SCHOOL OF INFORMATION TECHNOLOGYG AND ENGINEERING**

**WINTER SEMESTER 2022- 2023**

**SWE1009 .NET Programming**

**DIGITAL ASSIGNMENT 2**

CYCLESHEET_2 WINDOW FORM APPLICATION AND

DATABASE PROGRAMMING

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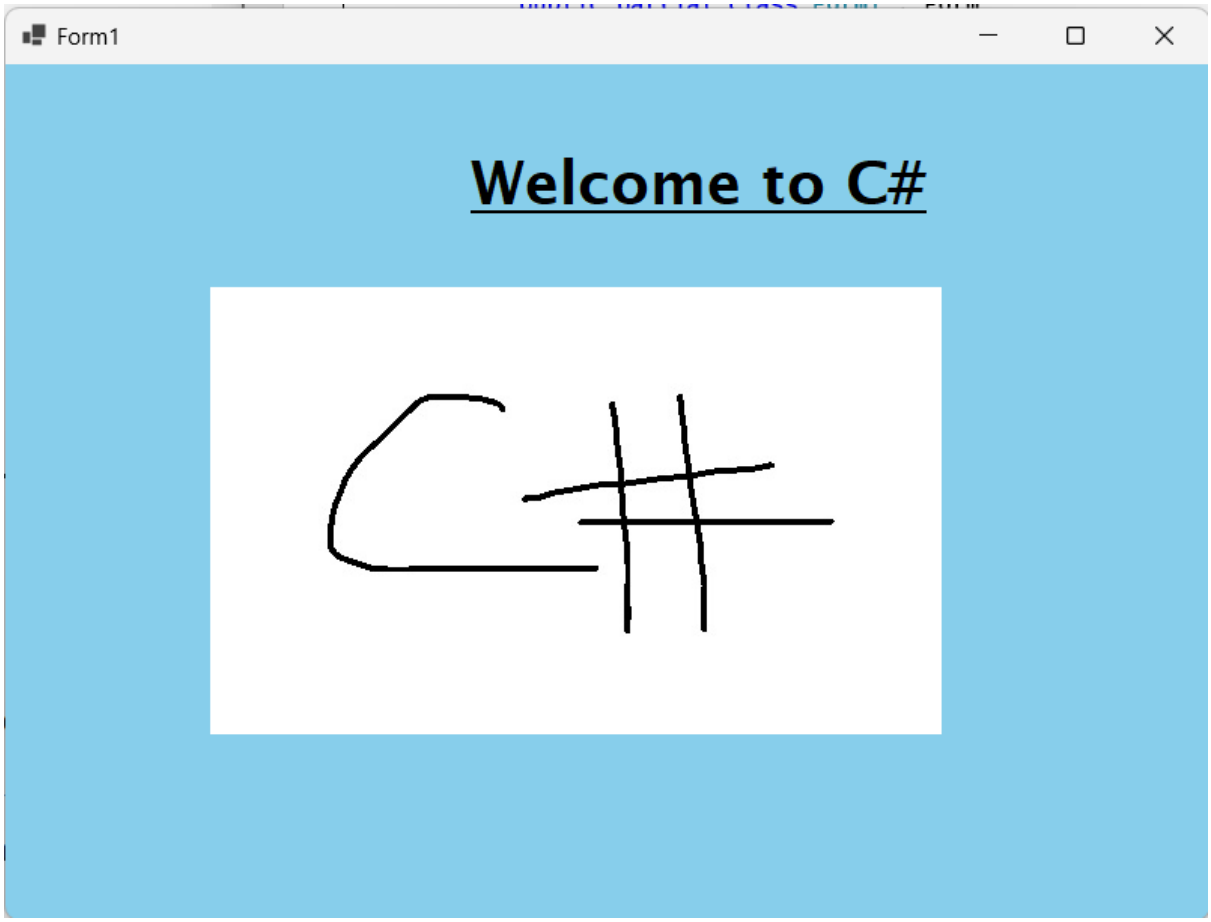
1. Write a C# program that display a text “Welcome to C#” and an image describing welcome notification.

Code:

```
namespace WinFormsApp2
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {
            label1.Text = "Welcome to C#";
            pictureBox1.ImageLocation = "C:\\Users\\rlion\\Documents\\Visual
Studio 2022\\Sample code\\untitled.jpg";
            BackColor = Color.SkyBlue;
        }
    }
}
```

Output:



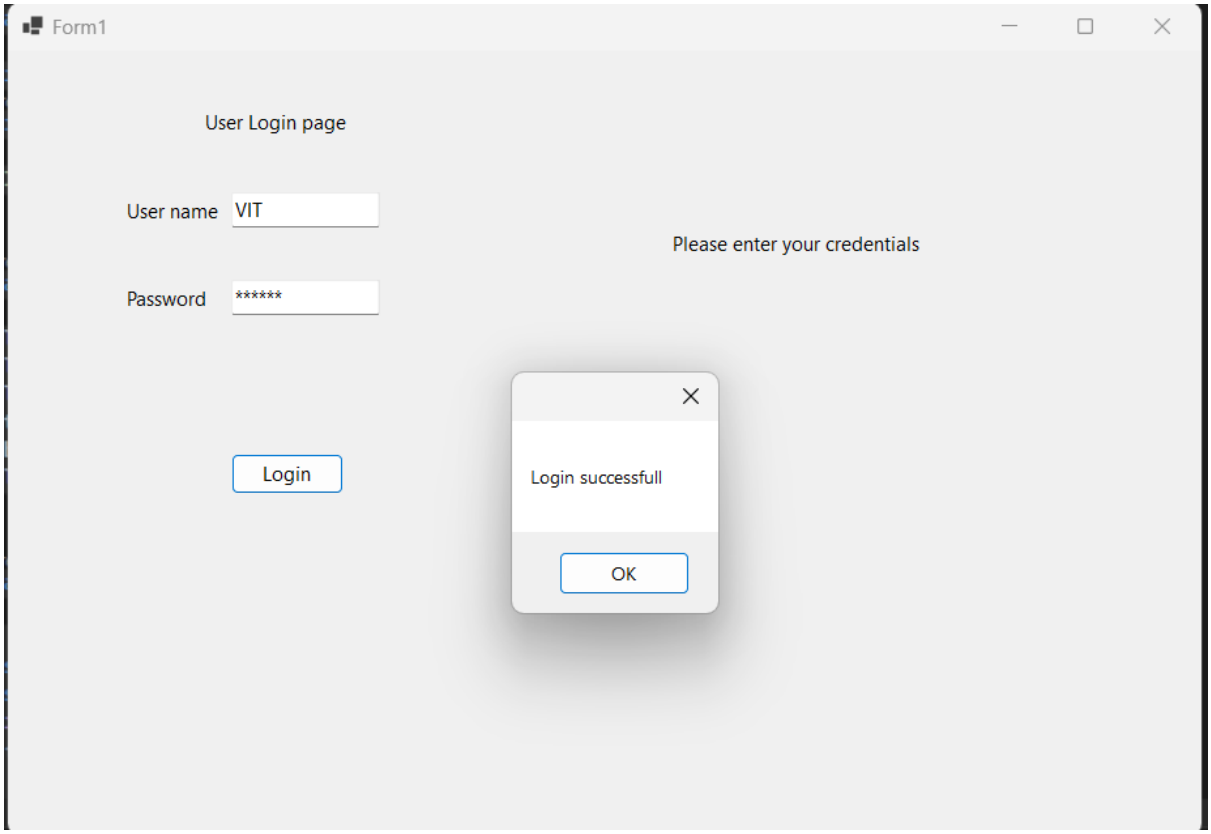

2. Write a C# program for the following: for the call centre application, a start up screen needs to be provided to accept the username and password. The application should check whether the login name is “VIT” and the password “DOTNET”. The application should allow the user to enter the username and password for a maximum of 3 times. If in all of the 3 attempts, a wrong username and password is entered, the application should display an error message with the message box and close.

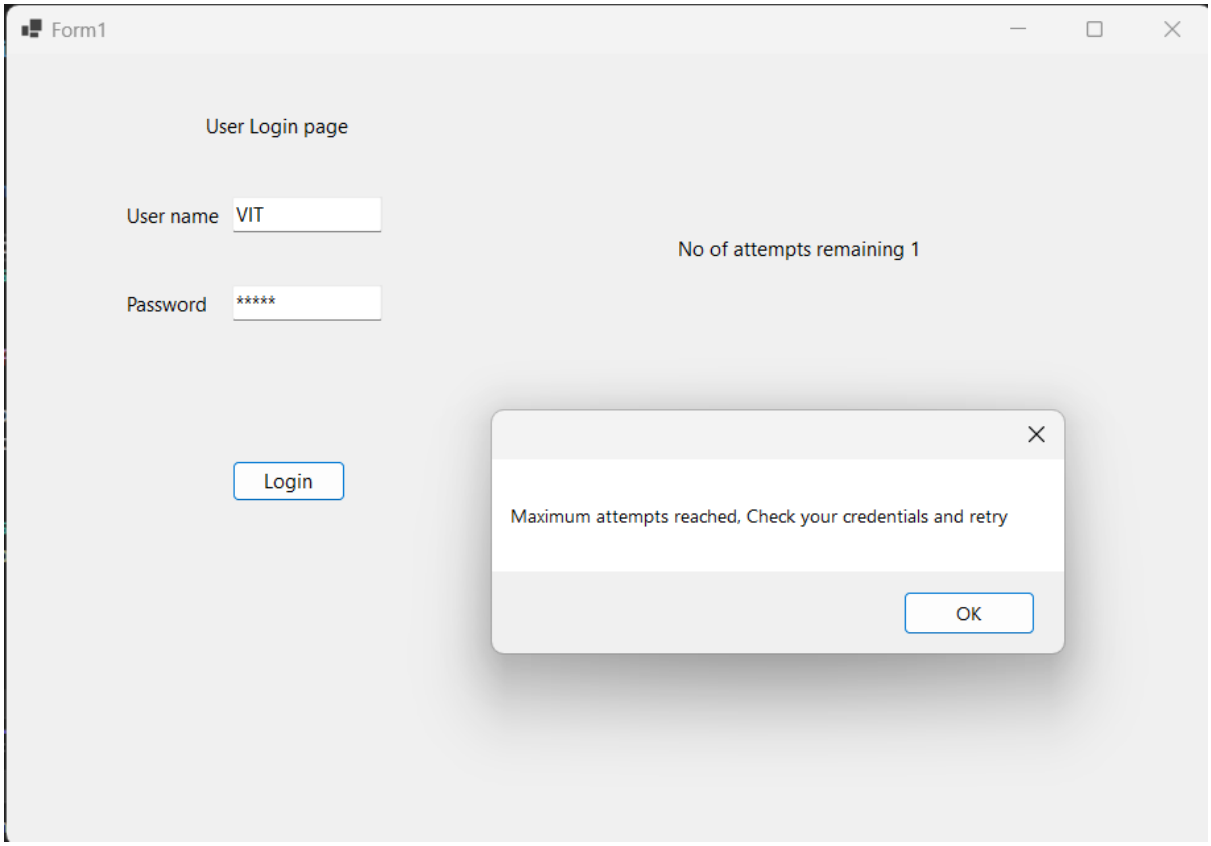
Code:

```
namespace WinFormsApp1
{
    public partial class Form1 : Form
    {
        static int attempt = 3;
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {
            label1.Text = "User Login page";
            label2.Text = "User name";
            label3.Text = "Password";
            textBox2.PasswordChar = '*';
            button1.Text = "Login";
            label4.Text = "Please enter your credentials";
```

```
        }

        private void button1_Click(object sender, EventArgs e)
        {

            string username = textBox1.Text;
            string password = textBox2.Text;
            if ((this.textBox1.Text == "VIT") && (this.textBox2.Text ==
"DOTNET"))
            {
                attempt = 0;
                MessageBox.Show("Login successfull");

            }
            else if ((attempt>0))
            {
                label4.Text = "No of attempts remaining " +
Convert.ToString(attempt);
                attempt--;            }
            else
            {
                MessageBox.Show("Maximum attempts reached, Check your credentials
and retry");
                Close();
            }
        }
    }
}
```

Output:






3. Write a C# program for the Q.N: 02, When a user clicks the ok button, the application should verify the user name and the password. Also, when a user enters the correct user name and password and click ok button, another form should be opened. This for should accept the details about a student.

The course drop-down list should display the following items: web application developer, database administrator, network administrator, windows application developer.

The time slots list should display the following items: 7.00-9.00, 9.00-11.00, 11.00 – 1.00, 1.00-3.00, 3.00-5.00;

The address text box should allow users to enter multiple lines.

When a user clicks the OK button, the application must ensure that the user has entered details in all text boxes. If the user has not specified data in one or more text boxes, the application should display an error message.

If all details are specified, a message box showing all details, such as name, age, address, gender, course timeslot, and facilities should be displayed and the controls should be reinitialized.

When a user clicks the close button, the student details form should be closed.

Code:

FORM 1

```
namespace DAtwo3
{
    public partial class Form1 : Form
    {
        static int attempt = 3;
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {
            label1.Text = "User Login page";
            label2.Text = "User name";
            label3.Text = "Password";
            textBox2.PasswordChar = '*';
            button1.Text = "Login";
            label4.Text = "Please enter your credentials";
        }

        private void button1_Click(object sender, EventArgs e)
        {
            if ((this.textBox1.Text == "VIT") && (this.textBox2.Text ==
"DOTNET"))
            {
                attempt = 3;

                this.Hide();
                Form2 f2 = new Form2(); //this is the change, code for redirect
                f2.ShowDialog();

            }
            else if ((attempt > 0))
            {
                label4.Text = "No of attempts remaining " +
Convert.ToString(attempt);
                attempt--;
            }
            else
            {
                MessageBox.Show("Maximum attempts reached, Check your credentials
and retry");
                Close();
            }
        }
    }
}
```

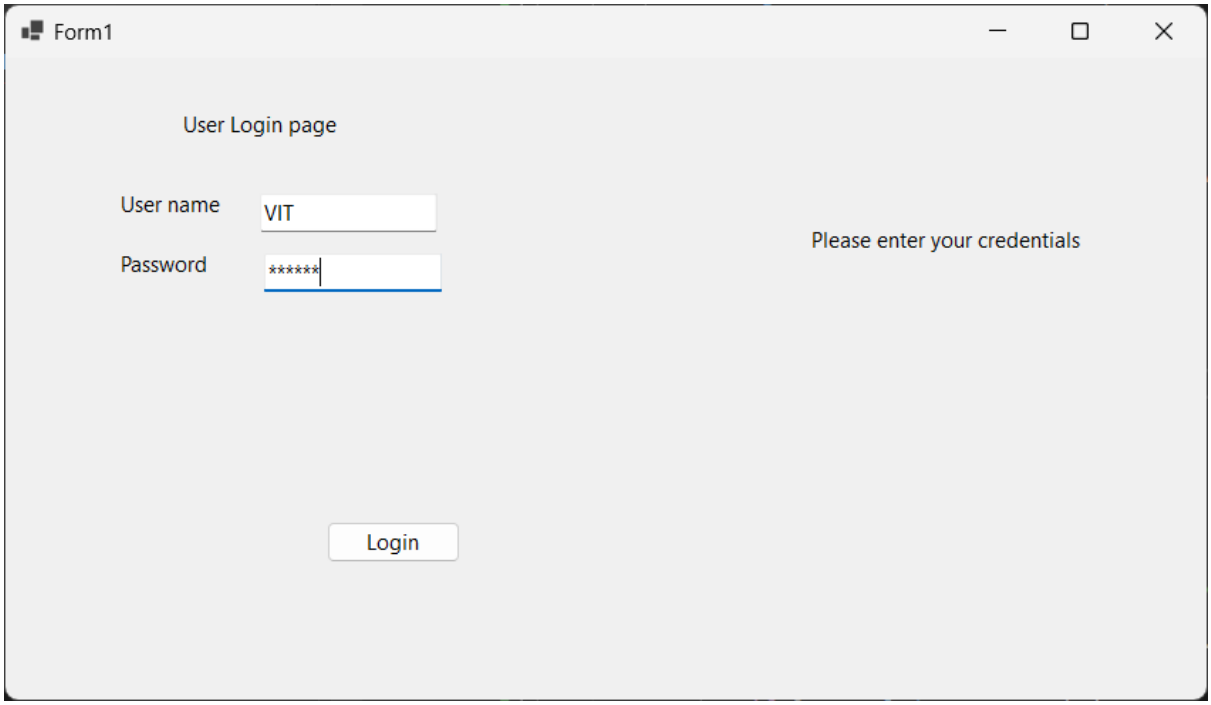
FORM 2

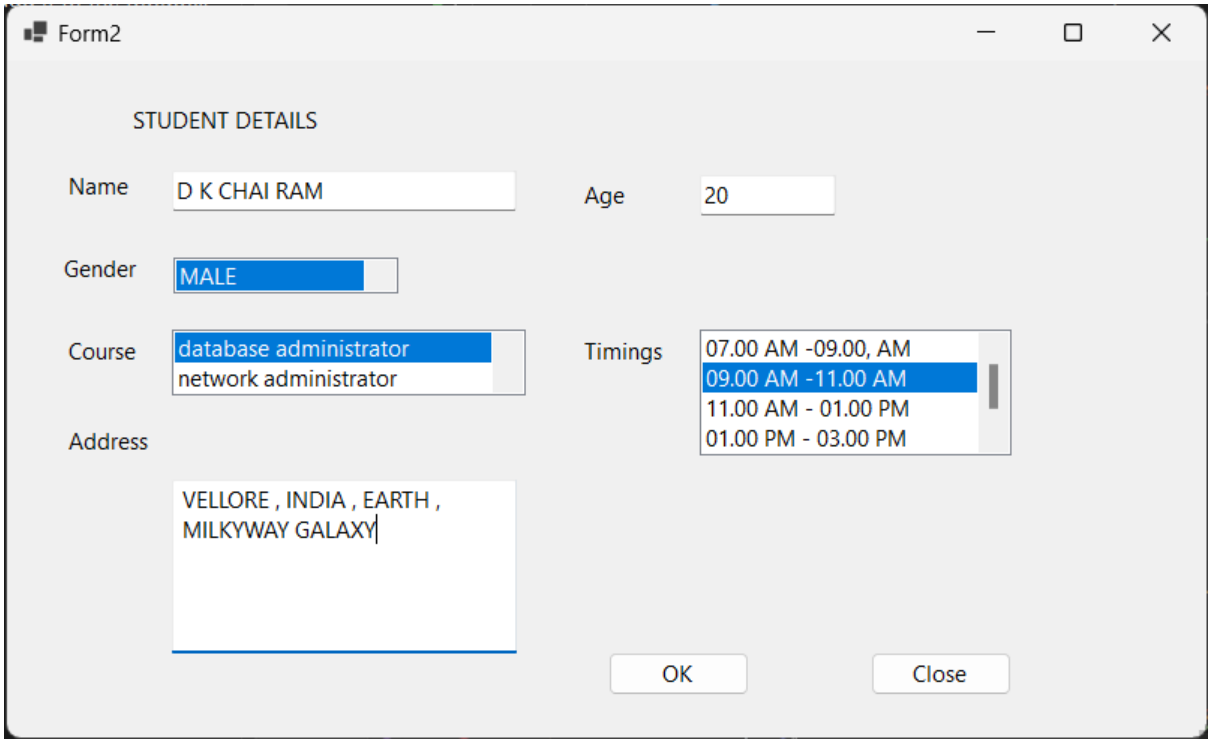
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Net;
```

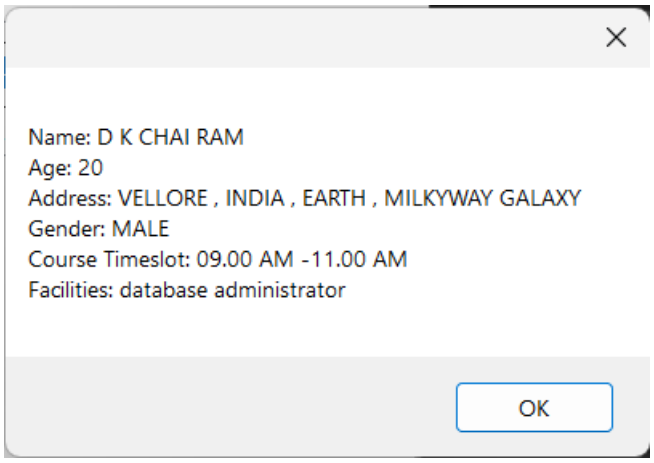
```
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using static System.Windows.Forms.VisualStyles.VisualStyleElement;
using System.Xml.Linq;

namespace DAtwo3
{
    public partial class Form2 : Form
    {
        public Form2()
        {
            InitializeComponent();
        }

        private void Form2_Load(object sender, EventArgs e)
        {
        }

        private void button1_Click(object sender, EventArgs e)
        {
            string name = textBox2.Text;
            int age = int.Parse(textBox3.Text);
            string address = textBox1.Text;
            string gender = listBox3.Text;
            string time = listBox1.Text;
            string facilities = listBox2.Text;


            MessageBox.Show("Name: " + name + "\nAge: " + age + "\nAddress: " +
address + "\nGender: " + gender + "\nCourse Timeslot: " + time + "\nFacilities: "
+ facilities);
            Utilities.ResetAllControls(this);
        }

        private void button2_Click(object sender, EventArgs e)
        {
            this.Close();
        }
    }
    public class Utilities
    {
        public static void ResetAllControls(Control form)
        {
            foreach (Control control in form.Controls)
            {
                if (control is System.Windows.Forms.TextBox)
                {
                    (control as System.Windows.Forms.TextBox).Text =
string.Empty;
                }

                if (control is CheckBox)
                {
                    (control as CheckBox).Checked = false;
                }



                if (control is ListBox)
                {
                    (control as ListBox).SelectedIndex = -1;
                }
```

```
                if (control is RadioButton)
                {
                    (control as RadioButton).Checked = false;
                }

                if (control is DateTimePicker)
                {
                    (control as DateTimePicker).Value = DateTime.Now;
                }

                if (control is NumericUpDown)
                {
                    (control as NumericUpDown).Value = 0;
                }

                if (control is PictureBox)
                {
                    (control as PictureBox).Image = null;
                }

                ResetAllControls(control);
            }

            form.Refresh(); // This line is optional. It will refresh the form
after resetting all controls.
        }
    }
}
```

OUTPUT





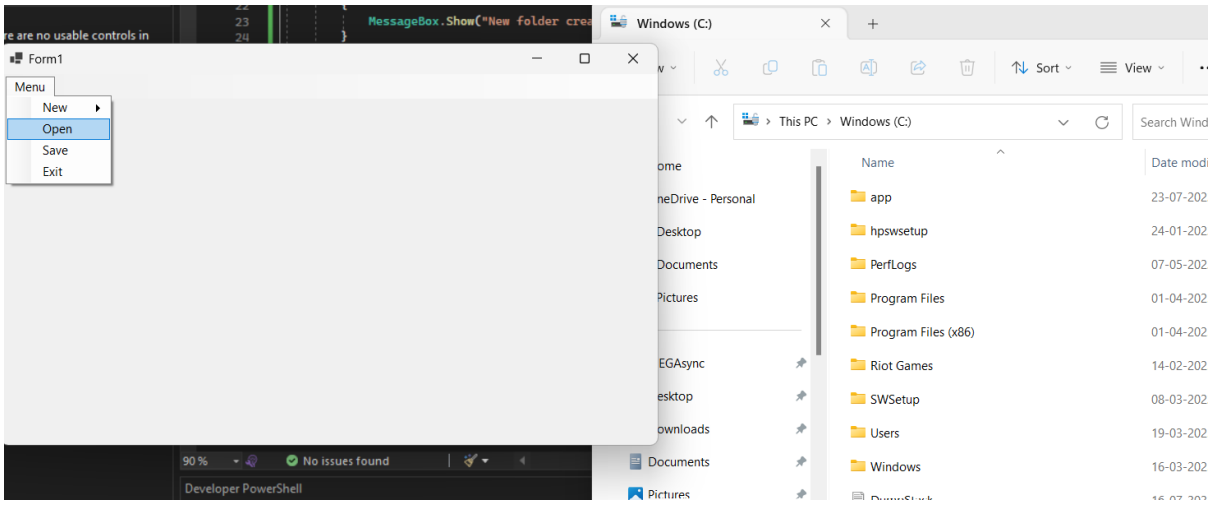

4. Write a C# program to draw the following graphics: Lines, squares, rectangle ellipses and circles.

5. Write a C# program to create MenuStrip control using a Forms designer at design time. Also do the following: Create sub menus, add check marks to menu items, create menu access keys and create menu separators.
   Code:

```
using System.Diagnostics;
namespace menu
{
```

```
public partial class Form1 : Form
{
    public Form1()
    {
        InitializeComponent();
    }

    private void exitToolStripMenuItem_Click(object sender, EventArgs e)
    {
        this.Close();
    }

    private void fileToolStripMenuItem_Click(object sender, EventArgs e)
    {
        MessageBox.Show("New File created");
    }

    private void folderToolStripMenuItem_Click(object sender, EventArgs e)
    {
        MessageBox.Show("New folder created");
    }

    private void openToolStripMenuItem_Click(object sender, EventArgs e)
    {
        if(Directory.Exists(@"C:\"))
        {
            Process.Start("explorer.exe", @"c:\");
        }
    }
}
}
```

Output:




6. 6. In an electronic shop, laptops of brands 'Dell', 'HP', 'Lenovo', 'Sony', 'Acer' are available. Unit price of the brands are 40000, 42000, 40180, 39400 and 39300 respectively and the available stock in hand is 10 for Dell,100 for HP, 50 for Lenovo, 4 for Sony, and 2 for Acer. A customer can enter the name of the brand of laptop he wants to purchase and the required quantity. Develop an window based form application to keep track of total bill amount. The program should keep asking for new items until 'stop' is entered for brand name. The

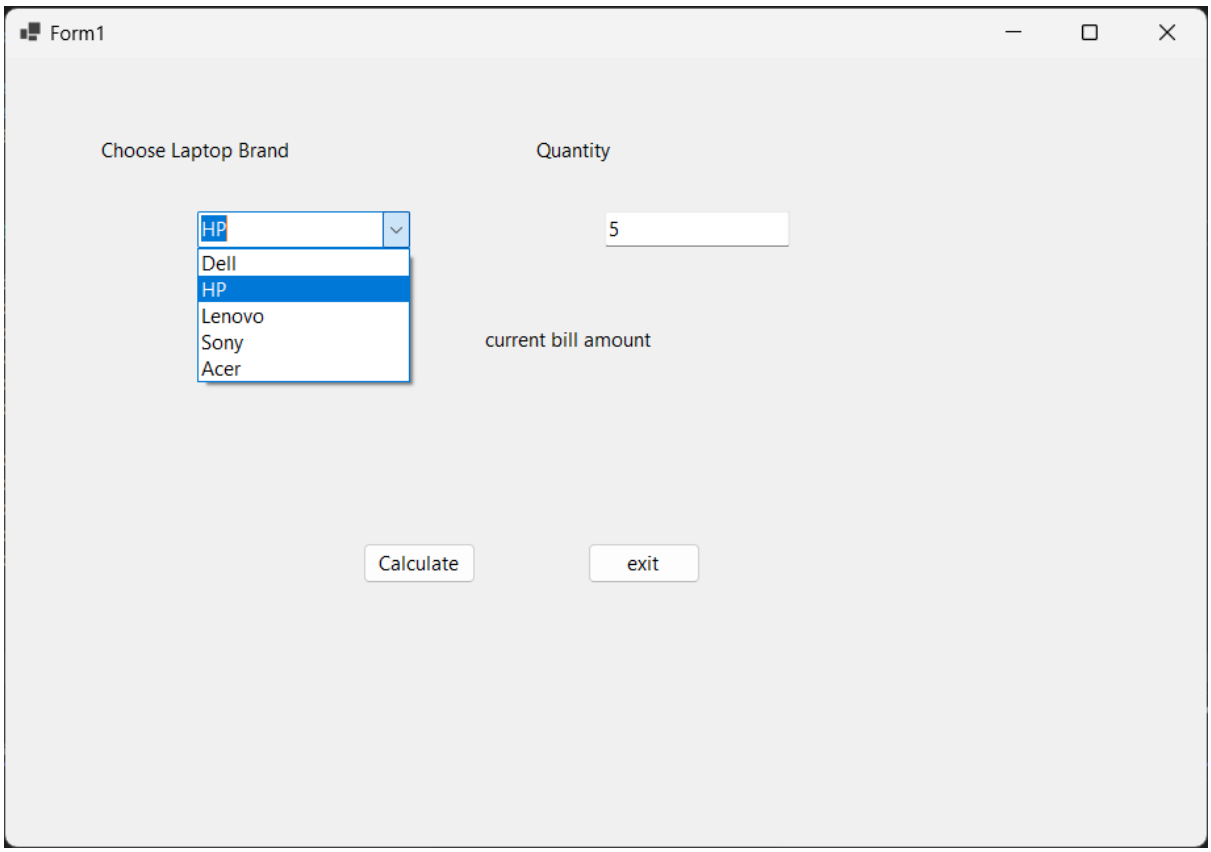
program should display the total amount. If the user enters quantity greater than stock in hand then print “STOCK INSUFFICIENT”. If the brand entered by the user is not in the shop then print “NOT AVAILABLE”. But in both the cases compute cost for other items entered and continue getting new items. Print the total cost to be paid by the customer.

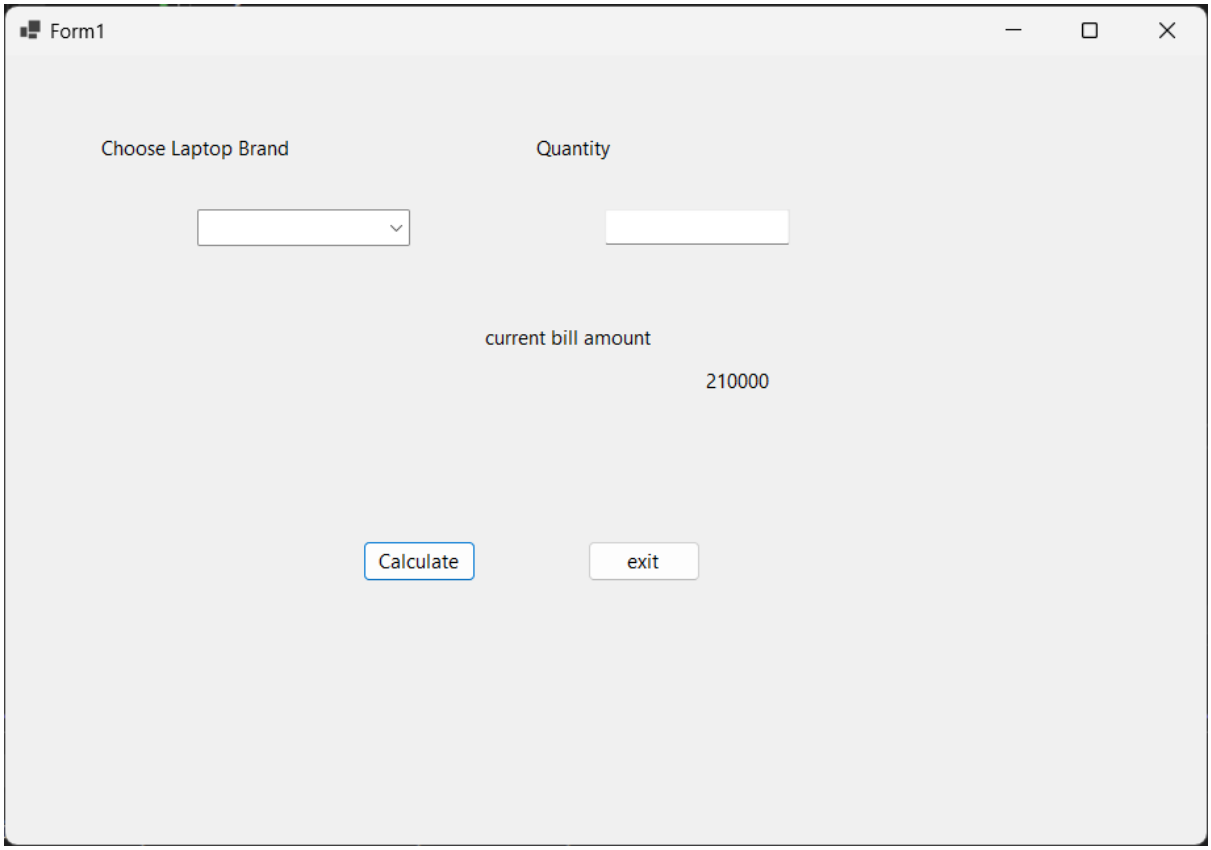
Code:

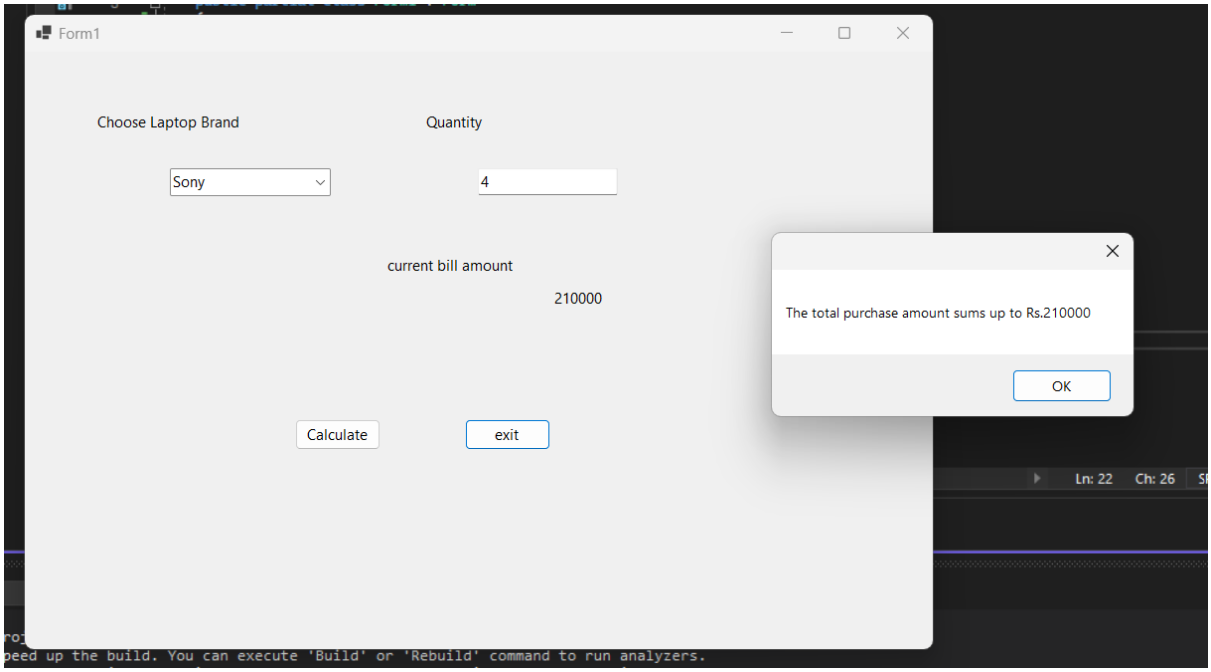
```
using System.Diagnostics.Eventing.Reader;

namespace sales
{
    public partial class Form1 : Form
    {
        Dictionary<string, int> stock = new Dictionary<string, int>();
        Dictionary<string, int> price = new Dictionary<string, int>();
        int bill = 0;


        public Form1()
        {
            InitializeComponent();
            stock.Add("dell", 10);
            stock.Add("hP", 100);
            stock.Add("lenovo", 50);
            stock.Add("sony", 04);
            stock.Add("acer", 2);

            price.Add("dell", 40000);
            price.Add("hP", 42000);
            price.Add("lenovo", 40180);
            price.Add("sony", 39400);
            price.Add("acer", 39300);

        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }

        private void button2_Click(object sender, EventArgs e)
        {
            string brand = comboBox1.Text;
            brand = brand.ToLower();
            int quantity = Convert.ToInt32(textBox1.Text);
            if (stock.ContainsKey(brand) && quantity != 0)
            {
                if (quantity < stock[brand])

                {
                    bill += price[brand] * quantity;
                    stock[brand] -= quantity;
                }
                else
                { MessageBox.Show("Stock insufficient"); }
            }
            else
            {
                MessageBox.Show("NOT available");
            }

            label3.Text = Convert.ToString(bill);
```

```
            comboBox1.ResetText();
            textBox1.Clear();


        }

        private void button1_Click(object sender, EventArgs e)
        {

           MessageBox.Show("The total purchase amount sums up to Rs." + bill);
        }
    }
}
```

Output:




Form1
Choose Laptop Brand
Quantity
current bill amount
210000
Calculate
exit

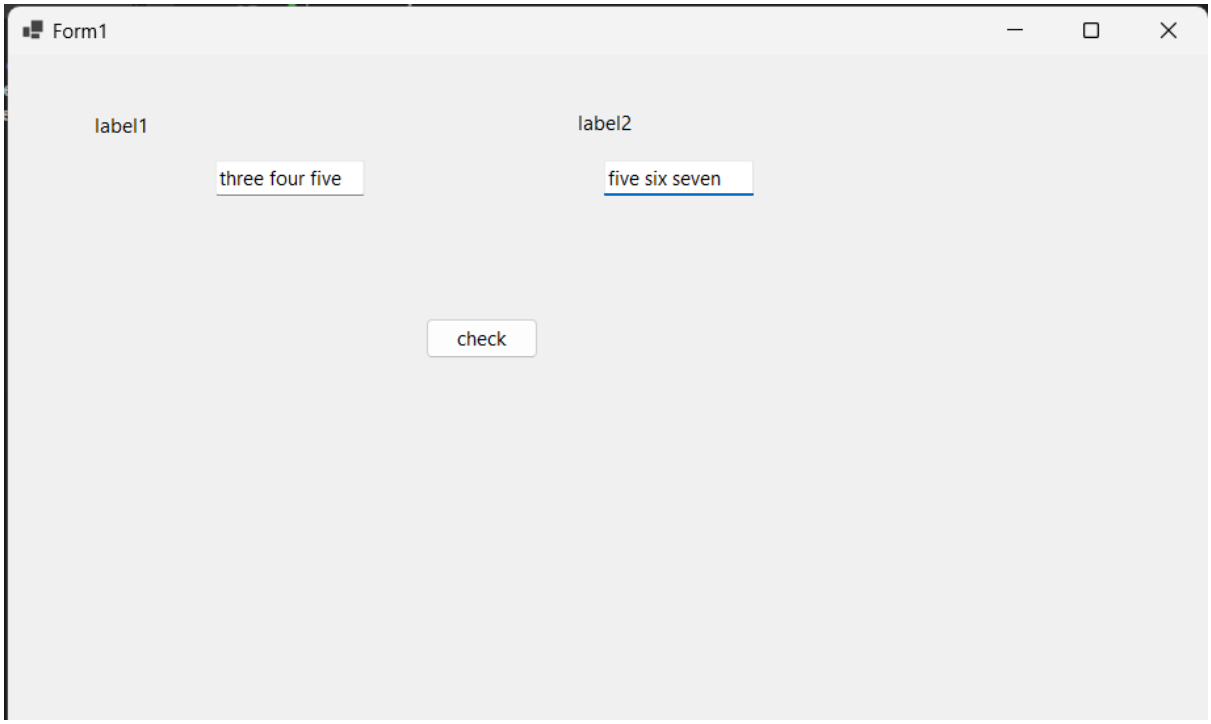

Form1
Choose Laptop Brand
Quantity
Sony
4
current bill amount
210000
Calculate
exit
The total purchase amount sums up to Rs.210000
OK
Ln: 22
Ch: 26
peed up the build. You can execute 'Build' or 'Rebuild' command to run analyzers.

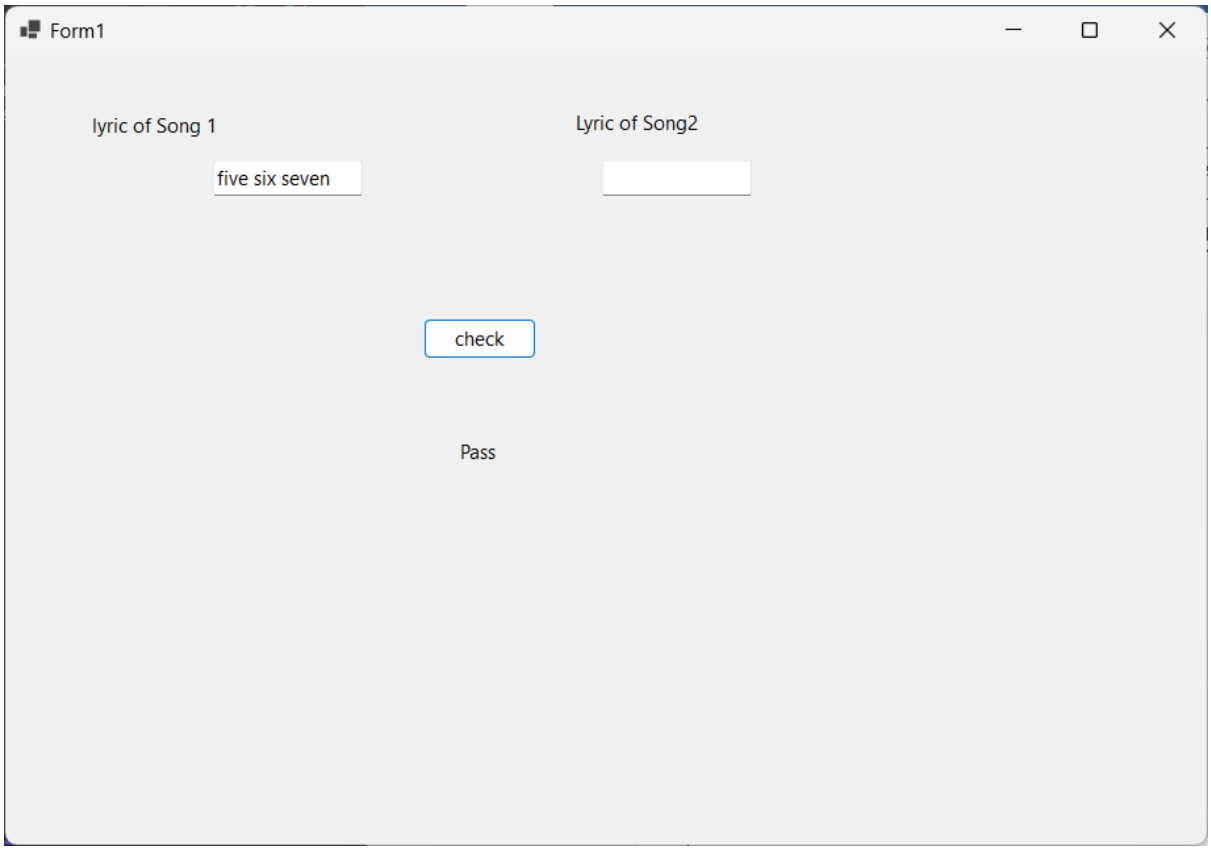
7. Word_Antakshri is a spoken modern parlor game played in India. The game can be played by two or more people and is a popular as a group activity. The first singer has to sing one complete line of song and stops at a point. The last word sung by the previous player is then used by the next singer to sing another new song, starting with that word. This process continues until a person or a team that can not come up with the right consonant with in a time constraint. Given the lines of song sung by the first and the second player, design a window based form application to print 'Pass' or 'Stop' word. If rules of the game is followed by the second player then print "Pass" otherwise print "Stop". For example, if the line sung by the first player is "One two three" and the line sung by the second player is "Three four five" then print Pass. If the line sung by the first player is "One two" and the line sung by the second player is "Three four five" then print Stop.

Code:

```
namespace antra
{
    public partial class Form1 : Form
    {
        string word = " ";
        public Form1()
        {
            InitializeComponent();

        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            word.Split();
            label1.Text = "lyric of Song 1";
            string l1 = textBox1.Text;
            string[] a = l1.Split(' ');
            label2.Text = "Lyric of Song2";
            string l2 = textBox2.Text;
            string[] b = l2.Split(' ');
            word = a[a.Length - 1];
            if (l2.StartsWith(word))
            {
                label3.Text = "Pass";
                word = b[b.Length - 1];
            }
            else
                label3.Text = "Stop";

            textBox1.Text = textBox2.Text;
            textBox2.Clear();
        }
    }
}
```

Output:


Form1
label1
three four five
label2
five six seven
check


Form1
lyric of Song 1
five six seven
Lyric of Song2
check
Pass

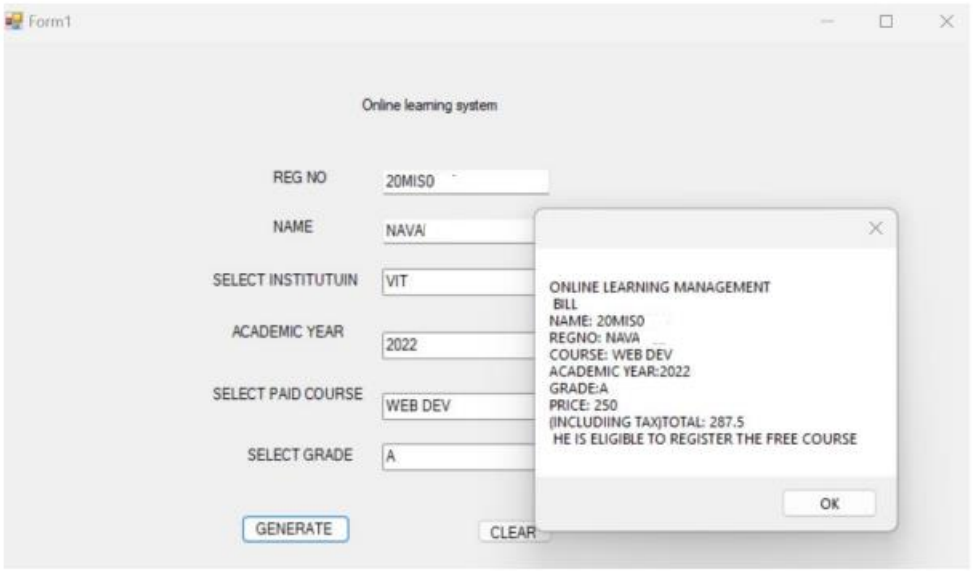
8. A famous online learning and teaching marketplace offers courses for its students for free. One course is offered for free if the student registering with them for a subject by paying a certain amount of money and gets top grade in that course 'X'. Develop a window form application to check whether the student is eligible for a free course or not and also provide him a certificate for the completed course. Its must for him to register for at least one paid course along with a free course. Generate a complete bill to be paid for doing the course.

Code

```
        private void button1_Click(object sender, EventArgs e)
        {
            double tax = 0.15;
            double p1 = 200, p2 = 300, p3 = 250, p4 = 100;
            if (comboBox4.Text == "A")
            {
                if (comboBox3.Text == "AI")
                {
                    double total = p1 + p1 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS ELIGIBLE TO
REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p1, total));
                }
                else if (comboBox3.Text == "ML")
                {
                    double total = p2 + p2 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS ELIGIBLE TO
REGISTER THE FREE COURSE",textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p2, total));
                }
                else if (comboBox3.Text == "WEB DEV")
                {
```

```
                    double total = p3 + p3 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS ELIGIBLE TO
REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p3, total));
                }

                else
                {
                    double total = p4 + p4 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS ELIGIBLE TO
REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p4, total));
                }
            }
            else
            {
                if (comboBox3.Text == "AI")
                {
                    double total = p1 + p1 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS NOT ELIGIBLE
TO REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text,comboBox4.Text, p1, total));
                }
                else if (comboBox3.Text == "ML")
                {
                    double total = p2 + p2 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS NOT ELIGIBLE
TO REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p2, total));
                }
                else if (comboBox3.Text == "WEB DEV")
                {
                    double total = p3 + p3 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS NOT ELIGIBLE
TO REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p3, total));
                }

                else
                {
                    double total = p4 + p4 * tax;
                    MessageBox.Show(string.Format("ONLINE LEARNING MANAGEMENT \n
BILL     \nNAME: {0}\nREGNO: {1}\nCOURSE: {2}\nACADEMIC
YEAR:{3}\nGRADE:{4}\nPRICE: {5}\n(INCLUDIING TAX)TOTAL: {6}\n HE IS NOT ELIGIBLE
TO REGISTER THE FREE COURSE", textBox1.Text, textBox2.Text, comboBox3.Text,
comboBox2.Text, comboBox4.Text, p4, total));
                }
            }

        }

        private void button2_Click(object sender, EventArgs e)
        {
```

```
            textBox1.Clear();
            textBox2.Clear();
            comboBox1.Text = String.Empty;
            comboBox2.Text= String.Empty;
            comboBox3.Text= String.Empty;
            comboBox4.Text= String.Empty;
        }
    }
}
```




9. Design a simple Winform for accepting the details of Employee. Using the connected architecture of ADO.NET, perform the following operations:

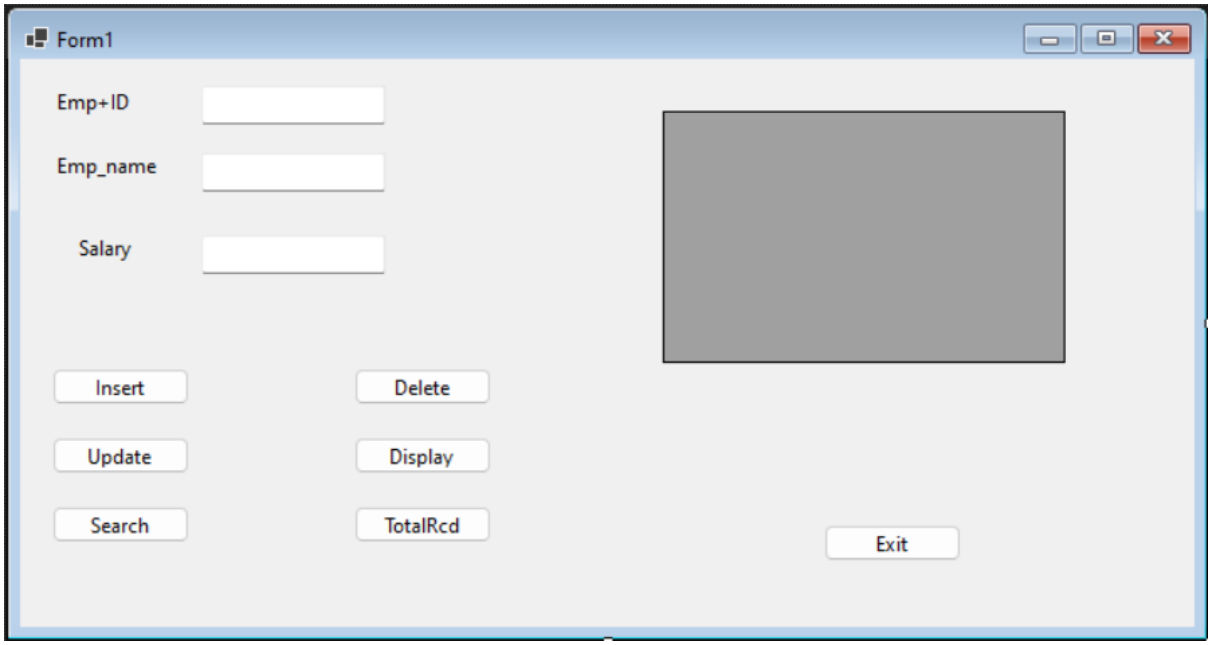
- Insert record.
- Search record.
- Update record.
- Delete record.

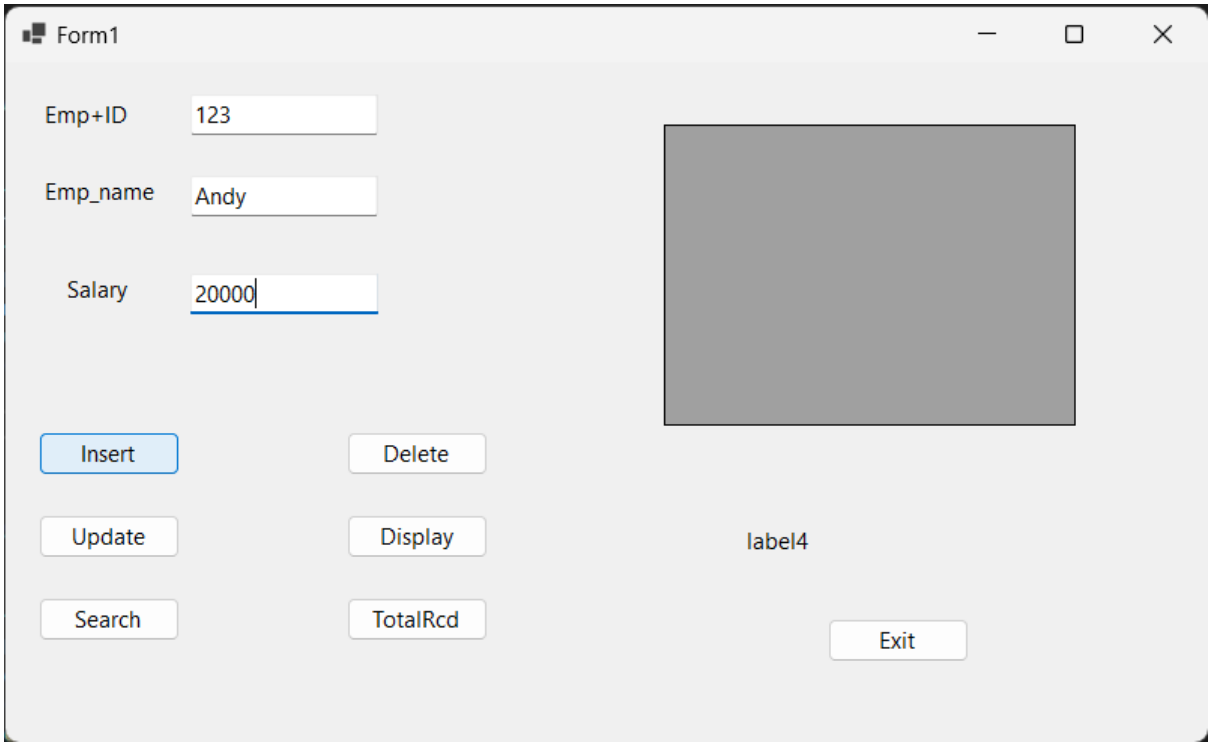
Code:

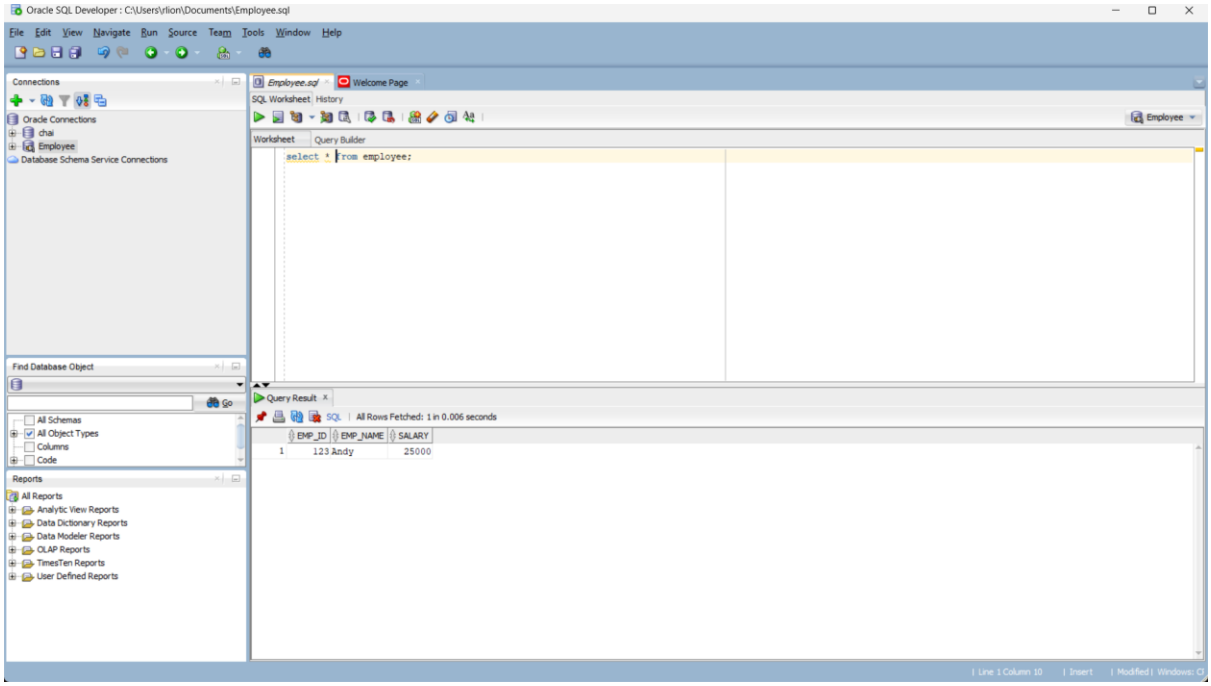
```
using Microsoft.VisualBasic;
using System.Data.Common;
using System.Data.OracleClient;
using System.Drawing.Text;
using Oracle.ManagedDataAccess.Client;
using Oracle.ManagedDataAccess.Types;
using System.Data;

namespace DBase
{
    public partial class Form1 : Form
    {
        public Form1()
```

```
        {
            InitializeComponent();
        }
        OracleConnection con;
        OracleCommand cmd;
        OracleDataReader dr;

        private void Form1_Load(object sender, EventArgs e)
        {
            void display()
            {


                con.Open();
                OracleCommand cmd = con.CreateCommand();
                cmd.Connection = con;
                cmd = new OracleCommand("Select * from Employee; ", con);
                OracleDataReader dr = cmd.ExecuteReader();
                DataTable dt = new DataTable();
                dt.Load(dr);
                dataGridView1.DataSource = dt;
                con.Close();
            }
        }

        private void button6_Click(object sender, EventArgs e)
        {
            con.Open();
            cmd = new OracleCommand("select Count(*) from Employee", con);
            int a = (int)cmd.ExecuteScalar();
            label4.Text = "Total Record:--> " + a.ToString();
            con.Close();
        }

        private void button7_Click(object sender, EventArgs e)
        {
            this.Close();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            OracleConnection con = new OracleConnection("Data Source=
Chairam;Persist Security Info=True;User
ID=system;Password=**********;Unicode=True");

            con.Open();
            OracleCommand cmd = con.CreateCommand();
            cmd.Connection = con;
            cmd = new OracleCommand("Select * from Employee; ", con);
            OracleDataReader dr = cmd.ExecuteReader();
            DataTable dt = new DataTable();
            dt.Load(dr);
            dataGridView1.DataSource = dt;
            con.Close();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            con.Open();
            int aa = Convert.ToInt32(textBox1.Text);
            string bb = textBox2.Text;
            int cc = Convert.ToInt32(textBox3.Text);
```

```
            cmd = new OracleCommand("Insert into table Employee values('" + aa +
"," + bb + "," + cc + "');");
            cmd.ExecuteNonQuery();
            con.Close();
            display();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            con.Open();
            int aa = Convert.ToInt32(textBox1.Text);
            cmd = new OracleCommand("DELETE FROM Employee where Emp_ID='" + aa +
"'", con);
            cmd.ExecuteNonQuery();
            MessageBox.Show("one record Delete:");
            con.Close();
            Display();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            con.Open();
            int aa = Convert.ToInt32(textBox1.Text);
            string bb = textBox2.Text;
            int cc = Convert.ToInt32(textBox3.Text);
            string abc = "UPDATE Employee SET Emp_ID ='" + aa + "', Emp_Name ='"
+ bb + "',Salary ='" + cc + "' WHERE Emp_ID = '" + aa + "'";
            OracleCommand cmd = new OracleCommand(abc, con);
            cmd.ExecuteNonQuery();
            MessageBox.Show("one record updated:");
            con.Close();
            Display();
        }

        private void button5_Click(object sender, EventArgs e)
        {
            con.Open();
            int aa = Convert.ToInt32(textBox1.Text);
            string abc = "SELECT Emp_ID,Emp_Name,Salary FROM Employee where
Emp_ID='" + aa + "'";
            cmd = new OracleCommand(abc, con);
            MessageBox.Show("one record search:");
            dr = cmd.ExecuteReader();
            DataTable dt = new DataTable();
            dt.Load(dr);
            dataGridView1.DataSource = dt;
            con.Close();
        }
    }
}
```


Form1
Emp+ID
Emp_name
Salary
Insert
Delete
Update
Display
Search
TotalRcd
Exit


Form1
Emp+ID
123
Emp_name
Andy
Salary
20000
Insert
Delete
Update
Display
label4
Search
TotalRcd
Exit


Oracle SQL Developer : C:\Users\rlion\Documents\Employee.sql
File Edit View Navigate Run Source Team Tools Window Help
Connections
Oracle Connections
chai
Employee
Database Schema Service Connections
Employee.sql
Welcome Page
SQL Worksheet History
Employee
Worksheet Query Builder
select * from employee;
Find Database Object
Go
All Schemas
All Object Types
Columns
Code
Reports
All Reports
Analytic View Reports
Data Dictionary Reports
Data Modeler Reports
OLAP Reports
TimesTen Reports
User Defined Reports
Query Result
All Rows Fetched: 1 in 0.006 seconds
EMP_ID EMP_NAME SALARY
1 123 Andy 25000
Line 1 Column 10
Insert
Modified
Windows: