C# and .NET Programming Lab
EXERCISE - 9

Exp. No : 9 **16.10.2023**	**Desktop Application(GUI) using C# WinForm and Database Access**

1. Create a Desktop Application application to design a simple interest calculator as given below using C# WinForms. Simple Interest Calculation formula is given below.

Final Amount = p (1+((r/100)t)

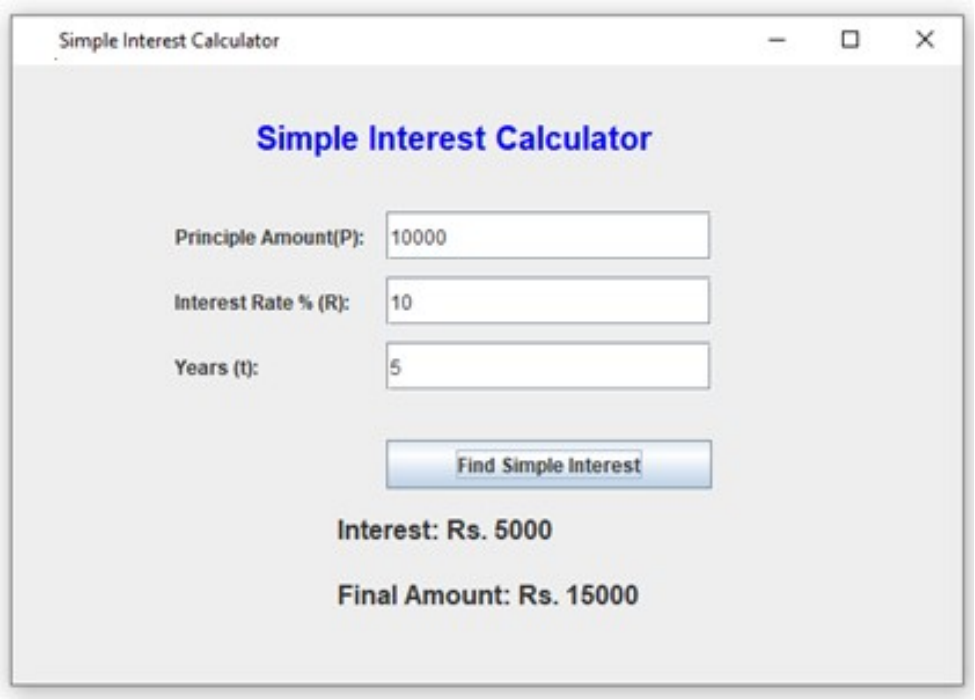
Interest = Final Amount – p

Where,

p = principle amount

r = annual interest rate in %

t = tenure (years)

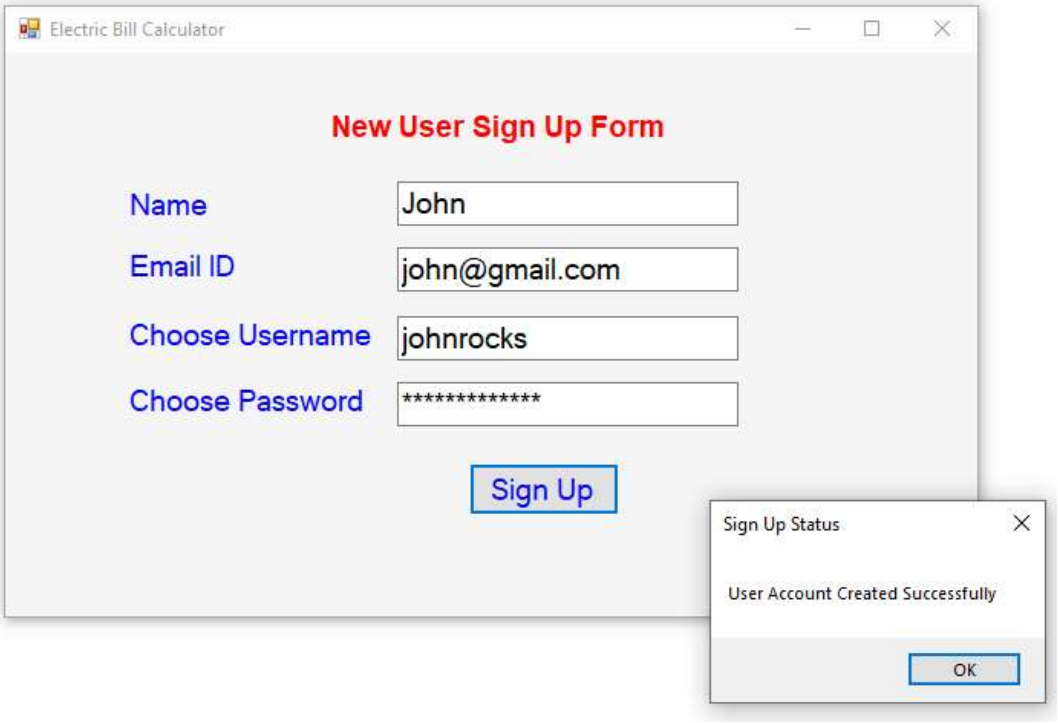


2. Create a Desktop application to demonstrate User Sign Up and Login functionalities with database operations as per the following GUI Designs. Create a table called "users" with columns such as name, email, username, password in the database.

Database Table: users

name	email	username	password

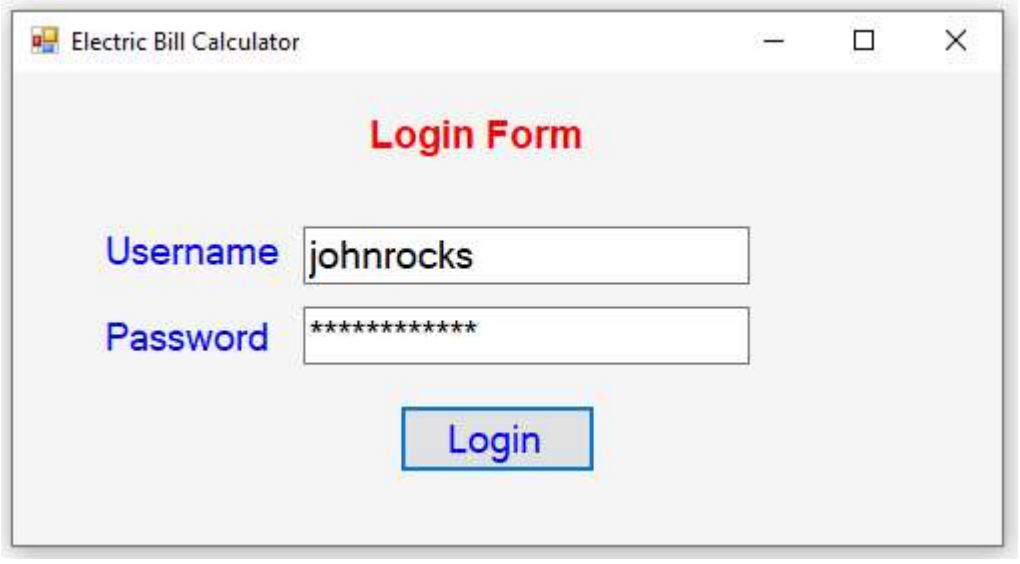
Sign Up Form

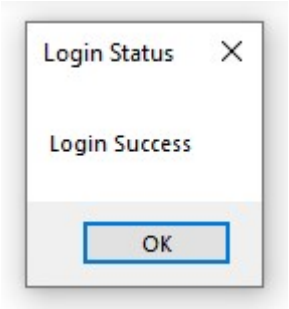
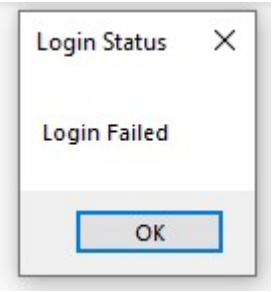


Store the user details in the table "users" upon pressing the "Sign Up" button and show the Message Box with a message "User Account Created Successfully".

Login Form

Create another Form for Login verification as per the following design and read username and password. Check this username and password is correct by accessing the database table and show the appropriate message given below.



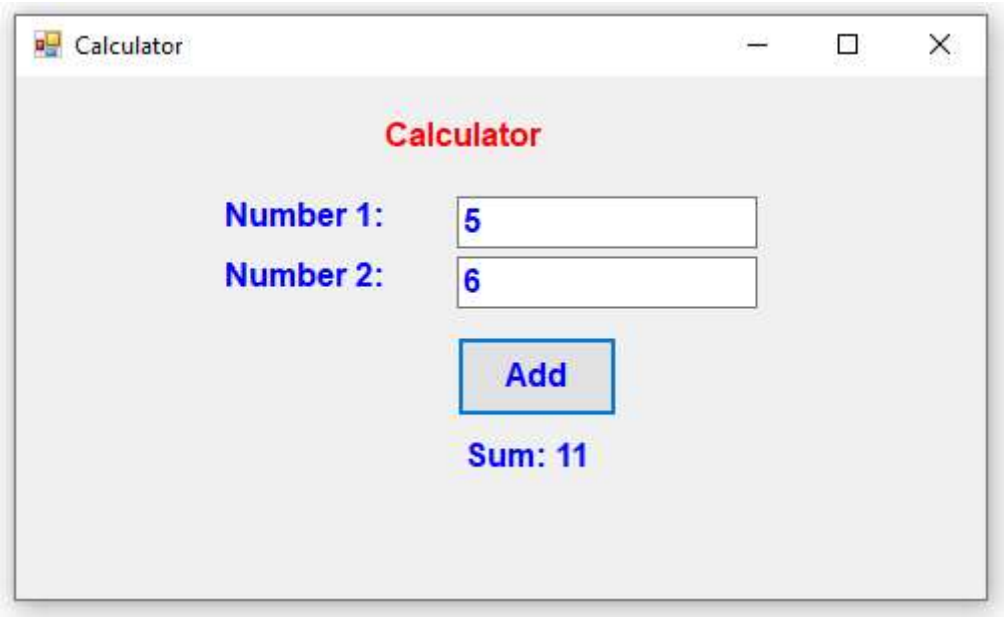
	Show the message “Login Success” if the user credentials in the database table is matching and show the message “Login Failed” if the user credentials is not matching with database table (as given below).  

Sample Program for GUI Design to Refer:

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


namespace MyDesktopApp
{
    internal static class Program
    {
        static void Main()
        {
           Application.EnableVisualStyles();
           Application.Run(new MyForm());
        }
    }
    public class MyForm : Form
    {
        private Label l1, l2,title;
        private TextBox t1, t2;
        private Button btn;
        private Label result;
        public MyForm()
        {
            this.Size = new Size(500, 300);
            this.Text = "Calculator";
            this.ForeColor = Color.Blue;
            this.Font = new Font("Arial", 12, FontStyle.Bold);

            title = new Label();
            title.Text = "Calculator";
```

```
        title.ForeColor = Color.Red;
        title.Location = new Point(180, 20);

        l1 = new Label();
        l1.Text = "Number 1:";
        l1.Size = new Size(90,20);
        l1.Location = new Point(100,60);

        t1 = new TextBox();
        t1.Location = new Point(220,60);
        t1.Size = new Size(150,20);
        t1.ForeColor = Color.Blue;
        t1.Font = new Font("Arial", 12, FontStyle.Bold);

        l2 = new Label();
        l2.Text = "Number 2:";
        l2.Size = new Size(90, 20);
        l2.Location = new Point(100,90);

        t2 = new TextBox();
        t2.Location = new Point(220, 90);
        t2.Size = new Size(150, 20);
        t2.ForeColor = Color.Blue;
        t2.Font = new Font("Arial", 12, FontStyle.Bold);

        btn = new Button();
        btn.Text = "Add";
        btn.Location = new Point(220, 130);
        btn.Size = new Size(80, 40);

        btn.Click += new System.EventHandler(btn_Click);

        result = new Label();
        result.Text = "";
        result.Location = new Point(220, 180);

        Controls.Add(title);
        Controls.Add(l1);
        Controls.Add(t1);
        Controls.Add(l2);
        Controls.Add(t2);
        Controls.Add(btn);
        Controls.Add(result);
    }
    public void btn_Click(object sender, EventArgs e)
    {
        int n1 = int.Parse(t1.Text);
```

```
            int n2 = int.Parse(t2.Text);
            int sum = n1 + n2;
            result.Text = "Sum: " +  sum;
        }
    }
}
```



Sample Database Access Program

```
using MySql.Data.MySqlClient;
using System;
namespace ConsoleApp6
{
 class Program
    {
        static void Main(string[] args)
        {
            try
            {
                //database connection parameters
                string dbconstring =
"server=localhost;database=company;uid=root;pwd=\"\";";

                //create database connection and open
                MySqlConnection conn = new MySqlConnection(dbconstring);
                conn.Open();
                Console.WriteLine("Database Connected");


                Console.Write("Name: ");
                string name = Console.ReadLine();
                Console.Write("Emp.ID: ");
```

```
                int empid = int.Parse(Console.ReadLine());
                Console.Write("Email: ");
                string email = Console.ReadLine();
                Console.Write("Salary: ");
                int salary = int.Parse(Console.ReadLine());

                string sql = "insert into employees
values(@data1,@data2,@data3,@data4)";
                MySqlCommand command = new MySqlCommand(sql,conn);
                command.Parameters.AddWithValue("@data1", name);
                command.Parameters.AddWithValue("@data2", empid);
                command.Parameters.AddWithValue("@data3", email);
                command.Parameters.AddWithValue("@data4", salary);
                command.ExecuteNonQuery();

                Console.WriteLine("Data Saved Successfully");

                conn.Close();
            }
            catch(Exception ex)
            {
                Console.WriteLine(ex.Message);
            }
            Console.ReadKey();
        }
    }
}
```