Ex. No. 09	DESKTOP APPLICATION(GUI) UISNG WINFORM AND DATABASE ACCESS
16.10.2023	

Aim

To develop C# desktop application using WinForm and use MySqlClient to access database.

Description

WinForm:

- GUI class library which is bundled in .NET framework
- To develop application in desktop, tablet and PC.
- Known as Windows Forms Application
- Just Drag and drop the required components to the .cs[Designer] file.
- Inside the .Designer.cs file initialize the components of the application
- Inside the .cs file add the functionalities of the backend of the application

MySql.Data.Client:

- It is a Namespace in C# for connecting and interacting with the MySQL database.
- Has MySqlConnector, MySqlCommand, MySqlDataReader and MySqlDataAdapter which are used to connect to the MySQL database and to perform the operations on it.
- MySqlConnection is used to create a connection to the MySQL database.
- MySqlCommand is used to execute the commands such as INSERT, UPDATE, DELETE, DROP.

Source Code

1.

```
using System;

using System.Windows.Forms;

namespace Ex9{
```

```
public partial class Form1 : Form{
    public Form1(){
        InitializeComponent();}
    private void Form1_Load(object sender, EventArgs e){ }
    private void button1_Click(object sender, EventArgs e){
        int p=Convert.ToInt32(textBox1.Text);
        int n=Convert.ToInt32(textBox2.Text);
        int r=Convert.ToInt32(textBox3.Text);
        int intrest = p * n * r / 100;
        int final = p + intrest;
        label5.Text = "Intrest: " + intrest.ToString();
        label6.Text = "Final Amount: "+final.ToString(); } } }
```

2.

```
using MySql.Data.MySqlClient;
using System;
using System.Windows.Forms;
namespace Ex9{
  public partial class Signup : Form{
    public Signup(){
      InitializeComponent();}
    private void submit_Click(object sender, EventArgs e) {   try{
        string n = name_box.Text;
        string email = email_box.Text;
        string u = uname_box.Text;
```

```
            string p = pass_box.Text;
            string dbconstring =
"server=localhost;database=csharp;uid=Projects;pwd=myProjects;";
            MySqlConnection con = new MySqlConnection(dbconstring);
            con.Open();
            Console.WriteLine("Database Connected");
            string query = "insert into users values(@data1,@data2,@data3,@data4)";
            MySqlCommand command = new MySqlCommand(query, con);
            command.Parameters.AddWithValue("@data1",n);
            command.Parameters.AddWithValue("@data2",email);
            command.Parameters.AddWithValue("@data3",u);
            command.Parameters.AddWithValue("@data4",p);
            command.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Account Created Successfully", "Account Creation Status"); }
        catch (Exception ex){
            MessageBox.Show(ex.Message,"Error"); }
        Finally{
            name_box.Text = "";
            email_box.Text = "";
            uname_box.Text = "";
            pass_box.Text = ""; }
```

3.

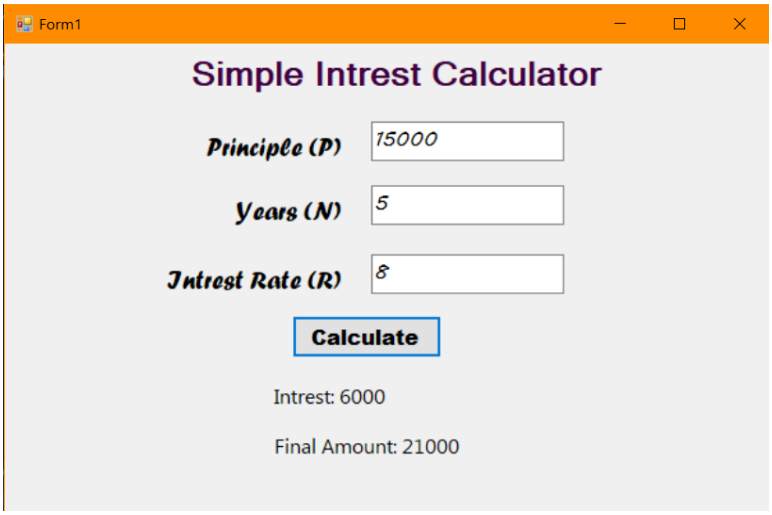
```
using MySql.Data.MySqlClient;
```

```
using System;
using System.Windows.Forms;
namespace Ex9{
   public partial class Signin : Form{
      public Signin(){
         InitializeComponent();}
      private void signin_btn_Click(object sender, EventArgs e){ try {
            string u=name_box.Text;
            string p=pass_box.Text;
            string dbconstring =
"server=localhost;database=csharp;uid=Projects;pwd=myProjects;";
            MySqlConnection con = new MySqlConnection(dbconstring);
            con.Open();
            Console.WriteLine("Database Connected");
            string query = "select * from users";
            MySqlCommand command = new MySqlCommand(query, con);
            MySqlDataReader records= command.ExecuteReader();
            bool flag=false;
            while (records.Read()){
               if (records.GetString(2).Equals(u) && records.GetString(3).Equals(p)){
                  flag = true;
                  MessageBox.Show("Logged In", "User Account");}}
            if (!flag){
               MessageBox.Show("Invalid Credentials", "User Account");}}
```

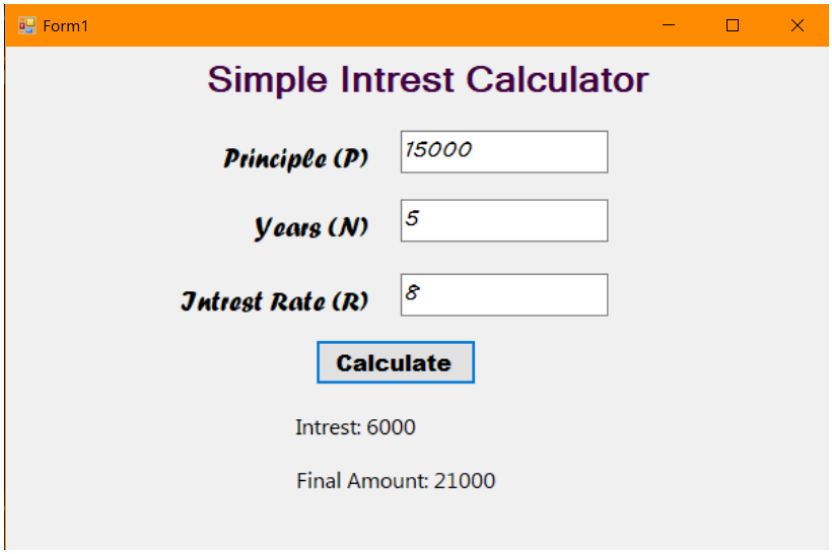
```
catch (Exception ex){
    MessageBox.Show(ex.Message, "Error");}
Finally{
    name_box.Text = "";
    pass_box.Text = "";}}}
```

Output

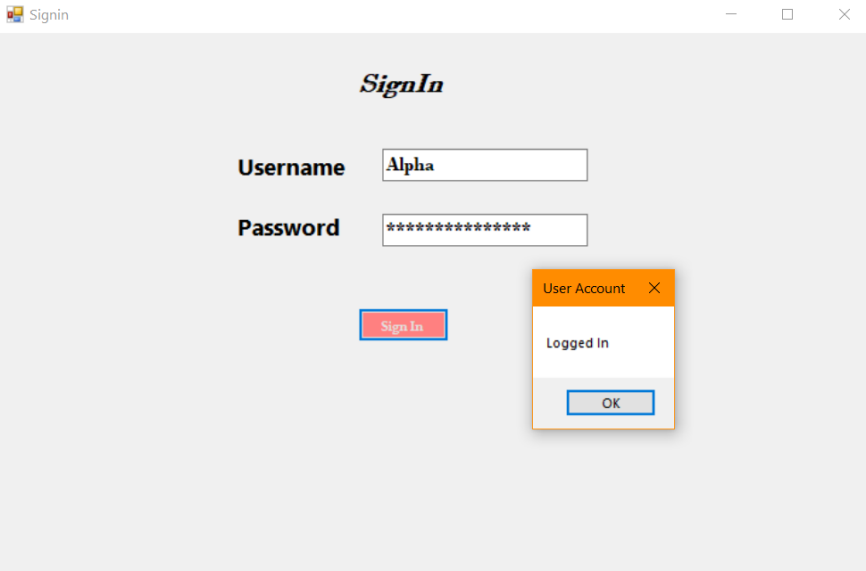
1.



2.



3.



Result

The C# desktop application using WinForm and use MySqlClient to access database has been executed successfully and the desired output is displayed on the screen.