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| **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");}

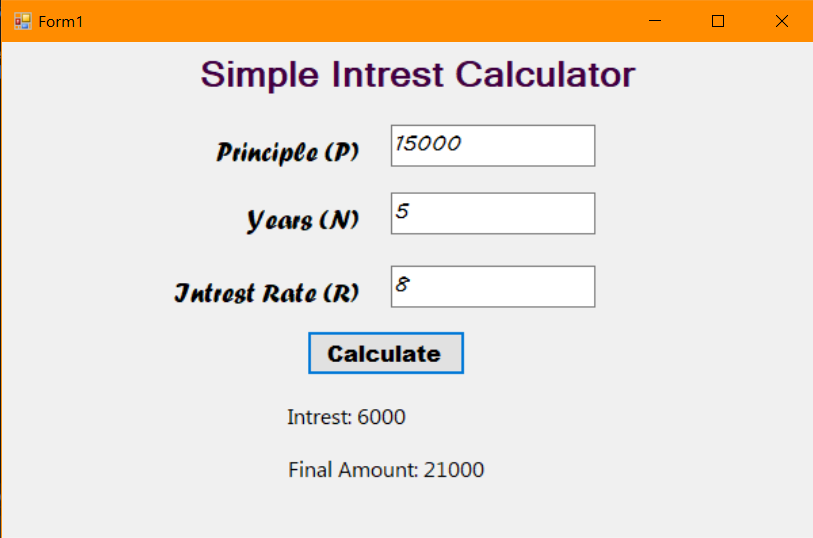
Finally{

name\_box.Text = "";

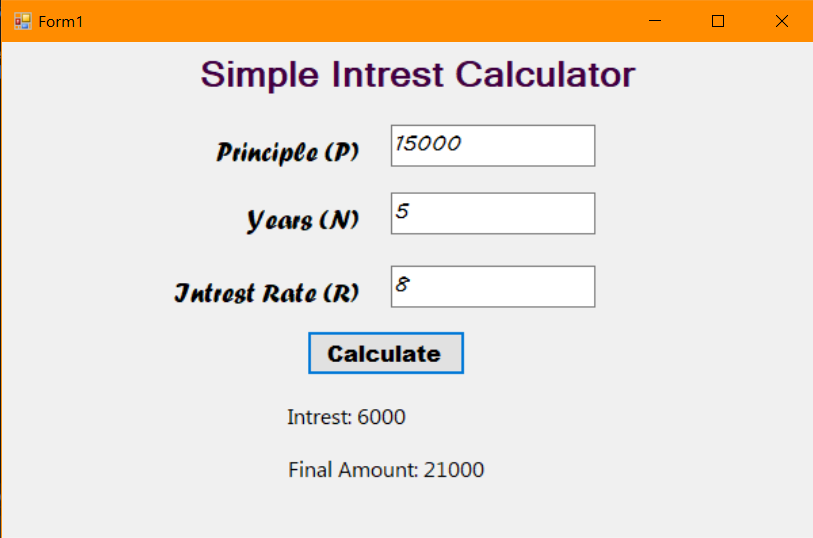
pass\_box.Text = "";}}}

**Output**

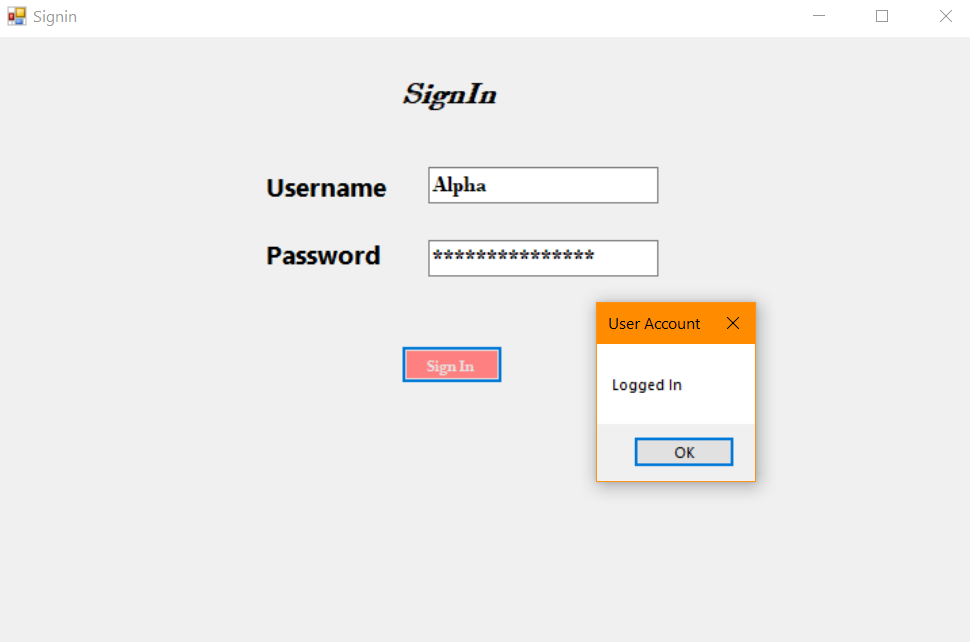
**1.**

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**2.**

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**3.**

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**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.