# IT 2053 – Rapid Application Development

## ASSIGNMENT 03

### Instructions

- Answer ALL questions.

- Marks will be awarded for good presentation and thoroughness in your approach.

- **NO** marks will be awarded for the entire assignment if any part of it is found to be copied directly from printed materials or from another student.

- Complete this cover sheet and attach it to your assignment.

**Student declaration:**

*I declare that:*
- *I understand what is meant by plagiarism*

- *The implications of plagiarism have been explained to me by my institution*

- *This assignment is all my own work and I have acknowledged any use of the published or unpublished works of other people.*
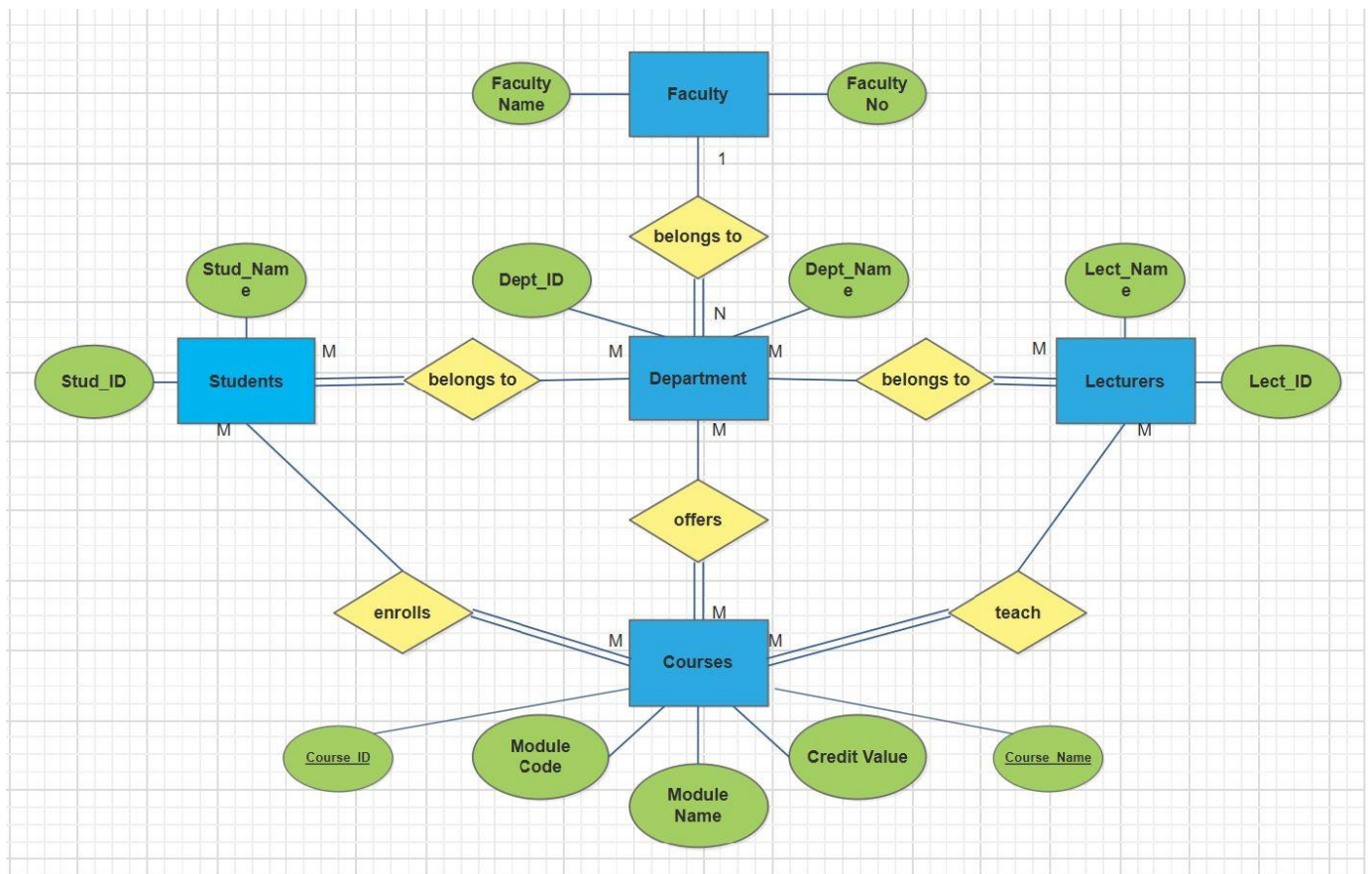
Student's signature:                                     Date:

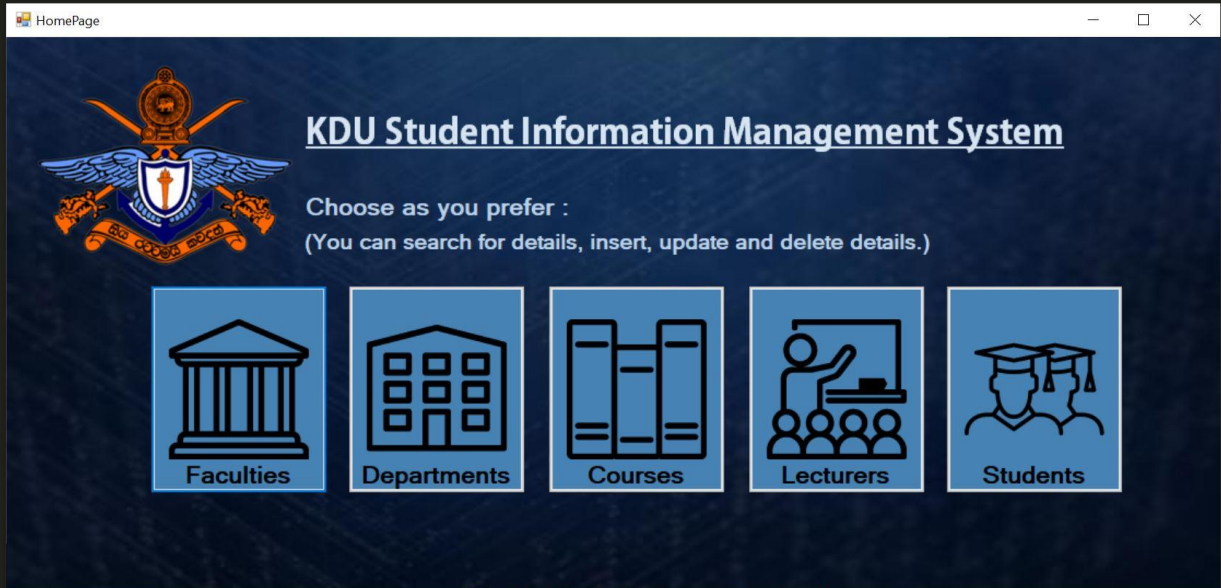| Total number of pages including this cover page | | | 18Pgs |
|---|---|---|---|
| Submission Date | 7/4/2021 | Due Date | 7/4/2021 |
| Student's ID | D/BIT/19/0010 | Class Code | |
| Student's Full Name | S H I D N DE SILVA | | |
| Lecturer's Name | Mrs. Dushyanthi Vidanagamage | | |

- **ER Diagram,**

**Here I have made a simple & user-friendly Student Information Management System. From this application you can view, update, delete & insert data.**

- **Screenshots of the Forms,**
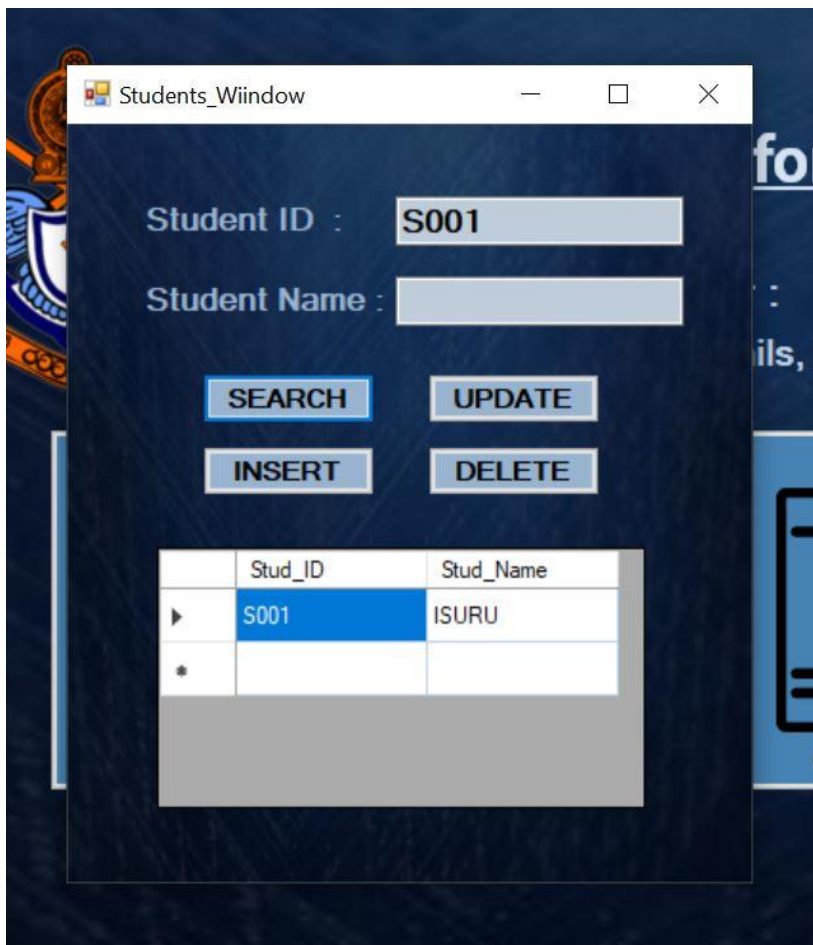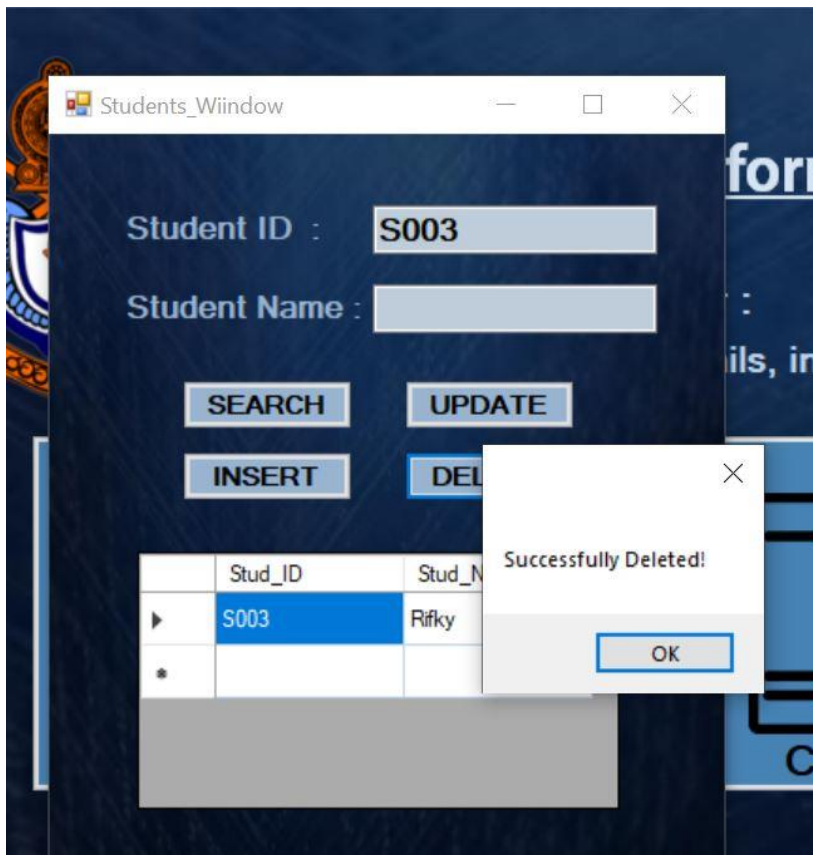
- **Source Codes,**

**Login Window –**

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace SIMS
{
    public partial class LOGIN : Form
    {
        public LOGIN()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial Catalog=SIMS;Integrated Security=True;");
            SqlDataAdapter sda = new SqlDataAdapter("Select Count ( * ) From Login where Username='" + textBox1.Text + "' and Password = '" + textBox2.Text + "'", con);
            DataTable dt = new DataTable();
            sda.Fill(dt);
            if (dt.Rows[0][0].ToString() == "1")
            {
                this.Hide();
                HomePage hp = new HomePage();
                hp.Show();
            }
            else
            {
                MessageBox.Show("Please check your username & password again!");
            }
        }
    }
}
```

## Homepage Window –

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace SIMS
{
    public partial class HomePage : Form
    {
        public HomePage()
        {
            InitializeComponent();
        }

        private void button_faculty_Click(object sender, EventArgs e)
        {
            Faculty_Window ff = new Faculty_Window();
            ff.Show();
        }

        private void button_department_Click(object sender, EventArgs e)
        {
            Departments_Window dd = new Departments_Window();
            dd.Show();
        }

        private void button_course_Click(object sender, EventArgs e)
        {
            Courses_Window cc = new Courses_Window();
            cc.Show();
        }

        private void button_lecturer_Click(object sender, EventArgs e)
        {
            Lecturers_Window ll = new Lecturers_Window();
            ll.Show();
        }

        private void button_student_Click(object sender, EventArgs e)
        {
            Students_Wiindows ss = new Students_Wiindows();
            ss.Show();
        }
    }
```

**Faculty Window –**

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;
namespace SIMS
{
    public partial class Faculty_Window : Form
    {
        public Faculty_Window()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("insert into Faculty values
(@Faculty_Name,@Faculty_No) ",con);
            cmd.Parameters.AddWithValue("@Faculty_Name", textBox1.Text);
            cmd.Parameters.AddWithValue("@Faculty_No", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Inserted!");

        }

        private void button2_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Update Faculty set Faculty_Name
=@Faculty_Name Where Faculty_No = @Faculty_No", con);
            cmd.Parameters.AddWithValue("@Faculty_Name", textBox1.Text);
            cmd.Parameters.AddWithValue("@Faculty_No", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Updated!");

        }

        private void button3_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Delete Faculty Where Faculty_No =
@Faculty_No", con);
            cmd.Parameters.AddWithValue("@Faculty_No", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Deleted!");
```

```
        }

        private void button4_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Select * from Faculty where Faculty_No =
@Faculty_No", con);
            cmd.Parameters.AddWithValue("@Faculty_No", textBox2.Text);
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            DataTable dt = new DataTable();
            da.Fill(dt);
            dataGridView1.DataSource = dt;
        }
    }
}
```

## Department Window –

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace SIMS
{
    public partial class Departments_Window : Form
    {
        public Departments_Window()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("insert into Dept values
(@Dept_ID,@Dept_Name) ", con);
            cmd.Parameters.AddWithValue("@Dept_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Dept_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Inserted!");
        }

        private void button2_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Update Dept set Dept_Name =@Dept_Name
Where Dept_ID = @Dept_ID", con);
            cmd.Parameters.AddWithValue("@Dept_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Dept_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Updated!");
        }

        private void button3_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Delete Dept Where Dept_ID = @Dept_ID",
con);
            cmd.Parameters.AddWithValue("Dept_ID", textBox1.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Deleted!");
        }
```

```csharp
        private void button4_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Select * from Dept where Dept_ID =
@Dept_ID",con);
            cmd.Parameters.AddWithValue("@Dept_ID", textBox1.Text);
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            DataTable dt = new DataTable();
            da.Fill(dt);
            dataGridView1.DataSource = dt;
        }
    }
}
```

## Courses Window –

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace SIMS
{
    public partial class Courses_Window : Form
    {
        public Courses_Window()
        {
            InitializeComponent();
        }

        private void Courses_Window_Load(object sender, EventArgs e)
        {

        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("insert into courses values
(@Course_ID,@Course_Name,@Module_Code,@Module_Name,@Credit_Value)", con);
            cmd.Parameters.AddWithValue("@Course_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Course_Name", textBox2.Text);
            cmd.Parameters.AddWithValue("@Module_Code", textBox3.Text);
            cmd.Parameters.AddWithValue("@Module_Name", textBox4.Text);
            cmd.Parameters.AddWithValue("@Credit_Value", textBox5.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Inserted!");
        }

        private void button2_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Update Courses set Course_Name
=@Course_Name, Module_Code =@Module_Code, Module_Name =@Module_Name, Credit_Value
=@Credit_Value Where Course_ID = @Course_ID", con);
            cmd.Parameters.AddWithValue("@Course_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Course_Name", textBox2.Text);
            cmd.Parameters.AddWithValue("@Module_Code", textBox3.Text);
            cmd.Parameters.AddWithValue("@Module_Name", textBox4.Text);
            cmd.Parameters.AddWithValue("@Credit_Value", textBox5.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Updated!");
        }
```

```csharp
        private void button3_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Delete Courses Where Course_ID =
@Course_ID", con);
            cmd.Parameters.AddWithValue("@Course_ID", textBox1.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Deleted!");
        }

        private void button4_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Select * from Courses where Course_ID =
@Course_ID", con);
            cmd.Parameters.AddWithValue("@Course_ID", textBox1.Text);
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            DataTable dt = new DataTable();
            da.Fill(dt);
            dataGridView1.DataSource = dt;
        }
    }
}
```

## Lecturers Window –

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace SIMS
{
    public partial class Lecturers_Window : Form
    {
        public Lecturers_Window()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("insert into Lecturers values
(@Lect_ID,@Lect_Name) ", con);
            cmd.Parameters.AddWithValue("@Lect_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Lect_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Inserted!");

        }

        private void button2_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Update Lecturers set Lect_Name
=@Lect_Name Where Lect_ID = @Lect_ID", con);
            cmd.Parameters.AddWithValue("@Lect_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Lect_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Updated!");

        }

        private void button3_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Delete Lecturers Where Lect_ID =
@Lect_ID", con);
            cmd.Parameters.AddWithValue("@Lect_ID", textBox1.Text);
            cmd.ExecuteNonQuery();
            con.Close();
```

```csharp
            MessageBox.Show("Successfully Deleted!");
        }


        private void button4_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Select * from Lecturers where Lect_ID =
@Lect_ID", con);
            cmd.Parameters.AddWithValue("@Lect_ID", textBox1.Text);
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            DataTable dt = new DataTable();
            da.Fill(dt);
            dataGridView1.DataSource = dt;
        }
    }
}
```

## Student Window –

```csharp
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace SIMS
{
    public partial class Students_Wiindows : Form
    {
        public Students_Wiindows()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("insert into Student values
(@Stud_ID,@Stud_Name) ", con);
            cmd.Parameters.AddWithValue("@Stud_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Stud_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Inserted!");
        }

        private void button2_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Update Student set Stud_Name =@Stud_Name
Where Stud_ID = @Stud_ID", con);
            cmd.Parameters.AddWithValue("@Stud_ID", textBox1.Text);
            cmd.Parameters.AddWithValue("@Stud_Name", textBox2.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Updated!");
        }

        private void button3_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Delete Student Where Stud_ID = @Stud_ID",
con);
            cmd.Parameters.AddWithValue("@Stud_ID", textBox1.Text);
            cmd.ExecuteNonQuery();
            con.Close();
            MessageBox.Show("Successfully Deleted!");
        }
```

```csharp
        private void button4_Click(object sender, EventArgs e)
        {
            SqlConnection con = new SqlConnection("Data Source=HUMPTY1409;Initial
Catalog=SIMS;Integrated Security=True");
            con.Open();
            SqlCommand cmd = new SqlCommand("Select * from Student where Stud_ID =
@Stud_ID", con);
            cmd.Parameters.AddWithValue("@Stud_ID", textBox1.Text);
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            DataTable dt = new DataTable();
            da.Fill(dt);
            dataGridView1.DataSource = dt;
        }
    }
}
```