

# Code File Document (Screenshot, flow chart, source code)

This document serves as a comprehensive guide to the EduMath Learning Management System (LMS), a robust platform developed using C#. The guide provides an in-depth exploration of the system’s functionality, complete with screenshots for visual aid, flowcharts for understanding the system’s workflow, and source code snippets for technical insight. This document is a go-to resource for all things related to the EduMath LMS.


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## Login Interface

Login




Welcome to  
**EduMATH**


Learning Management  
System

*Unlock the power of numbers :  
Your Path to Mathematical Mastery!*

Username



Password




Login

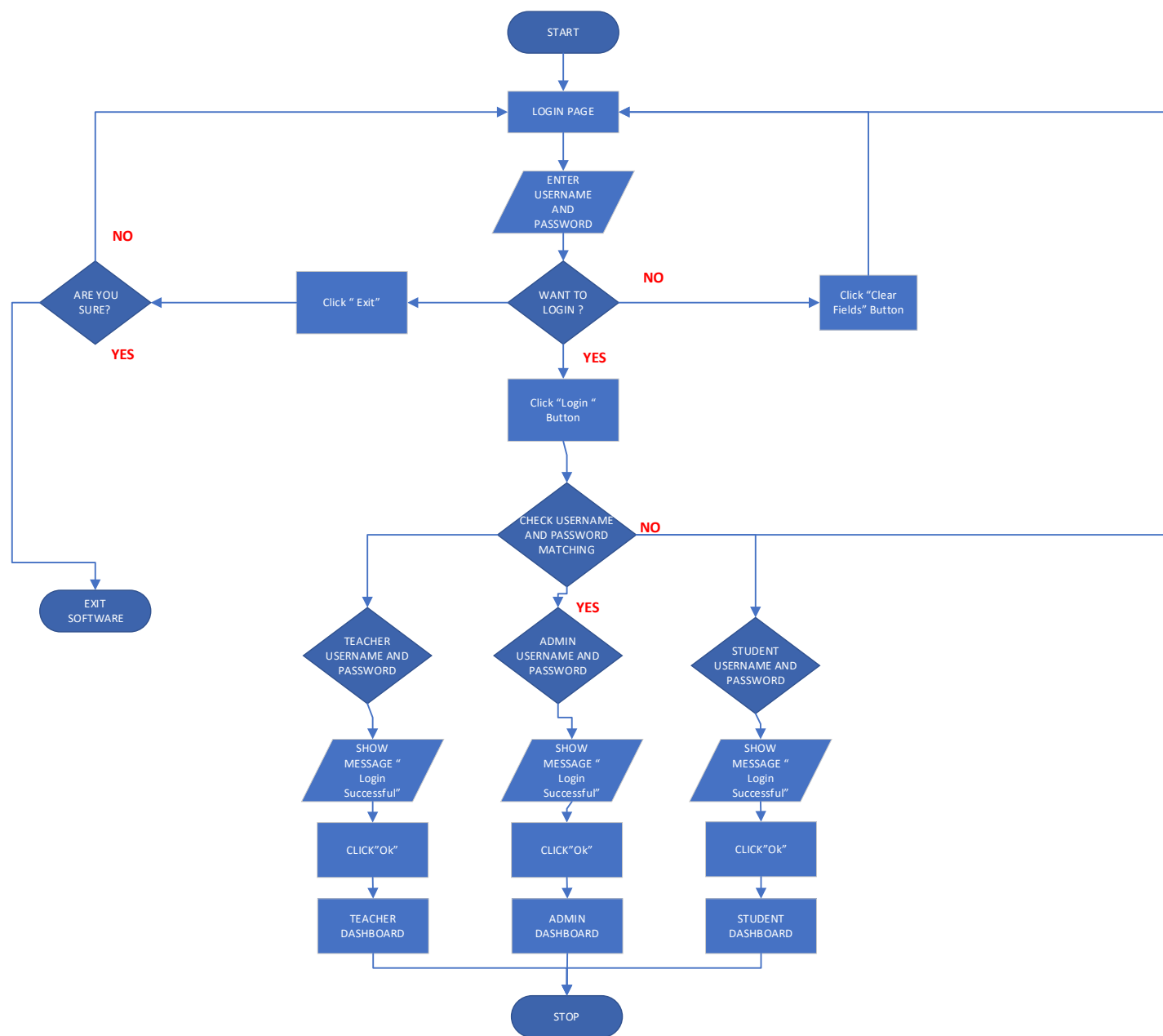
Clear Fields

Exit

Need Assistance?



## Login Flowchart



## Login Source Code

```
namespace EduMath
{
    public partial class frmlogin : Form
    {
        public frmlogin()
        {
            InitializeComponent();
        }

        private void btnclearfields_Click(object sender, EventArgs e)
        {
            txtusername.Clear();
            txtpassword.Clear();
        }

        private void btnexit_Click(object sender, EventArgs e)
        {
            // Display a MessageBox to confirm exit
            DialogResult result = MessageBox.Show("Are you sure you want to exit?", "Exit Confirmation",
            MessageBoxButtons.YesNo, MessageBoxIcon.Question);
            if (result == DialogResult.Yes)
            {
                Application.Exit();
            }
        }

        private void button1_Click(object sender, EventArgs e)
        {
            // Display a messegebox for contact hotline (For Spcaes between line = \n)
            MessageBox.Show("Please contact our hotline:+94115548696 .\n\nOur team is here to assist you with any
            questions or concerns you may have.\n\nYour call is important to us, and we are dedicated to providing you with the
            information and support you need.", "Welcome to EduMATH Hotline Service", MessageBoxButtons.OK,
            MessageBoxIcon.Information);
        }

        private void btnlogin_Click(object sender, EventArgs e)
        {
        }
    }
}
```

```
        if (txtusername.Text == "admin1" && txtpassword.Text == "admin1")
        {
            LoginSuccess("admin");
        }
        else if (txtusername.Text == "teacher1" && txtpassword.Text == "teacher1")
        {
            LoginSuccess("teacher");
        }
        else if (txtusername.Text == "student1" && txtpassword.Text == "student1")
        {
            LoginSuccess("student");
        }
        else
        {
            MessageBox.Show("Login Failed. Please check your credentials.", "Error", MessageBoxButtons.OK,
            MessageBoxIcon.Error);
        }
        txtusername.Clear();
        txtpassword.Clear();
    }

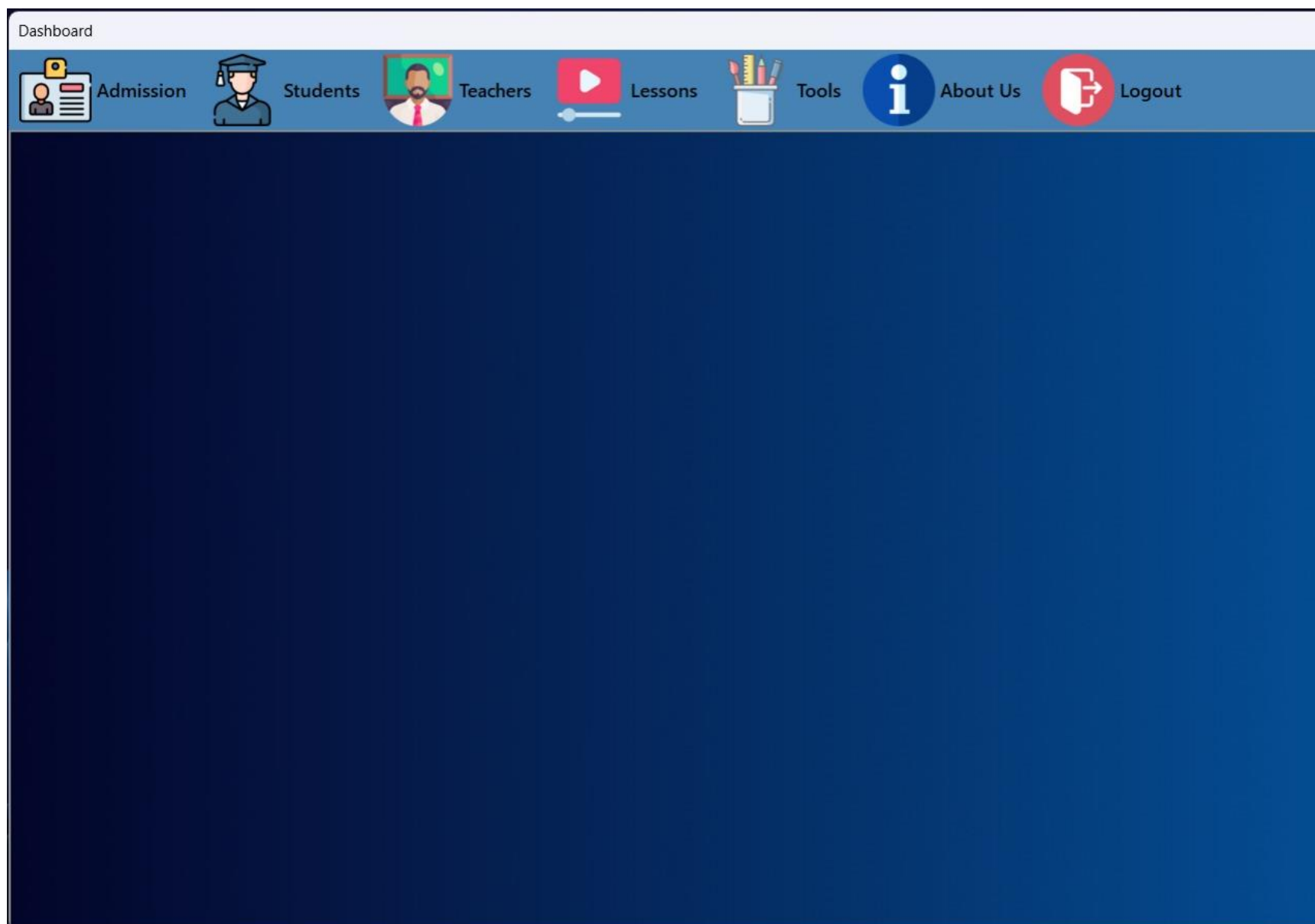
    private void LoginSuccess(string role)
    {
        MessageBox.Show("Successfully logged in as " + role, "Success", MessageBoxButtons.OK,
        MessageBoxIcon.Information);
        {
            // Giving access to student dashboard
            frmdashboard frm1 = new frmdashboard(role);
            frm1.Show();
            this.Hide();
        }
    }

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

    private void frmlogin_Load(object sender, EventArgs e)
    {
    }
}
```

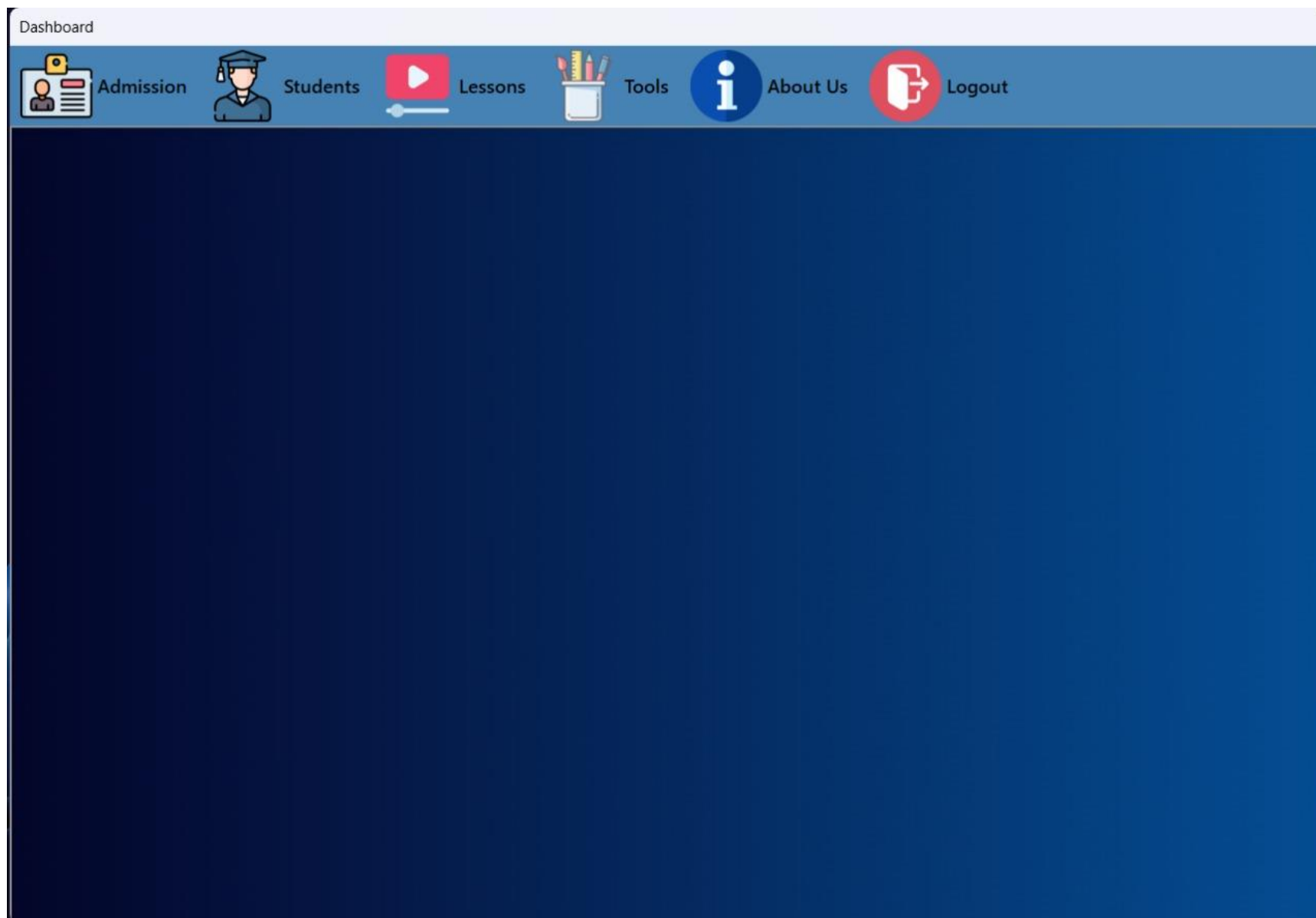
}  
}

## Admin Dashboard Interface

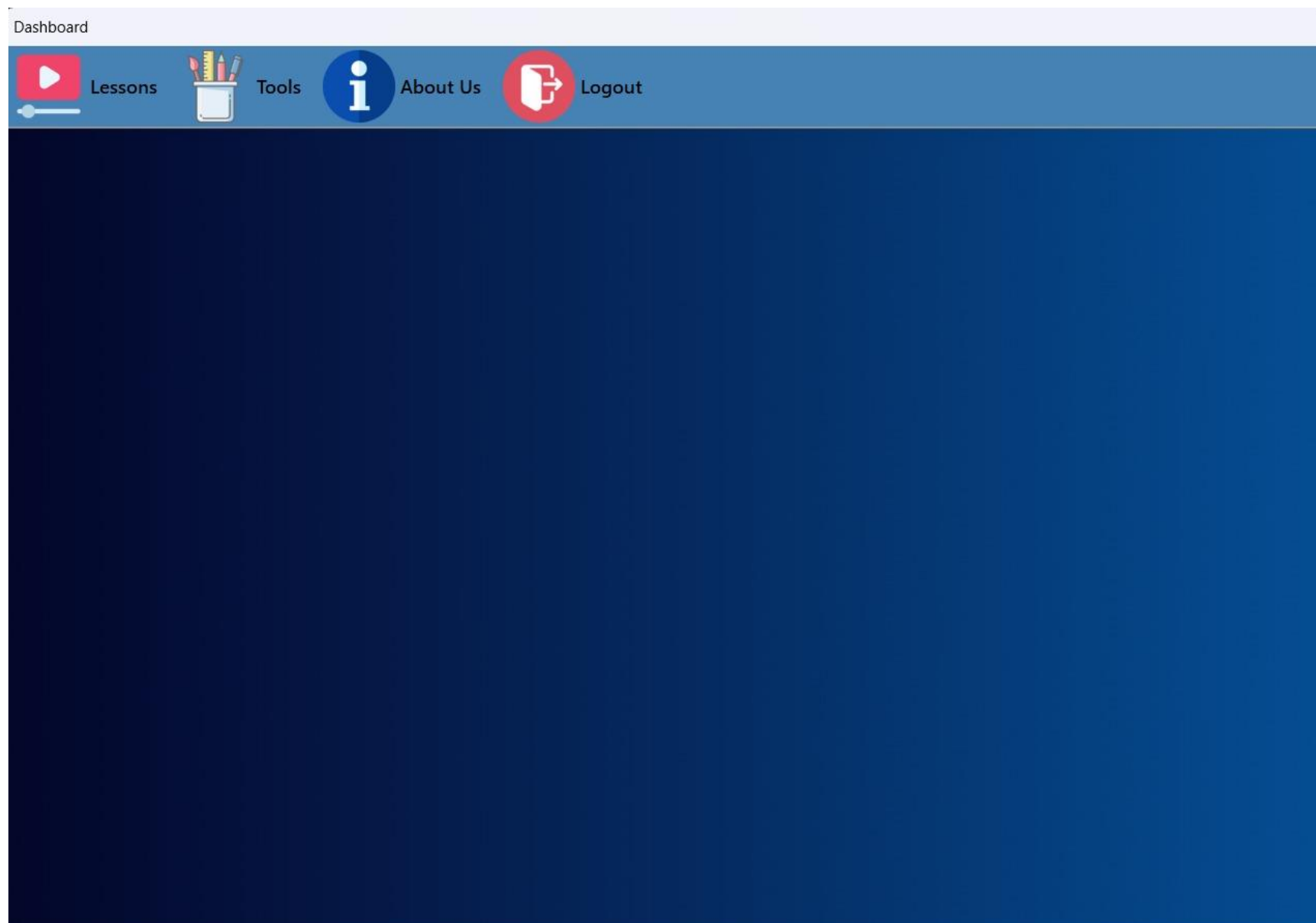




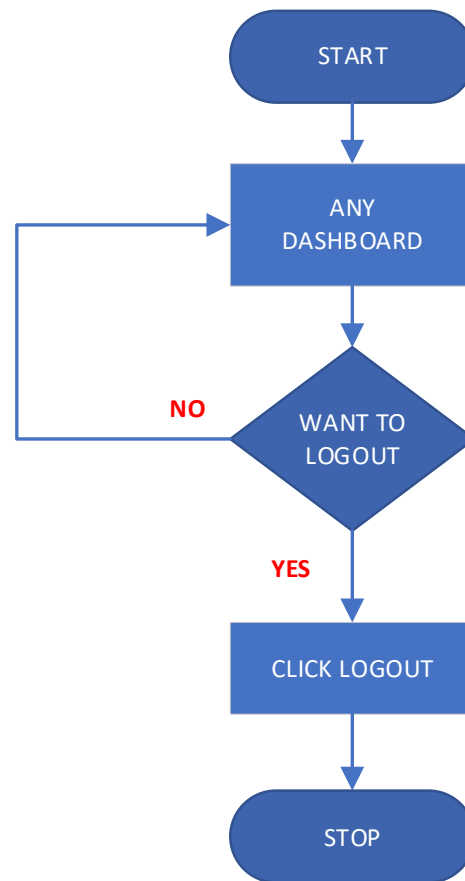
## Teacher Dashboard Interface



## Student Dashboard Interface



## Dashboard Flowchart



## Dashboard Source Code

```
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 EduMath
{
    public partial class frmdashboard : Form
    {
        SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
        SqlCommand com;

        // Defining a new method for user roles
        public string Role { get; }

        public frmdashboard(string role)
        {
            Role = role;
            InitializeComponent();
            // Giving access for the dashboard based on their user role
            logoutToolStripMenuItem.Visible = (role == "admin" || role == "teacher" || role == "student");
            aboutUsToolStripMenuItem.Visible = (role == "admin" || role == "teacher" || role == "student");
            lessonsToolStripMenuItem.Visible = (role == "admin" || role == "teacher" || role == "student");
            admissionToolStripMenuItem.Visible = (role == "admin" || role == "teacher");
            searchStudentToolStripMenuItem.Visible = (role == "admin" || role == "teacher");
            updateDetailsToolStripMenuItem.Visible = (role == "admin" || role == "teacher");
            studentsToolStripMenuItem.Visible = (role == "admin" || role == "teacher");
            toolsToolStripMenuItem.Visible = (role == "teacher" || role == "student");
            removeStudentToolStripMenuItem.Visible = (role == "admin");
            teachersToolStripMenuItem.Visible = (role == "admin");
        }
    }
}
```

```
}

public frmdashboard()
{
}

private void logoutToolStripMenuItem_Click(object sender, EventArgs e)
{
    // Display a MessageBox to confirm logout
    DialogResult result = MessageBox.Show("Are you sure you want to logout?", "Logout Confirmation",
    MessageBoxButtons.YesNo, MessageBoxIcon.Exclamation);
    if (result == DialogResult.Yes)
    {
        frmlogin frm2 = new frmlogin();
        frm2.Show();
        this.Close();
    }
}

private void aboutUsToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmaboutus frm3 = new frmaboutus();
    frm3.MdiParent = this;
    frm3.Show();
}

private void gradeAverageCalculatorToolStripMenuItem_Click(object sender, EventArgs e)
{
    Frmcalculator frm4 = new Frmcalculator();
    frm4.MdiParent = this;
    frm4.Show();
}

private void newAdmissionToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmnewadmission frm5 = new frmnewadmission();
    frm5.MdiParent = this;
    frm5.Show();
}

private void addTeacherInformationToolStripMenuItem_Click(object sender, EventArgs e)
```

```
{
    frmteacherreg frm6 = new frmteacherreg();
    frm6.MdiParent = this;
    frm6.Show();
}
private void searchDetailsToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmteachersearch frm7 = new frmteachersearch();
    frm7.MdiParent = this;
    frm7.Show();
}

private void removeStudentToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmdeletestudent frm8 = new frmdeletestudent();
    frm8.MdiParent = this;
    frm8.Show();
}








private void searchStudentToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmviewstudents frm9 = new frmviewstudents();
    frm9.MdiParent = this;
    frm9.Show();
}

private void updateDetailsToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmstudentupdate frm10 = new frmstudentupdate();
    frm10.MdiParent = this;
    frm10.Show();
}

private void lessonsToolStripMenuItem_Click(object sender, EventArgs e)
{
    frmlessons frm11 = new frmlessons();
    frm11.MdiParent = this;
    frm11.Show();
}
```

## New Admission Interface

Dashboard

 Admission
  Students
  Teachers
  Lessons
  Tools
  About Us
  Logout

### New Admission Form

**Student Number :** 17

First Name

Last Name

Date of Birth

Email ID

Gender ☐ Male ☐ Female

Contact Number

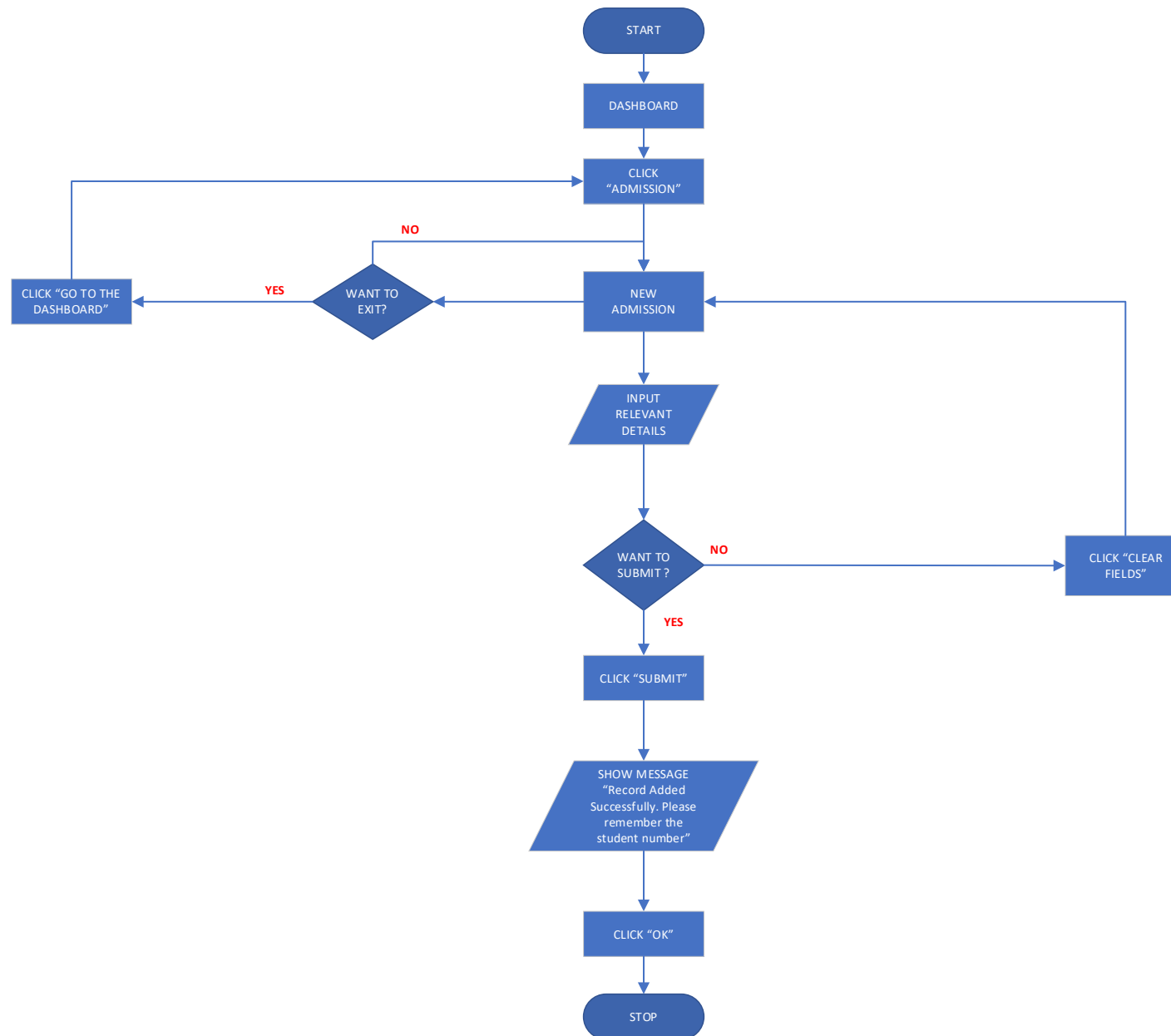
Address

School

**Submit** **Clear Fields**

**Go to the Dashboard**

## New Admission Flowchart





## New Admission Source Code

```
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 EduMath
{
    public partial class frmnewadmission : Form
    {
        public frmnewadmission()
        {
            InitializeComponent();

            SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
            SqlCommand com;

            private void frmnewadmission_Load(object sender, EventArgs e)
            {
                // Code for auto incremented student ID
                SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
                con.Open();
                SqlCommand cmd = new SqlCommand();
                cmd.Connection = con;
                cmd.CommandText = " select MAX (studentnumber) from detail";
                SqlDataAdapter DA = new SqlDataAdapter(cmd);
                DataSet DS = new DataSet();
```

```
        DA.Fill(DS);

        Int64 abc = Convert.ToInt64(DS.Tables[0].Rows[0][0]);
        label12.Text = (abc + 1).ToString();
    }

    private void pictureBox1_Click(object sender, EventArgs e)
    {
    }

    private void btnsubmit_Click(object sender, EventArgs e)
    {
        try
        {
            string firstname = txtfname.Text;
            string lastname = txtlname.Text;
            string dateofbirth = dateTimePicker1.Text;

            string gender = "";
            if (rdbmale.Checked)
            {
                gender = "Male";
            }
            else if (rdbfemale.Checked)
            {
                gender = "Female";
            }
            else
            {
                MessageBox.Show("Please select the gender", "Error", MessageBoxButtons.OK,
                MessageBoxIcon.Error);
            }
            int contactnumber = int.Parse(txtcontactno.Text);
            string address = rtxtadress.Text;
            string school = txtschool.Text;
            string emailid = txtemail.Text;

            // SQL insert query

            con.Open();
```

```
        string sqlinsert = "insert into
detail(firstname,lastname,dateofbirth,gender,contactnumber,address,school,emailid) values('" + firstname + "', '" +
lastname + "', '" + dateofbirth + "', '" + gender + "', '" + contactnumber + "', '" + address + "', '" + school + "',
'" + emailid + "') ";
        com = new SqlCommand(sqlinsert, con);
        com.ExecuteNonQuery();
        MessageBox.Show("Record added succesfully. Please remember the student number.", "Record Added",
        MessageBoxButtons.OK, MessageBoxIcon.Information);
        txtfname.Clear();
        txtlname.Clear();

        txtcontactno.Clear();
        txtemail.Clear();
        txtschool.Clear();
        rtxtadress.Clear();
        rdbmale.Checked = false;
        rdbfemale.Checked = false;
        dateTimePicker1.Text = "";
        txtfname.Focus();
        this.Close();
    }

    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
    finally
    {
        con.Close();
    }

}








private void btnclear_Click(object sender, EventArgs e)
{
    txtfname.Clear();
    txtlname.Clear();

    txtcontactno.Clear();
```

```
        txtemail.Clear();  
        txtschool.Clear();  
        rtxtadress.Clear();  
        rdbmale.Checked = false;  
        rdbfemale.Checked = false;  
        dateTimePicker1.Text = "";  
        txtfname.Focus();  
    }  
  
    private void btnback_Click(object sender, EventArgs e)  
    {  
        this.Close();  
    }  
}
```

## Search Student Interface

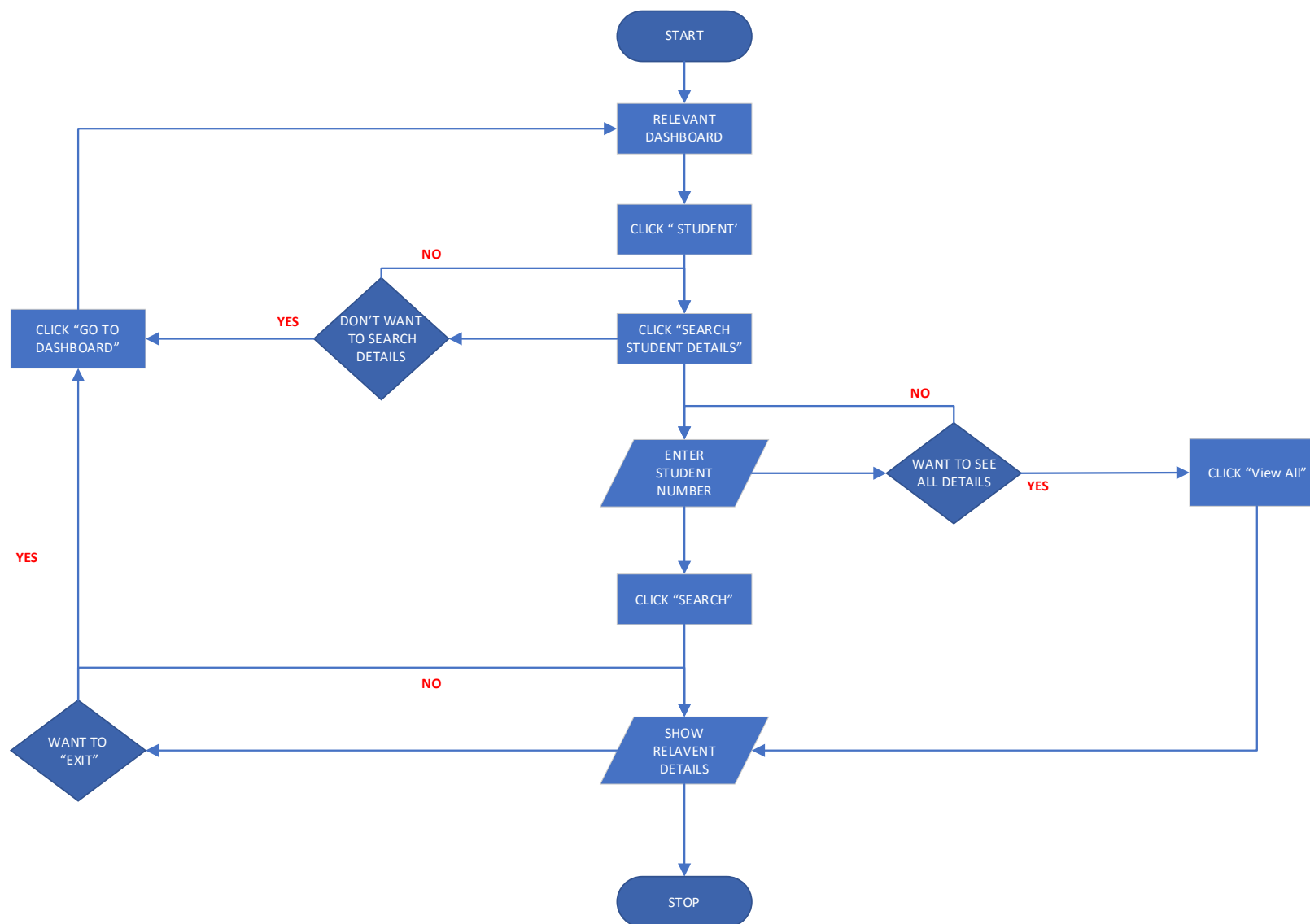
Dashboard

 Admission  Students  Teachers  Lessons  Tools  About Us  Logout

### Student Information Search

Enter the Student Number

## Search Student Flowchart



## Search Student Source Code

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

namespace EduMath
{
    public partial class frmviewstudents : Form
    {
        public frmviewstudents()
        {
            InitializeComponent();

            private void button1_Click(object sender, EventArgs e)
            {
                this.Close();
            }

            private void btnclear_Click(object sender, EventArgs e)
            {
                txtenterstudent.Clear();
                dataGridView2.DataSource = null;
                txtenterstudent.Focus();
            }

            private void btntsearch_Click(object sender, EventArgs e)
            {
                SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
                SqlCommand com;
```

```
try
{
    con.Open();
    string query1 = "Select * From detail Where studentnumber = '" + txtenterstudent.Text + "'";
    SqlDataAdapter da1 = new SqlDataAdapter(query1, con);
    DataTable dt = new DataTable();
    da1.Fill(dt);

    // If user enters not existed stnumber. showing a message box using if condition.

    if (dt.Rows.Count == 0)
    {
        MessageBox.Show("Student number does not exist.");
    }
    else
    {
        dataGridview2.DataSource = dt;
        dataGridview2.AutoSizeColumnsMode = DataGridViewAutoSizeColumnsMode.Fill;
    }
    con.Close();
}
catch (Exception ex)
{
    MessageBox.Show(ex.Message);
}
}

private void btnexit_Click(object sender, EventArgs e)
{
    // deleted button
}

private void button2_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
    SqlCommand com;

    try
    {
        con.Open();
```










```
string query10 = "Select * From detail";
SqlDataAdapter da10 = new SqlDataAdapter(query10, con);
DataTable dt0 = new DataTable();
da10.Fill(dt0);

// If user enters not existed stnumber. showing a message box using if condition.

if (dt0.Rows.Count == 0)
{
    MessageBox.Show("Student number does not exist.");
}
else
{
    dataGridView2.DataSource = dt0;
    dataGridView2.AutoSizeColumnsMode = DataGridViewAutoSizeColumnsMode.Fill;
}
con.Close();
}
catch (Exception ex)
{
    MessageBox.Show(ex.Message);
}
}
}
```

## Update Student Interface

Dashboard

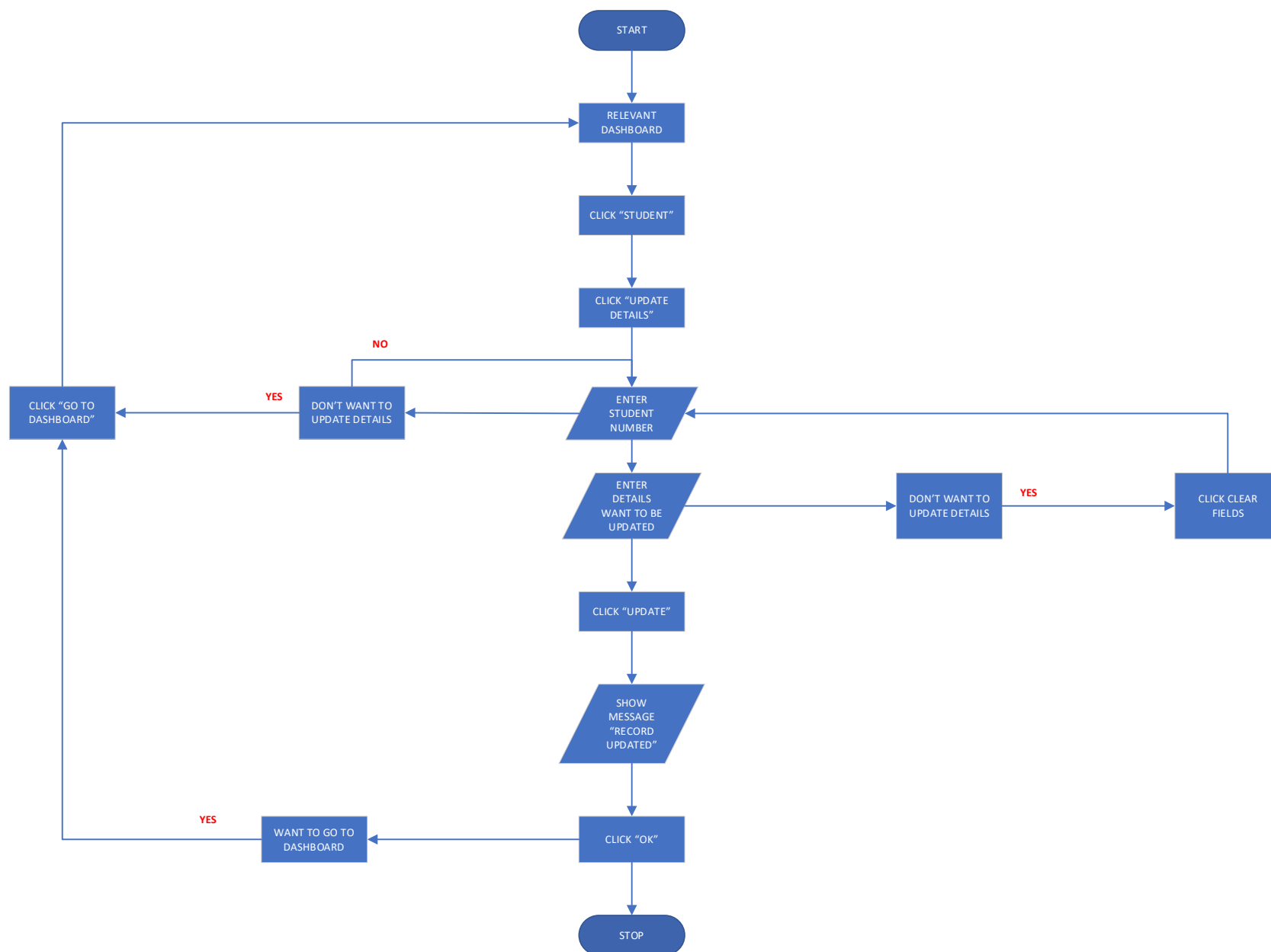
 Admission
  Students
  Teachers
  Lessons
  Tools
  About Us
  Logout

### Update Student Information

**Student Number :**

|               |                |                      |
|---------------|----------------|----------------------|
| First Name    | Email ID       | <input type="text"/> |
| Last Name     | Contact Number | <input type="text"/> |
| Date of Birth | School         | <input type="text"/> |
| Gender        | Address        | <input type="text"/> |

## Update Student Flowchart



## Update Student Source Code

```
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;
using System.Linq.Expressions;

namespace EduMath
{
    public partial class frmstudentupdate : Form
    {
        public frmstudentupdate()
        {
            InitializeComponent();
        }

        private void btnview_Click(object sender, EventArgs e)
        {
            try
            {
                SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial
Catalog=studentlms;Integrated Security=True");
                SqlCommand com;
                con.Open();

                string sqlselect = "select * from detail where studentnumber = '" + txtstudentnumber.Text + "'";
                com = new SqlCommand(sqlselect, con);
                SqlDataReader dr;
                dr = com.ExecuteReader();
                if (dr.Read())
                {
                    lblfname.Text = dr["firstname"].ToString();
                    lbllname.Text = dr["lastname"].ToString();
                }
            }
        }
    }
}
```

```
lblgender.Text = dr["gender"].ToString();
//lbldob.Text = dr["dateofbirth"].ToString();

// Converting Full format of datetimepicker to show only the date not time.
DateTime dobfromdatabase = Convert.ToDateTime(dr["dateofbirth"]);
string formatteddate = dobfromdatabase.ToShortDateString();
lbldob.Text = formatteddate;

txtcontact.Text = dr["contactnumber"].ToString();
txtemail.Text = dr["emailid"].ToString();
txtschool.Text = dr["school"].ToString();
rtxtaddress.Text = dr["address"].ToString();

con.Close();
}

else
{
    MessageBox.Show("Record not found", "Error");
}

}

catch (Exception ex)
{
    MessageBox.Show(ex.Message);
}
}

private void btnclear_Click(object sender, EventArgs e)
{
    txtstudentnumber.Clear();
    rtxtaddress.Clear();
    txtcontact.Clear();
    txtemail.Clear();
    txtschool.Clear();
    txtstudentnumber.Focus();
    lbldob.Text = "";
    lblfname.Text = "";
    lbllname.Text = "";
    lblgender.Text = "";
}
```

```
}

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

private void btnupdate_Click(object sender, EventArgs e)
{
    try
    {
        SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial
Catalog=studentlms;Integrated Security=True");
        SqlCommand com;

        string sqlupdate = "update detail set emailid = '" + txtemail.Text + "', contactnumber ='" +
txtcontact.Text + "',address='" + rtxtaddress.Text + "' , school='" + txtschool.Text + "' where studentnumber=
'" + txtstudentnumber.Text + "'";








        SqlCommand cmnd = new SqlCommand(sqlupdate, con);
        con.Open();
        cmnd.ExecuteNonQuery();


        MessageBox.Show("Record Updated", "Update", MessageBoxButtons.OK, MessageBoxIcon.Information);
        txtstudentnumber.Clear();
        txtemail.Clear();
        txtcontact.Clear();
        rtxtaddress.Clear();
        txtschool.Clear();
        txtstudentnumber.Focus();
        lbldob.Text = "";
        lblfname.Text = "";
        lbllname.Text = "";
        lblgender.Text = "";
        txtstudentnumber.Focus();
        con.Close();
    }
}
```

```
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }
    }
}
```

## Remove Student Interface

Dashboard

 Admission
  Students
  Teachers
  Lessons
  Tools
  About Us
  Logout



### Delete Student Information

[Go To Dashboard](#)

**Student ID**

[View Record](#)

**First Name**

**Last Name**

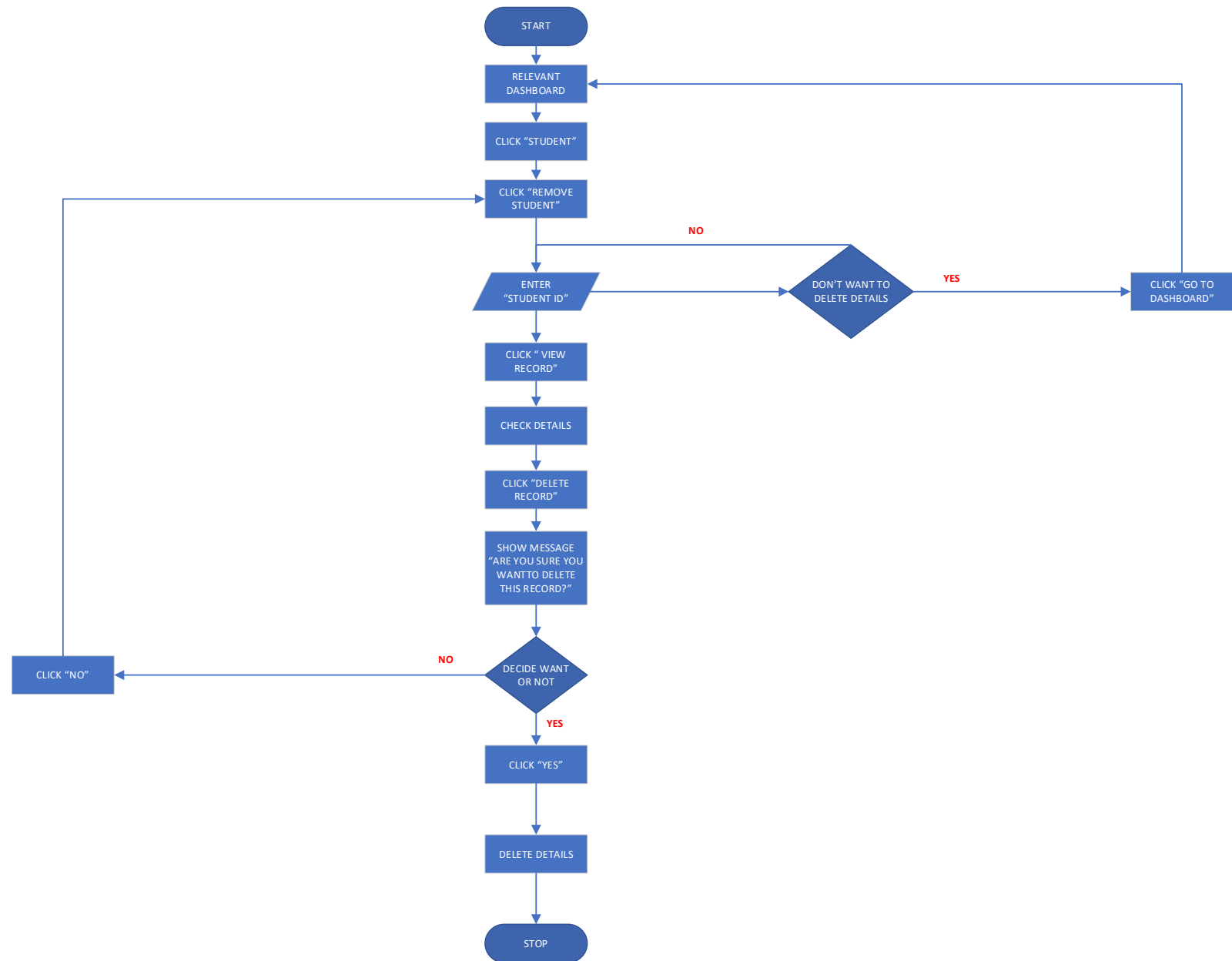
**Gender**

**Contact Number**

[Delete Record](#)



## Remove Student Flowchart



## Remove Student Source Code

```
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;
using System.Configuration;

namespace EduMath
{
    public partial class frmdeletestudent : Form
    {
        public frmdeletestudent()
        {
            InitializeComponent();
        }

        private void label2_Click(object sender, EventArgs e)
        {
        }

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

        private void btntview_Click(object sender, EventArgs e)
        {
            try
            {
                SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial
Catalog=studentlms;Integrated Security=True");
                SqlCommand com;
```

```
con.Open();
string sqlselect = "select * from detail where studentnumber = '" + txtentertudent.Text + "'";
com = new SqlCommand(sqlselect, con);
SqlDataReader dr;
dr = com.ExecuteReader();
if (dr.Read())
{
    txtfname.Text = dr["firstname"].ToString();
    txtlastname.Text = dr["lastname"].ToString();
    txtgender.Text = dr["gender"].ToString();
    txtttp.Text = dr["contactnumber"].ToString();
    con.Close();
}
else
{
    MessageBox.Show("Record not found ", "Error");
}
}
catch (Exception ex)
{
    MessageBox.Show(ex.Message);
}
}

private void button1_Click(object sender, EventArgs e)
{
    try
    {
        SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial
Catalog=studentlms;Integrated Security=True");
        SqlCommand com;

        con.Open();
```

```
        string sqldelete = "delete from detail where studentnumber = '" + txtentertudent.Text + "'";
        com = new SqlCommand(sqldelete, con);
        com.ExecuteNonQuery();

        DialogResult result = MessageBox.Show("Are you sure you want to delete the record.", "Delete
Confirmation", MessageBoxButtons.YesNo, MessageBoxIcon.Exclamation);
        if (result == DialogResult.Yes)
        {
            txtentertudent.Clear();
            txtfname.Clear();
            txtlastname.Clear();
            txtgender.Clear();
            txtttp.Clear();
            txtentertudent.Focus();
            con.Close();
        }

    }








    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }

}

private void btnclear_Click(object sender, EventArgs e)
{
    txtentertudent.Clear();
    txtfname.Clear();
    txtlastname.Clear();
    txtgender.Clear();
    txtttp.Clear();
    txtentertudent.Focus();
}
}
}
```

## Add Teacher Info Interface

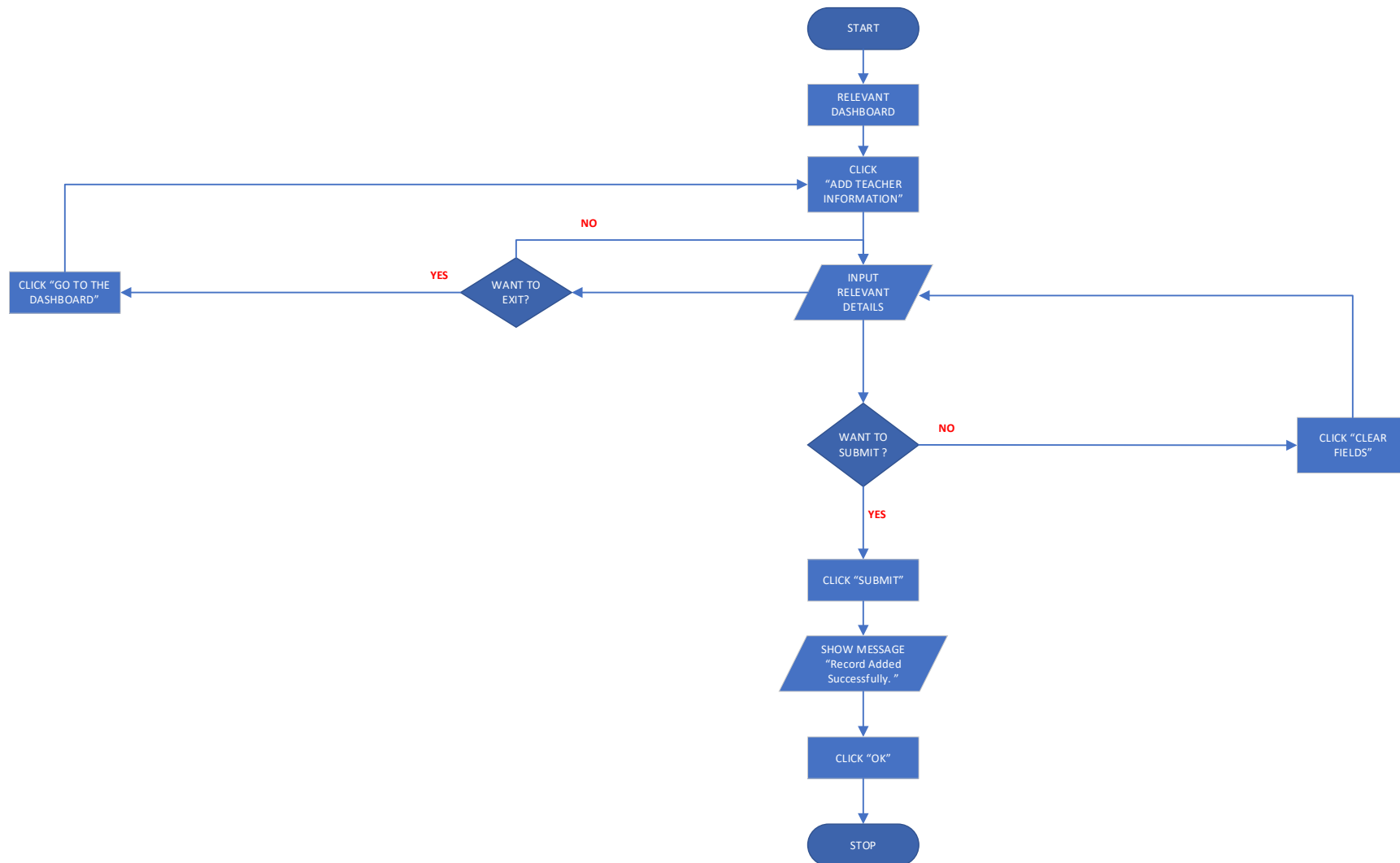
Dashboard

 Admission
  Students
  Teachers
  Lessons
  Tools
  About Us
  Logout

### New Teacher Registration Form

|                |   |                            |                      |
|----------------|---|----------------------------|----------------------|
| Teacher ID     | <input type="text"/>                                    | Address                    | <input type="text"/> |
| Title          | <input type="text" value="-Select-"/>                   |                            |                      |
| Name           | <input type="text"/>                                    |                            |                      |
| NIC Number     | <input type="text"/>                                    |                            |                      |
| Gender         | <input type="radio"/> Male <input type="radio"/> Female |                            |                      |
| Contact Number | <input type="text"/>                                    | <b>Submit</b>              | <b>Clear Fields</b>  |
| Email ID       | <input type="text"/>                                    | <b>Go to the Dashboard</b> |                      |

## Add Teacher Info Flowchart



## Add Teacher Info Source Code

```
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;
using System.Runtime.InteropServices;

namespace EduMath
{
    public partial class frmteacherreg : Form
    {
        public frmteacherreg()
        {
            InitializeComponent();
        }
        SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
        SqlCommand com;

        private void label4_Click(object sender, EventArgs e)
        {
        }

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

        private void btntclear_Click(object sender, EventArgs e)
        {
            txtteacherid.Clear();
            txttname.Clear();
            txttnic.Clear();
        }
    }
}
```

```
txttcontactno.Clear();
txttemail.Clear();
rtxttadress.Clear();
rdbtmale.Checked = false;
rdbtfemale.Checked = false;
comboBox1.SelectedIndex = -1;
}

private void btntsubmit_Click(object sender, EventArgs e)
{
    try
    {
        string teacherid = txtteacherid.Text;
        string title = comboBox1.Text;
        string tname = txttname.Text;
        string tnic = txttnic.Text;
        string contactno = txttcontactno.Text;
        string temail = txttemail.Text;
        string taddress = rtxttadress.Text;
        string tgender = "";

        if (rdbtmale.Checked)
        {
            tgender = "Male";
        }
        else if (rdbtfemale.Checked)
        {
            tgender = "Female";
        }
        else
        {
            MessageBox.Show("Plase select the gender", "Error", MessageBoxButtons.OK, MessageBoxIcon.Error);
        }

        // SQL Insert Query

        con.Open();
        string sqlinsert = "insert into
teacher(teacherid,title,name,nicnumber,gender,contactnumber,emailid,address) values ( '" + teacherid + "', '" +
title + "', '" + tname + "', '" + tnic + "', '" + tgender + "', '" + contactno + "', '" + temail + "', '" +
taddress + "' ) ";
```



```
        com = new SqlCommand(sqlinsert, con);
        com.ExecuteNonQuery();
        MessageBox.Show("Record added succesfully.", "Record Added", MessageBoxButtons.OK,
        MessageBoxIcon.Information);
        txtteacherid.Clear();
        txttname.Clear();
        txttnic.Clear();
        txttcontactno.Clear();
        txttemail.Clear();
        rtxttaddress.Clear();
        rdbtmale.Checked = false;
        rdbtfemale.Checked = false;
        comboBox1.SelectedIndex = -1;
        this.Close();
    }

    catch (Exception ex)
    {
        MessageBox.Show(ex.Message);
    }
    finally
    {
        con.Close();
    }
}
}
```

## Search Teacher Info Interface

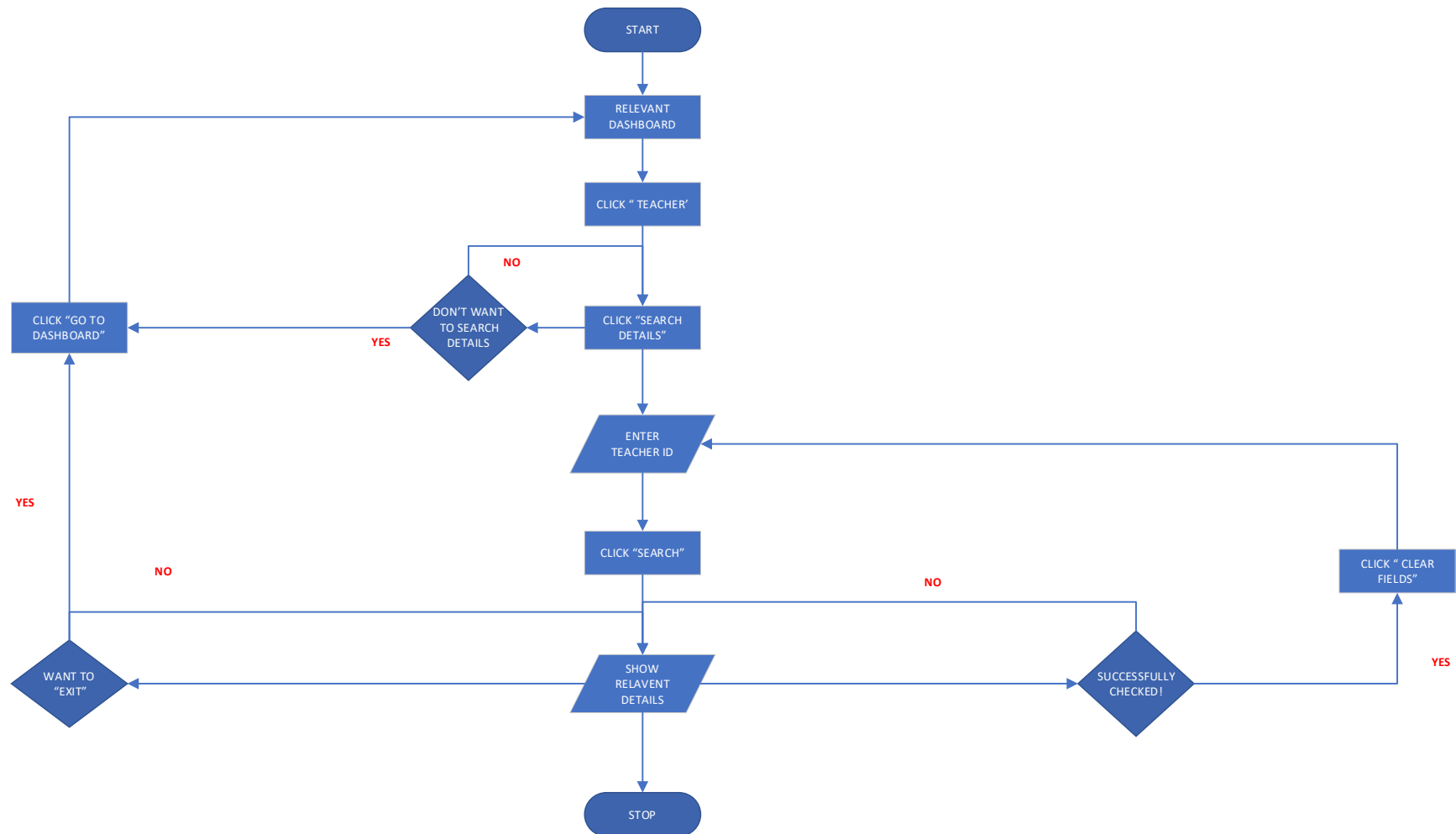
Dashboard

Admission Students Teachers Lessons Tools About Us Logout

### Teacher Information Search

Enter the Teacher ID

## Search Teacher Info Flowchart



## Search Teacher Info Source Code

```
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 EduMath
{
    public partial class frmteachersearch : Form
    {
        public frmteachersearch()
        {
            InitializeComponent();

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

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

            private void btntsearch_Click(object sender, EventArgs e)
            {
                //Code for the data grid view
                SqlConnection con = new SqlConnection(@"Data Source=MSI\SQLEXPRESS;Initial Catalog=studentlms;Integrated
Security=True");
                SqlCommand com;
```

```
con.Open();
string query = "Select * From teacher Where teacherid = " + txtenterid.Text + "";
SqlDataAdapter da = new SqlDataAdapter(query, con);
DataTable dt = new DataTable();
da.Fill(dt);
dataGridView1.DataSource = dt;
dataGridView1.AutoSizeColumnsMode = DataGridViewAutoSizeColumnsMode.Fill;








con.Close();

}

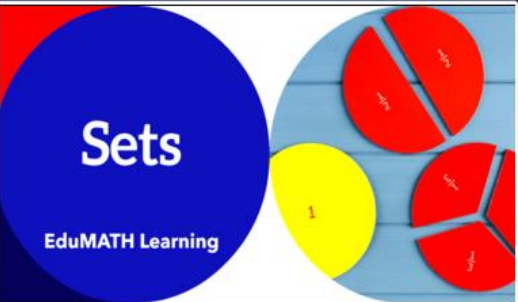
private void btnclear_Click(object sender, EventArgs e)
{
    txtenterid.Clear();
    txtenterid.Focus();
    dataGridView1.DataSource=null;
}
}
```

## Lessons Interface

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 **Lessons**
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**Sets**

EduMATH Learning




**Algebraic Expressions**

EduMATH Learning



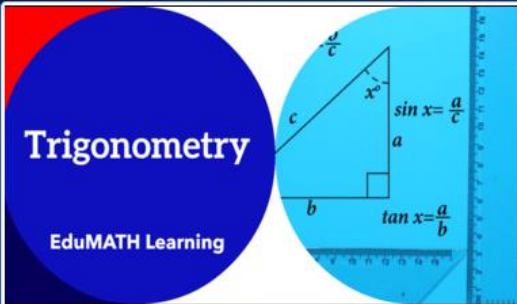
**Matrix**

EduMATH Learning



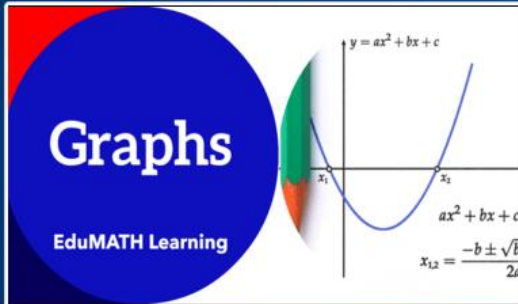
**Probability**

EduMATH Learning



**Trigonometry**

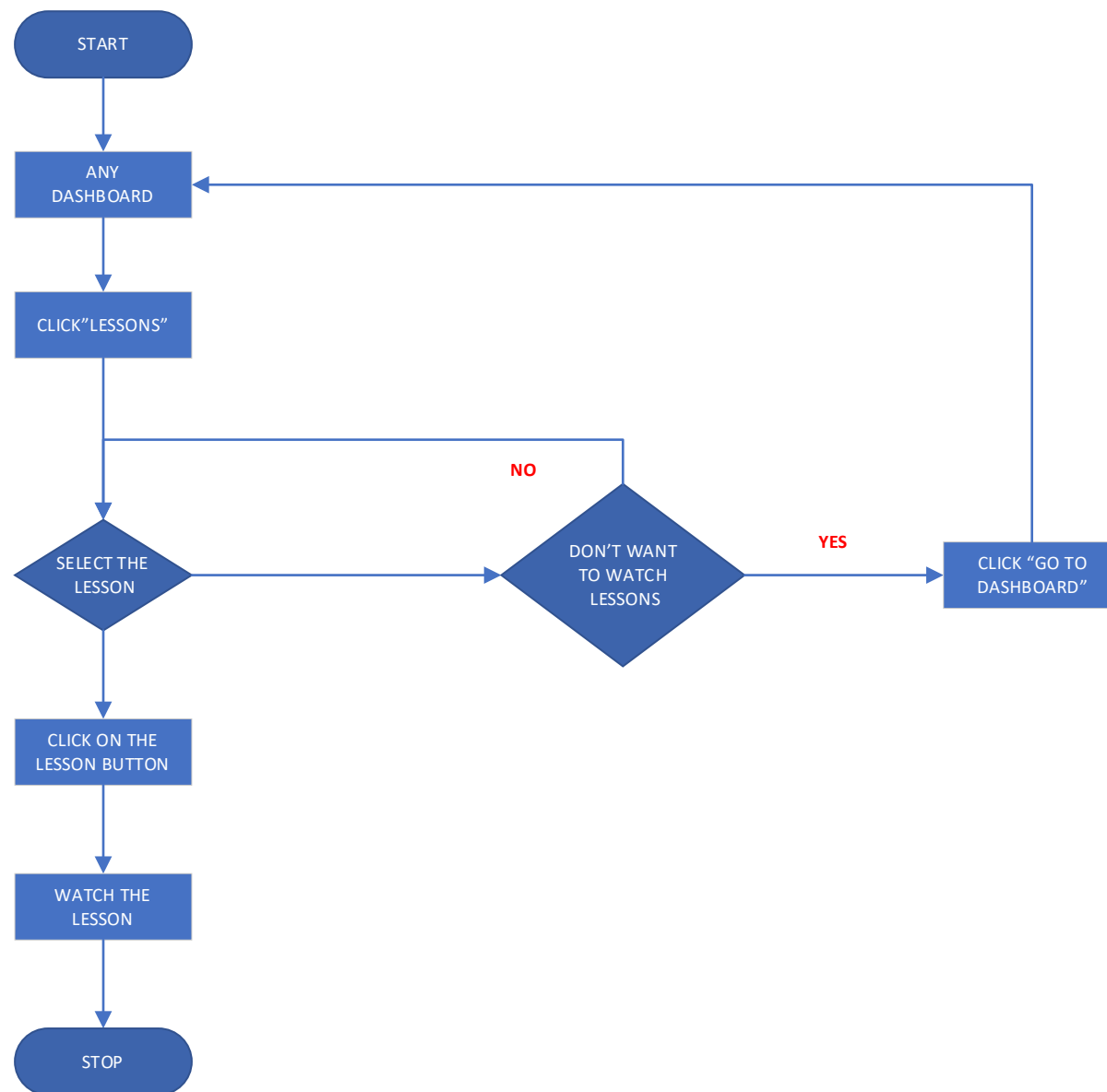
EduMATH Learning



**Graphs**

EduMATH Learning

## Lesson Flowcharts



## Lesson Source Code

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

namespace EduMath
{
    public partial class frmlessons : Form
    {
        public frmlessons()
        {
            InitializeComponent();
        }

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

        private void btnsets_Click(object sender, EventArgs e)
        {
            string youtubeUrl = "https://www.youtube.com/watch?v=l3-A0042Lyo";

            try
            {
                Process.Start(new ProcessStartInfo
                {
                    FileName = youtubeUrl,
                    UseShellExecute = true,
                });
            }
            catch (Exception ex)
```



```
        {
            MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,
                MessageBoxIcon.Error);
        }
    }

    private void btnalgebra_Click(object sender, EventArgs e)
    {
        string youtubeUrl1 = "https://www.youtube.com/watch?v=0F2GtIinL_s";

        try
        {
            Process.Start(new ProcessStartInfo
            {
                FileName = youtubeUrl1,
                UseShellExecute = true,
            });
        }
        catch (Exception ex)
        {
            MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,
                MessageBoxIcon.Error);
        }
    }

    private void btnmatrix_Click(object sender, EventArgs e)
    {
        string youtubeUrl2 = "https://www.youtube.com/watch?v=QXUbFzEd3Ww";

        try
        {
            Process.Start(new ProcessStartInfo
            {
                FileName = youtubeUrl2,
                UseShellExecute = true,
            });
        }
        catch (Exception ex)
        {
        }
```

```
        MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,
        MessageBoxIcon.Error);
    }

    private void btnpro_Click(object sender, EventArgs e)
    {
        string youtubeUrl3 = "https://www.youtube.com/watch?v=ONoWZ1rzYJA";

        try
        {
            Process.Start(new ProcessStartInfo
            {
                FileName = youtubeUrl3,
                UseShellExecute = true,

            });
        }
        catch (Exception ex)
        {
            MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,
            MessageBoxIcon.Error);
        }
    }

    private void btntrig_Click(object sender, EventArgs e)
    {
        string youtubeUrl3 = "https://www.youtube.com/watch?v=T9lt6MZKLck";








        try
        {
            Process.Start(new ProcessStartInfo
            {
                FileName = youtubeUrl3,
                UseShellExecute = true,


            });
        }
        catch (Exception ex)
        {
            MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,
            MessageBoxIcon.Error);
        }
    }
}
```

```
    }  
}  
  
private void btngraph_Click(object sender, EventArgs e)  
{  
    string youtubeUrl3 = "https://www.youtube.com/watch?v=-VgHk7UMPP4";  
  
    try  
    {  
        Process.Start(new ProcessStartInfo  
        {  
            FileName = youtubeUrl3,  
            UseShellExecute = true,  
  
        });  
    }  
    catch (Exception ex)  
    {  
        MessageBox.Show("Error opening YouTube link: " + ex.Message, "Error", MessageBoxButtons.OK,  
        MessageBoxIcon.Error);  
    }  
}  
}
```


## Grade Average Calculator Interface

Dashboard




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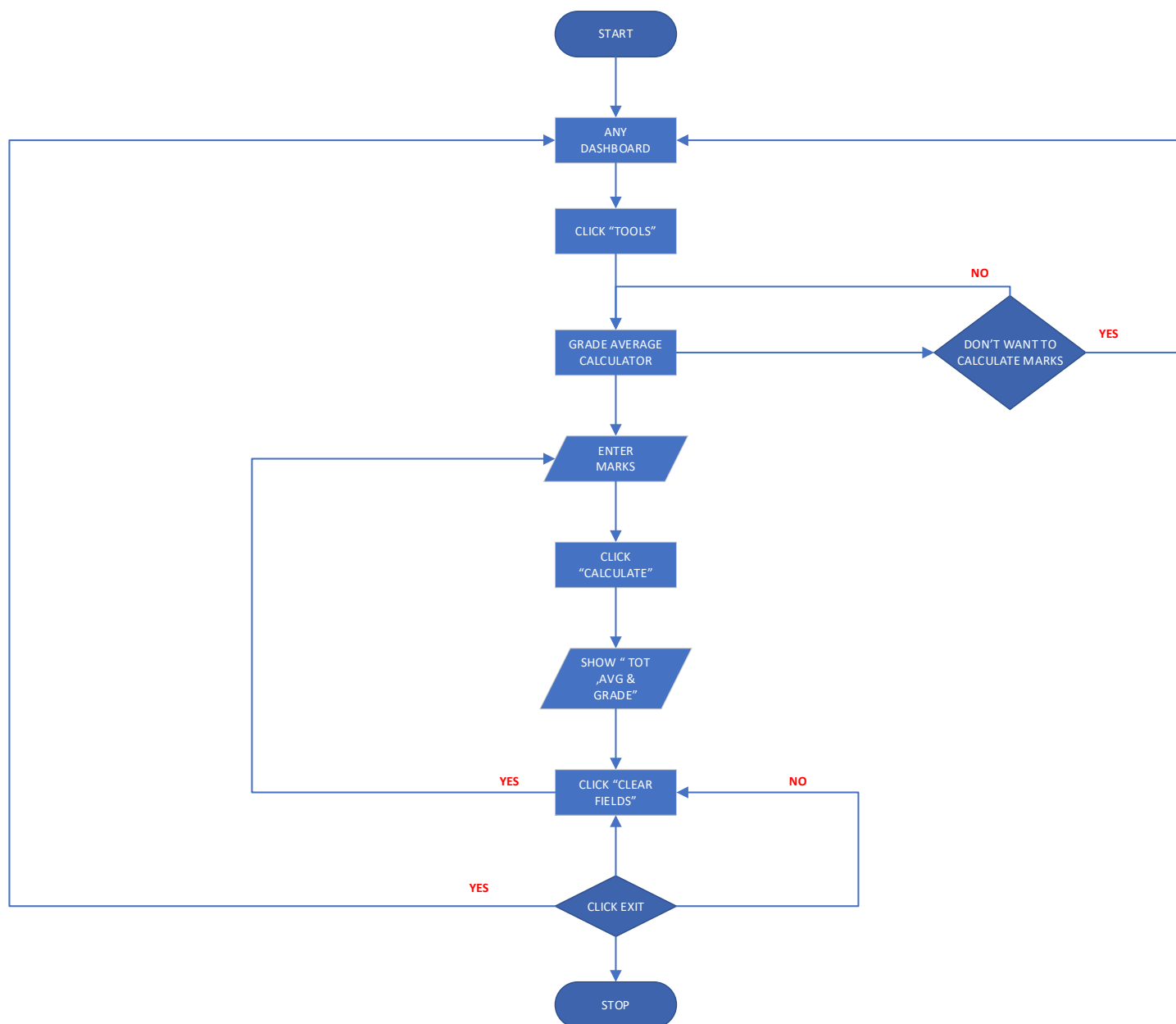
# Grade Average Calculator



|               |                      |         |                      |
|---------------|----------------------|---------|----------------------|
| Part 1 Marks  | <input type="text"/> | Total   | <input type="text"/> |
| Part 2A Marks | <input type="text"/> | Average | <input type="text"/> |
| Part 2B Marks | <input type="text"/> |         |                      |
| Part 3 Marks  | <input type="text"/> | Grade   | <input type="text"/> |

 Calculate
  Clear
  Exit

## Grade Average Calculator Flowchart



## Grade Average Calculator Source Code

```
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 EduMath
{
    public partial class Frmcalculator : Form
    {
        public Frmcalculator()
        {
            InitializeComponent();

            private void pictureBox1_Click(object sender, EventArgs e)
            {

            }

            private void label6_Click(object sender, EventArgs e)
            {

            }

            private void btncalculate_Click(object sender, EventArgs e)
            {
                try
                {
                    // Get inputs from the Text boxes

                    float part1marks = float.Parse(txtpart1marks.Text);
                    float part2Amarks = float.Parse(txtpart2Amarks.Text);
                    float part2Bmarks = float.Parse(txtpart2Bmarks.Text);
                    float part3marks = float.Parse(txtpart3marks.Text);
```

```
// Using IF for ensure user do not enter marks higher than 100

if (part1marks > 100 || part2Amarks > 100 || part2Bmarks > 100 || part3marks > 100)
{
    MessageBox.Show("Invalid input. Marks cannot exceed 100.", "Error", MessageBoxButtons.OK,
    MessageBoxIcon.Error);
    txtpart1marks.Clear();
    txtpart2Amarks.Clear();
    txtpart2Bmarks.Clear();
    txtpart3marks.Clear();
    txttotal.Clear();
    txtaverage.Clear();
    txtgrade.Clear();
}

else
{
    // Calculation Part

    float total = part1marks + part2Amarks + part2Bmarks + part3marks;
    float average = total / 4;

    // Using if for grading system

    string grade;

    if (average >= 75)
    {
        grade = "A";
    }
    else if (average >= 65)
    {
        grade = "B";
    }
    else if (average >= 55)
    {
        grade = "C";
    }
    else if (average >= 45)
    {
        grade = "S";
    }
}
```

```
        else
        {
            grade = "FAIL";
        }

        // Displaying the Calculated outputs

        txttotal.Text = total.ToString();
        txtaverage.Text = average.ToString();
        txtgrade.Text = grade.ToString();
    }
}
catch
{
    MessageBox.Show("Invalid input. Please enter valid numeric values.", "Error", MessageBoxButtons.OK,
    MessageBoxIcon.Error);
}

private void btnclear_Click(object sender, EventArgs e)
{
    // Display a clear confirmation messeage box
    DialogResult result = MessageBox.Show("Are you sure you want to clear the fields", "Clear Confirmation",
    MessageBoxButtons.YesNo, MessageBoxIcon.Question);
    if (result == DialogResult.Yes)
    {
        txtpart1marks.Clear();
        txtpart2Amarks.Clear();
        txtpart2Bmarks.Clear();
        txtpart3marks.Clear();
        txttotal.Clear();
        txtaverage.Clear();
        txtgrade.Clear();
    }
}








private void btnexitcalculator_Click(object sender, EventArgs e)
{
    // Display a exit confirmation messeage box
    DialogResult result = MessageBox.Show("Are you sure you want to exit the calculator", "Exit
Confirmation", MessageBoxButtons.YesNo, MessageBoxIcon.Exclamation);
    if (result == DialogResult.Yes)
```



```
    {  
        this.close();  
    }  
}
```

## About Us Interface

Dashboard

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Welcome to EduMATH! We are a dedicated team of developers and educators who are passionate about making learning math fun and accessible. Our mission is to provide an interactive and engaging platform for students to enhance their mathematical skills in G.C.E. Ordinary Level Exam.



### Mission and Vision


At EduMath, our mission is to empower learners by providing high-quality and accessible education. We believe in the transformative power of education and strive to make learning a fulfilling and enriching experience for everyone.

Our vision is to break down barriers to learning and make knowledge accessible to learners of all backgrounds.

### Contact Us

 EDM@gmail.com
  EduMATH YT

 +9477588547
  Team EduMATH



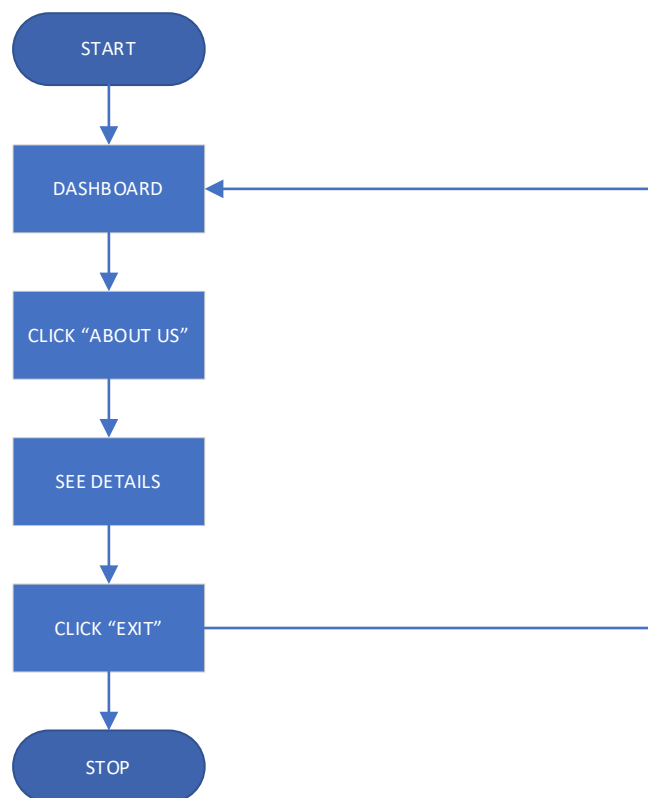
Our team is composed of experienced educators and talented developers who are committed to creating the best learning experience possible. We believe in the power of education and are dedicated to making a difference in the lives of students.

Thank you for choosing EduMATH.  
Together, we can make learning math fun!

Prabuddha Bandara  
Shashinka Dissanayake  
Charitha Abeysekara  
Induwara Bandara  
Suneth Ishan

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## About Us Flowchart



## About Us Source Code

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

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

        private void label4_Click(object sender, EventArgs e)
        {
        }

        private void pictureBox4_Click(object sender, EventArgs e)
        {
        }

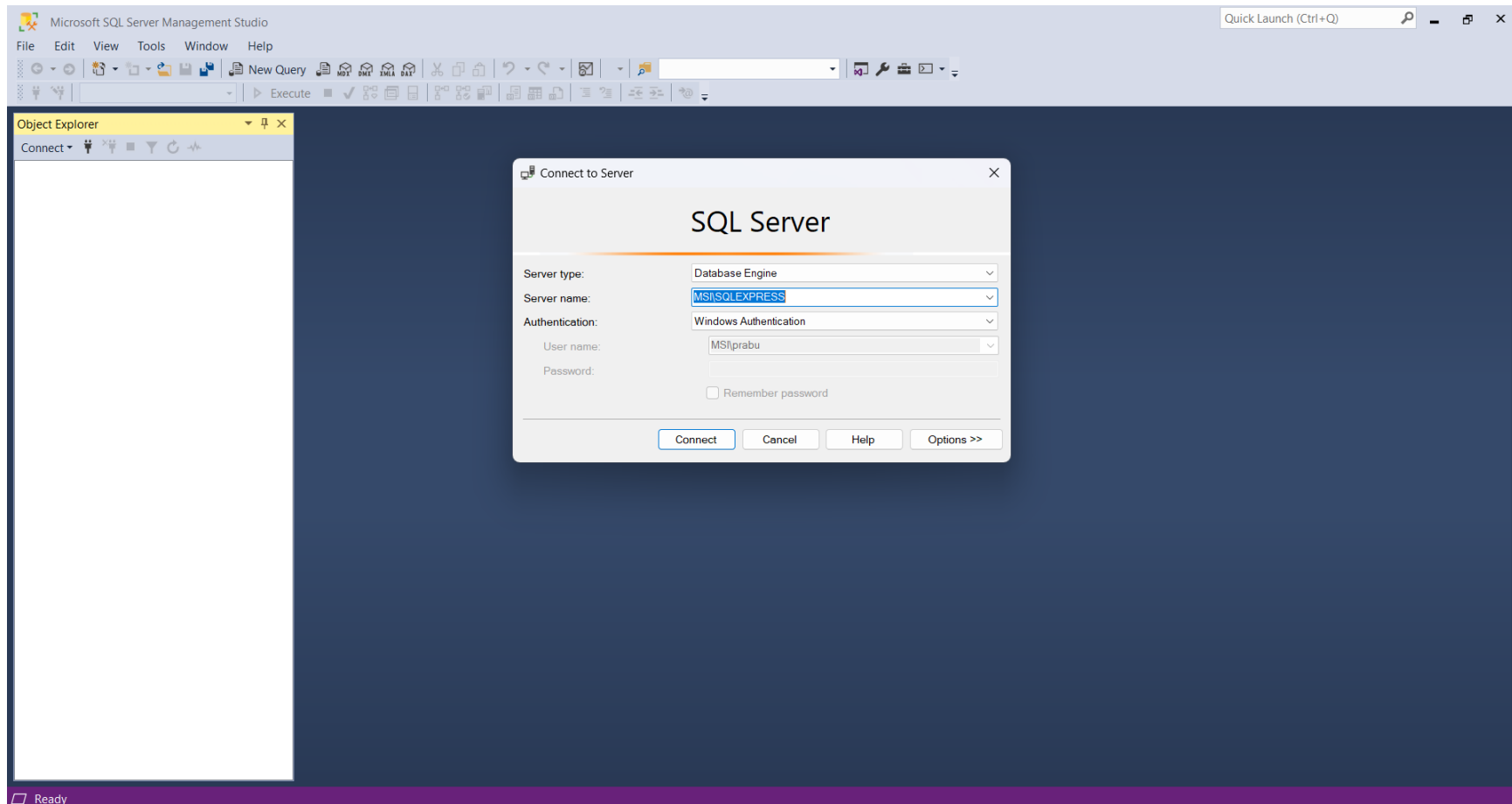
        private void pictureBox5_Click(object sender, EventArgs e)
        {
        }
    }
}
```

```
private void label10_Click(object sender, EventArgs e)
{
}

private void label9_Click(object sender, EventArgs e)
{
}

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

## SQL Database Screenshots



SQLQuery1.sql - MSI\SQLEXPRESS.studentlms (MSI\prabu (76)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

studentlms Execute

Object Explorer

- Connect
- MSI\SQLEXPRESS (SQL Server 16.0.1000 - MSI\
  - Databases
    - System Databases
    - Database Snapshots
    - studentlms
      - Database Diagrams
      - Tables
        - System Tables
        - FileTables
        - External Tables
        - Graph Tables
        - dbo.detail
        - Columns
        - Keys
        - Constraints
        - Triggers
        - Indexes
        - Statistics
        - dbo.teacher
      - Views
      - External Resources
      - Synonyms
      - Programmability
      - Query Store
      - Service Broker
      - Storage
      - Security
    - Security
    - Server Objects
    - Replication
    - Management
    - XEvent Profiler

SQLQuery1.sql - MS...s (MSI\prabu (76))

```

SELECT TOP (1000) [studentnumber]
, [firstname]
, [lastname]
, [dateofbirth]
, [gender]
, [contactnumber]
, [address]
, [school]
, [emailid]
FROM [studentlms].[dbo].[detail]
  
```

100 %

Results Messages

|   | studentnumber | firstname | lastname   | dateofbirth | gender | contactnumber | address                               | school               | emailid               |
|---|---------------|-----------|------------|-------------|--------|---------------|---------------------------------------|----------------------|-----------------------|
| 1 | 4             | Lal       | Bandara    | 2019-01-23  | Male   | 758849573     | 8/8, Jasmine Lane, Pichlands, Colombo | Van De Bergh College | lalbanda@gmail.com    |
| 2 | 6             | Nayana    | Rajapaksha | 2003-07-23  | Female | 748863173     | 8/87, Hensworth lane, Jaffna          | Lumbini College      | nayanaraje@gmail.com  |
| 3 | 7             | Aruna     | Palinda    | 2007-06-20  | Male   | 725541002     | NHS Lane, Mawanalla                   | Brokyl College       | aun.1@gmail.com       |
| 4 | 14            | James     | Roy        | 2023-10-01  | Male   | 777694528     | Ortho Lane, Colombo 7                 | Hartbrey College     | jamesroy@gmail.com    |
| 5 | 16            | Suneth    | Ishan      | 2004-05-14  | Male   | 778846520     | Iven avenue, Mawilmada                | Echole Internation   | sunethishaa@gmail.com |
| 6 | 17            | Jake      | Gynhall    | 1998-10-22  | Male   | 745566200     | Main Street, Colombo 7                | St Peters College    | JakeGy@gmail.com      |

Query executed successfully.

MSI\SQLEXPRESS (16.0 RTM) MSI\prabu (76) studentlms 00:00:00 6 rows

Ready Ln 1 Col 1 INS

SQLQuery2.sql - MSI\SQLLEXPRESS.studentlms (MSI\prabu (78)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

studentlms Execute

Object Explorer

- Connect
- MSI\SQLLEXPRESS (SQL Server 16.0.1000 - MSI\prabu (78))
  - Databases
    - System Databases
    - Database Snapshots
    - studentlms
      - Database Diagrams
      - Tables
        - System Tables
        - FileTables
        - External Tables
        - Graph Tables
        - dbo.detail
          - Columns
          - Keys
          - Constraints
          - Triggers
          - Indexes
          - Statistics
        - dbo.teacher
      - Views
      - External Resources
      - Synonyms
      - Programmability
      - Query Store
      - Service Broker
      - Storage
      - Security
    - Security
      - Server Objects
      - Replication
      - Management
      - XEvent Profiler

SQLQuery2.sql - MS...s (MSI\prabu (78)) SQLQuery1.sql - MS...s (MSI\prabu (76))

```

SELECT TOP (1000) [teacherid]
, [title]
, [name]
, [nicnumber]
, [gender]
, [contactnumber]
, [emailid]
, [address]
FROM [studentlms].[dbo].[teacher]
    
```

100 %

Results Messages

|   | teacherid | title | name             | nicnumber     | gender | contactnumber | emailid          | address                         |
|---|-----------|-------|------------------|---------------|--------|---------------|------------------|---------------------------------|
| 1 | 1         | Mr.   | Namal Bandara    | 199845789625  | Male   | 0714477898    | namalt@gmail.com | 45/8, alagalla road, jaela      |
| 2 | 2         | Miss. | Nalini Gomez     | 2000235678    | Female | 0718847516    | nalig@gmail.com  | 55/87, namal uyana, kandy       |
| 3 | 3         | Mrs.  | Neela Malkanthi  | 19874589265   | Female | 0774587893    | neeela@gmail.com | Ukulleke road, mawanella        |
| 4 | 4         | Mr.   | James Brian      | 199827965401  | Male   | 0777587416    | JB@gmail.com     | NHS Road, Dehiwala              |
| 5 | 5         | Dr.   | Pantaleon Perera | 1955279065889 | Male   | 7774157863    | pntz@gmail.com   | 8, Lecturere Avenue, Peradeniya |

Query executed successfully.

MSI\SQLLEXPRESS (16.0 RTM) MSI\prabu (78) studentlms 00:00:00 5 rows

Ready Ln 1 Col 1 Ch 1 INS



## References

*Data Grid View Source.* (n.d.). Retrieved from

[https://www.youtube.com/watch?v=b3TCO\\_OCfMU](https://www.youtube.com/watch?v=b3TCO_OCfMU)

*Diagrams Created in.* (n.d.). Retrieved from <https://app.diagrams.net/>

*Icons Downloaded By.* (n.d.). Retrieved from <https://www.flaticon.com/>

*Used for image resize.* (n.d.). Retrieved from <https://imageresizer.com/>

### Referred YouTube Links

<https://www.youtube.com/watch?v=ONoWZ1rzYJA>

<https://www.youtube.com/watch?v=QXUbFzEd3Ww>

<https://www.youtube.com/watch?v=T9lt6MZKLck>

[https://www.youtube.com/watch?v=OF2GtlinL\\_s](https://www.youtube.com/watch?v=OF2GtlinL_s)

<https://www.youtube.com/watch?v=-VgHk7UMPP4>

<https://www.youtube.com/watch?v=l3-A0O42Lyo>