**SQL QUERY**

create database db\_student

use db\_student

create table info(

id int identity(1,1) primary key clustered,

stud\_no as 'Stud\_no' + Right('00000'+ CAST(id as varchar(5)),5) persisted,

fname varchar (50),

lname varchar (50),

bday Date,

s\_address varchar (50),

phone varchar (50),

email varchar (50)

)

create procedure sp\_save

@fname varchar(50),

@lname varchar(50),

@bday Date,

@s\_address varchar(50),

@phone varchar (50),

@email varchar(50)

as

insert into info values (@fname,@lname,@bday,@s\_address,@phone, @email)

create procedure sp\_update

@id int,

@fname varchar(50),

@lname varchar(50),

@bday Date,

@s\_address varchar(50),

@phone varchar (50),

@email varchar(50)

as

update info

set fname = @fname, lname = @lname, bday = @bday, s\_address = @s\_address, phone = @phone, email = @email

where id=@id

create procedure sp\_delete

@id int

as

delete info

where id=@id

create procedure sp\_view

as

select

id as 'ID',

stud\_no as 'STUD\_NO',

fname as 'FIRST NAME',

lname as 'LAST NAME',

bday as 'BIRTH DATE',

DATEDIFF(YY,bday,GETDATE()) as 'AGE',

s\_address as 'ADDRESS',

phone as 'PHONE',

email as 'EMAIL'

from info

create procedure sp\_search

@key varchar(max)

as

select

id as 'ID',

stud\_no as 'STUD\_NO',

fname as 'FIRST NAME',

lname as 'LAST NAME',

bday as 'BIRTH DATE',

DATEDIFF(YY,bday,GETDATE()) as 'AGE',

s\_address as 'ADDRESS',

phone as 'PHONE',

email as 'EMAIL'

from info

where

stud\_no like '%' +@key+'%'

or fname like '%' +@key+'%'

or lname like '%' +@key+'%'

or bday like '%' +@key+'%'

or s\_address like '%' +@key+'%'

or phone like '%' +@key+'%'

or email like '%' +@key+'%'

**VSC CODES**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Text.RegularExpressions;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Mahinay\_Student\_Information\_System

{

public partial class Form1 : Form

{

int id;

DataClasses1DataContext db = new DataClasses1DataContext();

public Form1()

{

InitializeComponent();

db = new DataClasses1DataContext();

}

private void Form1\_Load(object sender, EventArgs e)

{

RefreshDataGridView();

}

private void Clear()

{

textFname.Text = "";

textLname.Text = "";

dateTimePicker1.Text = "";

textAddress.Text = "";

textPhone.Text = "";

textEmail.Text = "";

}

private void RefreshDataGridView()

{

dataGridView1.DataSource = db.sp\_view();

}

//SAVING

private void button1\_Click(object sender, EventArgs e)

{

if (Validator())

{

DateTime textBday = DateTime.Parse(dateTimePicker1.Text);

db.sp\_save(textFname.Text, textLname.Text, textBday, textAddress.Text, textPhone.Text, textEmail.Text);

MessageBox.Show("Successfully saved", "Save");

Clear();

RefreshDataGridView();

}

}

private void dataGridView1\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

id = int.Parse(dataGridView1.CurrentRow.Cells[0].Value.ToString());

textFname.Text = dataGridView1.CurrentRow.Cells[2].Value.ToString();

textLname.Text = dataGridView1.CurrentRow.Cells[3].Value.ToString();

dateTimePicker1.Text = dataGridView1.CurrentRow.Cells[4].Value.ToString();

textAddress.Text = dataGridView1.CurrentRow.Cells[6].Value.ToString();

textPhone.Text = dataGridView1.CurrentRow.Cells[7].Value.ToString();

textEmail.Text = dataGridView1.CurrentRow.Cells[8].Value.ToString();

}

//Updating

private void buttonUpdate\_Click(object sender, EventArgs e)

{

if (id > 0 && Validator())

{

db.sp\_update(id, textFname.Text, textLname.Text, dateTimePicker1.Value, textAddress.Text, textPhone.Text, textEmail.Text);

MessageBox.Show("Successfully Updated", "Update");

Clear();

RefreshDataGridView();

}

else

{

MessageBox.Show("Please select a record and ensure all fields are filled correctly.", "Update");

}

}

//DELETING

private void button3\_Click(object sender, EventArgs e)

{

if (id > 0)

{

db.sp\_delete(id);

MessageBox.Show("Successfully Deleted", "Delete");

Clear();

RefreshDataGridView();

}

else

{

MessageBox.Show("Please select a record to delete.", "Delete");

}

}

//SEARCHING

private void textBox3\_TextChanged(object sender, EventArgs e)

{

dataGridView1.DataSource = db.sp\_search(textBox3.Text);

}

//VALIDATOR

private bool Validator()

{

if (string.IsNullOrWhiteSpace(textFname.Text) ||

string.IsNullOrWhiteSpace(textLname.Text) ||

string.IsNullOrWhiteSpace(textAddress.Text) ||

string.IsNullOrWhiteSpace(textPhone.Text) ||

string.IsNullOrWhiteSpace(textEmail.Text))

{

MessageBox.Show("All fields are required.", "Validation Error");

return false;

}

string namePattern = @"^[a-zA-Z\s]+$";

if (!Regex.IsMatch(textFname.Text, namePattern) || !Regex.IsMatch(textLname.Text, namePattern))

{

MessageBox.Show("First Name and Last Name should contain only letters.", "Validation Error");

return false;

}

string emailPattern = @"^\w+([-+.']\w+)\*@\w+([-.]\w+)\*\.\w+([-.]\w+)\*$";

if (!Regex.IsMatch(textEmail.Text, emailPattern))

{

MessageBox.Show("Invalid email format.", "Validation Error");

return false;

}

string phonePattern = @"^\d{11}$";

if (!Regex.IsMatch(textPhone.Text, phonePattern))

{

MessageBox.Show("Invalid phone number format. Please enter 11 digits.", "Validation Error");

return false;

}

return true;

}

}

}