**LAB 5:**

**WINFORM KẾT NỐI CƠ SỞ DỮ LIỆU NÂNG CAO**

*Tên SV: Châu Thị Nọc Quyên*

*Mssv: 1150080113*

*Lớp: 11\_ĐH\_CNPM2*

*Khoa: Công nghệ thông tin*

***Bài làm***

**Thực hành 1: Tạo và kết nối CSDL ngay bên trong Project Winform.**

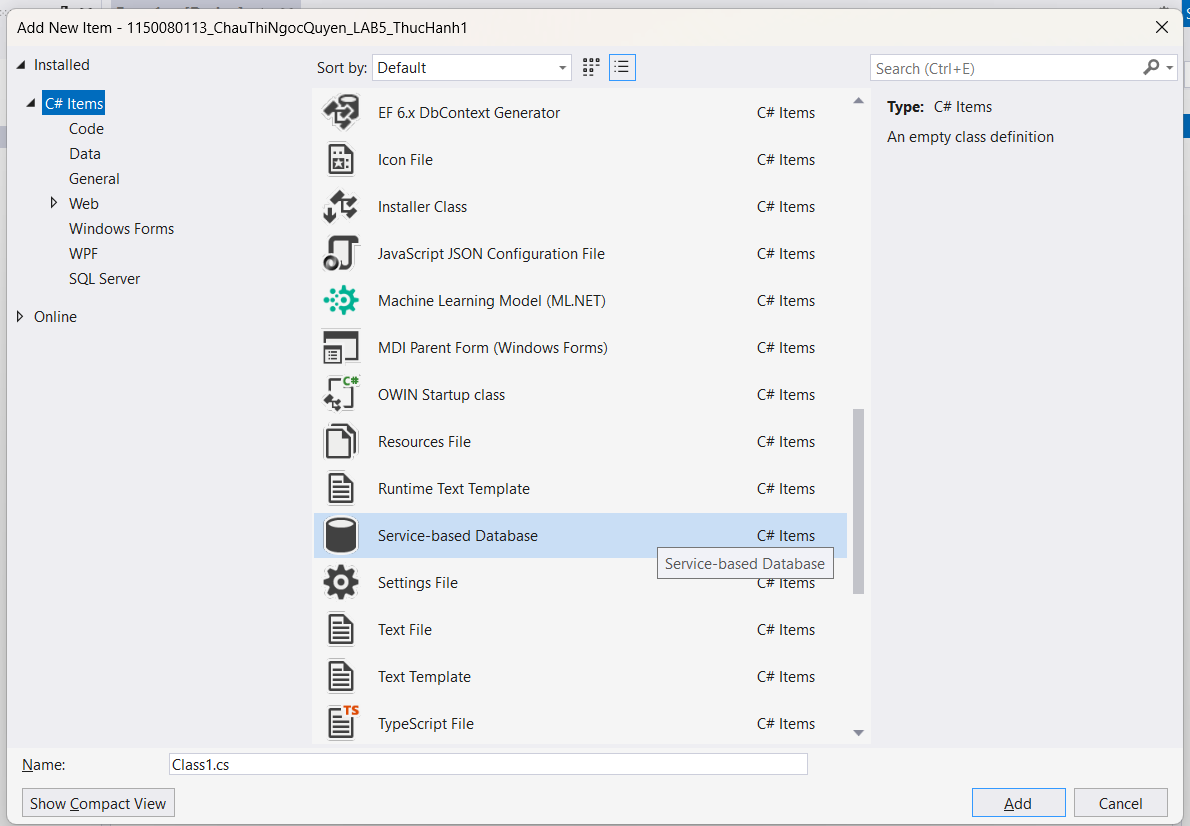
− Khởi tạo 1 project với template là Windowns Form Applications (.NET

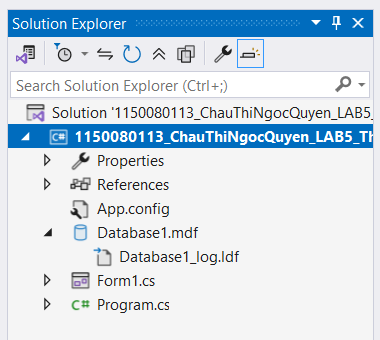
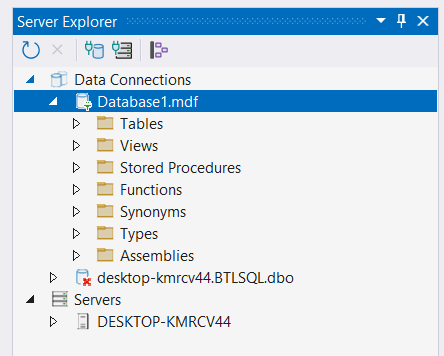
framework).

− Chuột phải vào project chọn Add > New Item.

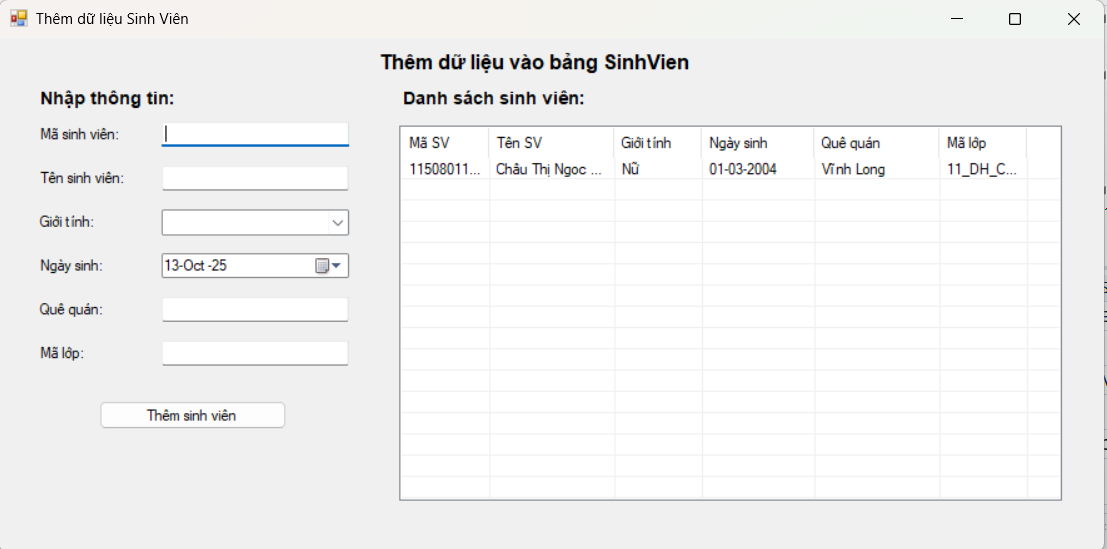
− Trong danh sách các template, cuộn xuống và chọn Service-based

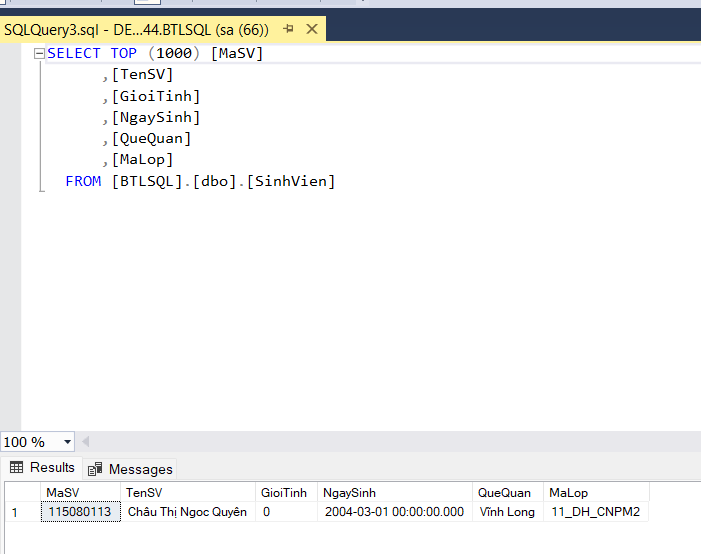
Database.

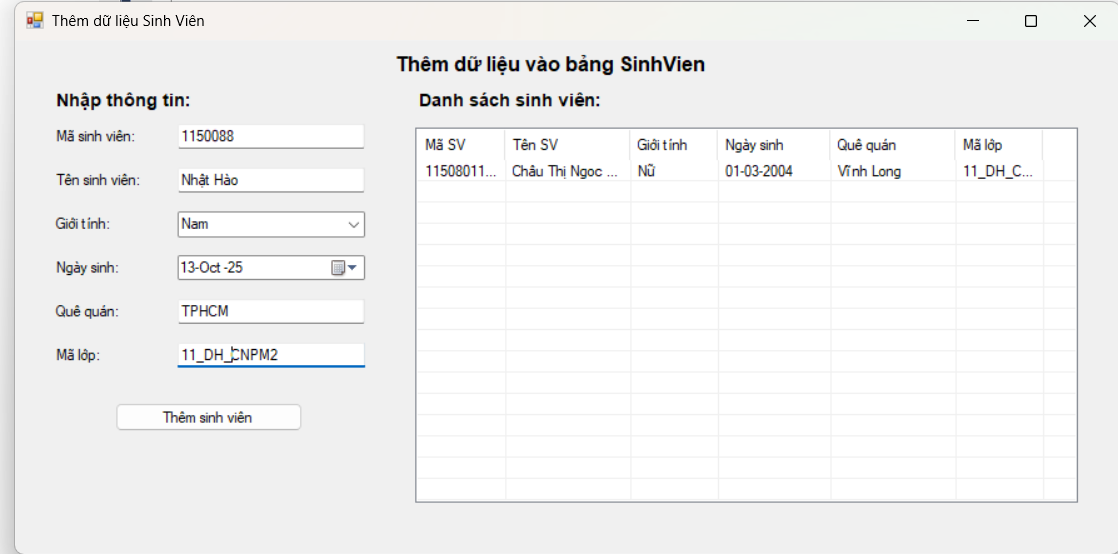


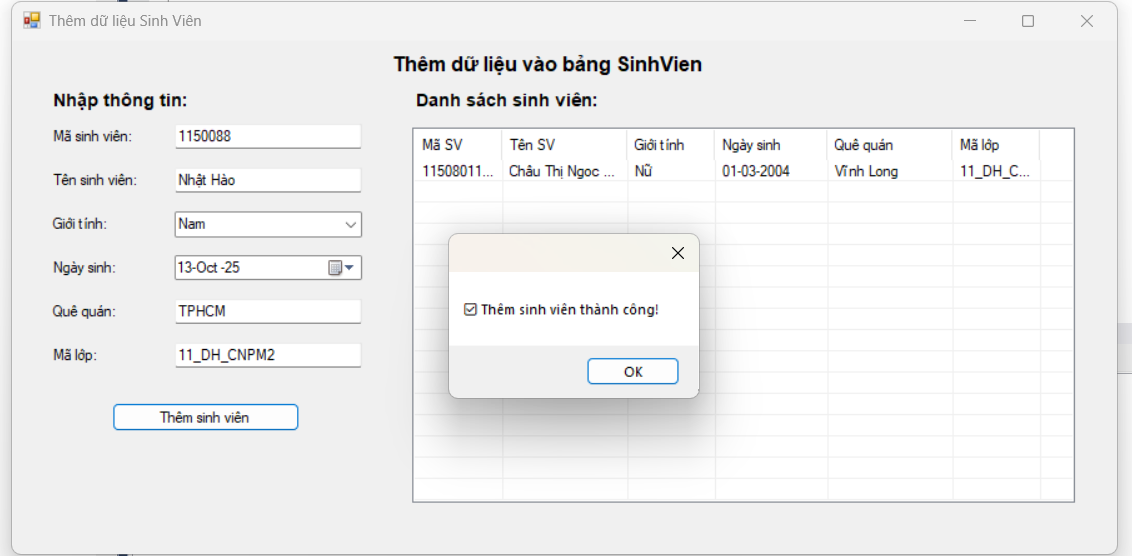
 

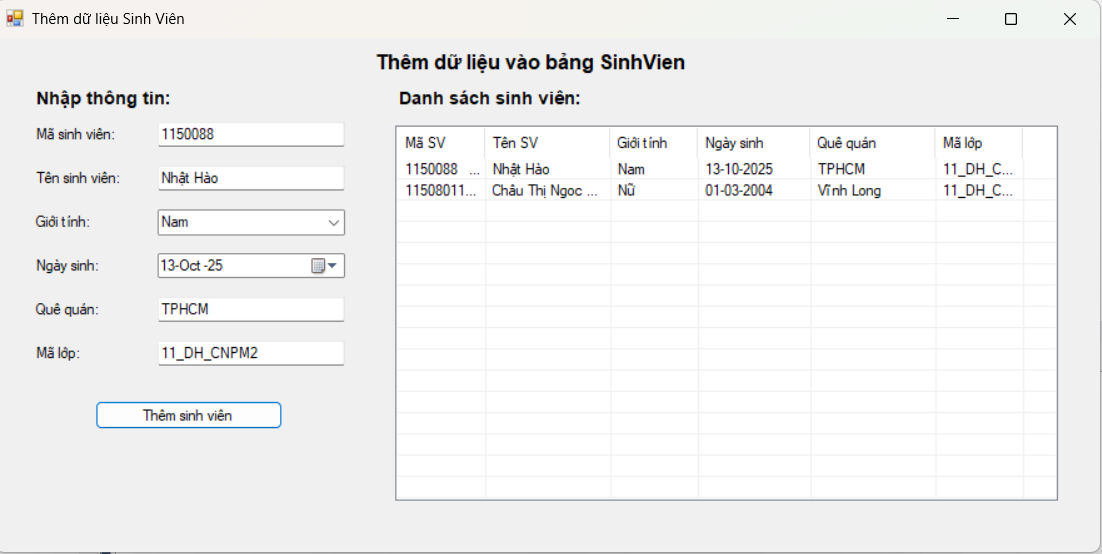
**Thực hành 2: Thêm dữ liệu không dùng Parameter.**− Sử dụng hàm ExecuteNonQuery để thực hiện thêm dữ liệu.

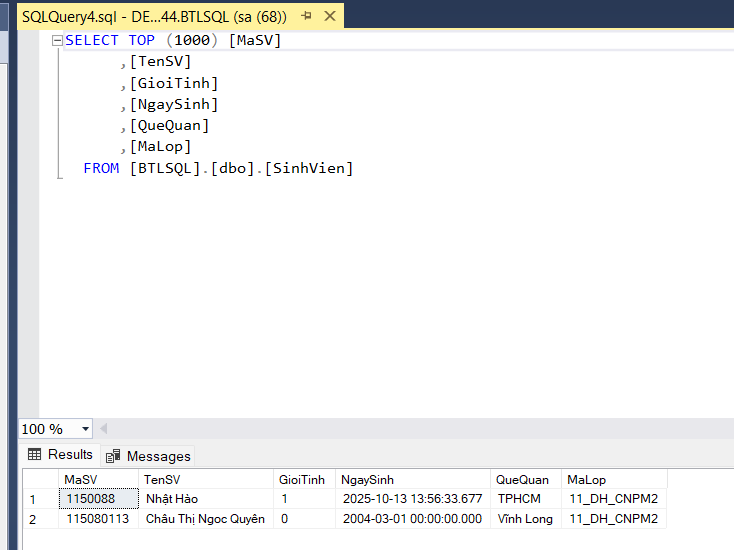












\* Code

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 \_1150080113\_ChauThiNgocQuyen\_LAB5\_ThucHanh1

{

public partial class Form1 : Form

{

// ✅ Chuỗi kết nối chuẩn

private string strCon = "Data Source=DESKTOP-KMRCV44;Initial Catalog=BTLSQL;User ID=sa;Password=123;Encrypt=False;";

private SqlConnection sqlCon = null;

// Control

Label lblTitle, lblNhapTT, lblDanhSach;

Label lblMaSV, lblTenSV, lblGioiTinh, lblNgaySinh, lblQueQuan, lblMaLop;

TextBox txtMaSV, txtTenSV, txtQueQuan, txtMaLop;

ComboBox cbGioiTinh;

DateTimePicker dtpNgaySinh;

Button btnThemSinhVien;

ListView lsvDanhSachSV;

public Form1()

{

InitializeComponent();

TaoGiaoDien();

}

private void InitializeComponent()

{

this.SuspendLayout();

this.ClientSize = new System.Drawing.Size(894, 435);

this.Name = "Form1";

this.ResumeLayout(false);

}

// ======================== GIAO DIỆN ==============================

private void TaoGiaoDien()

{

this.Text = "Thêm dữ liệu Sinh Viên";

this.Size = new Size(900, 450);

this.StartPosition = FormStartPosition.CenterScreen;

lblTitle = new Label()

{

Text = "Thêm dữ liệu vào bảng SinhVien",

Font = new Font("Arial", 12, FontStyle.Bold),

AutoSize = true,

Location = new Point(300, 10)

};

this.Controls.Add(lblTitle);

lblNhapTT = new Label()

{

Text = "Nhập thông tin:",

Font = new Font("Arial", 10, FontStyle.Bold),

Location = new Point(30, 40),

AutoSize = true

};

this.Controls.Add(lblNhapTT);

int baseY = 70, spacing = 35;

lblMaSV = new Label() { Text = "Mã sinh viên:", Location = new Point(30, baseY), AutoSize = true };

txtMaSV = new TextBox() { Location = new Point(130, baseY - 3), Width = 150 };

lblTenSV = new Label() { Text = "Tên sinh viên:", Location = new Point(30, baseY + spacing), AutoSize = true };

txtTenSV = new TextBox() { Location = new Point(130, baseY + spacing - 3), Width = 150 };

lblGioiTinh = new Label() { Text = "Giới tính:", Location = new Point(30, baseY + spacing \* 2), AutoSize = true };

cbGioiTinh = new ComboBox() { Location = new Point(130, baseY + spacing \* 2 - 3), Width = 150 };

cbGioiTinh.Items.AddRange(new string[] { "Nam", "Nữ" });

lblNgaySinh = new Label() { Text = "Ngày sinh:", Location = new Point(30, baseY + spacing \* 3), AutoSize = true };

dtpNgaySinh = new DateTimePicker() { Location = new Point(130, baseY + spacing \* 3 - 3), Width = 150, Format = DateTimePickerFormat.Short };

lblQueQuan = new Label() { Text = "Quê quán:", Location = new Point(30, baseY + spacing \* 4), AutoSize = true };

txtQueQuan = new TextBox() { Location = new Point(130, baseY + spacing \* 4 - 3), Width = 150 };

lblMaLop = new Label() { Text = "Mã lớp:", Location = new Point(30, baseY + spacing \* 5), AutoSize = true };

txtMaLop = new TextBox() { Location = new Point(130, baseY + spacing \* 5 - 3), Width = 150 };

btnThemSinhVien = new Button() { Text = "Thêm sinh viên", Location = new Point(80, baseY + spacing \* 6 + 10), Width = 150 };

btnThemSinhVien.Click += btnThemSinhVien\_Click;

this.Controls.AddRange(new Control[] {

lblMaSV, txtMaSV, lblTenSV, txtTenSV,

lblGioiTinh, cbGioiTinh, lblNgaySinh, dtpNgaySinh,

lblQueQuan, txtQueQuan, lblMaLop, txtMaLop, btnThemSinhVien

});

lblDanhSach = new Label()

{

Text = "Danh sách sinh viên:",

Font = new Font("Arial", 10, FontStyle.Bold),

Location = new Point(320, 40),

AutoSize = true

};

this.Controls.Add(lblDanhSach);

lsvDanhSachSV = new ListView()

{

Location = new Point(320, 70),

Size = new Size(530, 300),

View = View.Details,

FullRowSelect = true,

GridLines = true

};

lsvDanhSachSV.Columns.Add("Mã SV", 70);

lsvDanhSachSV.Columns.Add("Tên SV", 100);

lsvDanhSachSV.Columns.Add("Giới tính", 70);

lsvDanhSachSV.Columns.Add("Ngày sinh", 90);

lsvDanhSachSV.Columns.Add("Quê quán", 100);

lsvDanhSachSV.Columns.Add("Mã lớp", 70);

this.Controls.Add(lsvDanhSachSV);

this.Load += Form1\_Load;

}

// ======================== XỬ LÝ CSDL ==============================

private void MoKetNoi()

{

if (sqlCon == null)

sqlCon = new SqlConnection(strCon);

if (sqlCon.State == ConnectionState.Closed)

sqlCon.Open();

}

private void DongKetNoi()

{

if (sqlCon != null && sqlCon.State == ConnectionState.Open)

sqlCon.Close();

}

private void HienThiDanhSach()

{

try

{

MoKetNoi();

SqlCommand cmd = new SqlCommand("SELECT \* FROM SinhVien", sqlCon);

SqlDataReader reader = cmd.ExecuteReader();

lsvDanhSachSV.Items.Clear();

while (reader.Read())

{

string maSV = reader["MaSV"].ToString();

string tenSV = reader["TenSV"].ToString();

bool gioiTinh = Convert.ToBoolean(reader["GioiTinh"]);

string ngaySinh = Convert.ToDateTime(reader["NgaySinh"]).ToString("dd/MM/yyyy");

string queQuan = reader["QueQuan"].ToString();

string maLop = reader["MaLop"].ToString();

ListViewItem lvi = new ListViewItem(maSV);

lvi.SubItems.Add(tenSV);

lvi.SubItems.Add(gioiTinh ? "Nam" : "Nữ");

lvi.SubItems.Add(ngaySinh);

lvi.SubItems.Add(queQuan);

lvi.SubItems.Add(maLop);

lsvDanhSachSV.Items.Add(lvi);

}

reader.Close();

}

catch (Exception ex)

{

MessageBox.Show("Lỗi hiển thị: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

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

{

try

{

MoKetNoi();

SqlCommand cmd = new SqlCommand(

"INSERT INTO SinhVien (MaSV, TenSV, GioiTinh, NgaySinh, QueQuan, MaLop) " +

"VALUES (@MaSV, @TenSV, @GioiTinh, @NgaySinh, @QueQuan, @MaLop)", sqlCon);

cmd.Parameters.AddWithValue("@MaSV", txtMaSV.Text.Trim());

cmd.Parameters.AddWithValue("@TenSV", txtTenSV.Text.Trim());

cmd.Parameters.AddWithValue("@GioiTinh", cbGioiTinh.Text == "Nam" ? 1 : 0);

cmd.Parameters.AddWithValue("@NgaySinh", dtpNgaySinh.Value);

cmd.Parameters.AddWithValue("@QueQuan", txtQueQuan.Text.Trim());

cmd.Parameters.AddWithValue("@MaLop", txtMaLop.Text.Trim());

int kq = cmd.ExecuteNonQuery();

if (kq > 0)

{

MessageBox.Show("✅ Thêm sinh viên thành công!");

HienThiDanhSach();

}

}

catch (Exception ex)

{

MessageBox.Show("Lỗi thêm: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

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

{

// ✅ Khi form load, hiển thị toàn bộ sinh viên hiện có

HienThiDanhSach();

}

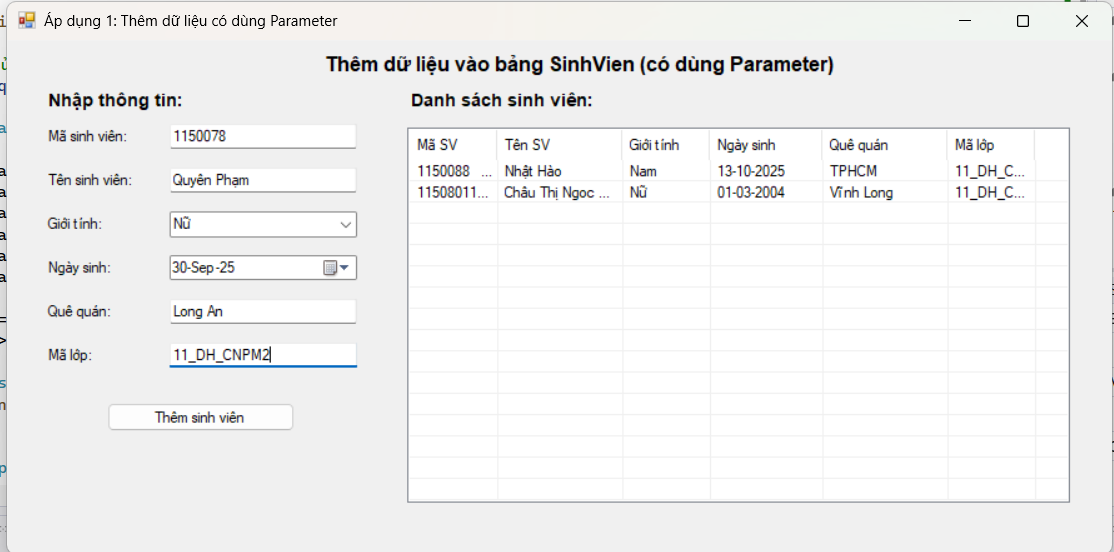
}

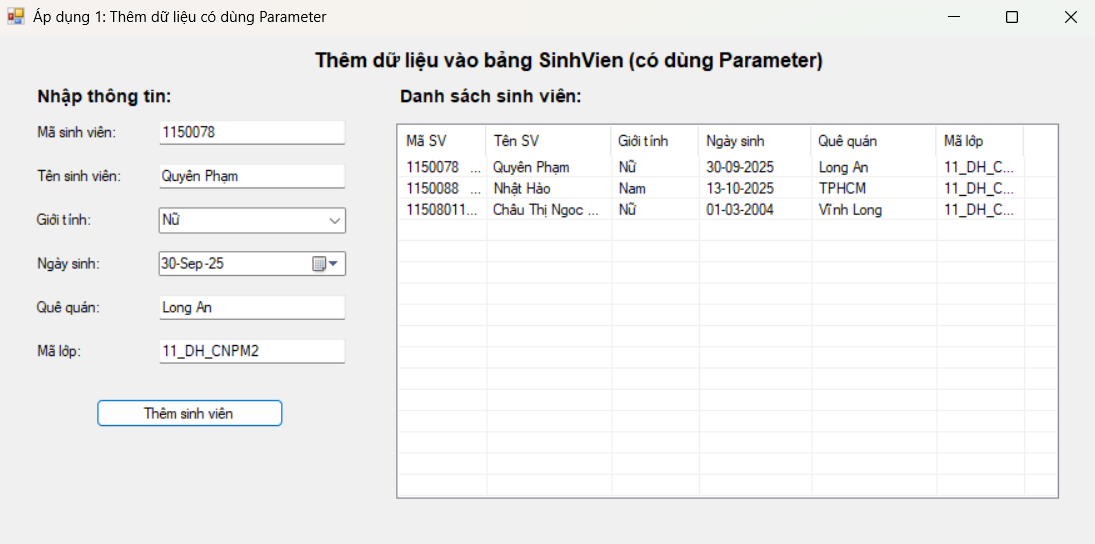
}

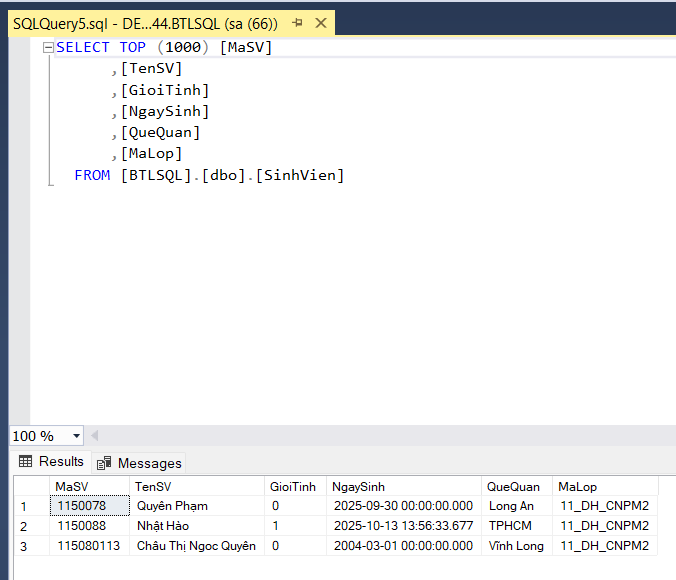
**Áp dụng 1: Thêm dữ liệu có dùng Parameter.**

Cũng thêm dữ liệu cho 1 sinh viên vào bảng SinhVien như ví dụ trên. Tuy nhiên,

trong chương trình có sử dụng các Parameter.







\* 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 \_1150080113\_ChauThiNgocQuyen\_LAB5\_ThucHanh1

{

public partial class Form1 : Form

{

// ✅ Chuỗi kết nối chuẩn

private string strCon = "Data Source=DESKTOP-KMRCV44;Initial Catalog=BTLSQL;User ID=sa;Password=123;Encrypt=False;";

private SqlConnection sqlCon = null;

// Control

Label lblTitle, lblNhapTT, lblDanhSach;

Label lblMaSV, lblTenSV, lblGioiTinh, lblNgaySinh, lblQueQuan, lblMaLop;

TextBox txtMaSV, txtTenSV, txtQueQuan, txtMaLop;

ComboBox cbGioiTinh;

DateTimePicker dtpNgaySinh;

Button btnThemSinhVien;

ListView lsvDanhSachSV;

public Form1()

{

InitializeComponent();

TaoGiaoDien();

}

private void InitializeComponent()

{

this.SuspendLayout();

this.ClientSize = new System.Drawing.Size(894, 435);

this.Name = "Form1";

this.ResumeLayout(false);

}

// ======================== GIAO DIỆN ==============================

private void TaoGiaoDien()

{

this.Text = "Áp dụng 1: Thêm dữ liệu có dùng Parameter";

this.Size = new Size(900, 450);

this.StartPosition = FormStartPosition.CenterScreen;

lblTitle = new Label()

{

Text = "Thêm dữ liệu vào bảng SinhVien (có dùng Parameter)",

Font = new Font("Arial", 12, FontStyle.Bold),

AutoSize = true,

Location = new Point(250, 10)

};

this.Controls.Add(lblTitle);

lblNhapTT = new Label()

{

Text = "Nhập thông tin:",

Font = new Font("Arial", 10, FontStyle.Bold),

Location = new Point(30, 40),

AutoSize = true

};

this.Controls.Add(lblNhapTT);

int baseY = 70, spacing = 35;

lblMaSV = new Label() { Text = "Mã sinh viên:", Location = new Point(30, baseY), AutoSize = true };

txtMaSV = new TextBox() { Location = new Point(130, baseY - 3), Width = 150 };

lblTenSV = new Label() { Text = "Tên sinh viên:", Location = new Point(30, baseY + spacing), AutoSize = true };

txtTenSV = new TextBox() { Location = new Point(130, baseY + spacing - 3), Width = 150 };

lblGioiTinh = new Label() { Text = "Giới tính:", Location = new Point(30, baseY + spacing \* 2), AutoSize = true };

cbGioiTinh = new ComboBox() { Location = new Point(130, baseY + spacing \* 2 - 3), Width = 150 };

cbGioiTinh.Items.AddRange(new string[] { "Nam", "Nữ" });

lblNgaySinh = new Label() { Text = "Ngày sinh:", Location = new Point(30, baseY + spacing \* 3), AutoSize = true };

dtpNgaySinh = new DateTimePicker() { Location = new Point(130, baseY + spacing \* 3 - 3), Width = 150, Format = DateTimePickerFormat.Short };

lblQueQuan = new Label() { Text = "Quê quán:", Location = new Point(30, baseY + spacing \* 4), AutoSize = true };

txtQueQuan = new TextBox() { Location = new Point(130, baseY + spacing \* 4 - 3), Width = 150 };

lblMaLop = new Label() { Text = "Mã lớp:", Location = new Point(30, baseY + spacing \* 5), AutoSize = true };

txtMaLop = new TextBox() { Location = new Point(130, baseY + spacing \* 5 - 3), Width = 150 };

btnThemSinhVien = new Button() { Text = "Thêm sinh viên", Location = new Point(80, baseY + spacing \* 6 + 10), Width = 150 };

btnThemSinhVien.Click += btnThemSinhVien\_Click;

this.Controls.AddRange(new Control[] {

lblMaSV, txtMaSV, lblTenSV, txtTenSV,

lblGioiTinh, cbGioiTinh, lblNgaySinh, dtpNgaySinh,

lblQueQuan, txtQueQuan, lblMaLop, txtMaLop, btnThemSinhVien

});

lblDanhSach = new Label()

{

Text = "Danh sách sinh viên:",

Font = new Font("Arial", 10, FontStyle.Bold),

Location = new Point(320, 40),

AutoSize = true

};

this.Controls.Add(lblDanhSach);

lsvDanhSachSV = new ListView()

{

Location = new Point(320, 70),

Size = new Size(530, 300),

View = View.Details,

FullRowSelect = true,

GridLines = true

};

lsvDanhSachSV.Columns.Add("Mã SV", 70);

lsvDanhSachSV.Columns.Add("Tên SV", 100);

lsvDanhSachSV.Columns.Add("Giới tính", 70);

lsvDanhSachSV.Columns.Add("Ngày sinh", 90);

lsvDanhSachSV.Columns.Add("Quê quán", 100);

lsvDanhSachSV.Columns.Add("Mã lớp", 70);

this.Controls.Add(lsvDanhSachSV);

this.Load += Form1\_Load;

}

// ======================== XỬ LÝ CSDL ==============================

private void MoKetNoi()

{

if (sqlCon == null)

sqlCon = new SqlConnection(strCon);

if (sqlCon.State == ConnectionState.Closed)

sqlCon.Open();

}

private void DongKetNoi()

{

if (sqlCon != null && sqlCon.State == ConnectionState.Open)

sqlCon.Close();

}

private void HienThiDanhSach()

{

try

{

MoKetNoi();

SqlCommand cmd = new SqlCommand("SELECT \* FROM SinhVien", sqlCon);

SqlDataReader reader = cmd.ExecuteReader();

lsvDanhSachSV.Items.Clear();

while (reader.Read())

{

string maSV = reader["MaSV"].ToString();

string tenSV = reader["TenSV"].ToString();

bool gioiTinh = Convert.ToBoolean(reader["GioiTinh"]);

string ngaySinh = Convert.ToDateTime(reader["NgaySinh"]).ToString("dd/MM/yyyy");

string queQuan = reader["QueQuan"].ToString();

string maLop = reader["MaLop"].ToString();

ListViewItem lvi = new ListViewItem(maSV);

lvi.SubItems.Add(tenSV);

lvi.SubItems.Add(gioiTinh ? "Nam" : "Nữ");

lvi.SubItems.Add(ngaySinh);

lvi.SubItems.Add(queQuan);

lvi.SubItems.Add(maLop);

lsvDanhSachSV.Items.Add(lvi);

}

reader.Close();

}

catch (Exception ex)

{

MessageBox.Show("Lỗi hiển thị: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

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

{

try

{

MoKetNoi();

// ✅ Sử dụng Parameter đúng chuẩn

string query = "INSERT INTO SinhVien (MaSV, TenSV, GioiTinh, NgaySinh, QueQuan, MaLop) " +

"VALUES (@MaSV, @TenSV, @GioiTinh, @NgaySinh, @QueQuan, @MaLop)";

SqlCommand cmd = new SqlCommand(query, sqlCon);

cmd.Parameters.Add(new SqlParameter("@MaSV", SqlDbType.VarChar)).Value = txtMaSV.Text.Trim();

cmd.Parameters.Add(new SqlParameter("@TenSV", SqlDbType.NVarChar)).Value = txtTenSV.Text.Trim();

cmd.Parameters.Add(new SqlParameter("@GioiTinh", SqlDbType.Bit)).Value = (cbGioiTinh.Text == "Nam") ? 1 : 0;

cmd.Parameters.Add(new SqlParameter("@NgaySinh", SqlDbType.Date)).Value = dtpNgaySinh.Value;

cmd.Parameters.Add(new SqlParameter("@QueQuan", SqlDbType.NVarChar)).Value = txtQueQuan.Text.Trim();

cmd.Parameters.Add(new SqlParameter("@MaLop", SqlDbType.VarChar)).Value = txtMaLop.Text.Trim();

int kq = cmd.ExecuteNonQuery();

if (kq > 0)

{

MessageBox.Show("✅ Thêm sinh viên thành công (dùng Parameter)!");

HienThiDanhSach();

}

}

catch (Exception ex)

{

MessageBox.Show("Lỗi thêm: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

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

{

Form2 frm = new Form2();

frm.ShowDialog();

}

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

{

// ✅ Khi form load, hiển thị toàn bộ sinh viên hiện có

HienThiDanhSach();

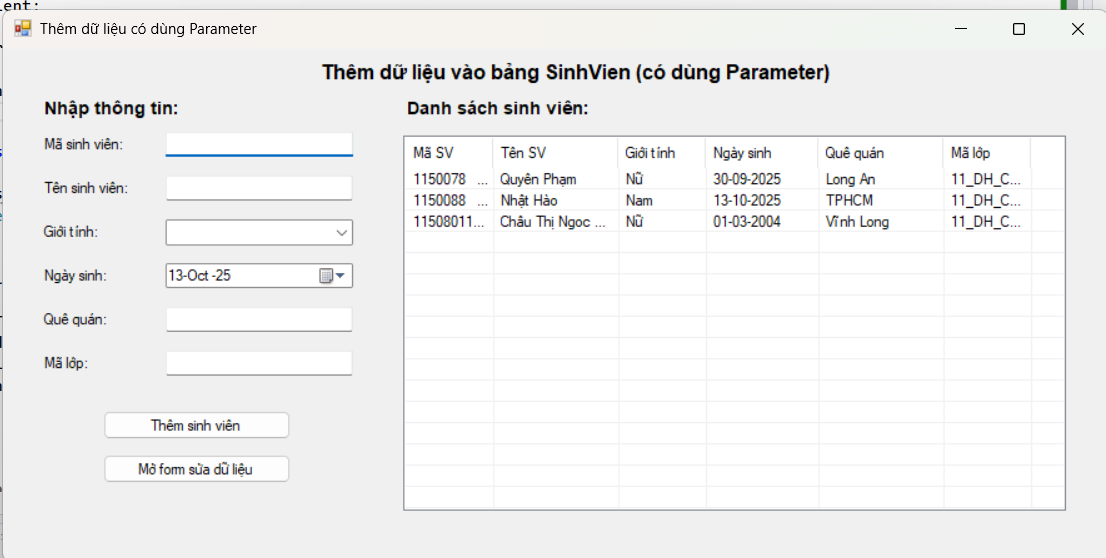
}

}

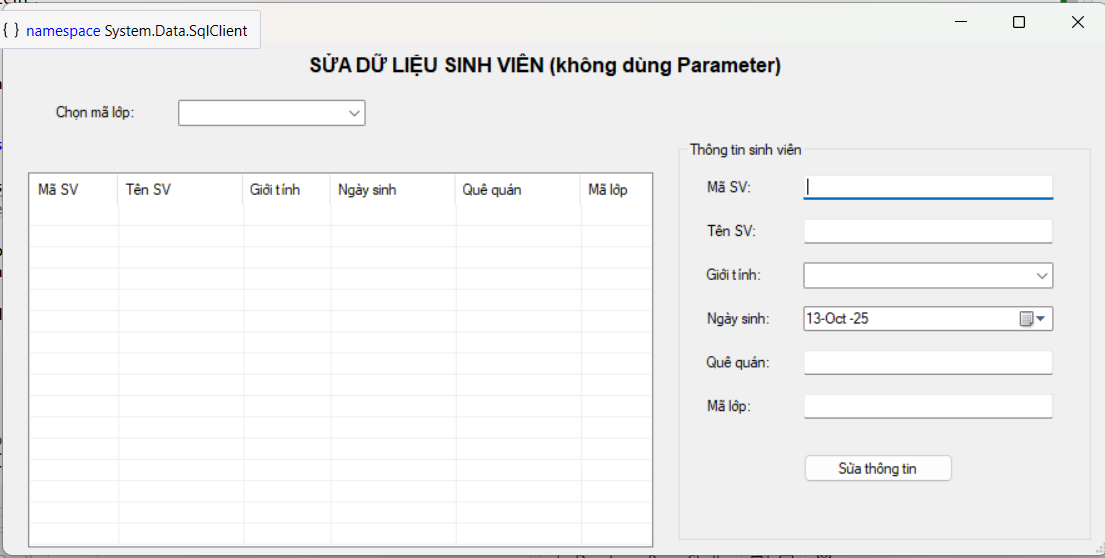
}

**Thực hành 3: Sửa dữ liệu không dùng Parameter.**

- Form thêm sinh viên



- Form Sửa



using System;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Windows.Forms;

namespace \_1150080113\_ChauThiNgocQuyen\_LAB5\_ThucHanh1

{

public partial class Form2 : Form

{

private string strCon = "Data Source=DESKTOP-KMRCV44;Initial Catalog=BTLSQL;User ID=sa;Password=123;Encrypt=False;";

private SqlConnection sqlCon = null;

ComboBox cbMaLop, cbGioiTinh;

ListView lsvDanhSach;

TextBox txtMaSV, txtTenSV, txtQueQuan, txtMaLop;

DateTimePicker dtpNgaySinh;

Button btnSua;

public Form2()

{

InitializeComponent();

TaoGiaoDien();

}

// ========== GIAO DIỆN ==========

private void TaoGiaoDien()

{

this.Text = "Sửa dữ liệu sinh viên";

this.StartPosition = FormStartPosition.CenterScreen;

this.Size = new Size(900, 450);

Label lblTitle = new Label()

{

Text = "SỬA DỮ LIỆU SINH VIÊN (không dùng Parameter)",

Font = new Font("Arial", 12, FontStyle.Bold),

Location = new Point(240, 10),

AutoSize = true

};

this.Controls.Add(lblTitle);

Label lblChonLop = new Label() { Text = "Chọn mã lớp:", Location = new Point(40, 50), AutoSize = true };

cbMaLop = new ComboBox() { Location = new Point(140, 47), Width = 150 };

cbMaLop.SelectedIndexChanged += cbMaLop\_SelectedIndexChanged;

this.Controls.Add(lblChonLop);

this.Controls.Add(cbMaLop);

lsvDanhSach = new ListView()

{

Location = new Point(20, 105),

Size = new Size(500, 300),

View = View.Details,

FullRowSelect = true,

GridLines = true

};

lsvDanhSach.Columns.Add("Mã SV", 70);

lsvDanhSach.Columns.Add("Tên SV", 100);

lsvDanhSach.Columns.Add("Giới tính", 70);

lsvDanhSach.Columns.Add("Ngày sinh", 100);

lsvDanhSach.Columns.Add("Quê quán", 100);

lsvDanhSach.Columns.Add("Mã lớp", 70);

lsvDanhSach.SelectedIndexChanged += lsvDanhSach\_SelectedIndexChanged;

this.Controls.Add(lsvDanhSach);

// ====== FORM THÔNG TIN SINH VIÊN ======

GroupBox gb = new GroupBox() { Text = "Thông tin sinh viên", Location = new Point(540, 80), Size = new Size(330, 320) };

this.Controls.Add(gb);

int y = 30;

Label lblMaSV = new Label() { Text = "Mã SV:", Location = new Point(20, y), AutoSize = true };

txtMaSV = new TextBox() { Location = new Point(100, y - 3), Width = 200 };

y += 35;

Label lblTenSV = new Label() { Text = "Tên SV:", Location = new Point(20, y), AutoSize = true };

txtTenSV = new TextBox() { Location = new Point(100, y - 3), Width = 200 };

y += 35;

Label lblGioiTinh = new Label() { Text = "Giới tính:", Location = new Point(20, y), AutoSize = true };

cbGioiTinh = new ComboBox() { Location = new Point(100, y - 3), Width = 200 };

cbGioiTinh.Items.AddRange(new string[] { "Nam", "Nữ" });

y += 35;

Label lblNgaySinh = new Label() { Text = "Ngày sinh:", Location = new Point(20, y), AutoSize = true };

dtpNgaySinh = new DateTimePicker() { Location = new Point(100, y - 3), Width = 200, Format = DateTimePickerFormat.Short };

y += 35;

Label lblQueQuan = new Label() { Text = "Quê quán:", Location = new Point(20, y), AutoSize = true };

txtQueQuan = new TextBox() { Location = new Point(100, y - 3), Width = 200 };

y += 35;

Label lblMaLop = new Label() { Text = "Mã lớp:", Location = new Point(20, y), AutoSize = true };

txtMaLop = new TextBox() { Location = new Point(100, y - 3), Width = 200 };

y += 45;

btnSua = new Button() { Text = "Sửa thông tin", Location = new Point(100, y), Width = 120 };

btnSua.Click += btnSua\_Click;

gb.Controls.AddRange(new Control[] { lblMaSV, txtMaSV, lblTenSV, txtTenSV, lblGioiTinh, cbGioiTinh, lblNgaySinh, dtpNgaySinh, lblQueQuan, txtQueQuan, lblMaLop, txtMaLop, btnSua });

this.Load += Form2\_Load;

}

// ============ KẾT NỐI DB ============

private void MoKetNoi()

{

if (sqlCon == null)

sqlCon = new SqlConnection(strCon);

if (sqlCon.State == ConnectionState.Closed)

sqlCon.Open();

}

private void DongKetNoi()

{

if (sqlCon != null && sqlCon.State == ConnectionState.Open)

sqlCon.Close();

}

private void HienThiDSMaLop()

{

try

{

MoKetNoi();

SqlCommand cmd = new SqlCommand("SELECT MaLop, TenLop FROM Lop", sqlCon);

SqlDataReader reader = cmd.ExecuteReader();

cbMaLop.Items.Clear();

while (reader.Read())

{

cbMaLop.Items.Add(reader["MaLop"].ToString() + " - " + reader["TenLop"].ToString());

}

reader.Close();

}

catch (Exception ex)

{

MessageBox.Show("Lỗi hiển thị mã lớp: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

private void HienThiDSSinhVienTheoLop(string maLop)

{

try

{

MoKetNoi();

string sql = "SELECT \* FROM SinhVien WHERE MaLop=@MaLop";

SqlCommand cmd = new SqlCommand(sql, sqlCon);

cmd.Parameters.AddWithValue("@MaLop", maLop);

SqlDataReader reader = cmd.ExecuteReader();

lsvDanhSach.Items.Clear();

while (reader.Read())

{

string maSV = reader["MaSV"].ToString();

string tenSV = reader["TenSV"].ToString();

bool gioiTinh = Convert.ToBoolean(reader["GioiTinh"]);

string ngaySinh = Convert.ToDateTime(reader["NgaySinh"]).ToString("dd/MM/yyyy");

string queQuan = reader["QueQuan"].ToString();

ListViewItem item = new ListViewItem(maSV);

item.SubItems.Add(tenSV);

item.SubItems.Add(gioiTinh ? "Nam" : "Nữ");

item.SubItems.Add(ngaySinh);

item.SubItems.Add(queQuan);

item.SubItems.Add(maLop);

lsvDanhSach.Items.Add(item);

}

reader.Close();

}

catch (Exception ex)

{

MessageBox.Show("Lỗi hiển thị SV: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

private void InitializeComponent()

{

this.SuspendLayout();

//

// Form2

//

this.ClientSize = new System.Drawing.Size(282, 253);

this.Name = "Form2";

this.ResumeLayout(false);

}

// ============ SỰ KIỆN ============

private void Form2\_Load(object sender, EventArgs e)

{

HienThiDSMaLop(); // load danh sách lớp

}

private void cbMaLop\_SelectedIndexChanged(object sender, EventArgs e)

{

if (cbMaLop.SelectedIndex == -1) return;

string maLop = cbMaLop.SelectedItem.ToString().Split('-')[0].Trim();

HienThiDSSinhVienTheoLop(maLop);

}

private void lsvDanhSach\_SelectedIndexChanged(object sender, EventArgs e)

{

if (lsvDanhSach.SelectedItems.Count == 0) return;

ListViewItem item = lsvDanhSach.SelectedItems[0];

txtMaSV.Text = item.SubItems[0].Text;

txtTenSV.Text = item.SubItems[1].Text;

cbGioiTinh.Text = item.SubItems[2].Text;

dtpNgaySinh.Value = DateTime.ParseExact(item.SubItems[3].Text, "dd/MM/yyyy", null);

txtQueQuan.Text = item.SubItems[4].Text;

txtMaLop.Text = item.SubItems[5].Text;

}

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

{

try

{

MoKetNoi();

string sql = @"UPDATE SinhVien

SET TenSV=@TenSV, GioiTinh=@GioiTinh, NgaySinh=@NgaySinh, QueQuan=@QueQuan, MaLop=@MaLop

WHERE MaSV=@MaSV";

SqlCommand cmd = new SqlCommand(sql, sqlCon);

cmd.Parameters.AddWithValue("@TenSV", txtTenSV.Text.Trim());

cmd.Parameters.AddWithValue("@GioiTinh", cbGioiTinh.Text == "Nam" ? 1 : 0);

cmd.Parameters.AddWithValue("@NgaySinh", dtpNgaySinh.Value);

cmd.Parameters.AddWithValue("@QueQuan", txtQueQuan.Text.Trim());

cmd.Parameters.AddWithValue("@MaLop", txtMaLop.Text.Trim());

cmd.Parameters.AddWithValue("@MaSV", txtMaSV.Text.Trim());

int kq = cmd.ExecuteNonQuery();

if (kq > 0)

MessageBox.Show("✅ Cập nhật thành công!");

else

MessageBox.Show("❌ Không có bản ghi nào được cập nhật!");

// Refresh lại danh sách

if (cbMaLop.SelectedIndex != -1)

{

string maLop = cbMaLop.SelectedItem.ToString().Split('-')[0].Trim();

HienThiDSSinhVienTheoLop(maLop);

}

}

catch (Exception ex)

{

MessageBox.Show("Lỗi sửa: " + ex.Message);

}

finally

{

DongKetNoi();

}

}

}

}