Database Wrapper

using Npgsql;

using System;

using System.Collections.Generic;

using System.Data;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace winform\_mvc.App.Core

{

internal class DatabaseWrapper

{

// Properti credential database dan koneksinya

private static readonly string DB\_HOST = "localhost";

private static readonly string DB\_DATABASE = "PBO MVC";

private static readonly string DB\_USERNAME = "postgres";

private static readonly string DB\_PASSWORD = "lovacantik";

private static readonly string DB\_PORT = "5432";

private static NpgsqlConnection connection;

private static NpgsqlCommand command;

// Method open dan close Koneksi

public static void openConnection()

{

connection = new NpgsqlConnection($"Host={DB\_HOST};Username={DB\_USERNAME};Password={DB\_PASSWORD};Database={DB\_DATABASE};Port={DB\_PORT}");

connection.Open();

command = new NpgsqlCommand();

command.Connection = connection;

}

public static void closeConnection()

{

connection.Close();

command.Parameters.Clear();

}

public static DataTable queryExecutor(string query, NpgsqlParameter[] parameters = null)

{

try

{

openConnection();

DataTable dataTable = new DataTable();

command.CommandText = query;

if (parameters != null)

{

command.Parameters.AddRange(parameters);

command.Prepare();

}

NpgsqlDataAdapter dataAdapter = new NpgsqlDataAdapter(command);

dataAdapter.Fill(dataTable);

closeConnection();

return dataTable;

}

catch (Exception e)

{

throw new Exception(e.Message);

}

}

public static void commandExecutor(string query, NpgsqlParameter[] parameters = null)

{

try

{

openConnection();

command.CommandText = query;

command.Parameters.AddRange(parameters);

command.Prepare();

command.Parameters.Clear();

command.ExecuteNonQuery();

closeConnection();

}

catch (Exception e)

{

throw new Exception(e.Message);

}

}

//public static int commandExecutorIntValue(string query, NpgsqlParameter[] parameters = null)

//{

// int value = 0;

// try

// {

// openConnection();

// command.CommandText = query;

// command.Parameters.AddRange(parameters);

// command.Prepare();

// object result = command.ExecuteScalar();

// if (result != null && result != DBNull.Value)

// {

// value = Convert.ToInt32(result);

// }

// closeConnection();

// }

// catch (Exception e)

// {

// throw new Exception(e.Message);

// }

// return value;

//}

//public static string commandExecutorStringValue(string query, NpgsqlParameter[] parameters = null)

//{

// string value = "";

// try

// {

// openConnection();

// command.CommandText = query;

// command.Parameters.AddRange(parameters);

// command.Prepare();

// object result = command.ExecuteScalar();

// if (result != null && result != DBNull.Value)

// {

// value = Convert.ToString(result);

// }

// closeConnection();

// }

// catch (Exception e)

// {

// throw new Exception(e.Message);

// }

// return value;

//}

}

}

M\_Mahasiswa

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

using System.ComponentModel.DataAnnotations.Schema;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace winform\_mvc.App.Models

{

public class M\_Mahasiswa

{

[Key]

public int id { get; set; }

[Required]

public string nama { get; set; }

[Required]

public string nim { get; set; }

[Required]

public string email { get; set; }

[Required]

public int semester { get; set; }

[ForeignKey("M\_Prodi")]

public int id\_prodi { get; set; }

}

}

M\_Prodi

using System;

using System.Collections.Generic;

using System.ComponentModel.DataAnnotations;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace winform\_mvc.App.Models

{

public class M\_Prodi

{

[Key]

public int id { get; set; }

[Required]

public string nama\_prodi { get; set; }

}

}

Add mahasiswa

namespace winform\_mvc.Views

{

partial class AddMahasiswaForm

{

/// <summary>

/// Required designer variable.

/// </summary>

private System.ComponentModel.IContainer components = null;

/// <summary>

/// Clean up any resources being used.

/// </summary>

/// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>

protected override void Dispose(bool disposing)

{

if (disposing && (components != null))

{

components.Dispose();

}

base.Dispose(disposing);

}

#region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

private void InitializeComponent()

{

label1 = new Label();

label2 = new Label();

label3 = new Label();

label4 = new Label();

label5 = new Label();

textBox1 = new TextBox();

textBox2 = new TextBox();

textBox3 = new TextBox();

textBox4 = new TextBox();

comboBox1 = new ComboBox();

buttonAdd = new Button();

button1 = new Button();

SuspendLayout();

//

// label1

//

label1.AutoSize = true;

label1.Location = new Point(49, 59);

label1.Name = "label1";

label1.Size = new Size(39, 15);

label1.TabIndex = 0;

label1.Text = "Nama";

//

// label2

//

label2.AutoSize = true;

label2.Location = new Point(49, 113);

label2.Name = "label2";

label2.Size = new Size(30, 15);

label2.TabIndex = 1;

label2.Text = "Nim";

//

// label3

//

label3.AutoSize = true;

label3.Location = new Point(49, 168);

label3.Name = "label3";

label3.Size = new Size(36, 15);

label3.TabIndex = 2;

label3.Text = "Email";

//

// label4

//

label4.AutoSize = true;

label4.Location = new Point(49, 218);

label4.Name = "label4";

label4.Size = new Size(55, 15);

label4.TabIndex = 3;

label4.Text = "Semester";

//

// label5

//

label5.AutoSize = true;

label5.Location = new Point(49, 274);

label5.Name = "label5";

label5.Size = new Size(35, 15);

label5.TabIndex = 4;

label5.Text = "Prodi";

//

// textBox1

//

textBox1.Location = new Point(149, 56);

textBox1.Name = "textBox1";

textBox1.Size = new Size(497, 23);

textBox1.TabIndex = 5;

//

// textBox2

//

textBox2.Location = new Point(149, 110);

textBox2.Name = "textBox2";

textBox2.Size = new Size(497, 23);

textBox2.TabIndex = 6;

//

// textBox3

//

textBox3.Location = new Point(149, 168);

textBox3.Name = "textBox3";

textBox3.Size = new Size(497, 23);

textBox3.TabIndex = 7;

//

// textBox4

//

textBox4.Location = new Point(152, 214);

textBox4.Name = "textBox4";

textBox4.Size = new Size(497, 23);

textBox4.TabIndex = 8;

//

// comboBox1

//

comboBox1.Location = new Point(152, 274);

comboBox1.Name = "comboBox1";

comboBox1.Size = new Size(204, 23);

comboBox1.TabIndex = 9;

//

// buttonAdd

//

buttonAdd.Location = new Point(574, 372);

buttonAdd.Name = "buttonAdd";

buttonAdd.Size = new Size(75, 23);

buttonAdd.TabIndex = 10;

buttonAdd.Text = "Add";

buttonAdd.UseVisualStyleBackColor = true;

buttonAdd.Click += buttonAdd\_Click;

//

// button1

//

button1.Location = new Point(493, 372);

button1.Name = "button1";

button1.Size = new Size(75, 23);

button1.TabIndex = 11;

button1.Text = "Cancel";

button1.UseVisualStyleBackColor = true;

button1.Click += button1\_Click;

//

// AddMahasiswaForm

//

AutoScaleDimensions = new SizeF(7F, 15F);

AutoScaleMode = AutoScaleMode.Font;

ClientSize = new Size(800, 450);

Controls.Add(button1);

Controls.Add(buttonAdd);

Controls.Add(comboBox1);

Controls.Add(textBox4);

Controls.Add(textBox3);

Controls.Add(textBox2);

Controls.Add(textBox1);

Controls.Add(label5);

Controls.Add(label4);

Controls.Add(label3);

Controls.Add(label2);

Controls.Add(label1);

Name = "AddMahasiswaForm";

Text = "AddMahasiswaForm";

ResumeLayout(false);

PerformLayout();

}

#endregion

private Label label1;

private Label label2;

private Label label3;

private Label label4;

private Label label5;

private TextBox textBox1;

private TextBox textBox2;

private TextBox textBox3;

private TextBox textBox4;

private ComboBox comboBox1;

private Button buttonAdd;

private Button button1;

}

}