**Cerinta:**

* Să se extindă aplicația precedentă, astfel încat să se poată efectua operații de inserare, ștergere și update pentru tabela Universitați. Infomațiile să poată fi introduse de la tastatură.
* Să se adauge in proiect un dataGridView cu ajutorul căruia să se introducă date în tabela Facultații, iar la selectarea unui rând acesta să poată fi șters.

**Cod:**

**Form1.cs**

namespace myDataBase

{

public partial class Form1 : Form

{

SqlCommand cmd;

SqlConnection myCon = new SqlConnection();

SqlDataAdapter sAdapter;

SqlCommandBuilder sBuilder;

DataSet dsUniv;

DataSet dsFac;

DataSet sDs;

DataTable sTable;

public Form1()

{

InitializeComponent();

myCon.ConnectionString = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True";

myCon.Open();

dsUniv = new DataSet();

dsFac = new DataSet();

SqlDataAdapter daUniv = new SqlDataAdapter("SELECT \* FROM Universitati", myCon);

daUniv.Fill(dsUniv, "Universitati");

SqlDataAdapter daFac = new SqlDataAdapter("SELECT \* FROM Facultati", myCon);

daFac.Fill(dsFac, "Facultati");

foreach (DataRow dr in dsUniv.Tables["Universitati"].Rows)

{

String name = dr.ItemArray.GetValue(1).ToString();

listBox\_Univ.Items.Add(name);

}

myCon.Close();

}

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

{

this.facultatiTableAdapter.Fill(this.database1DataSet.Facultati);

string connectionString = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True";

string sql = "SELECT \* FROM Facultati";

SqlConnection connection = new SqlConnection(connectionString);

connection.Open();

cmd = new SqlCommand(sql, connection);

sAdapter = new SqlDataAdapter(cmd);

sBuilder = new SqlCommandBuilder(sAdapter);

sDs = new DataSet();

sAdapter.Fill(sDs, "Facultati");

sTable = sDs.Tables["Facultati"];

connection.Close();

dataGridView1.DataSource = sDs.Tables["Facultati"];

dataGridView1.SelectionMode = DataGridViewSelectionMode.FullRowSelect;

dataGridView1.ReadOnly = false;

}

public void loaddata()

{

//do what you do in load data in order to update data in datagrid

this.facultatiTableAdapter.Fill(this.database1DataSet.Facultati);

}

private void listBox\_Univ\_SelectedIndexChanged(object sender, EventArgs e)

{

listBox\_Fac.Items.Clear();

textBox\_Oras.Clear();

int code = 0;

int id;

try

{

String UnivSelected = listBox\_Univ.SelectedItem.ToString();

foreach (DataRow dr in dsUniv.Tables["Universitati"].Rows)

{

if (UnivSelected == dr.ItemArray.GetValue(1).ToString())

{

textBox\_Oras.Text = dr.ItemArray.GetValue(2).ToString();

code = Convert.ToInt16(dr.ItemArray.GetValue(3));

textBox\_Cod.Text = code.ToString();

id = Convert.ToInt16(dr.ItemArray.GetValue(0));

tbId.Text = id.ToString();

}

}

foreach (DataRow dr in dsFac.Tables["Facultati"].Rows)

{

if (code == Convert.ToInt16(dr.ItemArray.GetValue(1)))

{

String nameFac = dr.ItemArray.GetValue(2).ToString();

listBox\_Fac.Items.Add(nameFac);

}

}

}

catch (Exception ex)

{

MessageBox.Show("Selectie nereusita");

}

}

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

{

Add add = new Add(listBox\_Univ);

add.Show();

}

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

{

Delete delete = new Delete(listBox\_Univ);

delete.Show();

}

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

{

Update update = new Update(listBox\_Univ);

update.Show();

}

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

{

if (MessageBox.Show("Do you want to delete this row ?", "Delete", MessageBoxButtons.YesNo) == DialogResult.Yes)

{

myCon.ConnectionString = @"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True";

cmd= new SqlCommand("SELECT \* FROM Facultati", myCon);

dataGridView1.Rows.RemoveAt(dataGridView1.SelectedRows[0].Index);

sAdapter.Update(sTable);

}

}

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

{

}

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

{

sAdapter.Update(sTable);

}}}

**Add.cs**

namespace myDataBase

{

public partial class Add : Form

{

SqlCommand cmd;

SqlConnection myCon;

DataSet dsUniv;

private string name;

private string city;

private int id;

private ListBox listBox;

public Add(ListBox listbox)

{

InitializeComponent();

this.listBox = listbox;

}

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

{

if(tbCity.Text.Equals("") && tbName.Text.Equals("") && tbID.Text.Equals(""))

{

MessageBox.Show("All textBoxex must be completed");

}

else

{

bool ok = true;

dsUniv = new DataSet();

name = tbName.Text;

city = tbCity.Text;

try

{

id = Convert.ToInt32(tbID.Text);

}catch(Exception ex)

{

MessageBox.Show("Id is a number");

ok = false;

}

try

{

myCon = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True");

myCon.Open();

cmd = new SqlCommand("INSERT INTO Universitati (Id,NumeUniv,City) VALUES (@Id,@Name,@City) ", myCon);

cmd.Parameters.Add("@Id", id);

cmd.Parameters.Add("@Name", name);

cmd.Parameters.Add("@City", city);

cmd.ExecuteNonQuery();

ok = true;

}catch(Exception ex)

{

MessageBox.Show("Id is already used");

tbID.Text = "";

ok = false;

}

if (ok)

{

listBox.Items.Add(name);

myCon.Close();

this.Close();

}

}

}

}

}

**Delete.cs**

namespace myDataBase

{

public partial class Delete : Form

{

private SqlConnection cn = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True");

private SqlCommand cmd;

private ListBox listBox;

private DataSet dsUniv;

public Delete(ListBox listBox)

{

InitializeComponent();

this.listBox = listBox;

}

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

{

bool ok = true;

cn.Open();

listBox.Items.Clear();

if (rbId.Checked && !tbID.Text.Equals(""))

{

try

{

cmd = new SqlCommand("delete from Universitati where id= @id", cn);

cmd.Parameters.AddWithValue("id", tbID.Text);

cmd.ExecuteNonQuery();

ok = true;

}

catch (Exception ex)

{

MessageBox.Show("Id not found");

ok = false;

}

}

dsUniv = new DataSet();

SqlDataAdapter daUniv = new SqlDataAdapter("SELECT \* FROM Universitati", cn);

daUniv.Fill(dsUniv, "Universitati");

foreach (DataRow dr in dsUniv.Tables["Universitati"].Rows)

{

String name = dr.ItemArray.GetValue(1).ToString();

listBox.Items.Add(name);

}

cn.Close();

if (ok)

{

MessageBox.Show("Item Deleted");

this.Close();

}

}

}

}

**Update.cs**

namespace myDataBase

{

public partial class Update : Form

{

private SqlConnection cn = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=S:\git\_Facultate\Facultate\II\laborator3\test\myDataBase\myDataBase\Database1.mdf;Integrated Security=True");

private SqlCommand cmd;

private ListBox listBox;

private DataSet dsUniv;

private string name;

private string city;

private int id;

public Update(ListBox listBox)

{

InitializeComponent();

this.listBox = listBox;

}

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

{

cn.Open();

listBox.Items.Clear();

if (tbCity.Text.Equals("") && tbName.Text.Equals("") && tbId.Text.Equals(""))

{

MessageBox.Show("All textBoxex must be completed");

}

else

{

bool ok = true;

dsUniv = new DataSet();

name = tbName.Text;

city = tbCity.Text;

try

{

id = Convert.ToInt32(tbId.Text);

}

catch (Exception ex)

{

MessageBox.Show("Id is a number");

ok = false;

}

if (ok)

{

try

{

cmd = new SqlCommand("UPDATE Universitati SET City= @City, NumeUniv= @Name WHERE Id= @Id ", cn);

cmd.Parameters.AddWithValue("@Id", id);

cmd.Parameters.AddWithValue("@Name", name);

cmd.Parameters.AddWithValue("@City", city);

cmd.ExecuteNonQuery();

ok = true;

}

catch (Exception ex)

{

MessageBox.Show("Id is incorect");

tbId.Text = "";

ok = false;

}

dsUniv = new DataSet();

SqlDataAdapter daUniv = new SqlDataAdapter("SELECT \* FROM Universitati", cn);

daUniv.Fill(dsUniv, "Universitati");

foreach (DataRow dr in dsUniv.Tables["Universitati"].Rows)

{

String name = dr.ItemArray.GetValue(1).ToString();

listBox.Items.Add(name);

}

cn.Close();

if (ok)

{

MessageBox.Show("Item Updated");

this.Close();

}}}}}}

**Imagini functionalitate**

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