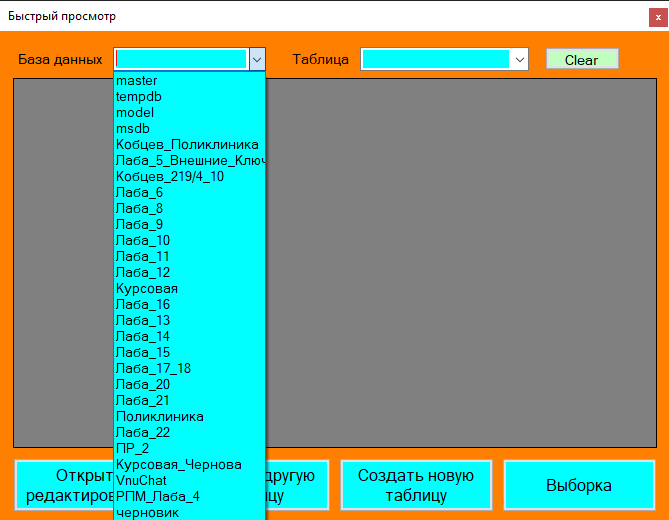
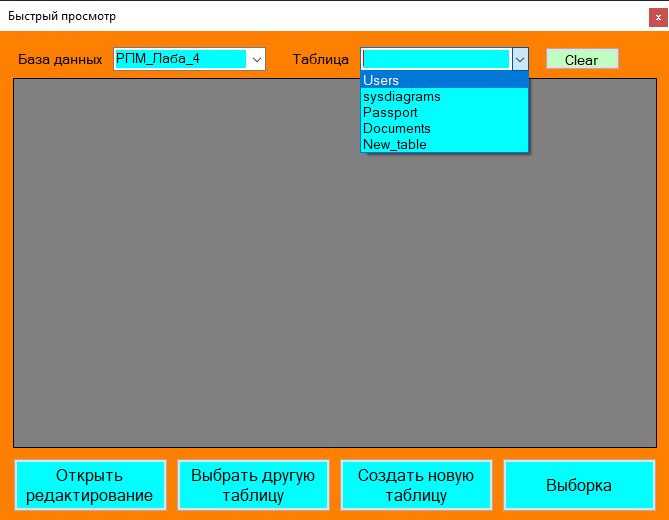
**Индивидуальное задание 5:**

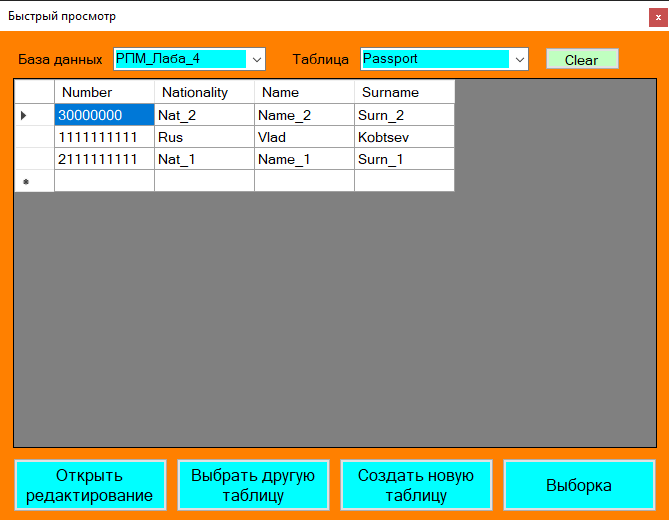
**проектирование и разработка БД**

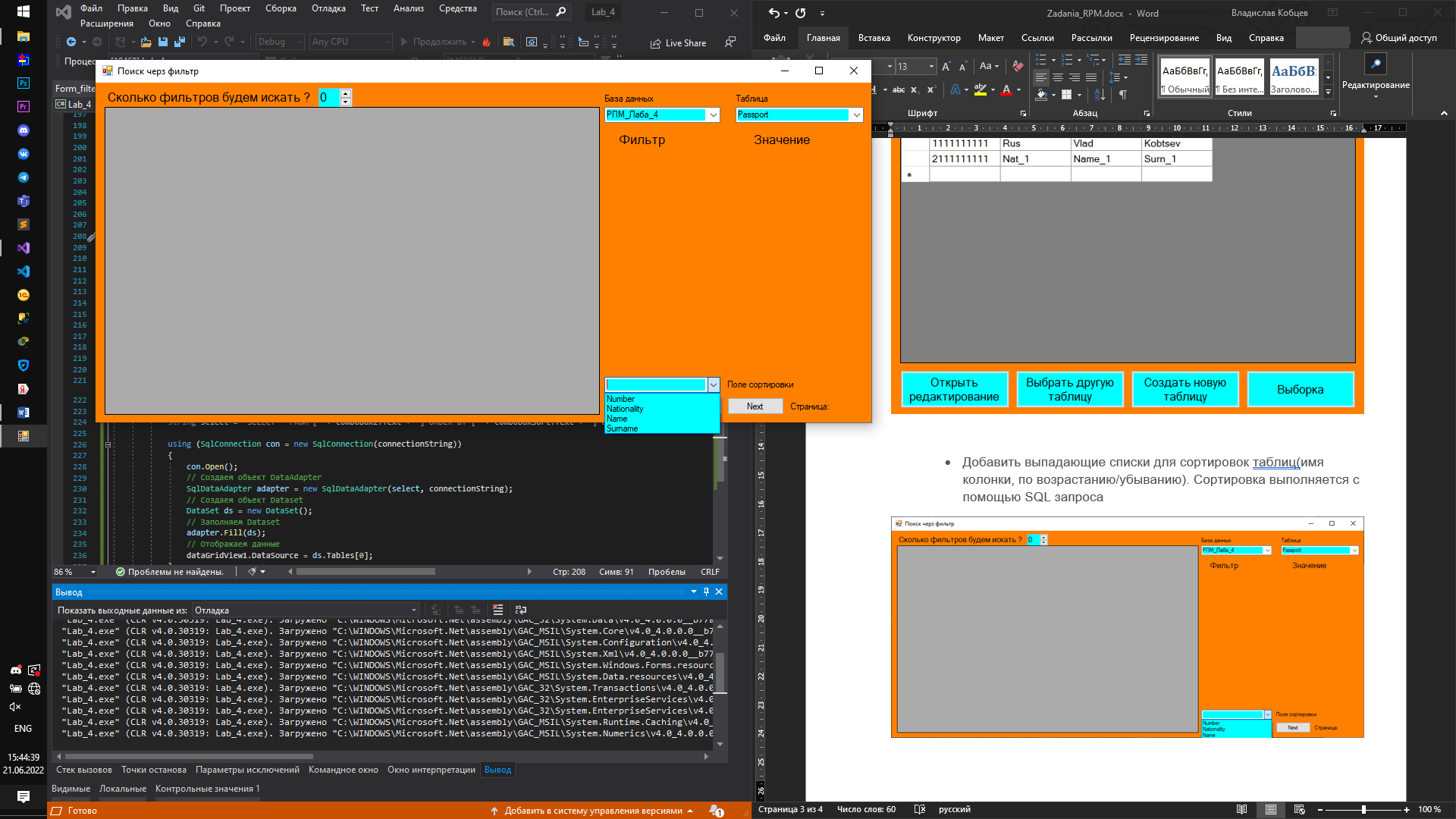
**Разработать приложение, которое будет включать следующие функции:**

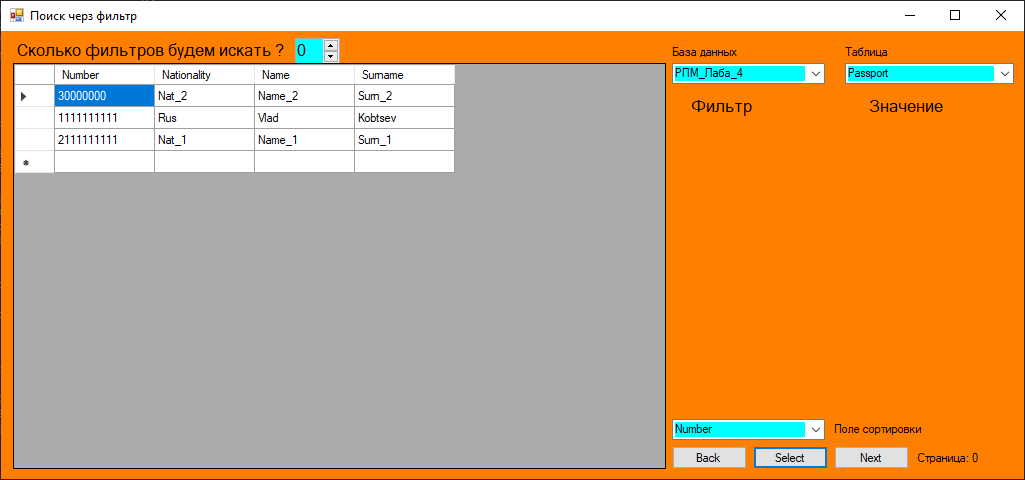
* Просмотр любых таблиц баз данных СУБД MS SQL(Кроме служебных)
* Базы данных и таблицы пользователь выбирает из выпадающего списка

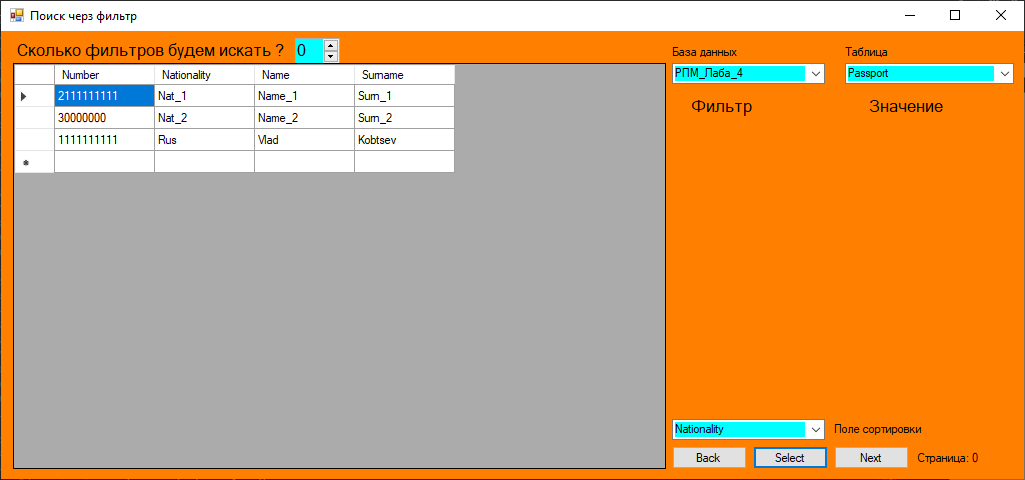




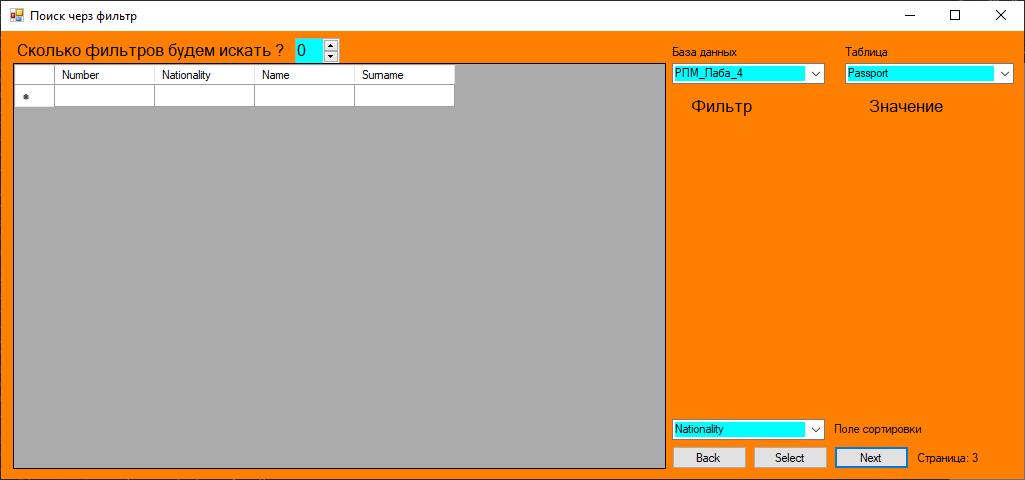


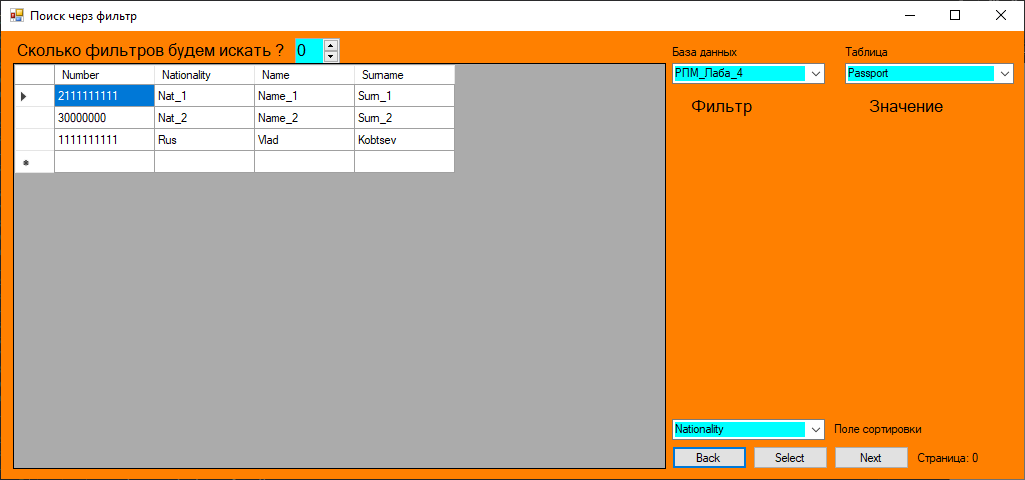
* Добавить выпадающие списки для сортировок таблиц(имя колонки, по возрастанию/убыванию). Сортировка выполняется с помощью SQL запроса





* Постраничный просмотр данных





**Код главной формы**

using System;

using System.Collections.Generic;

using System.Data;

using System.Data.SqlClient;

using System.Windows.Forms;

namespace Lab\_4

{

public partial class Form\_main : Form

{

public SqlConnection connection;

public Form\_main()

{

InitializeComponent();

connection = new SqlConnection(connectionString);

}

List<ComboBox> listCb = new List<ComboBox>();

List<TextBox> listTb = new List<TextBox>();

string db\_name;

string table\_name;

string connectionString = @"Data Source = DriveFallen\SQLEXPRESS ;Initial Catalog = РПМ\_Лаба\_4 ;Integrated Security=True";

private void Form\_main\_Load(object sender, EventArgs e)

{

string sel = "SELECT name FROM sys.databases";

SqlCommand select\_all\_DB = new SqlCommand(sel, connection);

connection.Open();

SqlDataReader dataReader = select\_all\_DB.ExecuteReader();

while(dataReader.Read())

{

comboBox1.Items.Add(dataReader.GetString(0));

}

connection.Close();

}

private void button\_redactor\_Click(object sender, EventArgs e)

{

this.Hide();

Form\_redactor form4 = new Form\_redactor();

form4.Show();

}

private void button\_open\_Click(object sender, EventArgs e)

{

using(Choose\_table choose\_Table = new Choose\_table())

{

DialogResult dialogResult = choose\_Table.ShowDialog();

db\_name = (dialogResult == DialogResult.OK) ? choose\_Table.ComboResultDB : string.Empty;

table\_name = (dialogResult == DialogResult.OK) ? choose\_Table.ComboResultTable : string.Empty;

}

if (table\_name != string.Empty)

{

string select\_table = "USE " + db\_name + " SELECT \* FROM [" + table\_name + "]";

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

// Создаем объект DataAdapter

SqlDataAdapter adapter = new SqlDataAdapter(select\_table, connectionString);

// Создаем объект Dataset

DataSet ds = new DataSet();

// Заполняем Dataset

adapter.Fill(ds);

// Отображаем данные

dataGridView1.DataSource = ds.Tables[0];

}

MessageBox.Show(string.Format("Вы выбрали таблицу: {0}", table\_name), "Другая таблица выбрана!", MessageBoxButtons.OK, MessageBoxIcon.Information);

}

}

private void button\_create\_Click(object sender, EventArgs e)

{

this.Hide();

Form\_second form\_sec = new Form\_second();

form\_sec.ShowDialog();

}

private void button\_filter\_Click(object sender, EventArgs e)

{

this.Hide();

Form\_filter form\_main = new Form\_filter();

form\_main.Show();

}

private void comboBox1\_SelectedIndexChanged(object sender, EventArgs e)

{

comboBox2.Items.Clear();

string sel = "USE " + comboBox1.Text + " SELECT \* FROM sys.tables";

SqlCommand select\_all\_DB = new SqlCommand(sel, connection);

connection.Open();

SqlDataReader dataReader = select\_all\_DB.ExecuteReader();

while (dataReader.Read())

{

comboBox2.Items.Add(dataReader.GetString(0));

}

connection.Close();

}

private void comboBox2\_SelectedIndexChanged(object sender, EventArgs e)

{

string select\_table = "USE " + comboBox1.Text + " SELECT \* FROM [" + comboBox2.Text + "]";

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

SqlDataAdapter adapter = new SqlDataAdapter(select\_table, connectionString);

DataSet ds = new DataSet();

adapter.Fill(ds);

dataGridView1.DataSource = ds.Tables[0];

}

}

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

{

comboBox1.Text = string.Empty;

comboBox2.Text = string.Empty;

comboBox2.Items.Clear();

dataGridView1.Columns.Clear();

}

}

}

**Код формы фильтр**

using System;

using System.Collections.Generic;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Windows.Forms;

namespace Lab\_4

{

public partial class Form\_filter : Form

{

SqlConnection connection;

public Form\_filter()

{

InitializeComponent();

connection = new SqlConnection(connectionString);

}

List<ComboBox> listCb = new List<ComboBox>();

List<TextBox> listTb = new List<TextBox>();

public List<string> listColName = new List<string>();

string connectionString = @"Data Source = DriveFallen\SQLEXPRESS ;Initial Catalog = РПМ\_Лаба\_4 ;Integrated Security=True";

private void Form3\_Load(object sender, EventArgs e)

{

string sel = "SELECT name FROM sys.databases";

SqlCommand select\_all\_DB = new SqlCommand(sel, connection);

connection.Open();

SqlDataReader dataReader = select\_all\_DB.ExecuteReader();

while (dataReader.Read())

{

comboBox1.Items.Add(dataReader.GetString(0));

}

connection.Close();

flowLayoutPanel1.Controls.Clear();

}

private void Form3\_FormClosing(object sender, FormClosingEventArgs e)

{

Form\_main form\_main = new Form\_main();

form\_main.Show();

}

private void numericUpDown1\_ValueChanged(object sender, EventArgs e)

{

listCb.Clear();

listTb.Clear();

flowLayoutPanel1.Controls.Clear();

int value = (int)numericUpDown1.Value;

for (int i = 0; i < value; i++)

{

ComboBox comboBox = new ComboBox()

{

Width = 160, Height = 24,

};

TextBox textBox = new TextBox()

{

Width = 156, Height = 24,

};

flowLayoutPanel1.Controls.Add(comboBox);

listCb.Add(comboBox);

for (int k = 0; k < listColName.Count; k++)

{

comboBox.Items.Add(listColName[k]);

}

flowLayoutPanel1.Controls.Add(textBox);

listTb.Add(textBox);

}

Button button = new Button()

{

Width = 100, Height = 30,

Text = "Выбрать",

};

flowLayoutPanel1.Controls.Add(button);

button.Click += button1\_Click;

}

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

{

string select\_table = "SELECT ";

for (int i=0; i < listCb.Count; i++)

{

select\_table += listCb[i].Text + ", ";

}

select\_table = select\_table.Substring(0,select\_table.Length - 2) + " FROM " + comboBox2.Text;

string count ="";

for (int i = 0; i < listTb.Count;i++)

{

count += listTb[i].Text;

}

if(count != string.Empty)

{

select\_table += " where ";

string where\_str = "";

for (int i = 0; i < listTb.Count; i++)

{

if (listTb[i].Text != string.Empty)

{

where\_str += listCb[i].Text + " = " + listTb[i].Text + " and ";

}

}

select\_table += where\_str.Substring(0, where\_str.Length - 5);

}

Console.WriteLine(select\_table);

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

// Создаем объект DataAdapter

SqlDataAdapter adapter = new SqlDataAdapter(select\_table, connectionString);

// Создаем объект Dataset

DataSet ds = new DataSet();

// Заполняем Dataset

adapter.Fill(ds);

// Отображаем данные

dataGridView1.DataSource = ds.Tables[0];

}

}

private void comboBox1\_SelectedIndexChanged(object sender, EventArgs e)

{

comboBoxSort.Items.Clear();

comboBox2.Items.Clear();

string sel = "USE " + comboBox1.Text + " SELECT \* FROM sys.tables";

SqlCommand select\_all\_DB = new SqlCommand(sel, connection);

connection.Open();

SqlDataReader dataReader = select\_all\_DB.ExecuteReader();

while (dataReader.Read())

{

comboBox2.Items.Add(dataReader.GetString(0));

}

connection.Close();

}

private void comboBox2\_SelectedIndexChanged(object sender, EventArgs e)

{

listColName.Clear();

comboBoxSort.Items.Clear();

string select = "SELECT COLUMN\_NAME FROM ["+ comboBox1.Text + "].INFORMATION\_SCHEMA.COLUMNS WHERE[TABLE\_NAME] = '" + comboBox2.Text + "'";

using (SqlConnection con = new SqlConnection(connectionString))

{

SqlCommand select\_table = new SqlCommand(select, con);

con.Open();

SqlDataReader dataReader = select\_table.ExecuteReader();

int i = 0;

while (dataReader.Read())

{

listColName.Add(dataReader.GetString(0));

comboBoxSort.Items.Add(listColName[i]);

i++;

}

}

}

int positionNow = 0;

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

{

string select = "SELECT \* FROM [" + comboBox2.Text + "] ORDER BY [" + comboBoxSort.Text + "] OFFSET " + positionNow.ToString() + " ROWS FETCH NEXT 3 ROWS ONLY";

Console.WriteLine(select);

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

// Создаем объект DataAdapter

SqlDataAdapter adapter = new SqlDataAdapter(select, connectionString);

// Создаем объект Dataset

DataSet ds = new DataSet();

// Заполняем Dataset

adapter.Fill(ds);

// Отображаем данные

dataGridView1.DataSource = ds.Tables[0];

}

labelStr.Text = "Страница: " + positionNow.ToString();

}

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

{

if(positionNow != 0)

{

labelStr.Text = "Страница: " + positionNow.ToString();

string select = "SELECT \* FROM [" + comboBox2.Text + "] ORDER BY [" + comboBoxSort.Text + "] OFFSET " + (positionNow - 3).ToString() + " ROWS FETCH NEXT 3 ROWS ONLY";

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

// Создаем объект DataAdapter

SqlDataAdapter adapter = new SqlDataAdapter(select, connectionString);

// Создаем объект Dataset

DataSet ds = new DataSet();

// Заполняем Dataset

adapter.Fill(ds);

// Отображаем данные

dataGridView1.DataSource = ds.Tables[0];

}

positionNow -= 3;

labelStr.Text = "Страница: " + positionNow.ToString();

}

}

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

{

string select = "SELECT \* FROM [" + comboBox2.Text + "] ORDER BY [" + comboBoxSort.Text + "] OFFSET " + (positionNow + 3).ToString() + " ROWS FETCH NEXT 3 ROWS ONLY";

using (SqlConnection con = new SqlConnection(connectionString))

{

con.Open();

// Создаем объект DataAdapter

SqlDataAdapter adapter = new SqlDataAdapter(select, connectionString);

// Создаем объект Dataset

DataSet ds = new DataSet();

// Заполняем Dataset

adapter.Fill(ds);

// Отображаем данные

dataGridView1.DataSource = ds.Tables[0];

}

positionNow += 3;

labelStr.Text = "Страница: " + positionNow.ToString();

}

}

}