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Практики по демо 1, 2, 3.

Код Form1.cs

```csharp
using System; using
System.Collections.Generic; using
System.ComponentModel;
using System.Data; using
System.Drawing; using
System.Linq; using
System.Text; using
System.Threading.Tasks;
using System.Windows.Forms;

namespace DataBase
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void Form1_Load(object sender, EventArgs e)
        {

        }
    } }
```

Код Database.cs

```csharp
using System; using
System.Collections.Generic; using
System.Data.SqlClient; using
System.Linq; using System.Text;
using System.Threading.Tasks;

namespace DataBase
{
    public class Database
    {
        SqlConnection sqlConnection = new SqlConnection(@"Data Source = DARK\MSSQLSERVER01;Database =
demo2;Integrated Security = true");
        public void openConnection()
        {
            if (sqlConnection.State == System.Data.ConnectionState.Closed) { sqlConnection.Open(); }
        }
        public void closeConnection()
        {
            if (sqlConnection.State == System.Data.ConnectionState.Open) { sqlConnection.Close(); }
        }
        public SqlConnection getConnection()
        {
            return sqlConnection;
        }
    }
}


}
```
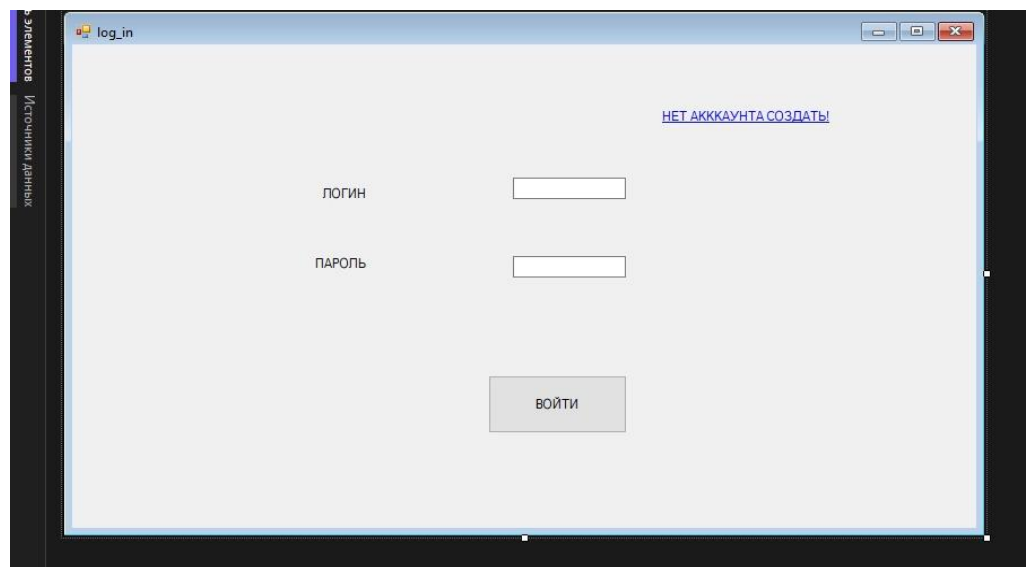
Создается таблица "Register" с полями: ID, логин, пароль. Вставляются данные в таблицу с помощью запроса INSERT. CREATE table register(id_user int identity(1,1) not null, login_user varchar (50) not null, passwond_user varchar(58) not null

);

insert into register (login_user, passwond_user) values ('student', '123')

Код log_in.cs

```csharp
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 DataBase
{
    public partial class log_in : Form
    {
```

```csharp
        Database database = new Database();
public log_in()
    {
        InitializeComponent();
    }

    private void log_in_Load(object sender, EventArgs e)
    {
        textBox2.PasswordChar     =
'*';          textBox1.MaxLength =
50;           textBox2.MaxLength =
50;
    }

    private void button2_Click(object sender, EventArgs e)
    {
        var loginUser = textBox1.Text;
        var passUser = textBox2.Text;

        SqlDataAdapter adapter = new SqlDataAdapter();
        DataTable table = new DataTable();

        string querystring = $"select id_user, login_user, passwond_user from register where login_user = '{loginUser}' and
passwond_user = '{passUser}'";

        SqlCommand command = new SqlCommand(querystring, database.getConnection());

        adapter.SelectCommand = command;
adapter.Fill(table);

        if (table.Rows.Count == 1)
        {
            MessageBox.Show("Вы успешно вошли!", "Успешно!", MessageBoxButtons.OK,
MessageBoxIcon.Information);
            Form1 frm1 = new Form1();
this.Hide();           frm1.ShowDialog();
            this.Show();
        }
else
            MessageBox.Show("Такого аккаунта не существует!", "Аккаунта не существует!!",
MessageBoxButtons.OK, MessageBoxIcon.Warning);

    }
    private void linkLabel1_LinkClicked(object sender, LinkLabelLinkClickedEventArgs e)
    {
        sing_up frm_sign = new sing_up();
frm_sign.Show();        this.Hide();
    }


    }
  }
```

Log_in.Designer
this.button2.Click += new System.EventHandler(this.button2_Click);

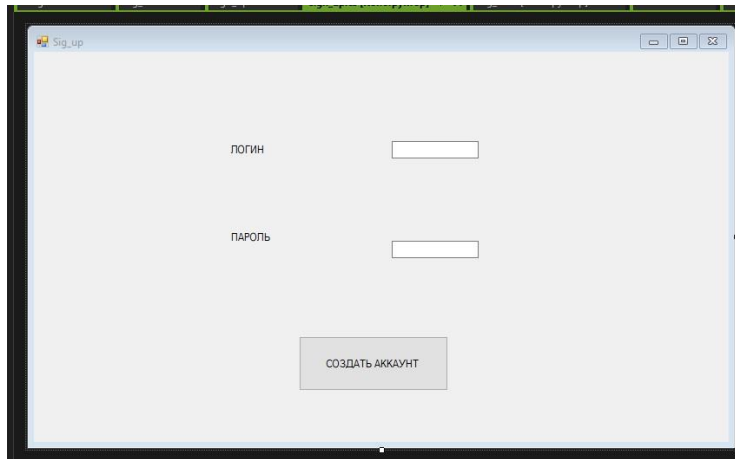 this.linkLabel1.LinkClicked += new LinkLabelLinkClickedEventHandler(linkLabel1_LinkClicked);

sign_up конструктор

sign_up.Designer

```
this.button.Click += new System.EventHandler(this.btnCreate_Click);
```


Код sign_up.cs

```csharp
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 DataBase
{
    public partial class sing_up : Form
    {
        Database database = new Database();
        public sing_up()
        {
            InitializeComponent();
        }

        private void sing_up_Load(object sender, EventArgs e)
        {

        }


        private void button1_Click(object sender, EventArgs e)
        {
            Database dataBase = new Database();

            var login = textBox_login2.Text;
var password = textBox_password2.Text;
            string querysrting = $"insert into register (login_user, passwond_user) values('{login}','{password} ')";

            SqlCommand command = new SqlCommand(querysrting, dataBase.getConnection());

            dataBase.openConnection();

            if (command.ExecuteNonQuery() == 1)
            {

                MessageBox.Show("Аккаунт успешно создан!", "Успех!");
```

```
        log_in frm_login = new log_in();
this.Hide();
        frm_login.ShowDialog();


    }
    else
    {
        MessageBox.Show("Аккаунт не создан!");
    }
    database.closeConnection();
   }
 }
}
```
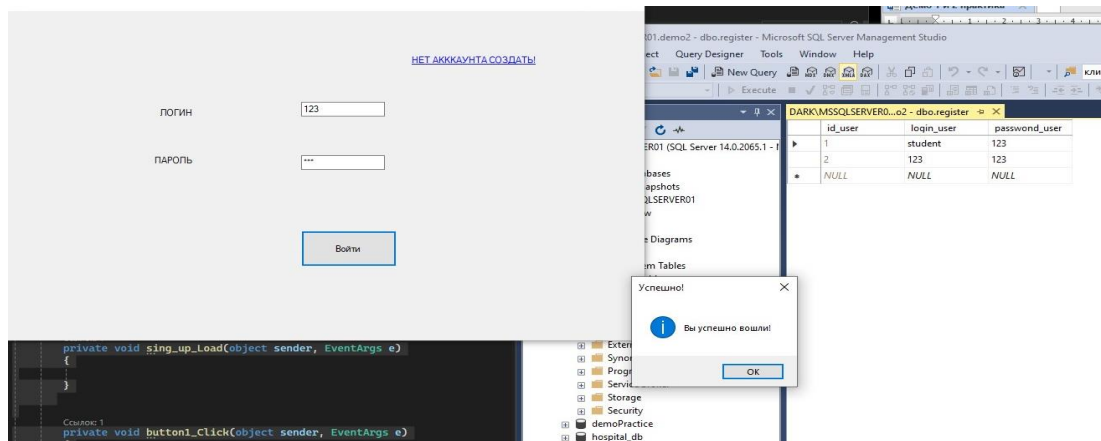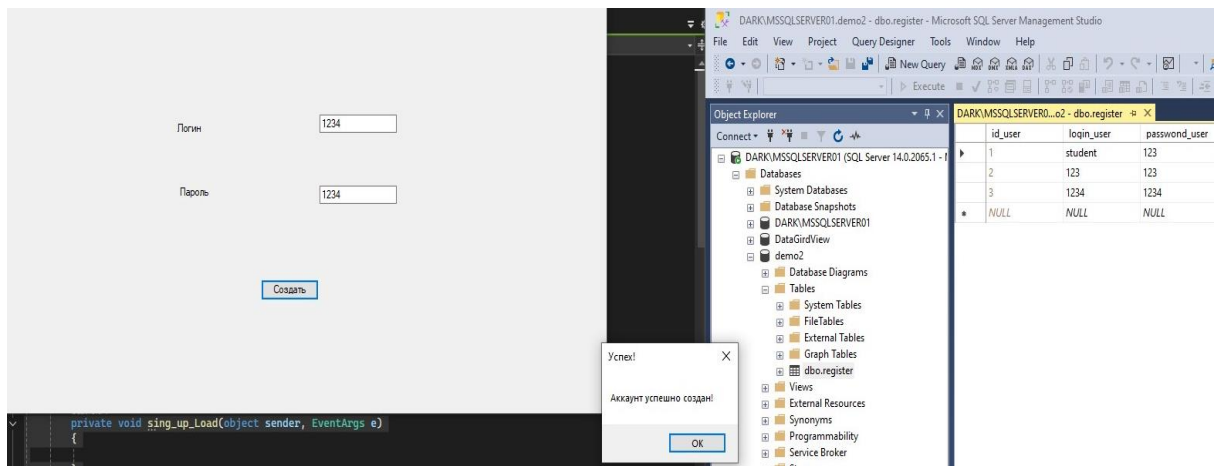
Код Program.cs

```csharp
using System;
using System.Collections.Generic;
using System.Linq; using
System.Threading.Tasks;
using System.Windows.Forms;

namespace DataBase
{
    internal static class Program
    {
        /// <summary>
        /// Главная точка входа для приложения.
        /// </summary>
[STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new log_in());
        }
    } }
```

В итоге имеем:

3. Создание таблицы Faculties

```sql
SELECT TOP (1000) [fac_id]
      ,[fac_name_full]
      ,[fac_name_abbr]
  FROM [DataGirdView].[dbo].[Faculties]
CREATE TABLE FacultiesTest1 (
fac_id INT IDENTITY (1,1) PRIMARY KEY, fac_name_full NVARCHAR (255),
fac_name_abbr NVARCHAR (50) );
```

Код Form1.cs

```csharp
using System; using
System.Collections.Generic; using
System.ComponentModel; using
System.Data; using
System.Data.Common; using
System.Data.SqlClient; using
System.Drawing; using
System.Linq; using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Windows.Input;
using System.Xml.Linq; using
static
System.Windows.Forms.VisualSt
yles.VisualStyleElement.Progress
Bar; using static
System.Windows.Forms.VisualSt
yles.VisualStyleElement.Status;

namespace DataGirdView
{
    public partial class Form1 : Form
    {

        public Form1()
        {
            InitializeComponent();
            LoadData();
        }

        private void Form1_Load(object sender, EventArgs e)
```

```csharp
        {

        }
    private void LoadData()
    {
        string connectString = @"Data Source=DARK\MSSQLSERVER01;Database = DataGirdView;Integrated Security
= true;" +
                "Integrated Security=true;";

        SqlConnection myConnection = new SqlConnection(connectString);

        myConnection.Open();

        string query = "SELECT * FROM Faculties ORDER BY fac_id ";

        SqlCommand command = new SqlCommand(query, myConnection);

        SqlDataReader reader = command.ExecuteReader();

        List<string[]> data = new List<string[]>();

        while (reader.Read())
        {
            data.Add(new string[3]);
data[data.Count - 1][0] = reader[0].ToString();
data[data.Count - 1][1] = reader[1].ToString();
data[data.Count - 1][2] = reader[2].ToString();
        }
        reader.Close();
myConnection.Close();
foreach (string[] s in data)
            dataGridView1.Rows.Add(s);
    }

    private void button1_Click(object sender, EventArgs e)
    {
        string facNameFull = textBox1.Text; // Полное название факультета
string facNameAbbr = textBox2.Text;

        string connectString = @"Data Source=DARK\MSSQLSERVER01;Database = DataGirdView;Integrated Security
= true;";
        using (SqlConnection myConnection = new SqlConnection(connectString))
        {
            myConnection.Open();

            // Запрос на вставку и получение нового fac_id
            string query = "INSERT INTO FacultiesTest1(fac_name_full, fac_name_abbr) VALUES (@fullName, @abbr);
SELECT SCOPE_IDENTITY();";
            using (SqlCommand command = new SqlCommand(query, myConnection))
            {
                command.Parameters.AddWithValue("@fullName", facNameFull);
command.Parameters.AddWithValue("@abbr", facNameAbbr);

                // Получаем последний добавленный идентификатор
int nowId = Convert.ToInt32(command.ExecuteScalar());

                dataGridView1.Rows.Add(new object[] { nowId, facNameFull, facNameAbbr });
            }
        }

        textBox1.Clear();
textBox2.Clear();
```

```
      }
  } }
```


ЗАДАНИЕ

```
CREATE TABLE GROUPIS213 ( fac_id
INT PRIMARY KEY, fac_name_full
NVARCHAR(255), fac_name_abbr
NVARCHAR(50)
);
INSERT INTO GROUPIS213(fac_id,fac_name_full,fac_name_abbr) VALUES
(1, 'Горяева' ,'Татьяна'),
(2, 'Пискун' ,'Полина'),
(3, 'Самарина' ,'Алина'),
(4, 'Самко' ,'Анастасия');


SELECT TOP (1000) [fac_id]
      ,[fac_name_full]
```

```
      ,[fac_name_abbr]
  FROM [GroupIS213].[dbo].[GROUPIS213]
CREATE TABLE GR (
fac_id INT IDENTITY (1,1) PRIMARY KEY, fac_name_full NVARCHAR (255),
fac_name_abbr NVARCHAR (50)
);
```

Код Form1.cs

```csharp
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 GROUP
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
            LoadData();
        }


        private void Form1_Load(object sender, EventArgs e)
        {

        }
        private void LoadData()
        {
            string connectString = @"Data Source=DARK\MSSQLSERVER01;Database =GroupIS213 ;Integrated Security =
true;" +
                "Integrated Security=true;";

            SqlConnection myConnection = new SqlConnection(connectString);

            myConnection.Open();

            string query = "SELECT * FROM GroupIS213 ORDER BY fac_id ";

            SqlCommand command = new SqlCommand(query, myConnection);

            SqlDataReader reader = command.ExecuteReader();

            List<string[]> data = new List<string[]>();

            while (reader.Read())
            {
                data.Add(new string[3]);
                data[data.Count - 1][0] = reader[0].ToString();
data[data.Count - 1][1] = reader[1].ToString();              data[data.Count
- 1][2] = reader[2].ToString();
            }
            reader.Close();
myConnection.Close();
foreach (string[] s in data)
                dataGridView1.Rows.Add(s);
```

```csharp
        }

        private void button1_Click(object sender, EventArgs e)
        {
            string facNameFull = textBox1.Text; // Полное название факультета
string facNameAbbr = textBox2.Text;

            string connectString = @"Data Source=DARK\MSSQLSERVER01;Database = GroupIS213;Integrated Security =
true;";
            using (SqlConnection myConnection = new SqlConnection(connectString))
            {
                myConnection.Open();

                // Запрос на вставку и получение нового fac_id
                string query = "INSERT INTO GR(fac_name_full, fac_name_abbr) VALUES (@fullName, @abbr); SELECT
SCOPE_IDENTITY();";
                using (SqlCommand command = new SqlCommand(query, myConnection))
                {
                    command.Parameters.AddWithValue("@fullName", facNameFull);
command.Parameters.AddWithValue("@abbr", facNameAbbr);

                    // Получаем последний добавленный идентификатор
int nowId = Convert.ToInt32(command.ExecuteScalar());

                    dataGridView1.Rows.Add(new object[] { nowId, facNameFull, facNameAbbr });
                }
            }

            textBox1.Clear();
textBox2.Clear();

        }
    } }
Итог
:
```
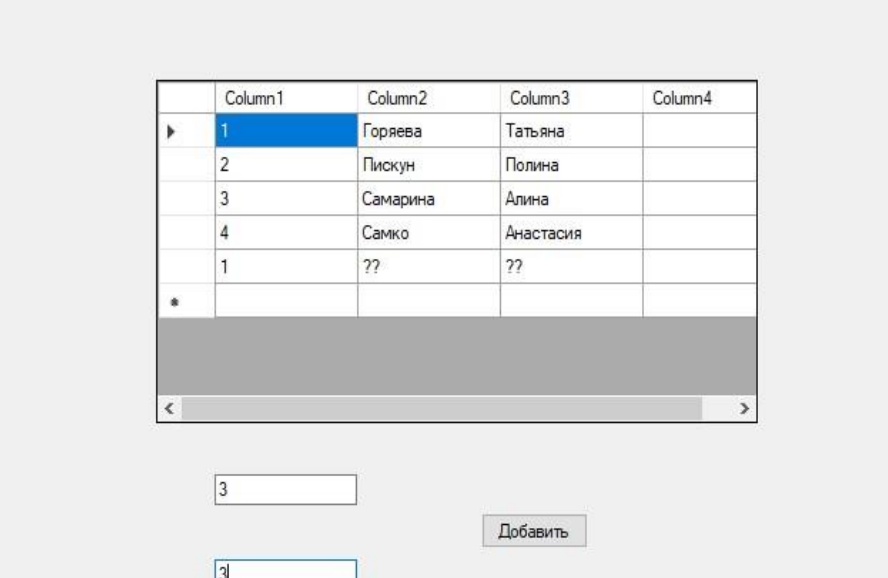
	Column1	Column2	Column3	Column4
▶	1	Горяева	Татьяна	
	2	Пискун	Полина	
	3	Самарина	Алина	
	4	Самко	Анастасия	
	1	??	??	
✳				

```
3
```

Добавить

```
3
```