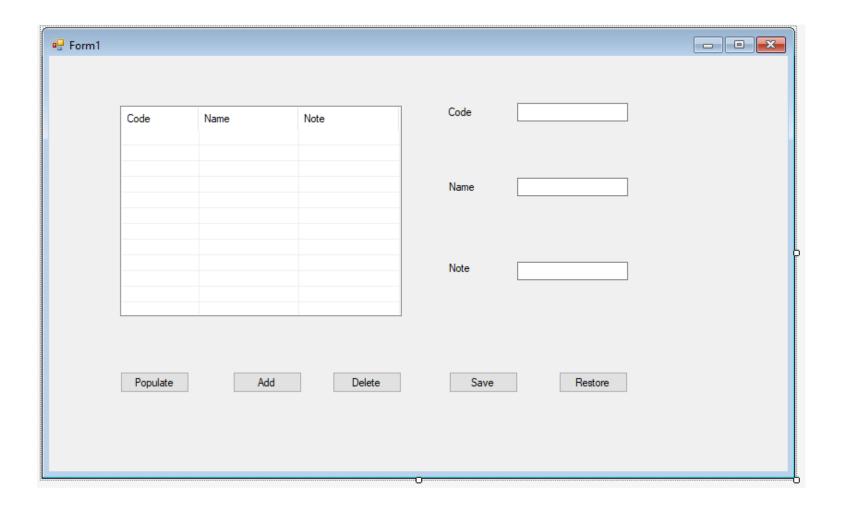# THE LECTURE 12

CRUD OPERATIONS IN WINDOWS FORMS

WORKING WITH TEXT FILES

- · 1. Reading text files
- · a. using System.IO;
- · b. FileStream file = new FileStream ("file.txt", FileMode.Open, FileAccess.Read);
- · 2. Writing text files
- · a. FileStream file = new FileStream ("file.txt", FileMode.Create, FileAccess.Write);
- · b. StreamWriter sw = new StreamWriter (file);
- · c. sw.Write ("Hello");
- · d. sw.Close();

DATA APPLICATION

ADDING STUDENT CLASS

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

namespace Files_Application
{
    ссылка: 1
    class Student
    {
        private int code;
        private string name;
        private float note;

        Ссылок: 0
        public Student(int c, string n, float nt)
        {
            code = c;
            name = n;
            note = nt;
        }

        Ссылок: 0
        public int Code
        {
            get { return code; }
            set { code = value; }
        }
        Ссылок: 0
        public string Name
        {
            get { return name; }
            set { name = value; }
        }
        Ссылок: 0
        public float Note
        {
            get { return note; }
            set { note = value; }
        }
    }
}
```

ADDING ACTIONS OF BUTTONS

```csharp
ссылка: 1
private void button1_Click(object sender, EventArgs e)
{
    Student[] vs = new Student[4];
    vs[0] = new Student(111, "Andrew Jackson", 10);
    vs[1] = new Student(130, "Ordy Knight", 12);
    vs[2] = new Student(140, "Shawn Ryne", 15);
    vs[3] = new Student(150, "Alyson Floyd", 16);
    foreach(Student s in vs)
    {
        ListViewItem item = new ListViewItem(s.Code.ToString());
        item.SubItems.Add(s.Name);
        item.SubItems.Add(s.Note.ToString());
        listView1.Items.Add(item);
    }
}
```

```csharp
ссылка: 1
private void button2_Click(object sender, EventArgs e)
{
    try
    {
        Student s = new Student(Convert.ToInt32(tbCode.Text),tbName.Text, (float)Convert.ToDouble(tbNote.Text));
        ListViewItem item = new ListViewItem(s.Code.ToString());
        item.SubItems.Add(s.Name);
        item.SubItems.Add(s.Note.ToString());
        listView1.Items.Add(item);
    }
    catch(Exception ex)
    {
        MessageBox.Show("Error Input Data!", ex.Message);
    }
    finally
    {
        tbCode.Clear();
        tbName.Clear();
        tbNote.Clear();
    }
}
```

ADDING ACTIONS OF BUTTONS

```csharp
ссылка: 1
private void button3_Click(object sender, EventArgs e)
{
    foreach(ListViewItem item in listView1.Items)
    {
        if (item.Checked == true)
            item.Remove();
    }
}

ссылка: 1
private void button4_Click(object sender, EventArgs e)
{
    FileStream fs = new FileStream("student.txt", FileMode.Append, FileAccess.Write);
    BinaryFormatter bf = new BinaryFormatter();
    ArrayList aList = new ArrayList();
    foreach (ListViewItem item in listView1.Items)
        aList.Add(item);
    bf.Serialize(fs, aList);
    fs.Close();
    listView1.Items.Clear();
}

ссылка: 1
private void button5_Click(object sender, EventArgs e)
{
    FileStream fs = new FileStream("student.txt", FileMode.Open, FileAccess.Read);
    BinaryFormatter bf = new BinaryFormatter();
    ArrayList aList = (ArrayList)bf.Deserialize(fs);
    for (int i = 0; i < aList.Count; i++)
        listView1.Items.Add((ListViewItem)aList[i]);
    fs.Close();
}
```

LISTVIEW METHODS

```csharp
ссылка: 1
private void listView1_ItemChecked(object sender, ItemCheckedEventArgs e)
{
    if (e.Item.Checked)
        e.Item.BackColor = Color.Gray;
}

ссылка: 1
private void listView1_ItemActivate(object sender, EventArgs e)
{
    foreach (ListViewItem item in listView1.Items)
        if (item.Selected == true)
            item.ForeColor = Color.OrangeRed;
}
```

THE FORM'S VIEW

THE FORM'S VIEW