

Геронок Артём ИПО-22.24

Коды по проектированию и разработки кода

Лабораторная работа 1. Упражнение 1 (Настройка прямоугольной формы)

```
using System;
```

```
using System.Windows.Forms;
```

```
namespace WindowsFormsApp_Lab1
```

```
{
```

```
    public partial class Form1 : Form
```

```
    {
```

```
        public Form1()
```

```
        {
```

```
            InitializeComponent();
```

```
        }
```

```
        // Обработчик кнопки "Border Style"
```

```
        private void button1_Click(object sender, EventArgs e)
```

```
        {
```

```
            this.FormBorderStyle = FormBorderStyle.Sizable;
```

```
        }
```

```
        // Обработчик кнопки "Resize"
```

```

private void button2_Click(object sender, EventArgs e)
{
    this.Size = new System.Drawing.Size(300, 500);
}

// Обработчик кнопки "Opacity"
private void button3_Click(object sender, EventArgs e)
{
    this.Opacity = 1;
}
}
}

```

Лабораторная работа 2. Упражнение 1 (Обработка Click и MouseMove)

```

using System;
using System.Windows.Forms;

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

```

```
}
```

```
// Кнопка "Да"
```

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

```
{
```

```
    MessageBox.Show("Мы и не сомневались, что Вы так думаете!");
```

```
}
```

```
// Кнопка "Нет" — MouseMove (убегает от курсора)
```

```
private void btnno_MouseMove(object sender, MouseEventArgs e)
```

```
{
```

```
    Button btn = (Button)sender;
```

```
    btn.Top -= e.Y;
```

```
    btn.Left += e.X;
```

```
    // Ограничения, чтобы кнопка не убежала слишком далеко
```

```
    if (btn.Top < -10 || btn.Top > 100)
```

```
        btn.Top = 60;
```

```
    if (btn.Left < -80 || btn.Left > 250)
```

```
        btn.Left = 120;
```

```
}
```

```
}
```

```
}
```

Лабораторная работа 3. Упражнение 3 (Расширенный элемент управления)

```
using System;

using System.Windows.Forms;

namespace WinButNum
{
    public class ClickButton : Button
    {
        private int mClicks; // Счетчик нажатий

        public int Clicks
        {
            get { return mClicks; }
        }

        // Переопределяем событие нажатия
        protected override void OnClick(EventArgs e)
        {
            mClicks++;

            base.OnClick(e);
        }
    }
}
```

```

    }

    // Переопределяем отрисовку
    protected override void OnPaint(PaintEventArgs pevent)
    {
        base.OnPaint(pevent);

        System.Drawing.Graphics g = pevent.Graphics;
        System.Drawing.SizeF stringSize;

        stringSize = g.MeasureString(Clicks.ToString(), this.Font, this.Width);

        g.DrawString(Clicks.ToString(), this.Font,
            System.Drawing.SystemBrushes.ControlText,
            this.Width - stringSize.Width - 3,
            this.Height - stringSize.Height - 3);
    }
}

```

Лабораторная работа 4. Упражнение 1 (Использование SaveFileDialog)

```
using System;

using System.Windows.Forms;

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

            // Сохранить как...

            private void сохранитьКакToolStripMenuItem_Click(object sender,
            EventArgs e)
            {
                saveFileDialog1.Filter = "txt files (*.txt)|*.txt";

                if (saveFileDialog1.ShowDialog() == DialogResult.OK &&
                saveFileDialog1.FileName.Length > 0)
                {
                    richTextBox1.SaveFile(saveFileDialog1.FileName,
                    RichTextBoxStreamType.PlainText);
                }
            }
        }
    }
}
```

```
private void открытьToolStripMenuItem_Click(object sender, EventArgs e)
{
    openFileDialog1.Filter = "txt files (*.txt)|*.txt|All files (*.*)|*.*";

    if (openFileDialog1.ShowDialog() == DialogResult.OK)
    {
        try
        {
            richTextBox1.LoadFile(openFileDialog1.FileName,
                                   RichTextBoxStreamType.PlainText);
        }
        catch (Exception ex)
        {
            MessageBox.Show("Error: " + ex.Message);
        }
    }
}
```

Лабораторная работа 5. Упражнение 2 (Вызов функции API)

```
using System;

using System.Windows.Forms;

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

            // Кнопка "Проявление" (AW_BLEND)

            private void btnAW_BLEND_Click(object sender, EventArgs e)
            {
                this.Hide();

                WinAPIClass.AnimateWindow(this, 3000,
                    WinAPIClass.AnimateWindowFlags.AW_ACTIVATE |
                    WinAPIClass.AnimateWindowFlags.AW_BLEND);

                this.Invalidate(true);
            }
        }
    }
}
```

```
// Кнопка "Горизонтальное появление"
```

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

```
{
```

```
    this.Hide();
```

```
    WinAPIClass.AnimateWindow(this, 3000,
```

```
        WinAPIClass.AnimateWindowFlags.AW_HOR_POSITIVE |
```

```
        WinAPIClass.AnimateWindowFlags.AW_SLIDE);
```

```
    this.Invalidate(true);
```

```
}
```

```
// Кнопка "Появление из центра"
```

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

```
{
```

```
    this.Hide();
```

```
    WinAPIClass.AnimateWindow(this, 3000,
```

```
        WinAPIClass.AnimateWindowFlags.AW_CENTER |
```

```
        WinAPIClass.AnimateWindowFlags.AW_SLIDE);
```

```
    this.Invalidate(true);
```

```
}
```

```
}
```

```
}
```

Лабораторная работа 6. Упражнение 2 (Создание документа печати)

```
using System;

using System.Drawing;

using System.Windows.Forms;

namespace WinPrint
{
    public partial class Form1 : Form
    {
        string[] strings;
        int ArrayCounter = 0;

        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            if (openFileDialog1.ShowDialog() == DialogResult.OK)
            {
                System.IO.StreamReader reader =
                    new System.IO.StreamReader(openFileDialog1.FileName);
```

```

        string s = reader.ReadToEnd();

        reader.Close();

        strings = s.Split('\n');

        ArrayCounter = 0;
    }
}

```

```

private void printDocument1_PrintPage(object sender,
                                     System.Drawing.Printing.PrintPageEventArgs e)
{
    float LeftMargin = e.MarginBounds.Left;
    float TopMargin = e.MarginBounds.Top;

    float MyLines = 0;

    float YPosition = 0;

    int Counter = 0;

    string CurrentLine;

    MyLines = e.MarginBounds.Height /
this.Font.GetHeight(e.Graphics);

    while (Counter < MyLines && ArrayCounter <= strings.Length - 1)
    {
        CurrentLine = strings[ArrayCounter];

        YPosition = TopMargin + Counter * this.Font.GetHeight(e.Graphics);

        e.Graphics.DrawString(CurrentLine, this.Font, Brushes.Black,

```

```
LeftMargin, YPosition, new StringFormat());
```

```
Counter++;
```

```
ArrayCounter++;
```

```
}
```

```
if (ArrayCounter < strings.Length)
```

```
    e.HasMorePages = true;
```

```
else
```

```
    e.HasMorePages = false;
```

```
}
```

```
private void button2_Click(object sender, EventArgs e)
```

```
{
```

```
    if (printDialog1.ShowDialog() == DialogResult.OK)
```

```
    {
```

```
        printDocument1.Print();
```

```
    }
```

```
}
```

```
}
```

```
}
```

1 Лаба

```
using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Drawing.Drawing2D;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace WindowsFormsApp1

{

    public partial class Form1 : Form

    {

        public Form1()

        {

            InitializeComponent();

        }

        private void Form1_Load(object sender, EventArgs e)

        {

            // Создаем графический путь для формирования нестандартной формы
окна

            using (GraphicsPath myPath = new GraphicsPath())
```

```

{
    // Добавляем треугольник с вершинами:
    // (0, 0) - левый верхний угол
    // (5, this.Height) - точка у левого края, но внизу формы
    // (this.Width, 0) - правый верхний угол
    myPath.AddPolygon(new Point[] {
        new Point(0, 0),
        new Point(5, this.Height),
        new Point(this.Width, 0)
    });

    // Применяем регион к форме
    this.Region = new Region(myPath);
}

private void button1_Click(object sender, EventArgs e)
{
    // Закрываем форму при нажатии кнопки
    this.Close();
}
}

```

1 Лаба

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace WindowsFormsApp1
{
    internal static class Program
    {
        /// <summary>
        /// Главная точка входа для приложения.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);

            // Запускаем приложение с формой nForm
            Application.Run(new nForm());
        }
    }
}
```

2 Лаба

```
public partial class Form1 : Form
```

```
{
```

```
    public Form1()
```

```
    {
```

```
        InitializeComponent();
```

```
    }
```

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

```
    {
```

```
        MessageBox.Show("You in the commande...", "To Do Task Dynamite!");
```

```
    }
```

```
    private void btnno_MouseMove(object sender, MouseEventArgs e)
```

```
    {
```

```
        btnno.Top -= e.Y;
```

```
        btnno.Left += e.X;
```

```
        if (btnno.Top <= -10 || btnno.Top > 100)
```

```
            btnno.Top = 60;
```

```
        if (btnno.Left <= -80 || btnno.Left > 250)
```

```
            btnno.Left = 120;
```

```
    }
```

```
}
```

3 Лаба

```
public partial class Form1 : Form
```

```
{
```

```
    public Form1()
```

```
    {
```

```
        InitializeComponent();
```

```
    }
```

```
    private void Form1_LoadCompleted(object sender, EventArgs e)
```

```
    {
```

```
    }
```

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

```
    {
```

```
    }
```

```
}
```

4 Лаба

```
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 WindowsFormsApp10
{
    public partial class Form1 : Form
    {
        public Form1()
        {
```

```

        InitializeComponent();
    }

    private void Form1_Load(object sender, EventArgs e)
    {
    }

    private void saveFileDialog1_FileOk(object sender, CancelEventArgs e)
    {
    }

    private void richTextBox1_TextChanged(object sender, EventArgs e)
    {
        saveFileDialog1.Filter = "txt files (*.txt)|*.txt";
        if (saveFileDialog1.ShowDialog() == DialogResult.OK)
        {
            if (saveFileDialog1.FileName.Length > 0)
            {
                richTextBox1.SaveFile(saveFileDialog1.FileName,
RichTextBoxStreamType.PlainText);
            }
        }
    }

    private void ColorPendToolStripMenuItem_Click(object sender, EventArgs
e)

```

```
{  
    if (colorDialog1.ShowDialog() == DialogResult.OK)  
    {  
        richTextBox1.BackColor = colorDialog1.Color;  
    }  
}  
}
```