**федеральное государственное автономное образовательное учреждение высшего образования**



**МОСКОВСКИЙ ПОЛИТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ**

**(ВЫСШАЯ ШКОЛА ПЕЧАТИ И МЕДИАИНДУСТРИИ)**

**(Факультет информационных технологий)**

***(Институт Принтмедиа и информационных технологий)***

***Кафедра Информатики и информационных технологий***

**направление подготовки**

**09.03.02 «Информационные системы и технологии»**

**ЛАБОРАТОРНАЯ РАБОТА № 5**

**Дисциплина: Технологии прикладного программирования**

### Тема: Блокнот

**Выполнил(а): студент(ка) группы 221-377**

Ежов Тимофей Алексеевич

(Фамилия И.О.)

**Дата, подпись** 27.04.2023

**Проверил:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  ***\_\_\_\_\_\_\_\_\_\_\_***

(Фамилия И.О., степень, звание) **(Оценка)**

**Дата, подпись** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  ***\_\_\_\_\_\_\_\_\_\_\_***

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**Замечания: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Москва2023**

**Лабораторная работа № 4**

**Листинг**:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows;

using System.IO;

using System.Windows.Controls;

using System.Windows.Data;

using System.Windows.Documents;

using System.Windows.Input;

using System.Windows.Media;

using System.Windows.Media.Imaging;

using System.Windows.Navigation;

using System.Windows.Shapes;

using Microsoft.Win32;

namespace LAB\_5

{

/// <summary>

/// Interaction logic for MainWindow.xaml

/// </summary>

public partial class MainWindow : Window

{

private string filePath;

public MainWindow()

{

InitializeComponent();

filePath = string.Empty;

}

private void NewMenuItem\_Click(object sender, RoutedEventArgs e)

{

textBox.Text = string.Empty;

filePath = string.Empty;

}

private void OpenMenuItem\_Click(object sender, RoutedEventArgs e)

{

OpenFileDialog openFileDialog = new OpenFileDialog();

if (openFileDialog.ShowDialog() == true)

{

filePath = openFileDialog.FileName;

textBox.Text = File.ReadAllText(filePath);

}

}

private void SaveMenuItem\_Click(object sender, RoutedEventArgs e)

{

if (string.IsNullOrEmpty(filePath))

{

SaveFileDialog saveFileDialog = new SaveFileDialog();

if (saveFileDialog.ShowDialog() == true)

{

filePath = saveFileDialog.FileName;

File.WriteAllText(filePath, textBox.Text);

}

}

else

{

File.WriteAllText(filePath, textBox.Text);

}

}

private void ColorComboBox\_SelectionChanged(object sender, SelectionChangedEventArgs e)

{

if (colorComboBox.SelectedItem.ToString() != null)

{

string colorName = colorComboBox.SelectedItem.ToString()[38..];

Color color = (Color)ColorConverter.ConvertFromString(colorName);

SolidColorBrush brush = new SolidColorBrush(color);

textBox.Foreground = brush;

}

}

private void FontComboBox\_SelectionChanged(object sender, SelectionChangedEventArgs e)

{

if (fontComboBox.SelectedItem != null)

{

string fontFamily = fontComboBox.SelectedItem.ToString()[38..];

textBox.FontFamily = new FontFamily(fontFamily);

}

}

private void ExitMenuItem\_Click(object sender, RoutedEventArgs e)

{

Application.Current.Shutdown();

}

private void Button18\_Click(object sender, EventArgs e)

{

Random rnd = new Random();

foreach (Button item1 in grid.Children.OfType<Button>())

{

item1.Background = new SolidColorBrush(Color.FromArgb(Convert.ToByte(rnd.Next(1, 255)), Convert.ToByte(rnd.Next(1, 255)), Convert.ToByte(rnd.Next(1, 255)), Convert.ToByte(rnd.Next(1, 255))));

}

}

}

}

<Window x:Class="LAB\_5.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

Title="Блокнот" Height="500" Width="600">

<Grid x:Name="grid">

<Grid.RowDefinitions>

<RowDefinition Height="Auto"/>

<RowDefinition Height="350"/>

<RowDefinition Height="70"/>

</Grid.RowDefinitions>

<Menu Grid.Row="0" Margin="0,0,0,10" Grid.RowSpan="1">

<MenuItem Header="Файл">

<MenuItem x:Name="NewMenuItem" Header="Новый" Click="NewMenuItem\_Click"/>

<MenuItem x:Name="OpenMenuItem" Header="Открыть" Click="OpenMenuItem\_Click"/>

<MenuItem x:Name="SaveMenuItem" Header="Сохранить" Click="SaveMenuItem\_Click"/>

<Separator/>

<MenuItem x:Name="ExitMenuItem" Header="Выход" Click="ExitMenuItem\_Click"/>

</MenuItem>

</Menu>

<TextBox x:Name="textBox" Grid.Row="1" Margin="10,10,10,1" TextWrapping="Wrap" AcceptsReturn="True" Grid.RowSpan="1"/>

<StackPanel Grid.Row="3" Orientation="Horizontal" Margin="10">

<TextBlock Text="Цвет текста:" VerticalAlignment="Center" Margin="0,0,10,0"/>

<ComboBox x:Name="colorComboBox" Height="25" Width="120" SelectionChanged="ColorComboBox\_SelectionChanged">

<ComboBoxItem Content="White"/>

<ComboBoxItem Content="Gray"/>

<ComboBoxItem Content="Blue"/>

<ComboBoxItem Content="Green"/>

<ComboBoxItem Content="Yellow"/>

<ComboBoxItem Content="Red"/>

</ComboBox>

<TextBlock Text="Шрифт:" VerticalAlignment="Center" Margin="20,0,10,0"/>

<ComboBox x:Name="fontComboBox" Height="25" Width="120" SelectionChanged="FontComboBox\_SelectionChanged">

<ComboBoxItem Content="Arial"/>

<ComboBoxItem Content="Times New Roman"/>

<ComboBoxItem Content="Courier New"/>

<ComboBoxItem Content="Verdana"/>

<ComboBoxItem Content="Tahoma"/>

</ComboBox>

<Button x:Name="button18" Content="Кнопка&#xA;Веселья" Height="50" Width="102" Margin="50,0,10,0" Click="Button18\_Click"/>

</StackPanel>

</Grid>

</Window>

**Пример работы:**



