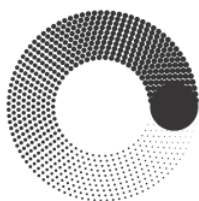


**ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ  
ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ**



**МОСКОВСКИЙ ПОЛИТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ**

**Факультет информационных технологий  
Кафедра Информатики и информационных технологий**

**направление подготовки 09.03.02 «Информационные системы и  
технологии»,  
профиль «Цифровая трансформация»**

**ЛАБОРАТОРНАЯ РАБОТА №5**

**Дисциплина:** Технологии прикладного программирования

**Выполнил:** студент группы 231-337

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**Дата, подпись 16/02/2024** \_\_\_\_\_

(Дата)

(Подпись)

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(Оценка)

**Дата, подпись** \_\_\_\_\_

(Дата)

(Подпись)

**Замечания:**

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**Москва**

**2024**

## Текст задачи

Разработать программу "блокнот" с соответствующим функционалом.

### Код вёрстки окон и код программной логики

```
<Window x:Class="JP5.MainWindow"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
    xmlns:local="clr-namespace:JP5"
    mc:Ignorable="d"
    Title="" Height="380" Width="600" Closing="Form1_Closing">
    <Grid>
        <StackPanel Orientation="Horizontal">
            <ComboBox x:Name="Color" SelectionChanged="color_settings" SelectedValuePath="color_path" Text="Цвет"
                Height="20" VerticalAlignment="Top" Width="100" IsEditable="True" IsReadOnly="True">

                </ComboBox>
                <ComboBox x:Name="Font" Height="20" VerticalAlignment="Top" Width="100" IsEditable="True"
Text="Шрифт"
                SelectionChanged="Font_settings">
                    </ComboBox>
                    <ComboBox x:Name="Font_Size" SelectionChanged="size_settings" Height="20" IsEditable="True"
VerticalAlignment="Top" Width="100" Text="Размер">
                        </ComboBox>
                        <Button x:Name="Saving" Height="20" Width="100" VerticalAlignment="Top" Content="Сохранить"
Background="White" Click="Save"/>
                        <Button x:Name="Opening" Height="20" Width="100" VerticalAlignment="Top" Content="Открыть"
Background="White" Click="Open"/>
                    </StackPanel>
                    <TextBox x:Name="Text" FontFamily="Times New Roman" TextWrapping="Wrap" AcceptsReturn="True"
Grid.Row="0" Grid.Column="0" Text="" Margin="0,20,0,0"/>
                </Grid>
    </Window>

using System;
using Microsoft.Win32;
using System.IO;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows;
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 System.Xml.Linq;
using System.Data.SqlTypes;
using Microsoft.Win32;

namespace JP5
{
    /// <summary>
    /// Логика взаимодействия для MainWindow.xaml
    /// </summary>
    public partial class MainWindow : Window
    {
        public MainWindow()
        {

```

```

InitializeComponent();

Color.ItemsSource = new Color_Item[]
{
    new Color_Item { color = "Чёрный"},
    new Color_Item { color = "Синий"},
    new Color_Item { color = "Красный"},
    new Color_Item { color = "Желтый"},
    new Color_Item { color = "Зеленый"}
};

Font.ItemsSource = new Font_Item[]
{
    new Font_Item { font = "Times New Roman"},
    new Font_Item { font = "Segoe UI"},
    new Font_Item { font = "Arial"},
    new Font_Item { font = "Bahnschrift SemiCondensed"},
    new Font_Item { font = "Bodoni MT Black"}
};

Font_Size.ItemsSource = new Size_Item[]
{
    new Size_Item { size = "8"},
    new Size_Item { size = "10"},
    new Size_Item { size = "12"},
    new Size_Item { size = "14"},
    new Size_Item { size = "16"},
    new Size_Item { size = "18"},
    new Size_Item { size = "20"},
    new Size_Item { size = "22"},
    new Size_Item { size = "24"},
    new Size_Item { size = "26"},
    new Size_Item { size = "28"},
    new Size_Item { size = "30"}
};
}

private void Form1_Closing(object sender, System.ComponentModel.CancelEventArgs e)
{
    string replace = Text.Text;
    while (replace.Contains("\r\n\r\n"))
    {
        replace = replace.Replace("\r\n\r\n", "\r\n");
        Text.Text = replace;
    }
    if (replace.StartsWith("\r\n") == true)
    {
        replace = replace.TrimStart('\r', '\n');
        Text.Text = replace;
    }
    if (replace.EndsWith("\r\n") == true)
    {
        replace = replace.TrimEnd('\r', '\n');
        Text.Text = replace;
    }
}

private void color_settings(object sender, SelectionChangedEventArgs e)
{
    int color_index = 0;
    if (Color.SelectedItem is Color_Item color_value)
    {
        color_index = Color.SelectedIndex;
    }
    switch (color_index)
    {
        case 0:
            Text.Foreground = Brushes.Black; break;
        case 1:
            Text.Foreground = Brushes.Blue; break;
    }
}

```

```

        case 2:
            Text.Foreground = Brushes.Red; break;
        case 3:
            Text.Foreground = Brushes.Yellow; break;
        case 4:
            Text.Foreground = Brushes.Green; break;
    }
}
private void Font_settings(object sender, EventArgs e)
{
    int font_index = 0;
    if (Font.SelectedItem is Font_Item font_value)
    {
        font_index = Font.SelectedIndex;
    }
    switch (font_index)
    {
        case 0:
            Text.FontFamily = new FontFamily("Times New Roman"); break;
        case 1:
            Text.FontFamily = new FontFamily("Segoe UI"); break;
        case 2:
            Text.FontFamily = new FontFamily("Arial"); break;
        case 3:
            Text.FontFamily = new FontFamily("Bahnschrift SemiCondensed"); break;
        case 4:
            Text.FontFamily = new FontFamily("Bodoni MT Black"); break;
    }
}
private void size_settings(object sender, EventArgs e)
{
    int size_index = 0;
    if (Font_Size.SelectedItem is Size_Item size_value)
    {
        size_index = Font_Size.SelectedIndex;
    }
    switch (size_index)
    {
        case 0:
            Text.FontSize = 8; break;
        case 1:
            Text.FontSize = 10; break;
        case 2:
            Text.FontSize = 12; break;
        case 3:
            Text.FontSize = 14; break;
        case 4:
            Text.FontSize = 16; break;
        case 5:
            Text.FontSize = 18; break;
        case 6:
            Text.FontSize = 20; break;
        case 7:
            Text.FontSize = 22; break;
        case 8:
            Text.FontSize = 24; break;
        case 9:
            Text.FontSize = 26; break;
        case 10:
            Text.FontSize = 28; break;
        case 11:
            Text.FontSize = 30; break;
    }
}
private void Save(object sender, RoutedEventArgs e)

```

```

    {
        SaveFileDialog save_1 = new SaveFileDialog();
        save_1.Filter = "txt files (*.txt)|*.txt|All files (*.*)|*.*";
        if (save_1.ShowDialog() == true)
        {
            System.IO.File.WriteAllText(save_1.FileName, Text.Text);
        }
    }
}

private void Open(object sender, RoutedEventArgs e)
{
    OpenFileDialog open_1 = new OpenFileDialog();
    open_1.Filter = "txt files (*.txt)|*.txt|All files (*.*)|*.*";
    if (open_1.ShowDialog() == true)
    {
        Text.Text = System.IO.File.ReadAllText(open_1.FileName);
    }
}
}

public class Color_Item
{
    public string color { get; set; } = "";
    public override string ToString() => $"{color}";
}

public class Font_Item
{
    public string font { get; set; } = "";
    public override string ToString() => $"{font}";
}

public class Size_Item
{
    public string size { get; set; } = "";
    public override string ToString() => $"{size}";
}
}

```

