Федеральное государственное образовательное бюджетное

учреждение высшего образования

**«Финансовый университет при Правительстве Российской Федерации»**

**(Финансовый университет)**

Колледж информатики и программирования

**ОТЧЕТ О ВЫПОЛНЕНИИ ЗАДАНИЯ № 7**

**Тема: “События C#”**

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**Цель работы**: разработать калькулятор на языке C#. В проекте использовать приём создания одного обработчика для нескольких событий.

**Ниже на рисунке представлен фрагмент работающего проекта**

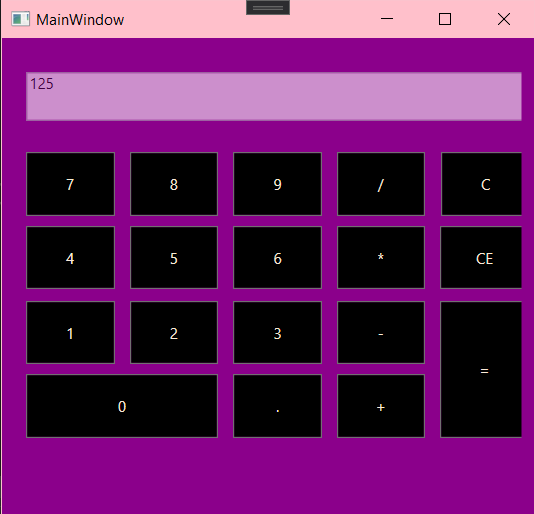


Рисунок 1. Калькулятор

**Код программы:**

using System;

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;

namespace WpfApp1

{

public partial class MainWindow : Window

{

public MainWindow()

{

InitializeComponent();

}

private void CE(object sender, RoutedEventArgs e)

{

TextBox.Clear();

}

private void Symb\_1\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 1;

}

private void Symb\_2\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 2;

}

private void Symb\_3\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 3;

}

private void Symb\_4\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 4;

}

private void Symb\_5\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 5;

}

private void Symb\_6\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 6;

}

private void Symb\_7\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 7;

}

private void Symb\_8\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 8;

}

private void Symb\_9\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 9;

}

private void Symb\_0\_Click(object sender, RoutedEventArgs e)

{

TextBox.Text += 0;

}

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

{

TextBox.Text += "√";

}

private void Button\_Click\_1(object sender, RoutedEventArgs e)

{

TextBox.Text += "/";

}

private void Button\_Click\_2(object sender, RoutedEventArgs e)

{

TextBox.Text += "\*";

}

private void Button\_Click\_3(object sender, RoutedEventArgs e)

{

TextBox.Text += "-";

}

private void Button\_Click\_4(object sender, RoutedEventArgs e)

{

TextBox.Text += "+";

}

private void ravno(object sender, RoutedEventArgs e)

{

TextBox.Text = Convert.ToString(Eval(TextBox.Text)).Replace(",", ".");

}

static Double Eval(String expression)

{

System.Data.DataTable table = new System.Data.DataTable();

return Convert.ToDouble(table.Compute(expression, String.Empty));

}

private void Button\_Click\_5(object sender, RoutedEventArgs e)

{

TextBox.Text += ".";

}

private void Button\_Click\_6(object sender, RoutedEventArgs e)

{

TextBox.Text = TextBox.Text.Remove(TextBox.Text.Length - 1);

}

}

}

XAML:

<Window x:Class="WpfApp1.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:WpfApp1"

mc:Ignorable="d"

Title="MainWindow" Background="DarkMagenta" Height="419" Width="440">

<Grid Margin="10,10,10,-6">

<Grid.RowDefinitions>

<RowDefinition Height="419\*"/>

<RowDefinition Height="11\*"/>

</Grid.RowDefinitions>

<TextBox Name="TextBox" HorizontalAlignment="Left" IsEnabled="False" Height="39" Margin="9,17,0,0" TextWrapping="Wrap" VerticalAlignment="Top" Width="403" RenderTransformOrigin="0.496,0.433"/>

<Button Content="CE" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="340,140,0,0" VerticalAlignment="Top" Width="72" Height="51" Click="CE" />

<Button Name ="Symb\_1" Content="1" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="9,200,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_1\_Click"/>

<Button Name ="Symb\_2" Content="2" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="92,200,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_2\_Click"/>

<Button Name ="Symb\_3" Content="3" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="175,200,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_3\_Click"/>

<Button Name ="Symb\_4" Content="4" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="9,140,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_4\_Click"/>

<Button Name ="Symb\_5" Content="5" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="92,140,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_5\_Click"/>

<Button Name ="Symb\_6" Content="6" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="175,140,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_6\_Click"/>

<Button Name ="Symb\_7" Content="7" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="9,81,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_7\_Click"/>

<Button Name ="Symb\_8" Content="8" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="92,81,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_8\_Click"/>

<Button Name ="Symb\_9" Content="9" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="175,81,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Symb\_9\_Click"/>

<Button Name ="Symb\_0" Content="0" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="9,259,0,0" VerticalAlignment="Top" Width="154" Height="51" Click="Symb\_0\_Click"/>

<Button Content="." Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="175,259,0,0" VerticalAlignment="Top" Width="71" Height="51" Click="Button\_Click\_5"/>

<Button Content="/" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="258,81,0,0" VerticalAlignment="Top" Width="70" Height="51" Click="Button\_Click\_1"/>

<Button Content="\*" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="258,140,0,0" VerticalAlignment="Top" Width="70" Height="51" Click="Button\_Click\_2"/>

<Button Content="-" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="258,200,0,0" VerticalAlignment="Top" Width="70" Height="51" Click="Button\_Click\_3"/>

<Button Content="+" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="258,259,0,0" VerticalAlignment="Top" Width="70" Height="51" Click="Button\_Click\_4"/>

<Button Content="=" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="340,200,0,0" VerticalAlignment="Top" Width="72" Height="110" Click="ravno"/>

<Button Content="С" Background="Black" Foreground="AntiqueWhite" HorizontalAlignment="Left" Margin="341,81,0,0" VerticalAlignment="Top" Width="72" Height="51" Click="Button\_Click\_6"/>

</Grid>

</Window>

**Вывод:** я разработал калькулятор на C#, используя один обработчик для нескольких событий.