



CENTRE FOR DIPLOMA STUDIES

UNIVERSITI TUN HUSSEIN ONN MALAYSIA (UTHM)

ASSIGMENT 2 : SIMPLE CALCULATOR PROGRAM

DAT20103 : VISUAL PROGRAMMING

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Introduction

This is a simple calculator application implemented in C# using Windows Forms. It consists of a form (Form1) with several controls, including three TextBoxes (textBox1, textBox2, and textBox3) for input and output, and four Buttons (button1, button2, button3, and button4) for performing addition, subtraction, multiplication, and division operations.

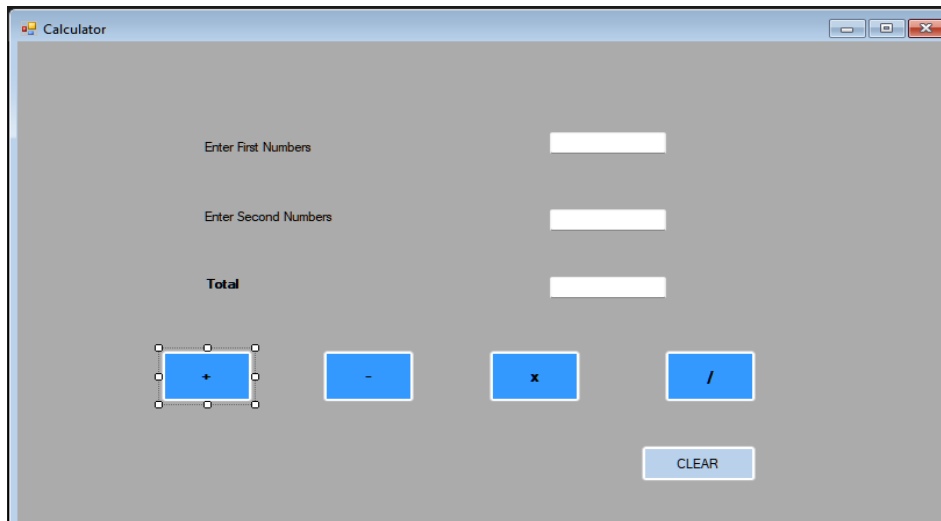
When button1 (Add) is clicked, the values entered in textBox1 and textBox2 are converted to doubles. The sum of the two values is calculated and displayed in textBox3. The background color of textBox3 is set to gold.

Similarly, button2 (Subtract), button3 (Multiply), and button4 (Divide) perform subtraction, multiplication, and division operations, respectively. The results are displayed in textBox3 with different background colors (aqua, pink, and green-yellow, respectively).

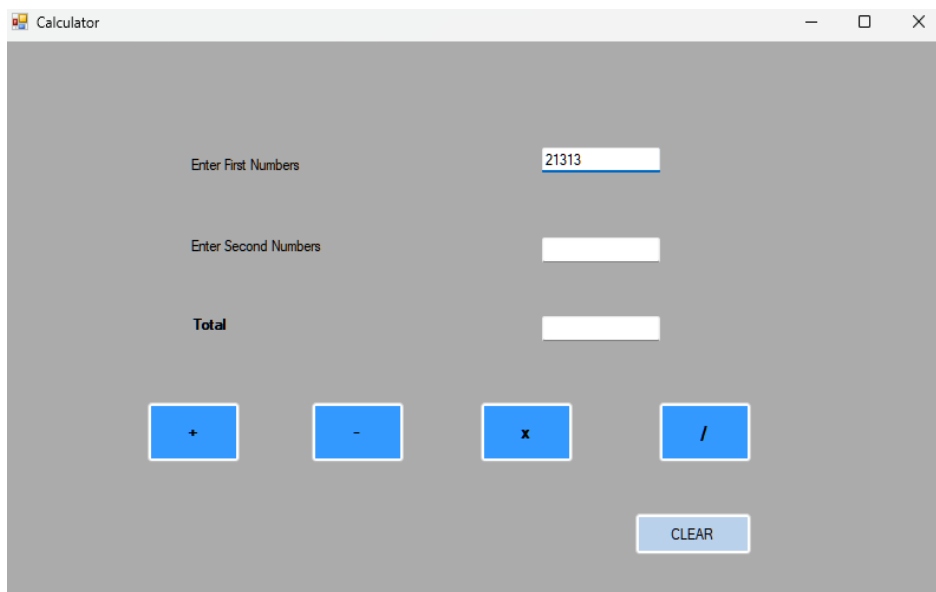
The program also includes event handlers for various events such as Form1_Load, label2_Click, textBox1_TextChanged, textBox1_KeyPress, button5_Click, textBox2_TextChanged, textBox2_KeyPress, textBox3_KeyPress, label1_Click, and label3_Click. These event handlers handle events related to form loading, label and text box clicks, text changes, and button clicks.

In addition, there is a button5 (Clear) that clears the contents of all three text boxes when clicked. Overall, this code creates a basic calculator application with a simple user interface for performing arithmetic calculations.

Output



interface



The user cannot type letters, only numbers will appear in the textbox

coding

```
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 Calculator
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

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

        private void button1_Click(object sender, EventArgs e)
        {
            double txt1 = Convert.ToDouble(textBox1.Text);
            double txt2 = Convert.ToDouble(textBox2.Text);

            double sum = txt1 + txt2;
            textBox3.Text = sum.ToString();
            textBox3.BackColor = Color.Gold;
        }

        private void button2_Click(object sender, EventArgs e)
        {
            double txt1 = Convert.ToDouble(textBox1.Text);
            double txt2 = Convert.ToDouble(textBox2.Text);

            double sum = txt1 - txt2;
            textBox3.Text = sum.ToString();
            textBox3.BackColor = Color.Aqua;
        }

        private void button3_Click(object sender, EventArgs e)
        {
            double txt1 = Convert.ToDouble(textBox1.Text);
            double txt2 = Convert.ToDouble(textBox2.Text);

            double sum = txt1 * txt2;
            textBox3.Text = sum.ToString();
            textBox3.BackColor = Color.Pink;
        }

        private void button4_Click(object sender, EventArgs e)
        {
            double txt1 = Convert.ToDouble(textBox1.Text);
            double txt2 = Convert.ToDouble(textBox2.Text);

            double sum = txt1 / txt2;
        }
    }
}
```

```

        textBox3.Text = sum.ToString();
        textBox3.BackColor = Color.GreenYellow;
    }

    private void label2_Click(object sender, EventArgs e)
    {

    }

    private void textBox1_TextChanged(object sender, EventArgs e)
    {

    }

    private void textBox1_KeyPress(object sender, KeyPressEventArgs e)
    {
        e.Handled = !char.IsDigit(e.KeyChar);
    }

    private void button5_Click(object sender, EventArgs e)
    {
        textBox1.Clear();
        textBox2.Clear();
        textBox3.Clear();
    }

    private void textBox2_TextChanged(object sender, EventArgs e)
    {

    }

    private void textBox2_KeyPress(object sender, KeyPressEventArgs e)
    {
        e.Handled = !char.IsDigit(e.KeyChar);
    }

    private void textBox3_KeyPress(object sender, KeyPressEventArgs e)
    {
        e.Handled = !char.IsDigit(e.KeyChar);
    }

    private void label1_Click(object sender, EventArgs e)
    {

    }

    private void label3_Click(object sender, EventArgs e)
    {

    }
}

```