

Answer on Question#39996- Programming, C#

1. For this project, WebSoft Solutions Pvt. Ltd. conducts a recruitment drive to hire 10 software developers to work on various modules of the application. It conducts a written examination and asks the aspiring candidates to create a console-based calculator application. The calculator should be able to solve basic mathematical calculations.

The calculator should store the result of an expression in a variable called "ans", which can be used as an input in other mathematical expressions, as shown in the following statements:

```
>calculate 25*(3+5-(10/2))
ans=75
>calculate ans+10
ans=85
>calculate ans*10/5
```

However, the candidate can declare any variable to store the result. Being an aspiring candidate, develop the console-based calculator using C#.

Solution.

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Text;
using System.Windows.Forms;

namespace WindowsFormsApplication1
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        double ans = 0;
        private void button1_Click(object sender, EventArgs e)
        {
            try
            {
                label1.Text = (sender as Button).Text;
                label2.Text = "=";
            }
            catch { }
        }
    }
}
```

```

private void button5_Click(object sender, EventArgs e)
{
    double x = 0;
    double x1;
    double x2;
    if (!double.TryParse(textBox1.Text, out x1) || !double.TryParse(textBox2.Text,
out x2))
    {
        label2.Text = "ERROR";
        return;
    }
    else
    {
        switch (label1.Text[1])
        {
            case '+':
                x = x1 + x2; break;
            case '-':
                x = x1 - x2; break;
            case '*':
                x = x1 * x2; break;
            case '/':
                x = x1 / x2; break;
        }
        ans = x;
        label2.Text = "=" + x;
    }
}

private void Form1_KeyPress(object sender, KeyPressEventArgs e)
{
    char c = e.KeyChar;
    char sep = Application.CurrentCulture.NumberFormat.CurrencyDecimalSeparator[0];
    switch (c)
    {
        case '+':
            button1_Click(button1, null); break;
        case 'x':
        case '*':
            button1_Click(button3, null); break;
        case '-':
            button1_Click(button2, null); break;
        case '/':
            button1_Click(button4, null); break;
        case '=':
            button5_Click(button5, null); break;
    }
    e.Handled = !(char.IsDigit(c) || c == sep || c == '-' || c == '\b');
}

private void textBox1_TextChanged(object sender, EventArgs e)
{
    label2.Text = "=";
}

private void button6_Click(object sender, EventArgs e)
{
    textBox1.Text = ans.ToString();
    textBox2.Text = "0";
}
}
}
}

```

