# **Answer on Question#39257-** 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:

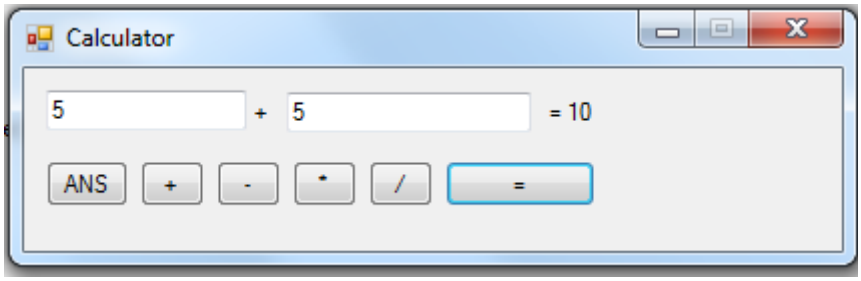
   >calculate 25*(3+5-(10/2))
   ans=75
   >calculate ans+10
   ans=85
   >calculate ans*10/5

   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";
        }
    }
}
```


Calculator
5
+
5
= 10
ANS
+
-
*
/
=