



Laikin Barnard FA3

PRG521

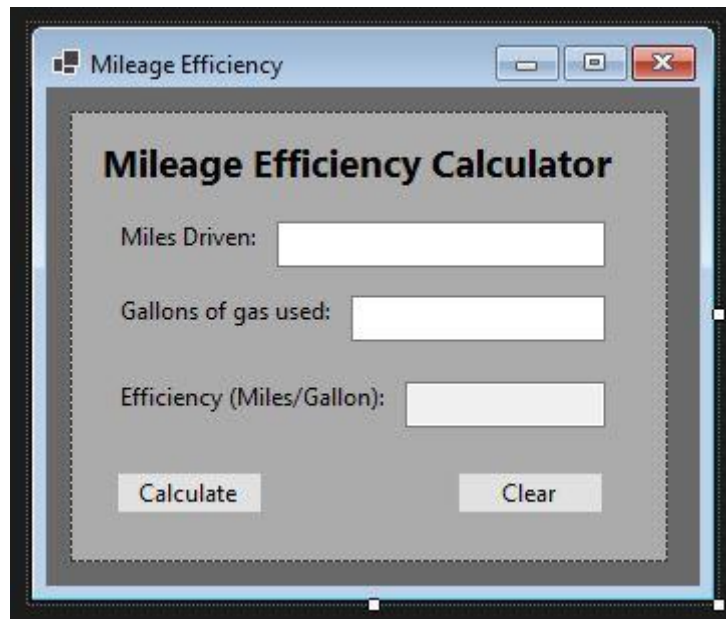
6955



Contents

User Interface:	2
Code:	3
Results:.....	5
User Input and Results:.....	5
User incorrect input and Format error:	6
User incorrect input and Divide error:.....	7
User incorrect input and Large error:	8
Clear Button (Purely for demonstration purpose):.....	9
THE END!	9

User Interface:



The image shows a screenshot of a software window titled "Mileage Efficiency". The window has a standard Windows-style title bar with minimize, maximize, and close buttons. Inside the window, the title "Mileage Efficiency Calculator" is displayed in a bold, black font. Below the title, there are three input fields with labels: "Miles Driven:", "Gallons of gas used:", and "Efficiency (Miles/Gallon):". The "Efficiency" field is currently disabled, indicated by a light gray background. At the bottom of the form, there are two buttons: "Calculate" and "Clear".

Mileage Efficiency Calculator

Miles Driven:

Gallons of gas used:

Efficiency (Miles/Gallon):

Code:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.IO;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace PRG521_FA3_6955
{
    public partial class MEfficiency : Form
    {
        public MEfficiency()
        {
            InitializeComponent();
        }

        private void btnCalculate_Click(object sender, EventArgs e)
        {
            try
            {
                decimal decMiles =
                    Convert.ToDecimal(txtMiles.Text);
                decimal decGallons =
                    Convert.ToDecimal(txtGallons.Text);
                decimal decEfficiency = decMiles / decGallons;
                txtEfficiency.Text =
                    String.Format("{0:n}", decEfficiency);

                using (StreamWriter writer = new
StreamWriter("d:\\tmp\\MilesperGallon.txt", true))
                {
                    writer.WriteLine(DateTime.Now);
                    writer.WriteLine("Miles(" + decMiles + ") / " + "Gallons(" +
decGallons + ") = Miles Per Hour(" + decEfficiency + ")");
                    writer.WriteLine("");
                }

                catch (FormatException fe)
                {
                    string msg = String.Format(
                        "Message: {0} Please enter a number value!\n",
                        fe.Message);
                    MessageBox.Show(msg.ToString());

                    using (StreamWriter writer = new
StreamWriter("d:\\tmp\\Exceptionfile.txt", true))
                    {
                        writer.WriteLine(DateTime.Now);
                        writer.WriteLine(fe);
                        writer.WriteLine("");
                    }
                }
                catch (DivideByZeroException dbze)
                {
                    string msg = String.Format(
```

```

        "Message: {0}Cannot devide by zero!\n",
        dbze.Message);
    MessageBox.Show(
        msg.ToString());

        using (StreamWriter writer = new
StreamWriter("d:\\tmp\\Exceptionfile.txt", true))
        {
            writer.WriteLine(DateTime.Now);
            writer.WriteLine(dbze);
            writer.WriteLine("");
        }
    }
    catch (Exception ex)
    {
        string msg = String.Format(
            "Message: {0}Please enter a smaller value\n",
            ex.Message);
        MessageBox.Show(msg.ToString());

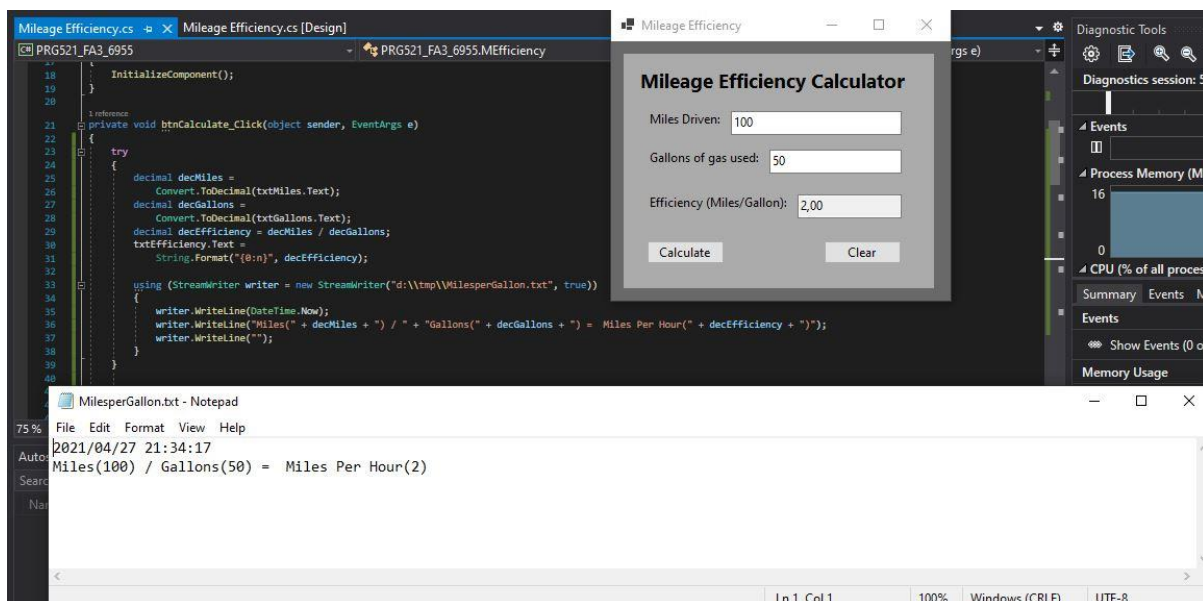
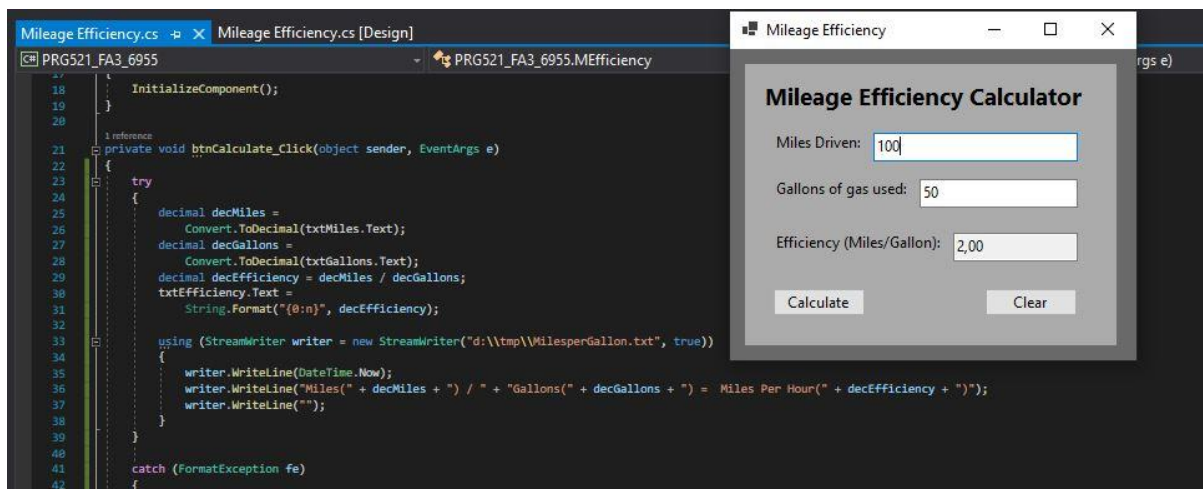
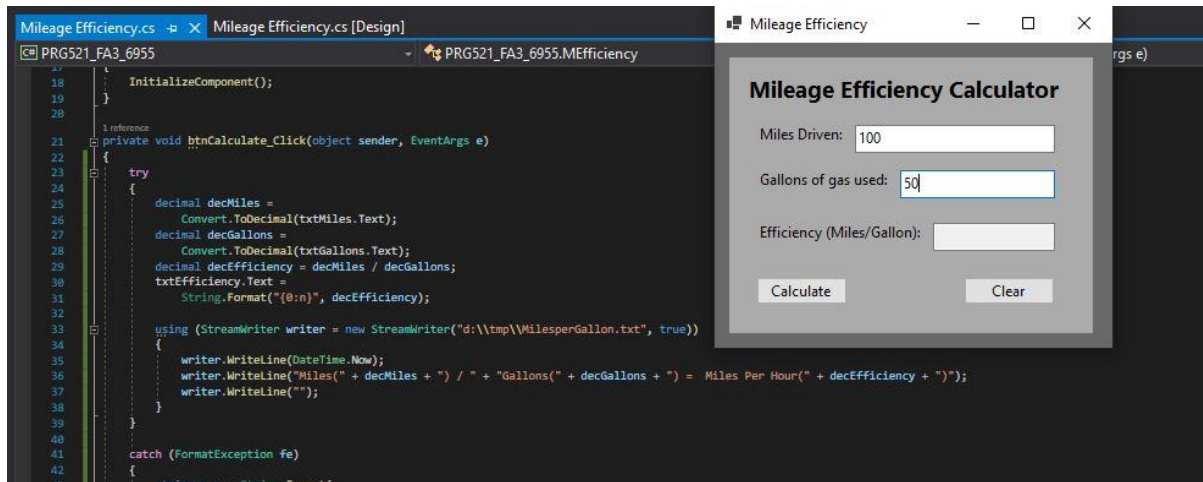
        using (StreamWriter writer = new
StreamWriter("d:\\tmp\\Exceptionfile.txt", true))
        {
            writer.WriteLine(DateTime.Now);
            writer.WriteLine(ex);
            writer.WriteLine("");
        }
    }
    finally
    {
        txtMiles.Focus();
    }
}
private void MEfficiency_Load(object sender, EventArgs e)
{
    txtMiles.Focus();
}

private void btnClear_Click(object sender, EventArgs e)
{
    txtMiles.Clear();
    txtGallons.Clear();
    txtEfficiency.Clear();
    txtMiles.Focus();
}
}
}

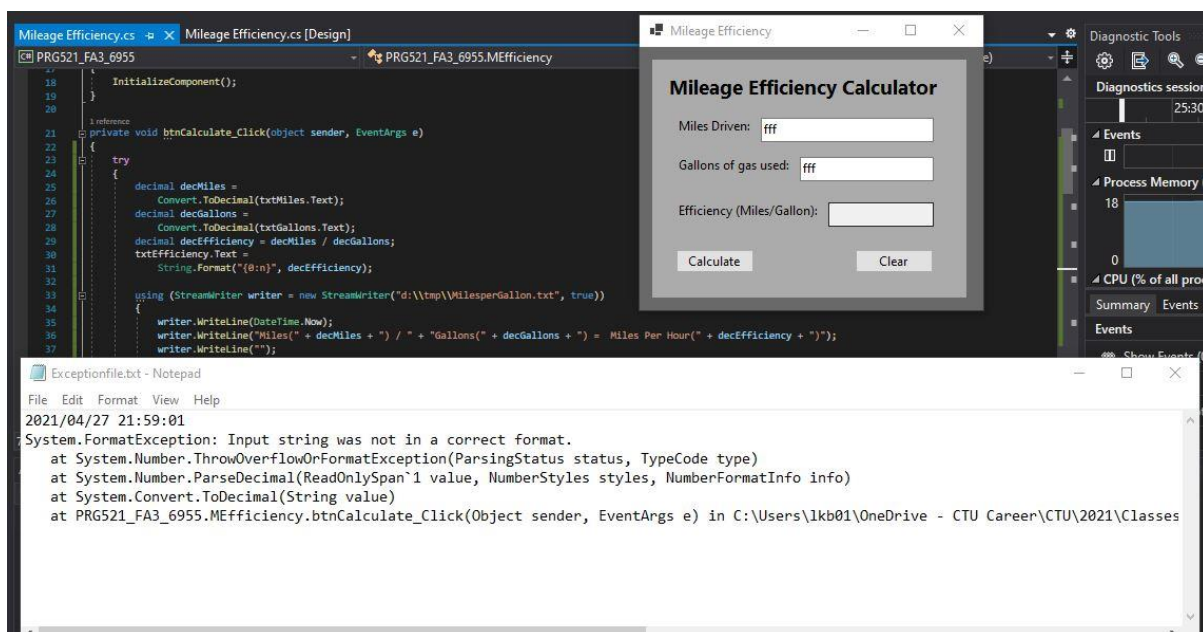
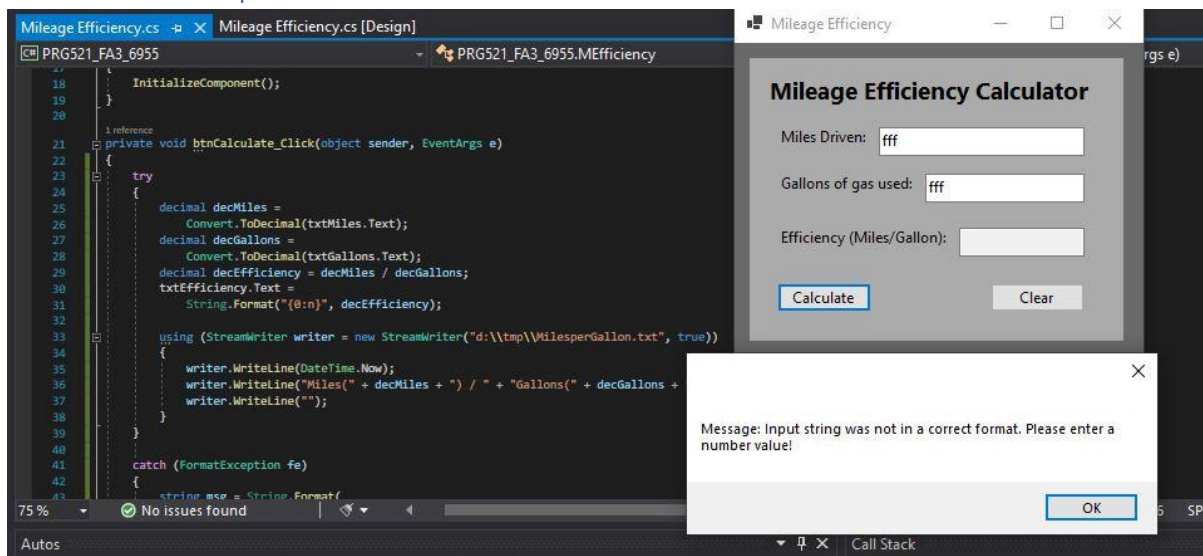
```

Results:

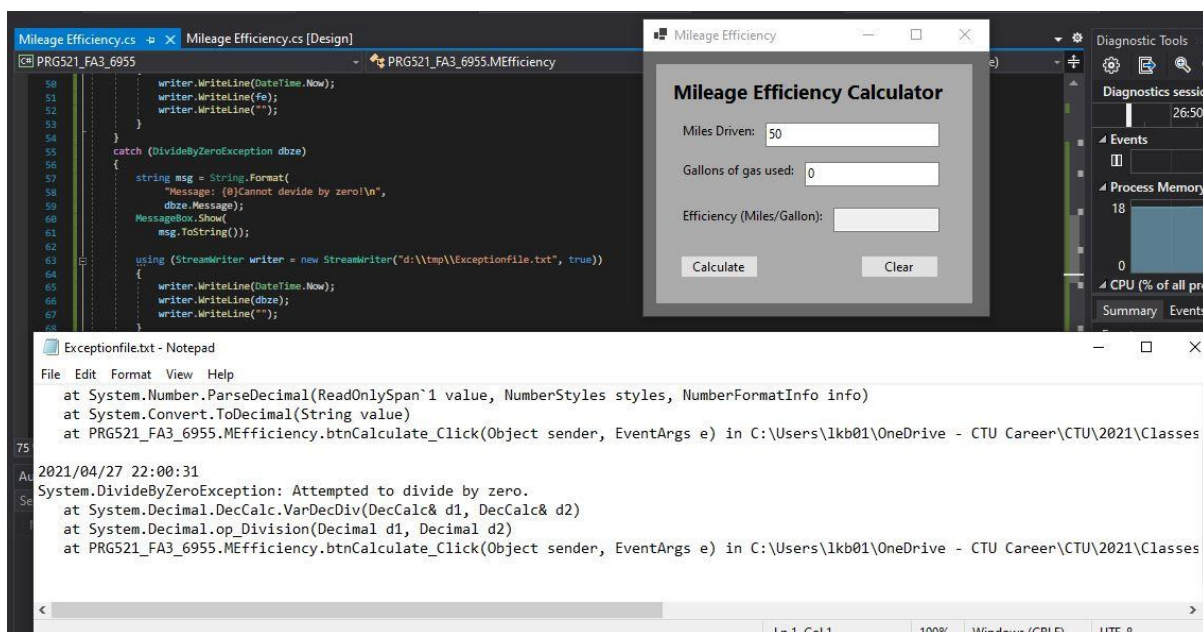
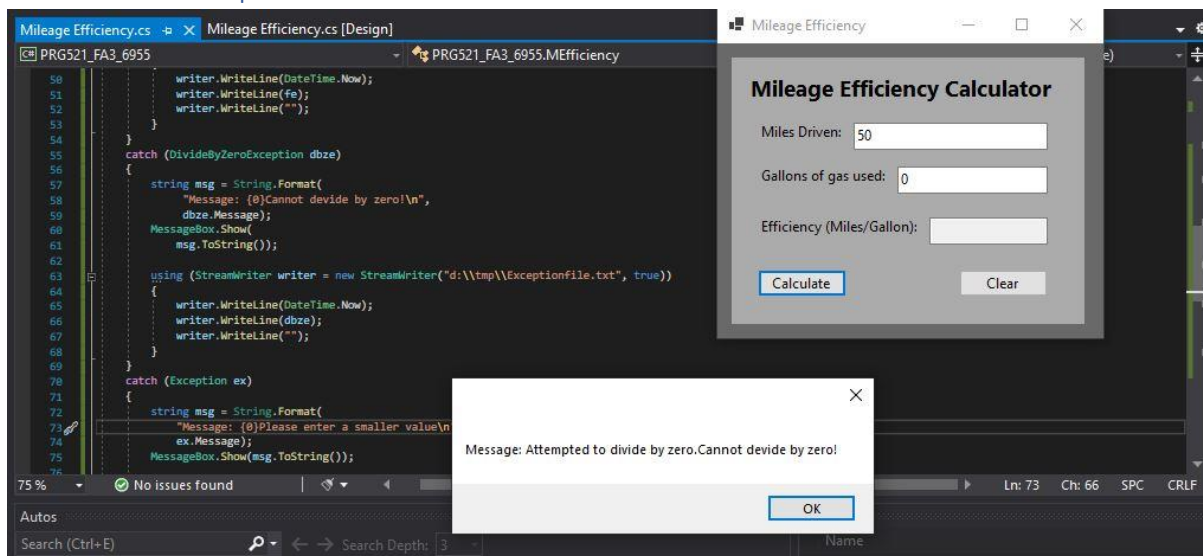
User Input and Results:



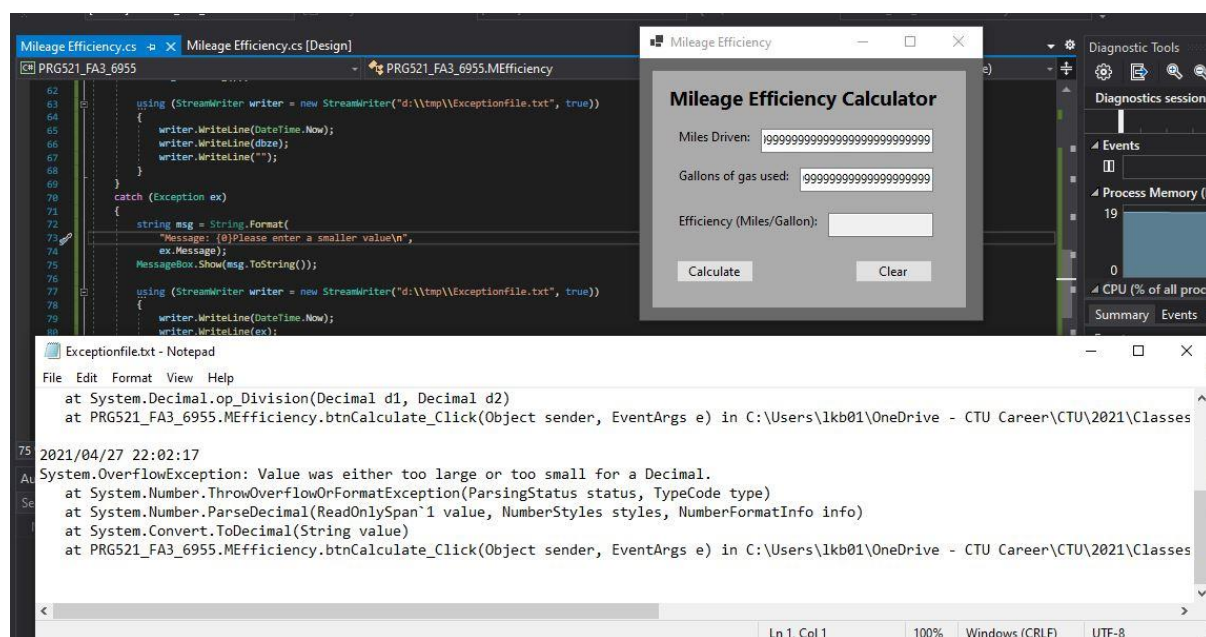
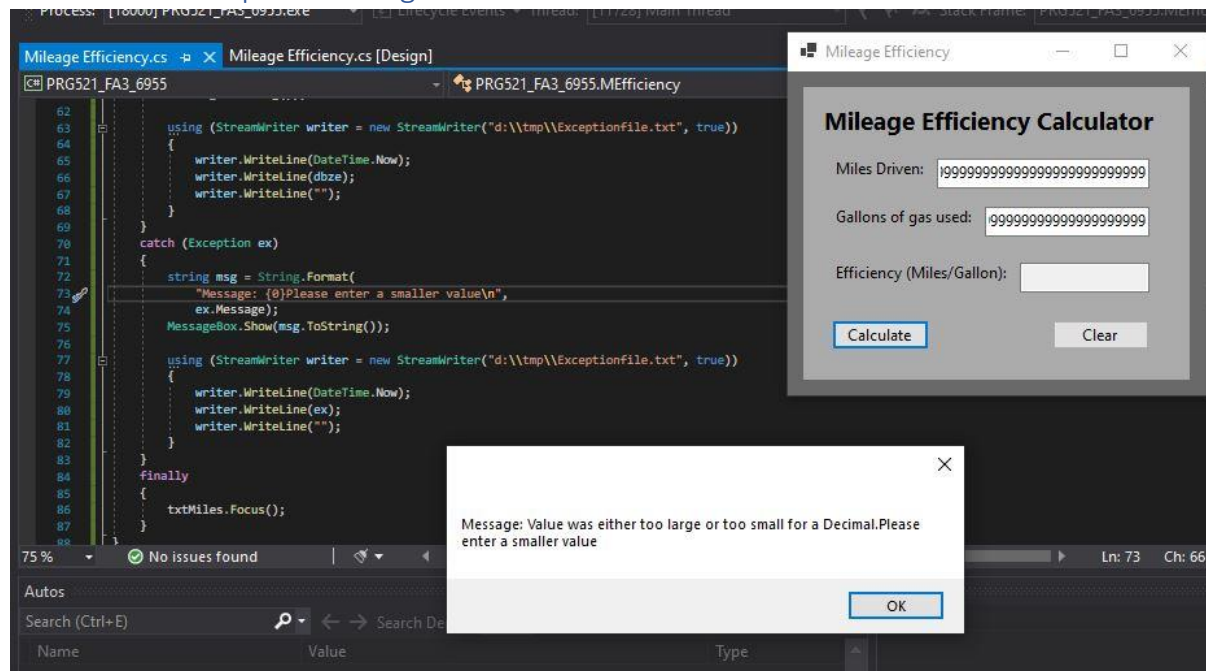
User incorrect input and Format error:



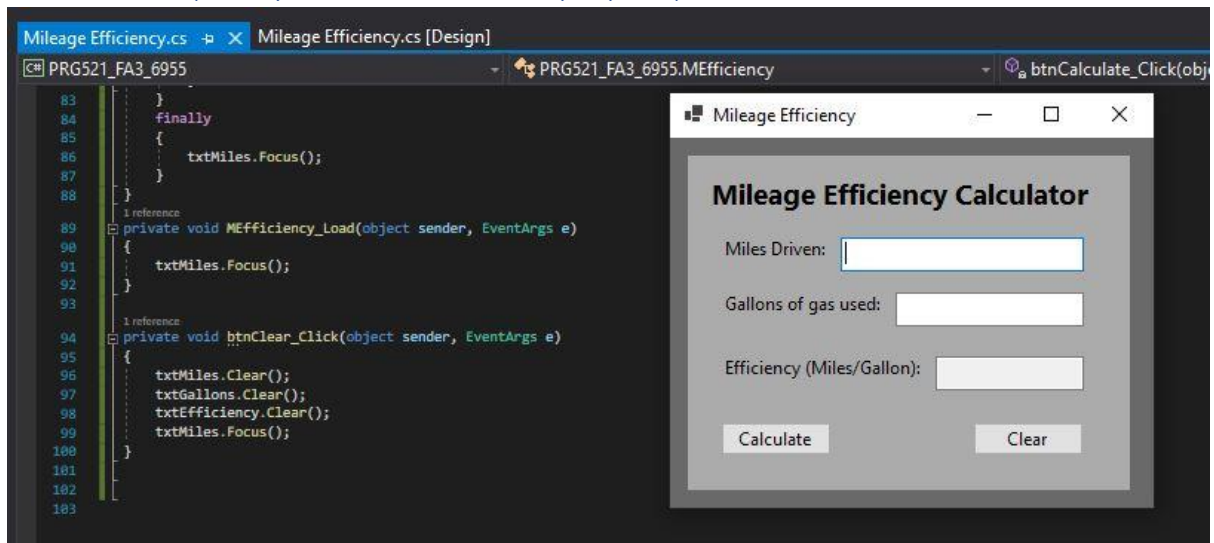
User incorrect input and Divide error:



User incorrect input and Large error:



Clear Button (Purely for demonstration purpose):



THE END!