Homework – Week 5 – Programming

Name:

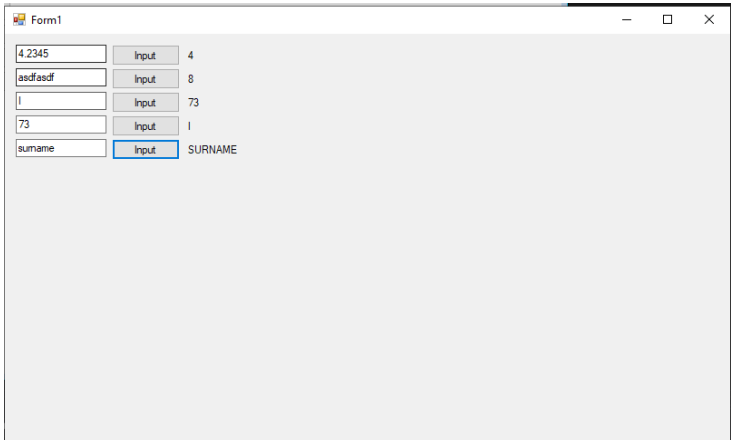
Question 5.1 - Write a program that solves the following problems with standard modules

- asks the user to type in a number with decimal places. The program should then display the rounded and truncated number.
- that reads in a string and displays the numbers of characters in the string.
- that displays the ASCII code for any given character.
- that will display the character for a given ASCII code.
- that asks the user for their surname and displays the surname in uppercase letters.

Designer file:

Code file:

Screenshot of running program:



Question 5.2 - Write a program that fulfils the criteria for exercise 9.2 from the VB book - can be in either VB or C#

Code file:

```
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 Homework_5._2
{
    public partial class HW5B : Form
    {
        int total = 0;
        int numOfMrks = 0;
        public HW5B()
        {
            InitializeComponent();
        }

        private void HW5B_Load(object sender, EventArgs e)
        {
        }

        private void processOneNumber(int examMrk, ref int mrksTotal, ref int mrksCount)//subprogram to add inputted marks to the
total and to increment the num of inputs
        {
            mrksTotal += examMrk;
            mrksCount++;
        }

        private void calcMean(int mrksTotal, int mrksCount, ref double avg)
        {
            avg = mrksTotal / mrksCount;//takes mean from values calculated in processonenumber()
        }
```

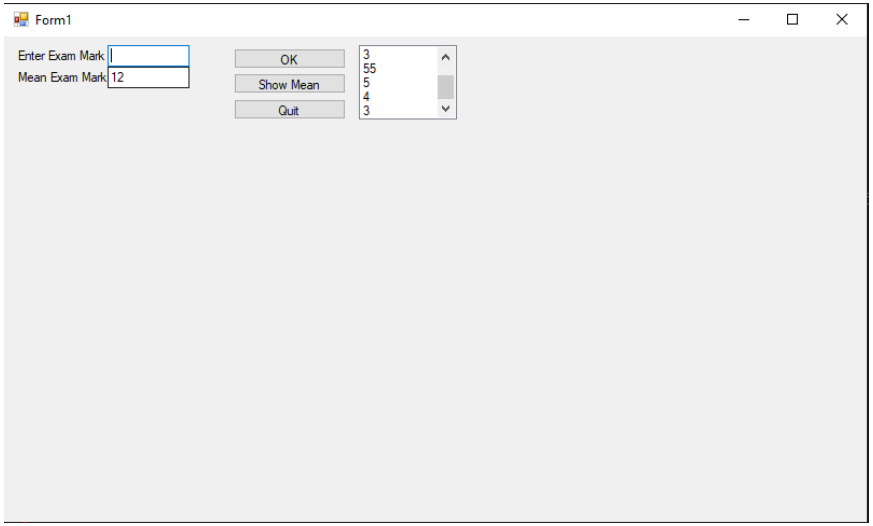
```
        private void BTNok_Click(object sender, EventArgs e)
        {
            int num = 0;
            num = Convert.ToInt32(TBinput.Text);
            marksList.Items.Add(num);//adds input to listbox
            processOneNumber(num, ref total, ref numOfMrks);
            BTNmean.Enabled = true;
            TBinput.Text = "";
            TBinput.Focus();
        }

        private void BTNmean_Click(object sender, EventArgs e)//on click of mean button calculates the mean and then makes mean
information visible to user, additionally disables ok button again until new input.
        {
            double mean = 0;
            calcMean(total, numOfMrks, ref mean);
            TBmean.Text = mean.ToString();
            TBmean.Visible = true;
            LBLMean.Visible = true;
            BTNok.Enabled = false;
        }

        private void BTNquit_Click(object sender, EventArgs e)
        {
            System.Windows.Forms.Application.Exit();
        }

        private void TBinput_TextChanged(object sender, EventArgs e)//re-enables ok button after an input is entered.
        {
            BTNok.Enabled = true;
        }
    }
}
```

Screenshot of running program:


Form1
Enter Exam Mark
Mean Exam Mark
12
OK
Show Mean
Quit
3
55
5
4
3