

Form1

Test Scores

100
70
85
32
47

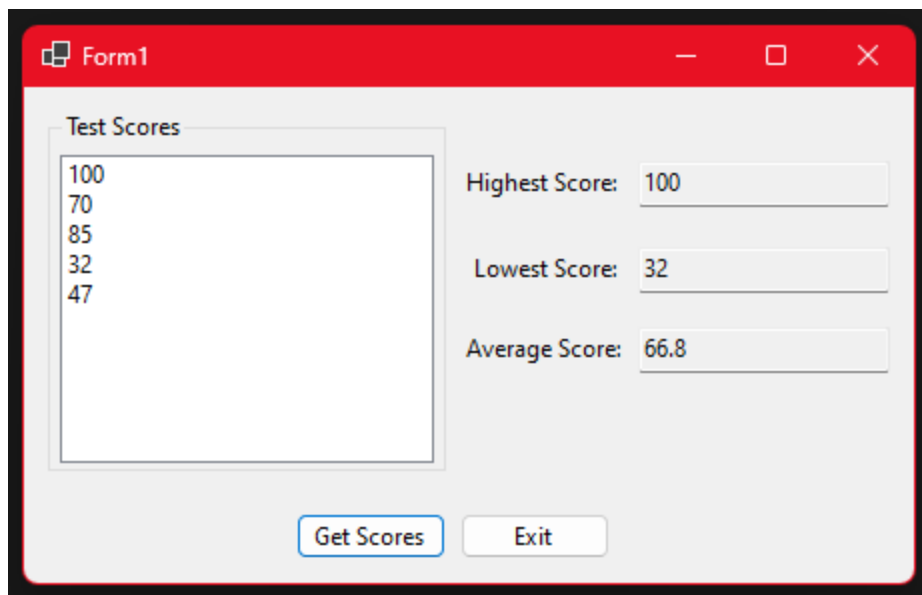
Highest Score: 100

Lowest Score: 32

Average Score: 66.8

Get Scores

Exit



```
namespace lab7_2_CalebFontenot
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
        /*
        * The Average method accepts an int array argument
        * and returns the Average of the values in the array.
        */
        static private double Average(int[] iArray)
        {
            int total = 0;        // Accumulator, initialized to 0
            double average;      // To hold the average

            // Step through the array, adding each element to the accumulator.
            for (int index = 0; index < iArray.Length; index++)
            {
                total += iArray[index];
            }

            // Calculate the average.
            average = (double) total / iArray.Length;

            // Return the average.
            return average;
        }

        /*
        * The Highest method accepts an int array argument
        * and returns the highest value in that array.
        */
        static private int Highest(int[] iArray)
        {
            // Declare a variable to hold the highest value, and initialize it with the first value
            // in the array.
            int highest = iArray[0];

            /*
            * Step through the rest of the array, beginning at
            * element 1. When a value greater than the highest
            * is found, assign that value to the highest.
            */
            for (int index = 1; index < iArray.Length; index++)
            {
                if (iArray[index] > highest)
                {
                    highest = iArray[index];
                }
            }

            // Return the highest value.
            return highest;
        }

        /*
        * The Lowest method accepts an int array argument
        * and returns the lowest value in that array.
        */
        static private int Lowest(int[] iArray)
        {
```

```
// Declare a variable to hold the lowest value, and initialize it with the first value
in the array.
int lowest = iArray[0];

/*
 * Step through the rest of the array, beginning at
 * element 1. When a value greater than the lowest
 * is found, assign that value to the lowest.
 */
for (int index = 1; index < iArray.Length; index++)
{
    if (iArray[index] < lowest)
    {
        lowest = iArray[index];
    }
}
// Return the lowest value.
return lowest;
}

private void getScoresButton_Click(object sender, EventArgs e)
{
    try
    {
        // Local variables
        const int SIZE = 5; // Number of tests
        int[] scores = new int[SIZE]; // Array of test scores
        int index = 0; // Loop counter
        int highestScore; // To hold the highest score
        int lowestScore; // To hold the lowest score
        double averageScore; // To hold the average score
        StreamReader inputFile; // For file input

        // Open the file and get a StreamReader object.
        inputFile = File.OpenText("TestScores.txt");

        // Read the test scores into the array.
        while (!inputFile.EndOfStream && index < scores.Length)
        {
            scores[index] = int.Parse(inputFile.ReadLine());
            index++;
        }

        // Close the file.
        inputFile.Close();

        //Display the test scores.
        foreach (int value in scores)
        {
            testScoresListBox.Items.Add(value);
        }

        // Get the highest, lowest, and average scores.
        highestScore = Highest(scores);
        lowestScore = Lowest(scores);
        averageScore = Average(scores);

        // Display the values.
        highestScoreTextBox.Text = highestScore.ToString();
        lowestScoreTextBox.Text = lowestScore.ToString();
        averageScoreTextBox.Text = averageScore.ToString();
    }
}
```

```
        catch (Exception ex)
        {
            // Display an error message.
            MessageBox.Show(ex.Message);
        }
    }

    private void exitButton_Click(object sender, EventArgs e)
    {
        this.Close();
    }
}
```