

## Lab 4: Intro to C#, Variables and Operators (Group A)

CS133, Beginning Programming: C#

### Introduction

The objective of this lab is to give you more practice writing C# code. You'll get input, produce output, use variables and operators to do calculations. You'll also write event handlers.

### Part 1 – Tutorials

Complete Tutorials 3-3 through 3-5 in the textbook.

### Part 2 – Ch. 3 Programming Problems

#### 8. How Much Insurance?

Many financial experts advise that property owners should insure their homes or buildings for at least 80 percent of the amount it would cost to replace the structure. Create an application that lets the user enter the replacement cost of a building and then displays the minimum amount of insurance he or she should buy for the property. (Gaddis 194)

#### 10. Calorie Counter

Create an application with a form that resembles Figure 3-42. The PictureBox controls display the images of four fruits (a banana, an apple, an orange, and a pear) and each fruit's calories. You can find these images in the Chap03 folder of the Student Sample Programs.

When the application starts, the total calories displayed should be zero. Each time the user clicks one of the PictureBoxes, the calories for that fruit should be added to the total calories, and the total calories should be displayed. When the user clicks the Reset button, the total calories should be reset to zero. (Gaddis 194)

#### 12. Paint Job Estimator

A painting company has determined that for every 115 square feet of wall space, 1 gallon of paint and 8 hours of labor will be required. The company charges \$20.00 per hour for labor. Create an application that allows the user to enter the square feet of wall space to be painted and the price of the paint per gallon. The program should display the following data:

- The number of gallons of paint required
- The hours of labor required
- The cost of the paint
- The labor charges
- The total cost of the paint job

(Gaddis 195)

Gaddis, Tony. *Starting out with Visual C# 2012, 3rd Edition*. Pearson, 20130528. VitalBook file.

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Submit these files to Moodle:

- A document containing screen-shots of each tutorial application running (label each screen-shot).
- A document containing screenshots of the applications you wrote for the Programming Problems running (label each screen-shot).
- Zipped VS solution folders for each problem.
- The completed code review form for your lab work.
- A copy of the code review you gave to your code review partner.