

# **CMP 352 - Programming Assignment #1**

**Fall 2017**

The first programming assignment of the semester is Exercise 20.17 in your textbook. For this assignment, you are to analyze, design, implement, and test your solution. You and your teammate must provide full and detailed descriptions for each of the items below. Also, your code must compile and run correctly.

## **Analysis**

What is the purpose of this program?

What are the inputs and the expected outputs of the program?

## **Design**

What data structure(s) will you use to write this program? Describe how your data structure(s) will be used in your program.

Write a short algorithm that describes the steps that your program will follow when executed.

## **Implementation**

Write the complete Java program for the design that you described above. Do not copy and paste your code on this worksheet. I will review your code in your source file(s).

## **Testing**

List at least three different test cases below. List your inputs, your expected outputs, and your observed outputs. Provide screen shots of the console for your inputs and outputs.

Briefly explain why you chose each of the test cases.

## **Deliverables**

Upload this worksheet and all of your source code files to the appropriate Drop Box on Moodle before class time on **Friday, September 22**.