

CSC 142

Assignment #1

(3 problems for 25 points)

Due on or before: see our Canvas course calendar

Late submissions: Email me the late submissions, I will accept and grade these with late penalty as described in our class syllabus.

1) Chapter 1, Exercise Question #5, page 55 (all page numbers are from 3rd Edition of our textbook) – for 7.5 points

```
{ "A "quoted" String is..." }
```

2) Chapter 1, Exercise Question #11, page 56 – for 7.5 points (be sure to answer both questions in this exercise; include these answers as comments in your code)

```
{ "TwoRockets" }
```

3) Chapter 1, Programming Project #5, page 60 – 10 points (for full credit, eliminate the redundancy or implement a structured solution - see below for style guidelines for more info on this)

```
{ "This is the house that Jack built..." }
```

Style Guidelines:

You should not place any `println` statements in your `main` method. (It is okay for `main` to have empty `println` statements to print blank lines.) Instead of printing in `main`, use static methods for two reasons:

1. Structure

You should write static methods to capture the structure of the song. You should, for example, have a method for each of the verses of the song (including your custom verse) to print that verse's entire contents.

2. Eliminating redundancy

You should use only one `println` statement for each distinct line of the song (other than blank lines). For example, the following line appears several times in the output, but you should have only one `println` statement in your program that prints that line of the song:

```
That lay in the house that Jack built.
```

But it is not good style to have lots of methods that each print just one line. Instead, identify groups of lines that appear in multiple places in the song and create methods to represent those groups. There is a general cumulative structural redundancy to the song that you should eliminate with your methods. Recall that methods can call other methods (which can themselves call other methods, and so on). The key question to ask is whether you have repeated lines or groups of lines of code that could be eliminated if you structured your methods differently.

This includes sequences of `println` statements and also repeated sequences of method calls.

You do *not* have to eliminate partial redundancy in lines that are similar but not identical, such as the following. We suggest ignoring the partial similarity and treating them as though they were entirely different lines.

```
This is the malt  
That ate the malt
```

General assignment requirements:

- **Reflections:** Reflect briefly on each program you write, as a comment at either the beginning or end of each main file. Comment on things like: how hard was the program and why? what did you learn from it? where did you need help? how long did it take to complete? what was the best part of the assignment and why? These reflections count towards a part of your assignment score.
- **Identification:** You must include a header comment with your name, this course number (CSC142), the date, the assignment number in every java file you write.
- **Compilation:** Source code (*.java) must compile in standard Java; Remember that you will receive very low score for programs that do not compile.
- **Online Submission:** Submit an electronic copy of all assignments via Canvas. You may submit on Canvas multiple times for any assignment till the time it is due - I will only grade the last (most recent) submission unless you request otherwise.
- **Style:** Always remember to use comments, indentation, spacing and descriptive variable names.

Following abovementioned requirements, submit:

- 3 source code file(s) (*.java files)
- Place all of the above files in a folder (name it you name), zip it and attach the zipped folder when submitting.

Make sure you keep a copy of everything that you submit for your records, in case of disk failures and server crashes etc.