

CSCI 2300, Fall 2019

## Homework 1 [50 points]

### Overview

In this homework, you will use the concepts we learned in class to reinforce your understanding of:

- How to structure a Java program with multiple files
- How to break a problem description into a simple program design
- How to transition from a simple design to code
- How to use primitive and non-primitive data types in Java
- How to use select Java classes (Scanner, String, ArrayList, etc)

This is an individual homework assignment. Please review Academic Integrity section of the class syllabus for rules on individual homework assignments.

### Description

For this homework, you will design and implement a program that keeps track of phone number records. Suppose we have a CSV file with a list of people and their phone numbers. Given this CSV file, we want to be able to answer the following questions:

- Whose phone number is X (where X is some phone number)?
- What are the names and phone numbers of all the people with a last name of Y (where Y is some last name)?
- What are last names and phone numbers of all the people with the first name of Z (where Z is some first name)?

Your program will need a "menu", allowing the user to select his/her choice of an operation (like the menu we did in the "Book Catalog" example in class).

The CSV file lists a person's name (FIRST, LAST), followed by that person's phone number (with no dashes or spaces). In other words, each line in the CSV file has 3 entries, separated by commas. See example CSV file in the Assignments section of the course web site.

### Submitting your solution

Create hw1 directory in your csci2300 git repository. Design and implement this program in the hw1 directory. Submit and push your .java files to the git repo. Do NOT submit .class files.

**Grading:**

NOTE: The code you submit must compile. Grade for the code that does not compile will be reduced by 50%.

[10 points] How well did you split the problem into classes?

[10 points] Does the program successfully load CSV file?

[10 points] Does the program allow to successfully find all people with a given phone number?

[10 points] Does the program allow to successfully find all people with a given last name (displaying their first names and phone numbers)?

[10 points] Does the program allow to successfully view all people with a given first name (displaying their last names and phone numbers)?