## CSCI 136 Exam 1 Fall 2016 Programming

# Program 1

In this program, you are going to calculate how much money people spend on coffee purchases. You are to read in two tab delimited files. The first one, **People.txt**, contains all the people that drink coffee. The second file, **MoneySpentOnCoffee.txt**, contains how much was purchased and spent on coffee. First, your program should provide a final tabulation showing how much each person has spent on coffee. Then, there should be the option to print out all the individual purchases by a person. Your program should have one class called Person. Inside the Person class, you should have an ArrayList of all their coffee purchases. An example of output might be like this:

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## Sum of Coffee Purchases

Name Coffee Purchased

Wired Up \$45.38

Robert Segar \$38.22

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#### **Coffee Purchases**

Name Coffee Purchase

Wired Up \$3.45

Wired Up \$5.67

Robert Segar \$1.34

Robert Segar \$4.50

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## Problem 2

In this program, you are going to read in a student dataset file, **students.dat**. You are going to create a Student object which keeps track of the Name, StudentID, and their TotalPointsEarned.

You are going to store it into an **array** of **Student** objects. The default starting size is 5. You are going mimic an ArrayList, and when you add items, you need to expand the array (double its size) and copy all the previous items into the new array when you run out of space.

Finally, you should print out each of the objects by using a **get** method that you create.

Use the **students.dat** in Moodle.

### Specifics:

- 1. Read in the student file and create Student objects.
- 2. Store each object into the array you created.
- 3. Initialize the array size to 5. Please do not use an actual ArrayList.
- 4. Create an expand method when the number of items read in exceeds the size of the array.
- 5. Create a size method to keep track of how large your "ArrayList."
- 6. Create an add method to add items to your "ArrayList."
- 7. Create a get method to get items out of your "ArrayList."
- 8. Print out all the students in your "ArrayList" at the end.