CS 1101 Lab 6 - Objects

Released on: Tuesday, November 6th
Due on: Monday November 12th, 11:59pm
How: submit zip file to Google classroom
What: A zip file named after you (LastNameFirstName-lab06.zip) containing three Java files and one text file.

Lab Description

Objective 1

Create a class ItemAnalyzer. The class has a single static method analyzeItem that takes one string parameter and returns a string. The returned string will be "fruit" if the string parameter is "apple", "mango", or "blackberry" (the check should be case insensitive), or the returned string will be "vegetable" if the string parameter is "bok choy", "cauliflower", or "brussel sprout" (the check should be case insensitive), for all other cases the returned string will be "other".

Objective 2

Create a class called ShoppingCart. It will have one constructor:
*   ShoppingCart, with one parameter fileName, which is the name of the file that has the list of items in the cart (use the attached file shopping.txt for testing).

The class will have five private fields:
*   fileName, the file name for the shopping cart
*   numFruit, default value is 0
*   numVeggies, default value is 0
*   numOther, default value is 0
*   analysisComplete, default value is false

The class will have four methods:
*   analyze, which takes no parameters and returns nothing. Reads each line from fileName (aka the cart) and checks each line using ItemAnalyzer.analyzeItem to update the value of numFruit, numVeggies, and numOther upon first analysis of the shopping cart. If analyze is called more than once, notify the user that the cart has already been analyzed, and don't reperform the analysis.
*   getNumFruit, returns the value of numFruit
*   getNumVeggies, returns the value of numVeggies
*   getNumOther, returns the value of numOther

Objective 3

Inside a main method in MyJavaLab06.java, create a ShoppingCart object, analyze the shopping cart, and validate you get the right numbers for fruit, vegetables, and other.

What do you have to turn in?

3 Java files, **MyJavaLab06.java, ItemAnalyzer.java, ShoppingCart.java** and 1 text file **shopping.txt** inside a zip folder named LastNameFirstName-lab06.zip

Criteria for grading:

- **[10 pts] Your lab is submitted according to specifications (proper name of file, proper format)**
- **[10 pts] Well commented code explaining what you are doing (clear and grammatically correct)**
- **[15 pts] Objective 1**
- **[55 pts] Objective 2**
- **[10 pts] Objective 3**