

Homework 4.2

Due Date: Wednesday, October 28, 2020 8:00 AM (hard deadline)

You are given a text file (5000.csv) with lines representing a database of customers:

- Each line has 12 fields of data separated by a comma.
- Each field is surrounded by double quotes ("").
- You should think of this file as a spreadsheet with lines representing rows, and fields representing columns.
- The first line in this file is a header line giving a title to each column:

"FirstName","LastName","Company","Address","City","County","State","ZIP","Phone","Fax","Email","Web"

- All other lines are rows representing a single, unique, customer. Example:

"Portia","Mcfann","Beachcomber Realty","4891 Pacific Hwy","San Diego","San Diego","CA","92110","858-294-0682","858-294-1695","portia@mcfann.com","http://www.portiamcfann.com"

Step 1: Create a Customer class that has a private field and a public getter method for each of the columns and a constructor that takes all 12 parameters representing the 12 columns).

Step 2: Create a FileParser (similar to what we did in lecture12) class whose constructor takes as parameter the name of the file introduced in step 1. This class has one method getCustomers() which returns an ArrayList of customers created from the text.

Step 3: Test your code by writing the following unit tests:

- 1- Assert that the first name of the first record is Portia
- 2- Assert that the last name of the first record is Mcfann
- 3- Assert that the company of the first record is Beachcomber Realty
- 4- Cases 4 – 12 ensure that Address, City, County, State, ZIP, Phone, Fax, Email, Web of the first record are correct

Step 4: import and run provided test cases:

- I. Create a new directory on the root of C:, call it c:\temp (it is OK if you already have it created, you can use the one that already exists on your file system)
 - a) Create a new directory called hw4.2
 - b) Clone this repository https://github.com/mbdeir/cmeps252_hw4.2.git into c:\temp\HW4.2, notice it will create a new directory called cmeps252_hw4.2
 - c) Start Eclipse and make sure you choose a new workspace, call it HW4_2_WS
 - d) From Eclipse choose File > "Open Projects From File System", then enter c:\temp\HW4.2 in "Import Source", then check the checkbox whose label is "HW4.2\cmeps252_hw2" and uncheck any other checkbox
 - e) Ensure you have 5,000 unit testing classes
 - f) Replace the two source files Customer.java and FileParser.java with the code you were asked to write in Steps 1 and 2 above

- g) Replace the path of the input file in Configuration.java (try view Tasks and look for the TODO)
- h) Run all test cases that are tagged with Tag("24"), ensure all 1,308 test cases succeed.
- i) Create a new branch and name it according to your first and last name, for example "mahmoubbdeir"
- j) Checkout the new branch
- k) Commit your changes on the new branch
- l) Push your changes using: `git push -u origin <mahmoubbdeir>` (replace with your name), **you have submitted your work.**

Technology Enablers:

- 1- Use the 'source' menu item in Eclipse to help you generate code (ALT + SHIFT + S), for example you can generate getter/setter methods, or an overloaded constructors from existing fields
- 2-

```
String[] fields = line.split(",(?=(^[\"]*\"[^\"]*\")*(^[\"]*$)");
```

 //split on the comma only if that comma has zero, or an even number of quotes ahead of it.

<https://stackoverflow.com/questions/1757065/java-splitting-a-comma-separated-string-but-ignoring-commas-in-quotes>