

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:

- a) Login to github and fork this repository https://github.com/mbdeir/cmeps252_hw4.2.git
- b) Add the TAs as collaborators
- c) 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)
- d) Create a new directory called `hw4.2`
- e) Clone the repository your forked repository <https://github.com/<you>/<yourproject>.git> into `c:\temp\HW4.2`, notice it will create a new directory called `cmeps252_hw4.2`
- f) Start Eclipse and make sure you choose a new workspace, call it `HW4_2_WS`
- g) 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_hw4.2`" and uncheck any other checkbox



- h) Ensure you have 5,000 unit testing classes
- i) Replace the two source files `Customer.java` and `FileParser.java` with the code you were asked to write in Steps 1 and 2 above
- j) Replace the path of the input file in `Configuration.java` (try view Tasks and look for the TODO)
- k) Run all test cases that are tagged with `Tag("24")`, ensure all 1,308 test cases succeed.
- l) Create a new branch and name it according to your first and last name, for example "mahmoubbdeir"
- m) Checkout the new branch
- n) Commit your changes on the new branch
- o) 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>