

Programming Assignment #7

Due: April 25 (Saturday) at 11:59 PM

Suppose you have a small business and are maintaining customer information in a text file: `customerData.txt`. Each customer record is on a single line with 12 fields separated by commas(‘,’). The order of the fields on a line is: First Name, Middle Initial, Last Name, Street Address, City, State, Zip Code, Country, Email Address, Telephone Number, Gender, and Birthday. The first several lines of the `customerData.txt` file are:

```
Woodrow,C,Wilson,2362 New Street,Eugene,OR,97408,US,Woodrow.C.Wilson@spambob.com,541-337-9453,male,11/26/1984
Eric,A,Stutler,568 Nuzum Court,East Aurora,NY,14052,US,Eric.A.Stutler@trashymail.com,716-652-4943,male,11/24/1947
David,E,Herbert,3678 Seltice Way,Boise,ID,83704,US,David.E.Herbert@spambob.com,208-703-8246,male,2/16/1971
Lee,A,Andrews,3472 Berkshire Circle,Knoxville,TN,37917,US,Lee.A.Andrews@spambob.com,865-566-4125,male,11/15/1973
Rena,D,Adkins,3153 Cardinal Lane,Cleveland Heights,OH,44118,US,Rena.D.Adkins@trashymail.com,216-932-7637,female,1/14/1975
Jane,D,Smith,123 Main Street,Cedar Falls,IA,50613,US,Jane.D.Smith@gmail.com,319-555-1234,female,4/14/1970
Reyna,R,Brown,2093 Middleville Road,Los Angeles,CA,90014,US,Reyna.R.Brown@pookmail.com,626-388-0030,female,3/20/1942
Duane,E,Hall,3467 Ray Court,WAGRAM,NC,28396,US,Duane.E.Hall@pookmail.com,910-369-3902,male,7/30/1962
Fannie,C,Chapman,1791 Shingleton Road,Bridgman,MI,49106,US,Fannie.C.Chapman@spambob.com,269-465-7477,female,10/5/1961
. . .
```

For this assignment your task is to write a program that generates a new text-file `mailingLabels.txt` containing mailing labels for **only female customers living in Iowa (IA)**.

The general approach you should take is to:

- open the `customerData.txt` file for reading
- open the mailing label file (`mailingLabels.txt`) for writing
- loop through each customer record in the `customerData.txt` file -- one customer's information per line
- each customer line should be split into a list of substrings by the commas (e.g., field at index 5 in the list will contain the state code)
- if a record satisfies the criteria listed above (female from Iowa), build the mailing label by concatenating select elements from the customer record's field list, and write the mailing label to the file (`mailingLabels.txt`)

Each mailing label should be **formatted as shown below with 3 blank line separating each label**:

```
Jane Smith
123 Main Street
Cedar Falls, IA 50613
```

Hint: You might look at `lec36/countVowelsOnEachLine.py` to see how to read a file one line at a time.

The steps for the homework submission system are:

1. Design, write, debug, and test your program in a folder called `hw7`. (It can contain subfolders for the movie frames and probably will.) “Zip” the folder `hw7` into a single file called `hw7.zip` (In Windows, right click on the `hw7` folder and select `Send to | Compressed (zipped) folder`)
2. Log on to the submission system at: https://www.cs.uni.edu/~schafer/submit/which_course.cgi
3. Select the course and section number of "CS 1120, Media Computation, Fienup". Click the "Continue".
4. Select the homework that you wish to submit: "HW 7: Customer Mailing List". Click the "Continue" button.
5. Specify how many extra files you want to submit. Just leave it at 0. Click the "Continue" button.
6. Upload your programs by Browsing and selecting your `hw7.zip` file. Click the "Continue" button.
7. The next page reports on the status of the upload(s). You can always continue to upload a better version of the program until the deadline. The newer file will replace an older file of the same name.

(If you miss the deadline, you'll need to submit it as above, but select “Late Homeworks” in step 4 above.)