

CSE 174 – Sections A-H – Fall 2015

PROGRAM #13: 20 points

Due Tuesday, December 1, by 11:59 p.m.

Outcomes:

- Write programs that reads and writes files.
- Write programs that use objects.

Scoring:

- If you do not submit a zip file containing your source code, your score will be zero.
- If you submit source code that does not compile, your score will be zero.
- Deductions will be made for not meeting the usual requirements: Source code that is not formatted according to the usual guidelines, methods that are not commented, and so on.

Grading Rubric:

	Full credit	Partial credit
File Writing (15 pts)	Your program correctly writes the cleanData.txt file as specified	Your program writes the file, but with some errors.
Point Display (5 pts)	Your program correctly displays the points.	Your program displays the points, but with some errors.

Problem:

In the program13 folder of the Google Drive are two .java files, PointDisplay.java and PointPlotter.java. These are the same files that you began with during last week's lab. You may have newer versions of these files that contain methods you wrote during the lab. You can either use your updated versions of these files, or use the versions in the program13 folder. (You can find a copy of the lab assignment in the program13 folder as well.)

The program13 folder contains a data file named messyData.txt. This file contains data for a lot of points that should be plotted. However, the data in the file has a couple problems:

- The numbers are double values, whereas Java's Point class expects int values.
- There are random text strings throughout the file.

You are to write a method that does two things:

- Produces a file named `cleanData.txt`. This file should have all the same data, but:
 - The numbers should be truncated (rounded down) to int values
 - The random text strings should be removed
 - The data should appear with two numbers per line: the x-coordinate and y-coordinate, in that order, separated by a space.
- Displays the points (in the same way you did in the lab)

To clarify how your clean data file should work, here is an example, showing messy data on the left, and the clean data on the right:

messyData.txt	cleanData.txt
47.83149 CAT 23.00124 16.999 DOG HOUSE 178.36 1.0101 TREE 427.6	47 23 16 178 1 427

Call the method you from the `main()` method. When your instructor runs your program, it should open the messy data file, write the clean data file, and display the points.

Note that your program should work with any file of data...not just the file you have been provided. You can assume the file will always be named `messyData.txt`, and that it will always contain doubles and random strings, but the number of points may vary from file to file.

Submit:

You should submit a zip file containing these 4 files:

- `PointDisplay.java`
- `PointPlotter.java`
- `messyData.txt`
- `cleanData.txt`