ECE 325: Object Oriented Software Design
Lab #1
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Part 2: Questions about design choices

1. Why do the adjectives and nouns files contain the total number of words on the first line? What would happen if we tried to load a file that does not contain this number? What would need to change in the code to avoid this problem?

The adjectives and nouns files contain the total number of words on the first line to relay information to the loadTxt() method about how many elements there are to read in the file. This allows the method to accurately stop when all the elements in the file have been read and stored inside an array. If we tried to load a file that does not contain this number, it may give us an error because line 95 (int totalLines = Integer.parseInt(in.readline());) is expecting an integer. It will be a run-time error. Moreover, the loadTxt() function will not know when to stop and hence could lead to out of bound index error as well. This would also be a run-time error. To avoid this, we could use an arraylist and readjust the size instead of declaring the size from the get-go in the file.

2. As you may have noticed, it is quite easy to generate a band name that can be considered inappropriate. Since you would like to tell your grandparents about your band too, you prefer an appropriate name. How would you go about making sure that the generated name is appropriate? What are some of the challenges that come with doing so?

To go about making sure that the generated name is appropriate, we can create a list of words that are inappropriate, and any band name that contains those words would be rejected by the program and it would re-run again. However, there are quite a few challenges in doing so. Collecting and maintaining a list of inappropriate words is hard to do since it is something that keeps changing and the sheer amount of them is hard to deal with. Different people find different things offensive, and everyone has a differing tolerance to such words. The problems root cause lies in data collection and the ambiguous nature of the topic.