- 1. The total number of words on the first line is used to allocate right amount of space for String array, called data, in order to store all the words from the input file since size of the array is fixed once it declared. If a file does not contain this number, the size of the array is unknown. An array cannot correctly store the data without a correct size. One way to avoid this problem is to use ArrayList, which is a resizeable-array that does not require to specify the size of the array before use. Similar data structures such as Stack and Queue might also work but it might need to require some workaround to suit the current useage.
- 2. Although there are only two type of words in this situation, adjectives and nouns, they can be further categorized by the meaning and usage of the words. Starting from adjectives, they can be categorized by what type of nouns they commonly decroate. Thus, the nouns can also be categorized based on the ideas mention above. It creates one to one mapping in the level of category. However, since words have different meanings on its own, and they can also change based on the context, this make categorization much more difficult to implement, and it is still possible to see inapproiate name being generated. Machine Learning and similar approaches can make this implementation efficient and accurate.