

# MATCHES FASHION

## Java Technical Test

Please provide your solution as a git repository.

- Consider how you will prove the correctness of your solution. • Consider how you will handle large inputs.
- Feel free to comment the code to defend your solution.
- Avoid any non-standard library.

### **Instructions:**

Write a function that, given a string of text (possibly with punctuation and line-breaks), returns an array of the top-3 most occurring words, in descending order of the number of occurrences.

Assumptions: A word is a string of letters (A to Z) optionally containing one or more apostrophes (') in ASCII. (No need to handle fancy punctuation.) Matches should be case-insensitive, and the words in the result should be lowercased. Ties may be broken arbitrarily. If a text contains fewer than three unique words, then either the top-2 or top-1 words should be returned, or an empty array if a text contains no words.

### **Examples:**

```
top_3_words("In a village of La Mancha, the name of which I have  
no desire to call to  
mind, there lived not long since one of those gentlemen that keep a lance  
in the lance-rack, an old buckler, a lean hack, and a greyhound for  
coursing. An olla of rather more beef than mutton, a salad on most  
nights, scraps on Saturdays, lentils on Fridays, and a pigeon or so extra  
on Sundays, made away with three-quarters of his income.")  
# => ["a", "of", "on"]  
top_3_words("e e e e DDD ddd DdD: ddd ddd aa aA Aa, bb cc cC e e e")  
# => ["e", "ddd", "aa"]  
top_3_words("  //wont won't won't")  
# => ["won't", "wont"]
```