Algorithm Design Term Project

1612. Tram Forum

Difficulty Level: 142

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Problem

- Tram, trolleybus, and bus drivers talk at the tram forum. We have read all messages posted at the forum during last month and discovered an interesting rule. Users in whose messages the word "tram" occurs more often than the word "trolleybus" are tram drivers. Similarly, users in whose messages the word "trolleybus" is more frequent than the word "tram" are trolleybus drivers. All other users of the tram forum are bus drivers. Given this information, can you determine who has posted the latest message at the tram forum?

Input

▶ You are given the latest message at the tram forum. The message consists of lowercase English letters, spaces, line breaks, and punctuation marks: periods, commas, dashes, colons, and exclamation and question marks. The total length of the message is at most 10000 symbols. Words consist of letters and can be separated by spaces, line breaks, and punctuation marks.

Output

- Output "Tram driver" if the user who has posted the latest message is a tram driver; output "Trolleybus driver" if she is a trolleybus driver; and output "Bus driver" if she is a bus driver.

Samples

Samples

input	output
of course, tram is the best transport in the world!	Tram driver
yes, yekaterinburg trams are the best trams in the world, but i like my trolleybus too.	Trolleybus driver
read forum.tr.ru every day! you can learn much about tram drivers and trolleybus drivers.	Bus driver

Problem Solution

```python
# tramforum.py ✕
1    #Farial Azmain
2    # 5916886
3
4    import sys
5
6    string = sys.stdin.read().strip().split()
7    trolley = 0
8    tram = 0
9    for i in string:
10       if "tram," in i or "tram." in i or "tram!" in i or "tram-" in i or "tram:" in i or "tram?" in i or\
11                      "tram\n" in i or i == "tram":
12           tram += 1
13       elif "trolleybus,"in i or "trolleybus."in i or "trolleybus!"in i or "trolleybus-"in i or\
14           "trolleybus:"in i or "trolleybus?"in i or "trolleybus\n" in i or i == "trolleybus":
15           trolley += 1
16   if tram > trolley:
17       print("Tram driver")
18   elif tram < trolley:
19       print("Trolleybus driver")
20   else:
21       print("Bus driver")
```

Code Analysis

▶ Line 6: Takes in the input and splits the words.

▶ Line 7: Initiates the variable trolley

▶ Line 8: Initiates the variable tram

▶ Line 9 to 15: checks the number of times the words trolley and tram appears in the sentence and adds it to the appropriate variable created in line 7 and 8.

▶ Line 16 to 21: It compares how many times each of the word appears in the system. If the word tram appears more times than the word trolley the output will be "Tram driver". If the word trolley appears more time than the word tram than the output will be "Trolleybus driver". Else the output will be "Bus driver".

Test cases

Submission Result

8657137	06:59:44 28 Nov 2019	Farial	1612. Tram Forum	Python 3.6	Accepted	0.093	288 KB

Reference

- https://github.com/MrRefactoring/Timus/blob/master/Python_Solutions/1612.py