

Coding Practice with Kick Start Session #1 - Kick Start 2022 Centauri Prime

PROBLEM

ANALYSIS

Analysis

[View problem and solution walkthrough video](#)

Given the name of the kingdom, we need to determine the ruler of that kingdom. Based on the information given in the problem, we can say that who the ruler is depends on the last letter of the kingdom name.

- If the last letter is a vowel, then the kingdom is ruled by Alice.
- If the last letter is a consonant other than 'y', then the kingdom is ruled by Bob.
- If the last letter is y, then the kingdom is ruled by nobody.

Test Set 1

Let us create a function `getRuler` which takes as input a string `kingdom` and returns whether it is ruled by Alice, Bob or nobody. Consider x to be the last letter of **kingdom**.

- We will first check if x is a vowel, for this we can create a hashset consisting of all the vowels i.e. {a, e, i, o, u} and check if x is present in the hashset. If it is present return Alice.
- Now let us check if x is equal to y if so, then return nobody
- If both the above conditions are not satisfied, then x is a consonant and not equal to y. In this case, return Bob.

Test Set 2

We can use the same approach for this test as well, but there is a small catch. In Test Set 1, because of the constraints, **kingdom** has at least 3 letters so x is always lowercase. In Test Set 2, **kingdom** can have only one letter, so x is an uppercase. We need to convert it to lowercase and then check if it is a vowel or equal to y.

Time Complexity

Creating a hashset of vowels: $O(5)$, which is equivalent to $O(1)$.

For each test case:

Converting x to a lowercase in case of **kingdom** having only one letter: $O(1)$.

Checking if x is a vowel: $O(1)$.

Checking if x is equal to y : $O(1)$.

We have \mathbf{T} test cases, hence the overall time complexity is $O(\mathbf{T})$

Note

Please take care of adding a `.` (terminating period) at the end of the output sentence.

Test Data



i We recommend that you practice debugging solutions without looking at the test data.