[CS 11 25.1] HOPE 3 – Hopes

Cheatsheet is available here: https://oj.dcs.upd.edu.ph/cs11cheatsheet/

Problem Statement

You have just finished writing a rant about hope in your Burnbook. Looking at this rant again, and considering the HOPE is very soon, you decide to make this problem:

> If your rant is represented by the string s, given two indices i and j, how many times does the word "hope" appear in the substring $s_i s_{i+1} \cdots s_{j-1}$?

Note that the counting must be **case-insensitive**.

Task Details

Your task is to implement a function named `count_hope`, which should look like this:

```
def count_hope(rant):
```
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Here, `rant` is a string representing your rant.

The function should return a **function** that takes in two integers i and j and returns an integer denoting the number of times `hope` appears in the substring `rant[i:j]` (where j is **exclusive**).

Restrictions

Your source code must have at most 600 bytes.

Example Testing

```
f = count_hope("""\
Never gonna give you up, never gonna let you down
Never gonna run around and desert you
Never gonna make you cry, never gonna say goodbye
Never gonna tell a lie and hurt you""")
assert f(11, 67) == 0

g = count_hope("hopehopehopehope")
assert g(0, 4) == 1
assert g(0, 8) == 2
assert g(1, 8) == 1
```
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Constraints

Let t be the total number of times `count_hope` is called, let n be the total number of times the functions returned by `count_hope` are called, and let m be the total length of all strings passed into `count_hope`.

- $t \leq 70,000$
- $n, m \leq 350,000$
- Each string consists of ASCII characters.
- $0 \leq i \leq j \leq x$ where x is the length of the string passed to the corresponding `count_hope` call.

Scoring

Note: New tests may be added and all submissions may be rejudged at a later time. (All future tests will satisfy the constraints.)

- You get 100 ❤ points if you solve all test cases where:
  - $t \leq 200$
  - $n, m \leq 800$
- You get 35 ❤ points if you solve all test cases where:
  - $t \leq 3,000$
  - $n, m \leq 12,000$
- You get 55 🔴 points if you solve all test cases.

❓ Clarifications

Report an issue

No clarifications have been made at this time.

Submit solution

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My submissions

My tickets

✔ **Points:** 190 (partial)

⏱ **Time limit:** 12.0s

▦ **Memory limit:** 2G

❯ **Problem type**

❯ **Allowed languages**
py3