[CS 11] Prac 4c – Banana Queue

Problem Statement

Lolo Generoso is selling a special kind of bananacue. This bananacue consists of several bananas in a stick (not necessarily just 3), and each banana has a flavor. There are 26 flavors all in all, so we can represent each flavor as a lowercase English letter.

You have a strange way of eating such a bananacue. You first eat the banana in front, then the one at the back, then the one in front, then the one at the back, and so on.

Given the sequence of flavors of your bananacue (represented as a string), what is the sequence of flavors of bananas you will eat?

Task Details

Your task is to implement a function called `banana_sequence`. This function has a single parameter:

- `flavors` — a `str` denoting the banana flavors from front to back.

The function must return a `str` denoting the sequence of banana flavors you will eat.

Restrictions

- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Additional functions are **disallowed**.
- Comprehensions are allowed.
- `range` is allowed.
- The symbols `min`, `max`, `sum` and `sorted` are allowed.
- The source code limit is 350.

Example Calls

Example 1 Function Call

```
banana_sequence('saging')
```

Example 1 Return Value

```
'sgangi'
```

Example 2 Function Call

```
banana_sequence('maypuso')
```

Example 2 Return Value

```
'moasyup'
```

Example 3 Function Call

```
banana_sequence('petal')
```

Example 3 Return Value

```
'pleat'
```

Example 4 Function Call

```
banana_sequence('preserve')
```

Example 4 Return Value

```
'perverse'
```

Constraints

- The function `banana_sequence` will be called at most 200 times.
- `flavors` is nonempty and consists of lowercase English letters.
- The total length of all inputs is at most $200{,}000$.

Scoring

- You get 70 ❤️ points if you solve all test cases where:
  - the length of `flavors` is an odd number at most 50.
- You get 70 ❤️ points if you solve all test cases where:
  - the length of `flavors` is an even number at most 50.
- You get 60 ❤️ points if you solve all test cases where:
  - the length of `flavors` is at most 50.
- You get 50 ❤️ points if you solve all test cases where:
  - the total length of all inputs is at most 4000.
- You get 50 ❤️ points if you solve all test cases.

Submit solution

My submissions

Points: 300 (partial)
Time limit: 4.0s
Memory limit: 1G

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Problem type

Allowed languages
~~NONE~~, py3

Clarifications

Report an issue

No clarifications have been made at this time.