[CS 11 25.1] Lab 2i – Lengths

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

Problem Statement

Len-len has n strings. Can you help her group these strings by length?

Task Details

Your task is to implement a function called `strings_by_length`. This function has a single parameter, a `tuple` of n `str`s.

The function must return a `tuple` of pairs. Each pair consists of:

- first, an `int`, denoting a length of some string.
- second, a nonempty `tuple` of all the `str`s in the input whose length is this integer.

The `str`s in each tuple must be in the order they appear in the input, and the lengths must be in increasing order in the output.

Note that only lengths that appear in the input must be included in the output.

Restrictions

For this problem:

- Up to 1 function definition is allowed.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Comprehensions are allowed.
- `range` is allowed.
- `min`, `max` and `sum` are now allowed.
- The source code limit is 550.

Example Calls

Example 1 Function Call

```
strings_by_length(('the', 'quick', 'brown', 'fox', 'jumps',
'over', 'the', 'lazy', 'dog'))
```

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Example 1 Return Value

```
(
    (3, ('the', 'fox', 'the', 'dog')),
    (4, ('over', 'lazy')),
    (5, ('quick', 'brown', 'jumps')),
)
```

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Constraints

- The function `strings_by_length` will be called at most 50 times.
- $0 \leq n \leq 100$
- Each input string is nonempty, has length at most 100, and consists only of lowercase English letters or spaces.

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.

Clarifications

Report an issue

No clarifications have been made at this time.

Submit solution

My submissions

Points: 100 (partial)
Time limit: 4.0s
Memory limit: 1G

Problem type

Allowed languages
py3