[CS 11 25.1] HOPE 2c – Triple Trouble

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

Problem Statement

Your friend is dealing out cards to you one at a time. You don't play cards much, so you don't realize that you're *not* supposed to show your friend what you got. Oh well.

Each card consists of a *face* and a *suit*. As your friend deals cards to you, you will show three cards c_1, c_2, and c_3 only if the following are true:

- c_1, c_2, and c_3 were dealt consecutively to you, with c_3 being the most recent one dealt.
- c_1 and c_3 are of the same suit.
- c_2 and c_1 are not of the same face.
- c_2 and c_3 are not of the same face.

Whic triples of cards will you end up showing your friend?

Task Details

Your task is to implement a function named `card_triplets`, which should start like this:

```
def card_triplets(cards):
```

Here, `cards` is an iterable of strings. Each string is of the form `<face><suit>`, denoting a single card.

The function must return a *generator* that generates triples (tuples of length 3) of strings, where each triple corresponds to a triple (c_1, c_2, c_3) as described in the problem statement.

Note that your generator must be **as lazy as possible**. It should yield each resulting next element as soon as it has enough information, and it should produce these results while advancing the input generators for as little as possible.

Restrictions

- Loops and lists are allowed.
- Sets and dictionaries are allowed.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Generators and comprehensions are allowed.
- Your source code must have at most 900 bytes.

Examples

Example 1 Function Call

```
[*card_triplets(("2H", "3D", "4H", "5H", "4H"))]
```

Example 1 Return Value

```
[("2H", "3D", "4H"), ("4H", "5H", "4H")]
```

Example 1 Explanation

For the triple `("2H", "3D", "4H")`:

- The three cards `2H`, `3D`, and `4H` were dealt consecutively.
- `2H` and `4H` have the same suit.
- `3D` and `2H` don't have the same face.
- `3D` and `4H` don't have the same face.

Example 2 Function Call

```
[*card_triplets(["AC", "2S", "3H", "4D", "5C", "6S", "7H", "8
"9C", "JS", "QH", "KD"])]
```

Example 2 Return Value

```
[]
```

Constraints

- The function `card_triplets` will be called at most 200 times.
- At most 500 elements will be consumed from the returned generator.
- Each face is one of the characters in `A23456789JQK`.
- Each suit is one of the characters in `CSHD`.

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 80 ♥ $+ 120$ ● points if you solve all test cases.

Clarifications

Report an issue

No clarifications have been made at this time.

Submit solution [CS 11 25.1] HOPE 2

My submissions

✓ **Points:** 200 (partial)

Time limit: 3.0s

Memory limit: 2G

› **Problem type**

⌄ **Allowed languages**
py3