[CS 11] Prac 3l – Healthy Diet

oj.dcs.upd.edu.ph/problem/cs11prac3l

Submit solution
Points: 220 (partial)

Time limit: 4.0s

Memory limit: 1G

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Problem type

Allowed languages

~~NONE~~, py3

Problem Statement

You have a condition that makes it so that you are only allowed to eat two kinds of food: **adobo** and **tinola**.

Eating the same food over and over again gets old pretty quick, so to spice up your meals, you have decided that you don't want to eat the same food *three consecutive times in a row*.

You would like to plan your meals for the next nn days.

Can you enumerate all possible plans satisfying the requirements above?

We can represent adobo and tinola as the letters `a` and `t`, respectively, and a meal plan as a string of length nn.

Task Details

Your task is to implement a function called `exciting_meal_plans`. This function has a single `int` parameter `n` as described in the problem statement.

The function must return a `tuple` of `str`s consisting of all the valid meal plans, each of which is a `str` of length `n` denoting a valid meal plan.

Please return the meal plans in alphabetical order.

Restrictions

For this problem:

- Recursion is allowed.
- Up to 44 functions are allowed.
- Comprehensions are allowed.
- The `range`, `min`, `max`, and `sum` symbols are allowed.
- The source code limit is 700700.

Example Calls

Example 1 Function Call

Copy

```
exciting_meal_plans(5)
```

Example 1 Return Value

Copy

```
(
    'aataa', 'aatat', 'aatta', 'ataat', 'atata', 'atatt', 'attaa',
'attat',
    'taata', 'taatt', 'tataa', 'tatat', 'tatta', 'ttaat', 'ttata',
'ttatt',
)
```

Constraints

- The function `exciting_meal_plans` will be called at most 11 time.

- $1 \leq n \leq 27$

Scoring

- You get 100100 ❤️ points if you solve all test cases where:
  - $n \leq 18$
- You get 4040 💔 points if you solve all test cases where:
  - $n \leq 21$
- You get 4040 💔 points if you solve all test cases where:
  - $n \leq 24$
- You get 4040 💔 points if you solve all test cases.

Report an issue

Clarifications

No clarifications have been made at this time.