[CS 11] Prac 4g – Rotate Painting

Problem Statement

You recently had a postmodern artwork installed in your living room.

However, the person who installed it doesn't know any art, so he installed it facing the wrong way! You need to turn it 90 degrees clockwise.

You took a picture of the wrongly-installed artwork. How would it look like after rotating it 90 degrees clockwise?

Task Details

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

- `painting` — a `tuple` of `str`s describing the painting. Each character represents a distinct color of the artwork.

The function must return a `tuple` of `str`s representing a painting of the same dimensions denoting the state of the painting after all the blocks rotate clockwise.

Restrictions

- Recursion is allowed.
- Up to 8 function definitions are allowed.
- Comprehensions are allowed.
- `range` is allowed.
- The symbols `min`, `max`, `sum` and `sorted` are allowed.
- The source code limit is 400.

Example Calls

Example 1 Function Call

Copy

```
rotate_cw((
    '.....-...#.',
    '.####-...#.',
    '.....-...#.',
    '.....-.....',
    '#####-#####',
    '.....-.....',
    '|||||+|||||',
    '.....-.....',
    '.....-#####',
    '.....-.....',
    '.####-#####',
    '.....-.....',
))
```

Example 1 Return Value

Copy

```
(
    '.....|.#....',
    '.#...|.#..#.',
    '.#...|.#..#.',
    '.#...|.#..#.',
    '-----+------',
    '.#.#.|.#....',
    '.#.#.|.#....',
    '.#.#.|.#....',
    '.#.#.|.#.###',
    '.#.#.|.#....',
)
```

Constraints

- The function `rotate_cw` will be called at most 200 times.
- The painting will have at most 20 rows and at most 20 columns.

Scoring

- You get 120 ❤️ points if you solve all test cases.

Submit solution

Points: 120 (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.