

[CS 11] Prac 5I – Group By Digit

Problem Statement

Given a sequence of integers, group them by last digit. Return a 10-tuple of lists, where the list at index i contains the integers with last digit i (in input order).

Task Details

Implement a function called `group_by_last_digit`:

```
def group_by_last_digit(nums):
```

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- `nums` — tuple of `int`s

Return a tuple of 10 list s of `int` s.

Restrictions

For this problem:

- Loops and lists are allowed.
- Additional functions are **disallowed**.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Comprehensions are **disallowed**.
- The following names are now allowed: `range`, `list`, `print`, `append`, `pop`, `extend`, `remove`, `sort`, `insert`, `clear`, `reverse`.
- The source code limit is 350.

Example Calls

Example 1 Function Call

```
group_by_last_digit((314, 159, 26, 5, 35, 8, 9, 7, 9, 32))
```

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Example 1 Return Value

```
(
    [],
    [],
    [32],
    [],
    [314],
    [5, 35],
    [26],
    [7],
    [8],
    [159, 9, 9],
)
```

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Constraints

- The function `group_by_last_digit` will be called at most 50,000 times.
- The total length of `nums` across all inputs will be will be at most 200,000.
- `nums` will have at most 100,000 elements.
- Each element of `nums` will be between 0 and 10^{10} .

Scoring

- You get 80 ❤️ points if you solve all test cases where:
 - `nums` will have at most 4,000 elements.
 - the total length of `nums` across all inputs will be will be at most 8,000.
- You get 40 ❤️ points if you solve all test cases.

Clarifications

No clarifications have been made at this time.

Report an issue

Submit solution

[CS 11]

Practice 5 ❤️

My submissions

✔ Points: 120 (partial)

🕒 Time limit: 6.0s

📄 Memory limit: 1G

✎ Author:

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➤ Problem type

▼ Allowed languages

NONE, py3