[CS 11] Prac 2l – Join Ranges

oj.dcs.upd.edu.ph/problem/cs11prac2l

Submit solution

My submissions

Points: 100 (partial)

Time limit: 4.0s

Memory limit: 1G

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Problem type

Allowed languages

~~NONE~~, py3

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

Problem Statement

You have several pairs of integers (ai,bi) (a_i , b_i) . Find the set of all integers that belong to at least one of the closed intervals [ai,bi] [a_i , b_i] .

A number vv belongs to an interval [a,b] [a , b] iff a≤v≤b$a \le v \le b$.

Task Details

Implement a function called `interval_contents`:

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```
def interval_contents(pairs):
```

- `pairs`—`tuple` of pairs of `int`s

Return a `frozenset` of `int`s.

Restrictions

(See 2a for more restrictions)

For this problem:

- Up to 11 function definition is allowed.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Comprehensions are allowed.
- `range` is allowed.
- The source code limit is 500500.

Example Calls

Example 1 Function Call

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```
interval_contents(((3, 6), (9, 10), (20, 20), (2, 4)))
```

Example 1 Return Value

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```
frozenset((3, 4, 5, 6, 9, 10, 20, 2))
```

Constraints

- The function `interval_contents` will be called at most 1,0001,000 times.
- `pairs` will have at most 4040 elements.
- Each integer in the input has absolute value at most 102010^{20}.
- For each pair (ai,bi) (a_i , b_i) in the input, 0≤bi−ai≤100 $\leq b_i - a_i \leq 10$.

Scoring

- You get 100100 ❤ points if you solve all test cases.

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Clarifications

No clarifications have been made at this time.