Interval List Intersections

Try to solve the Interval List Intersections problem.

We'll cover the following

Statement

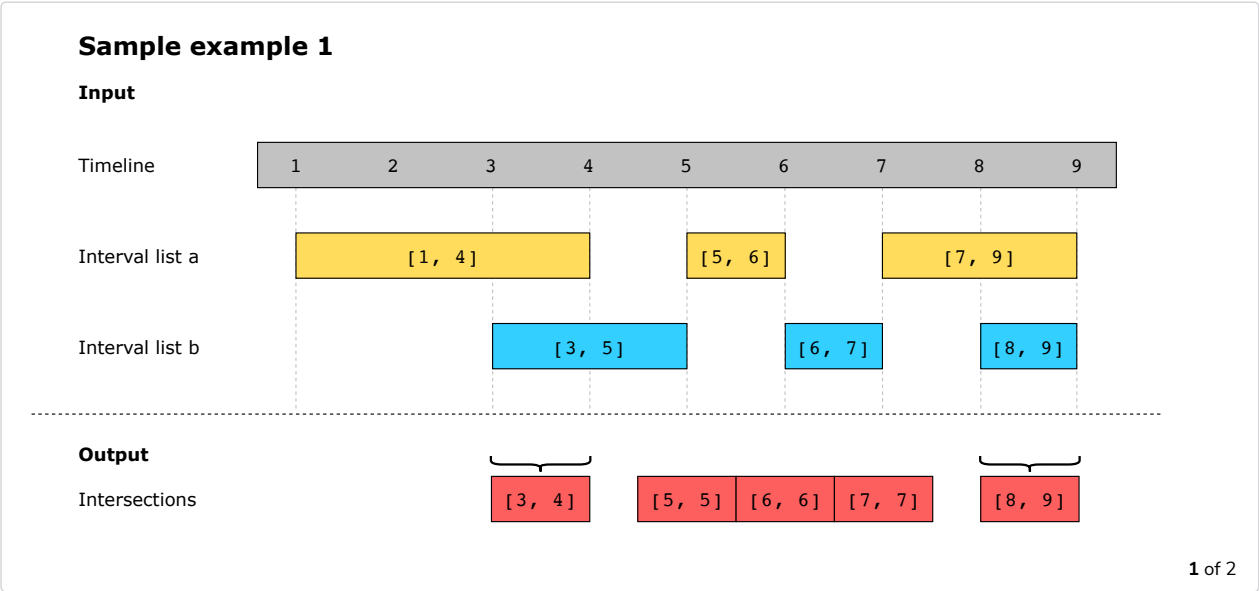
For two lists of closed intervals given as input, `intervalLista` and `intervalListb`, where each interval has its own start and end time, write a function that returns the intersection of the two interval lists.

For example, the intersection of $[3, 8]$ and $[5, 10]$ is $[5, 8]$.

Constraints:

- $0 \leq$ `interval_list_a.length`, `intervalListb.length` ≤ 1000
- $0 \leq$ `start[i]` $<$ `end[i]` $\leq 10^9$, where i is used to indicate `intervalLista`
- `end[i]` $<$ `start[i + 1]`
- $0 \leq$ `start[j]` $<$ `end[j]` $\leq 10^9$, where j is used to indicate `intervalListb`
- `end[j]` $<$ `start[j + 1]`

Examples



Understand the problem

Let’s take a moment to make sure you’ve correctly understood the problem. The quiz below helps you check if you’re solving the correct problem:

Interval List Intersections

1 From the following interval lists, find their intersecting intervals.

First list = [[2, 6], [7, 9], [10, 13], [14, 19], [20, 24]]

Second list = [[1, 4], [6, 8], [15, 18]]

A) [[1, 4], [6, 8], [13, 18]]

B) [[2, 4], [6, 6], [7, 8], [15, 18]]

C) [[2, 4], [6, 8], [15, 18]]

Submit Answer

Question 1 of 2
0 attempted

Reset Quiz

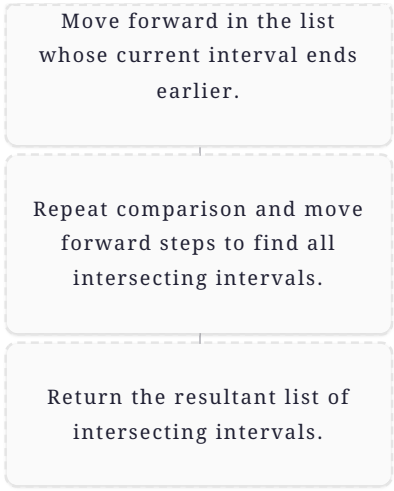
Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Compare the starting and ending times of a given interval from A and B.

If the start time of the current interval in A is less than or equal to the end time of the current interval in B, or vice versa, we have found an intersection. Add it to a resultant list.



Reset | Show Solution | Submit

Try it yourself

Java

Intersection.java

Interval.java

```java
import java.util.*;
class Intersection {
  // Function to find the intersecting points between two intervals
  public static List <Interval> intervalsIntersection(List <Interval> interva
    List <Interval> intersections = new ArrayList <>(); // to store all inter
    // Your code will replce this placeholder return statement

    return intersections;
  }
}
```

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Test Cases | Results

Case 1 | Case 2 | Case 3

Input #1

[[1,4],[5,6],[7,8],[9,15]]

Input #2

[[2,4],[5,7],[9,15]]

Interval List Intersections

Back

Solution: Insert Interval

Next

Solution: Interval List I...

Mark as Completed