



Merge Intervals

Try to solve the Merge Intervals problem.

We'll cover the following ^

- Statement
- Examples
- Understand the problem
- Figure it out!
- Try it yourself

Statement

We are given an array of **closed intervals** \mathbb{I} , `intervals`, where each interval has a start time and an end time. The input array is sorted with respect to the start times of each interval. For example, `intervals = [[1, 4], [3, 6], [7, 9]]` is sorted in terms of start times 1, 3, and 7.

Your task is to merge the overlapping intervals and return a new output array consisting of only the non-overlapping intervals.

Constraints:

- $1 \leq \text{intervals.length} \leq 10^4$
- `intervals[i].length = 2`
- $0 \leq \text{start time} \leq \text{end time} \leq 10^4$

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:

Merge Intervals

1

Given the below intervals, find the correct output after merging the overlapping intervals.

[[1, 6], [2, 4]]

A) [[2, 4]]

B) [[1, 6]]



C) [[1, 6], [2, 4]]

D) [[2, 4], [1, 6]]

Submit Answer



Question 1 of 4
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.

Insert the first interval from the input list into the output list.

Start a loop to iterate over each interval of the input list, except for the first.

If the input interval is overlapping with the last interval in the output list, merge these two intervals and replace the last interval of the



output list with this merged interval.

Otherwise, if the input interval does not overlap with the last interval in the output list, add the input interval to the output list.

Reset

Show Solution

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Implement your solution in `MergeInterval.java` in the following coding playground. We have provided the definition of the `Interval` class in the other file. You may add functionality to this class if you wish.

Java

MergeInterval.java

Interval.java

```
1  import java.util.*;
2
3  class MergeInterval {
4      public static List <Interval> mergeIntervals(List <Ir
5          // Replace this placeholder return statement with y
6          return new ArrayList<Interval>();
7      }
8  }
```

?

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Test Cases

Results

Case 1

Case 2

Case 3

Input #1

[[1,5],[3,7],[4,6]]

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Solution: Merge Interv...



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