

# Problem 435: Non-overlapping Intervals

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 56.31%

**Paid Only:** No

**Tags:** Array, Dynamic Programming, Greedy, Sorting

## Problem Description

Given an array of intervals `intervals` where `intervals[i] = [starti, endi]` , return \_the minimum number of intervals you need to remove to make the rest of the intervals non-overlapping\_.

\*\*Note\*\* that intervals which only touch at a point are \*\*non-overlapping\*\*. For example, `[1, 2]` and `[2, 3]` are non-overlapping.

\*\*Example 1:\*\*

\*\*Input:\*\* intervals = [[1,2],[2,3],[3,4],[1,3]] \*\*Output:\*\* 1 \*\*Explanation:\*\* [1,3] can be removed and the rest of the intervals are non-overlapping.

\*\*Example 2:\*\*

\*\*Input:\*\* intervals = [[1,2],[1,2],[1,2]] \*\*Output:\*\* 2 \*\*Explanation:\*\* You need to remove two [1,2] to make the rest of the intervals non-overlapping.

\*\*Example 3:\*\*

\*\*Input:\*\* intervals = [[1,2],[2,3]] \*\*Output:\*\* 0 \*\*Explanation:\*\* You don't need to remove any of the intervals since they're already non-overlapping.

\*\*Constraints:\*\*

\* `1 <= intervals.length <= 105` \* `intervals[i].length == 2` \* `-5 \* 104 <= starti < endi <= 5 \* 104`

## Code Snippets

### C++:

```
class Solution {  
public:  
    int eraseOverlapIntervals(vector<vector<int>>& intervals) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int eraseOverlapIntervals(int[][] intervals) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def eraseOverlapIntervals(self, intervals: List[List[int]]) -> int:
```