

Question #3 (Very Hard)

Description:

Write a JavaScript function named `mergeIntervals` that merges all overlapping intervals from a given collection of intervals. Each interval is represented as an array of two numbers `[start, end]`, where `start` is the beginning of the interval and `end` is the end of the interval. The function should return an array of the merged intervals in no specific order. Intervals that do not overlap should be included in the output as they are.

Constraints:

- The input is an array of intervals, where each interval is represented as an array of two integers `[start, end]`.
- The start of an interval will always be less than or equal to the end.
- The output should be an array of the merged intervals.
- Intervals `[start, end]` and `[end, nextStart]` are considered contiguous and should be merged.

Starting Code

```
function mergeIntervals(intervals) {  
    // Write your code here  
}
```

Sample Input 1

```
const intervals = [[1, 3], [2, 6], [8, 10], [15, 18]];  
mergeIntervals(intervals)
```

Sample Output 1

```
[[1, 6], [8, 10], [15, 18]]
```

Sample Input 2

```
const intervals2 = [[1, 4], [4, 5]];  
mergeIntervals(intervals2)
```

Sample Output 2

```
[[1, 5]]
```