2557. Maximum Number of Integers to Choose From a Range II Premium

Medium | Topics | Companies | Hint

You are given an integer array `banned` and two integers `n` and `maxSum`. You are choosing some number of integers following the below rules:

- The chosen integers have to be in the range `[1, n]`.
- Each integer can be chosen **at most once**.
- The chosen integers should not be in the array `banned`.
- The sum of the chosen integers should not exceed `maxSum`.

Return *the **maximum** number of integers you can choose following the mentioned rules.*

Example 1:

```
Input: banned = [1,4,6], n = 6, maxSum = 4
Output: 1
Explanation: You can choose the integer 3.
3 is in the range [1, 6], and do not appear in banned. The sum of the chosen integers is 3, which does not exceed maxSum.
```

Example 2:

```
Input: banned = [4,3,5,6], n = 7, maxSum = 18
Output: 3
Explanation: You can choose the integers 1, 2, and 7.
All these integers are in the range [1, 7], all do not appear in banned, and their sum is 18, which does not exceed maxSum.
```

Constraints:

- `1 <= banned.length <= 10^5`
- `1 <= banned[i] <= n <= 10^9`
- `1 <= maxSum <= 10^15`

Seen this question in a real interview before? 1/5

Yes No

Accepted 1.9K | Submissions 5.1K | Acceptance Rate 37.9%

Topics

Array Binary Search Greedy Sorting

Companies

0 - 6 months

PayPal 2

Hint 1

It is optimal always to take the smallest possible integer you can choose.

Hint 2

Between every consecutive banned integers, can you find how many integers you can choose?

Hint 3

Think of using binary search to find that.

Similar Questions

First Missing Positive	Hard
Find All Numbers Disappeared in an Array	Easy
Append K Integers With Minimal Sum	Medium
Replace Elements in an Array	Medium
Maximum Number of Integers to Choose From a Range I	Medium

Discussion (3)