Problem 1744: Can You Eat Your Favorite Candy on Your Favorite Day?

Problem Information

Difficulty: Medium
Acceptance Rate: 35.49%
Paid Only: No
Tags: Array, Prefix Sum

Problem Description

You are given a **(0-indexed)** array of positive integers `candiesCount` where `candiesCount[i]` represents the number of candies of the `ith` type you have. You are also given a 2D array `queries` where `queries[i] = [favoriteTypei, favoriteDayi, dailyCapi]`.

You play a game with the following rules:

* You start eating candies on day `**0**`. * You **cannot** eat **any** candy of type `i` unless you have eaten **all** candies of type `i - 1`. * You must eat **at least** **one** candy per day until you have eaten all the candies.

Construct a boolean array `answer` such that `answer.length == queries.length` and `answer[i]` is `true` if you can eat a candy of type `favoriteTypei` on day `favoriteDayi` without eating **more than** `dailyCapi` candies on **any** day, and `false` otherwise. Note that you can eat different types of candy on the same day, provided that you follow rule 2.

Return _the constructed array_`answer`.

Example 1:

Input: candiesCount = [7,4,5,3,8], queries = [[0,2,2],[4,2,4],[2,13,1000000000]] **Output:** [true,false,true] **Explanation:** 1- If you eat 2 candies (type 0) on day 0 and 2 candies (type 0) on day 1, you will eat a candy of type 0 on day 2. 2- You can eat at most 4 candies each day. If you eat 4 candies every day, you will eat 4 candies (type 0) on day 0 and 4 candies (type 0 and type 1) on day 1. On day 2, you can only eat 4 candies (type 1 and type 2), so you cannot eat a candy of type 4 on day 2. 3- If you eat 1 candy each day, you will eat a candy of

type 2 on day 13.

Example 2:

Input: candiesCount = [5,2,6,4,1], queries = [[3,1,2],[4,10,3],[3,10,100],[4,100,30],[1,3,1]]
Output: [false,true,true,false,false]

Constraints:

* `1 <= candiesCount.length <= 105` * `1 <= candiesCount[i] <= 105` * `1 <= queries.length <= 105` * `queries[i].length == 3` * `0 <= favoriteTypei < candiesCount.length` * `0 <= favoriteDayi <= 109` * `1 <= dailyCapi <= 109`

Code Snippets

C++:

```
class Solution {
public:
vector<bool> canEat(vector<int>& candiesCount, vector<vector<int>>& queries)
{

}
};
```

Java:

```
class Solution {
public boolean[] canEat(int[] candiesCount, int[][] queries) {

}
}
```

Python3:

```
class Solution:
def canEat(self, candiesCount: List[int], queries: List[List[int]]) ->
List[bool]:
```