

Problem 1696: Jump Game VI

Problem Information

Difficulty: Medium

Acceptance Rate: 46.23%

Paid Only: No

Tags: Array, Dynamic Programming, Queue, Heap (Priority Queue), Monotonic Queue

Problem Description

You are given a **0-indexed** integer array `nums` and an integer `k`.

You are initially standing at index `0`. In one move, you can jump at most `k` steps forward without going outside the boundaries of the array. That is, you can jump from index `i` to any index in the range `[i + 1, min(n - 1, i + k)]` **inclusive**.

You want to reach the last index of the array (index `n - 1`). Your **score** is the **sum** of all `nums[j]` for each index `j` you visited in the array.

Return **the maximum score** you can get.

Example 1:

Input: `nums = [1, -1, -2, 4, -7, 3]`, `k = 2` **Output:** `7` **Explanation:** You can choose your jumps forming the subsequence `[1, -1, 4, 3]` (underlined above). The sum is 7.

Example 2:

Input: `nums = [10, -5, -2, 4, 0, 3]`, `k = 3` **Output:** `17` **Explanation:** You can choose your jumps forming the subsequence `[10, 4, 3]` (underlined above). The sum is 17.

Example 3:

Input: `nums = [1, -5, -20, 4, -1, 3, -6, -3]`, `k = 2` **Output:** `0`

Constraints:

```
*`1 <= nums.length, k <= 105` *`-104 <= nums[i] <= 104`
```

Code Snippets

C++:

```
class Solution {  
public:  
    int maxResult(vector<int>& nums, int k) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int maxResult(int[] nums, int k) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def maxResult(self, nums: List[int], k: int) -> int:
```