31)Check If All 1's Are at Least Length K Places Away

Given an binary array nums and an integer k, return true if all 1's are at least k places away from each other, otherwise return false.

PROGRAM:

```
def k_length_apart(nums, k):
    prev_index = -1  # Initialize the previous index of '1' to -1

    for i in range(len(nums)):
        if nums[i] == 1:  # When we encounter a '1'
            if prev_index != -1:  # Check if this is not the first '1' encountered
                if i - prev_index - 1 < k:  # Calculate the distance from the previous '1'
                    return False  # If distance is less than k, return False
            prev_index = i  # Update the previous index to the current index

    return True  # If loop completes, all '1's are at least k places away

# Example usage:
nums = [1, 0, 0, 0, 1, 0, 0, 1]
k = 2
print(k_length_apart(nums, k))  # Output: True
```

INPUT:

```
nums = [1, 0, 0, 0, 1, 0, 0, 1]
```

OUTPUT:

```
True
```

TIME COMPLEXITY: O(n)