Valid Palindrome

For this problem we need to check if a string is a palindrome after:
1. Lowercasing
2. Removing non-alphanumeric characters

Approach: Two Pointers:

Steps: 1. Use two indices: left = 0, right = s.length() - 1.
2. While left < right:
   - Skip non-alphanumeric characters.
   - Compare lowercase characters at left and right.
   - If mismatch -> return false.
3. Return true.

Complexity:
- Time: $O(n)$ (single scan)
- Space: $O(1)$ (in place check)