# 125. Valid Palindrome

A phrase is a **palindrome** if, after converting all uppercase letters into lowercase letters and removing all nonalphanumeric characters, it reads the same forward and backward. Alphanumeric characters include letters and numbers.

Given a string s, return true if it is a palindrome, or false otherwise.

### Example 1:

```
Input: s = "A man, a plan, a canal: Panama"
Output: true
Explanation: "amanaplanacanalpanama" is a palindrome.
```

### Example 2:

```
Input: s = "race a car"
Output: false
Explanation: "raceacar" is not a palindrome.
```

# Example 3:

```
Input: s = " "
Output: true
Explanation: s is an empty string "" after removing non-alphanumeric characters.
Since an empty string reads the same forward and backward, it is a palindrome.
```

# Constraints:

- 1 <= s.length <= 2 \* 10<sup>5</sup>
- s consists only of printable ASCII characters.