

# 125. Valid Palindrome

## Difficulty : Easy

<https://leetcode.com/problems/valid-palindrome>

A phrase is a **palindrome** if, after converting all uppercase letters into lowercase letters and removing all non-alphanumeric 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:

- $1 \leq s.length \leq 2 * 10^5$
- `s` consists only of printable ASCII characters.