

## 125. Valid Palindrome

Easy



Topics



Companies

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.
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