

# Problem 266: Palindrome Permutation

## Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Given a string

s

, return

true

if a permutation of the string could form a

palindrome

and

false

otherwise

.

Example 1:

Input:

s = "code"

Output:

false

Example 2:

Input:

s = "aab"

Output:

true

Example 3:

Input:

s = "carerac"

Output:

true

Constraints:

$1 \leq s.length \leq 5000$

s

consists of only lowercase English letters.

## Code Snippets

C++:

```
class Solution {  
public:
```

```
    bool canPermutePalindrome(string s) {  
  
    }  
};
```

### Java:

```
class Solution {  
public boolean canPermutePalindrome(String s) {  
  
}  
}
```

### Python3:

```
class Solution:  
def canPermutePalindrome(self, s: str) -> bool:
```

### Python:

```
class Solution(object):  
def canPermutePalindrome(self, s):  
    """  
    :type s: str  
    :rtype: bool  
    """
```

### JavaScript:

```
/**  
 * @param {string} s  
 * @return {boolean}  
 */  
var canPermutePalindrome = function(s) {  
  
};
```

### TypeScript:

```
function canPermutePalindrome(s: string): boolean {  
  
};
```

**C#:**

```
public class Solution {  
    public bool CanPermutePalindrome(string s) {  
        }  
        }  
}
```

**C:**

```
bool canPermutePalindrome(char* s) {  
    }  
}
```

**Go:**

```
func canPermutePalindrome(s string) bool {  
    }  
}
```

**Kotlin:**

```
class Solution {  
    fun canPermutePalindrome(s: String): Boolean {  
        }  
        }  
}
```

**Swift:**

```
class Solution {  
    func canPermutePalindrome(_ s: String) -> Bool {  
        }  
        }  
}
```

**Rust:**

```
impl Solution {  
    pub fn can_permute_palindrome(s: String) -> bool {  
        }  
        }  
}
```

**Ruby:**

```
# @param {String} s
# @return {Boolean}
def can_permute_palindrome(s)

end
```

**PHP:**

```
class Solution {

    /**
     * @param String $s
     * @return Boolean
     */
    function canPermutePalindrome($s) {

    }
}
```

**Dart:**

```
class Solution {
bool canPermutePalindrome(String s) {

}
```

**Scala:**

```
object Solution {
def canPermutePalindrome(s: String): Boolean = {

}
```

**Elixir:**

```
defmodule Solution do
@spec can_permute_palindrome(s :: String.t) :: boolean
def can_permute_palindrome(s) do
```

```
end  
end
```

### Erlang:

```
-spec can_permute_palindrome(S :: unicode:unicode_binary()) -> boolean().  
can_permute_palindrome(S) ->  
.
```

### Racket:

```
(define/contract (can-permute-palindrome s)  
  (-> string? boolean?)  
  )
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Palindrome Permutation  
 * Difficulty: Easy  
 * Tags: string, hash  
 *  
 * Approach: String manipulation with hash map or two pointers  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(n) for hash map  
 */  
  
class Solution {  
public:  
    bool canPermutePalindrome(string s) {  
  
    }  
};
```

### Java Solution:

```
/**  
 * Problem: Palindrome Permutation
```

```

* Difficulty: Easy
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/

```

```

class Solution {
    public boolean canPermutePalindrome(String s) {
        }
    }
}

```

### Python3 Solution:

```

"""
Problem: Palindrome Permutation
Difficulty: Easy
Tags: string, hash

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(n) for hash map
"""

class Solution:
    def canPermutePalindrome(self, s: str) -> bool:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def canPermutePalindrome(self, s):
        """
        :type s: str
        :rtype: bool
        """

```

### JavaScript Solution:

```

/**
 * Problem: Palindrome Permutation
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
 */

/**
 * @param {string} s
 * @return {boolean}
 */
var canPermutePalindrome = function(s) {
}

```

### TypeScript Solution:

```

/**
 * Problem: Palindrome Permutation
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
 */

function canPermutePalindrome(s: string): boolean {
}

```

### C# Solution:

```

/*
 * Problem: Palindrome Permutation
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers

```

```

* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/
public class Solution {
    public bool CanPermutePalindrome(string s) {
        }
    }
}

```

### C Solution:

```

/*
 * Problem: Palindrome Permutation
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
*/
bool canPermutePalindrome(char* s) {
}

```

### Go Solution:

```

// Problem: Palindrome Permutation
// Difficulty: Easy
// Tags: string, hash
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(n) for hash map

func canPermutePalindrome(s string) bool {
}

```

### Kotlin Solution:

```
class Solution {  
    fun canPermutePalindrome(s: String): Boolean {  
        }  
        }  
}
```

### Swift Solution:

```
class Solution {  
    func canPermutePalindrome(_ s: String) -> Bool {  
        }  
        }  
}
```

### Rust Solution:

```
// Problem: Palindrome Permutation  
// Difficulty: Easy  
// Tags: string, hash  
//  
// Approach: String manipulation with hash map or two pointers  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(n) for hash map  
  
impl Solution {  
    pub fn can_permute_palindrome(s: String) -> bool {  
        }  
        }  
}
```

### Ruby Solution:

```
# @param {String} s  
# @return {Boolean}  
def can_permute_palindrome(s)  
  
end
```

### PHP Solution:

```
class Solution {
```

```
/**  
 * @param String $s  
 * @return Boolean  
 */  
function canPermutePalindrome($s) {  
  
}  
}
```

### Dart Solution:

```
class Solution {  
bool canPermutePalindrome(String s) {  
  
}  
}
```

### Scala Solution:

```
object Solution {  
def canPermutePalindrome(s: String): Boolean = {  
  
}  
}
```

### Elixir Solution:

```
defmodule Solution do  
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.
```

### Racket Solution:

```
(define/contract (can-permute-palindrome s)
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