

Code Challenge #10 Palindrome Check (Easy)

Difficulty:  Category:  Successful Submissions: 61,945+

Palindrome Check

Write a function that takes in a non-empty string and that returns a boolean representing whether the string is a palindrome.

A palindrome is defined as a string that's written the same forward and backward. Note that single-character strings are palindromes.

Sample Input

```
string = "abcdcba"
```

Sample Output

```
true // it's written the same forward and backward
```

Solution #1

```
1. function isPalindrome(string) {  
2.   let left = 0;  
3.   let right = string.length - 1  
4.  
5.   while (left <= right){  
6.     if (string[left] === string[right]){  
7.       left++; right--;  
8.     } else {  
9.       return false  
10.      }  
11.    }  
12.    return true  
13.  }  
14.
```

Explanation

This solution is based on checking if each letter in the string matches from front to back since a palindrome is a word that is the same backwards and forward. We create a variable called left which starts off in the beginning aka 0 and we start off with a variable called right which starts off at the end (string.length - 1). We use a while loop that runs as long as left and right are less than or equal to each

other. If the value at `string[left]` matches `string[right]` we increment `left` by one and decrement `right` by 1. If the values don't match we return false and if all the values do match we return true. This function runs in $O(n)$ time.