Credit Name: CSE 2120 Data Structures 1
Assignment Name: Palindrome Mastery Project

Describe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?

For the Palindrome application, the main issue I ran into was with multi-word inputs. The program failed to recognize palindromes like "Never odd or even" because it included spaces and ignored cases inconsistently. The problem came up because I didn't preprocess the input to remove spaces or standardize letter cases before checking for palindrome properties. To resolve this, I added preprocessing steps to the code, removing non-alphanumeric characters and converting the input to lowercase before performing the check.

```java
    // Method to check if a string is a palindrome
    public static boolean isPalindrome(String str) {
        // Remove spaces and make the string lowercase for uniform comparison
        String cleanStr = str.replaceAll("[^a-zA-Z0-9]", "").toLowerCase();

        // Use two-pointer technique to check for palindrome
        int left = 0;
        int right = cleanStr.length() - 1;

        while (left < right) {
            if (cleanStr.charAt(left) != cleanStr.charAt(right)) {
                return false;
            }
            left++;
            right--;
        }

        return true;
    }
}
```