Goal: Write a boolean method that uses recursion to determine whether a String argument is a palindrome. The method should return true if the argument reads the same forward and backward.

**PalindromeDetector**

* Create private field *s* for a string argument
* Create an accessor and mutator method for *s*
* Create method *reverseString* to reverse *s*
  + Use a for loop to replace the characters in a new string with the characters from *s* read from right to left
* Create method *isPalindrome* to determine if the string argument is a palindrome
  + if s backwards = s, return **true**
    - else return **false**
  + **Use a tail recursive return statement**

**PalindromeDetectorDemo**

* import Scanner
* get user String input and assign to a variable
* Create new PalindromeDetector object
* Use the mutator method from PalindromeDetector to set the string argument of the object as the user input
* print the results using the *isPalindrome* method on the object