

CS 620: Assignment 1

Recursive Palindrome - Questions & Pseudocode

Cam J. Loader

September 1, 2024

1. Show how this algorithm works on the following strings using pseudo code:

(a) `rester`

- String `"rester"` entered into the console
- checks if it is Q, if not `isPalidrome(rester)` is called
- checks that `'r'` matches `'r'` and calls `isPalindrome('este')`
- checks `'e'` matches `'e'`, calls `isPalindrome('st')`
- fails on `'s'` compared to `'t'` and returns false

(b) `able was i ere i saw elba`

- String `"able was i ere i saw elba"` entered in the console
- check if it is Q, if not `isPalidrome('able was i ere i saw elba')` is called
- checks that `'a'` matches `'a'` and calls `isPalindrome('ble was i ere i saw elb')`
- checks that `'b'` matches `'b'` and calls `isPalindrome('le was i ere i saw el')`
- checks that `'l'` matches `'l'` and calls `isPalindrome('e was i ere i saw e')`
- checks that `'e'` matches `'e'` and calls `isPalindrome(' was i ere i saw ')`
- checks that `' '` matches `' '` and calls `isPalindrome(' was i ere i saw ')`
- checks that `'w'` matches `'w'` and calls `isPalindrome('as i ere i sa')`
- checks that `'a'` matches `'a'` and calls `isPalindrome('s i ere i s ')`
- checks that `'s'` matches `"` and calls `isPalindrome(' was i ere i saw ')`
- checks that `' '` matches `' '` and calls `isPalindrome('i ere i')`
- checks that `'i'` matches `'i'` and calls `isPalindrome(' ere ')`
- checks that `' '` matches `' '` and calls `isPalindrome('ere')`
- checks that `'e'` matches `'e'` and calls `isPalindrome('r')`
- `'r'` is the last char, return true