Lab04 - Recursion (and not)

Due: Wed Jan 28, 2014

Let's solve a problem recursively and then not. Or vise versa.

- ❏ Chapter 15 Recursion

Monday - Palindromes

Complete Programming Challenge 5 on page 951… twice: recursively, and then iteratively.

Lab04 is meatball surgery. It's one class with three static methods: main(), isPalindrome() and isPalindromeRecursive().

You main() pseudocode is:

main(String[] args) {
Print a welcome (to Lab04) message
Ask the user for a word
Report if it's a palindrome twice… once iteratively and once recursively
}

For your two palindrome methods, write down their signature and some pseudocode. For the recursive method, what is your base case? **Show me**… then proceed to your toaster.

Wed - Speed test

Let's see which palindrome checker is faster, iterative or recursive. What do you predict?
Read in a dictionary full of words and count the palindromes using each algorithm.
Notes:

- Use our Scrabble dictionary from Program #1.
- Don't store the dictionary in memory. Just read a line, process it, and then next line. Remember: BufferedReader.readLine() and I believe we have a snippet on this.
- Don't count 1 letter words as palindromes. Just skip them.
- You can use the system clock to time your algorithms. `System.currentTimeMillis()` returns the current time in milliseconds. Call this before and after each algorithm runs and report the diff.

Good luck!
thanks… yow, bill