

RCS 103: DATA STRUCTURES AND ALGORITHMS

ASSIGNMENT ONE

Instructions

1. This is a group of three assignment, any copying between the groups will severely be penalised
2. Submit the softcopy of the assignment by email: Write your names and registration numbers as comments in the class named PalindromeApp
3. The email subject should be: **rsc103_num1_num2_num3** where numx is the first part of participant x regno without the part “/BSC/T/2010”
4. Use the following email: dshidende@ruco.ac.tz
5. The deadline: **28/05/2011; 23:59:59**
6. Start the assignment today

Scenario

Write the Java program that accepts the sentence from user and confirm whether that sentence is palindrome or not. The palindrome sentence in this context is the sentence whose words (not characters) ordering remain unchanged when the words are reversed from back to front. The sentence shouldn't have the meaning!

For example: *John got John ==> John got John.* It is palindrome.
 John got Paulina ==>Paulina got John It is not palindrome

The palindrome class will be providing service of discovering a palindrome sentence. It will get the input sentence from main program and use stack class to know if the provided sentence is palindrome or not.

Questions

1. Create the folder, name it PalindromeApp
2. Copy the file StackClass.java we wrote in the class, and edit it to use strings instead of integers
3. Implement the class Palindrome and save it with file name Palindrome.java in the folder PalindromeApp
4. Implement the main program, save the file using the name PalindromeApp.java in the folder PalindromeApp

Sample Output:

Enter a sentence: *This is my sentence*

The sentence *This is my sentence* **is not palindrome**