CSC 212 Tutorial # 5
Double LinkedList and Queue

26/10/2014

Important: This tutorial has an online part, which you should complete on LMS (tutorial section). The deadline for this task is Sunday October 26th at midnight.

Problem 1

Write the method **_isPalindrome_** part of the Double linkedlist ADT. It should return true if the list is a palindrome. False otherwise. A palindrome is a word, phrase or anything that reads the same forward or reversed.

Examples:
l(13, 54, 76, 54, 13) → true
l("A", "Bus", "Bus", "A") → true
l(300, 400, 500) → false

Method: *public boolean isPalindrome()*

Problem 2

Write an efficient static method **_split_** that splits a queue of n elements into two queues. The elements with odd orders (i.e. 1st, 3rd, 5th …) should be put in the first queue and elements with even orders (i.e. 2nd, 4th, 6th …) should be put in the second queue. **q** should remain unchanged at the end of the method.

Example: q (18, 28, 53, 67, 32, 15, 73, 23, 1) → **q1** (18, 53, 32, 73, 1), **q2** (28, 67, 15, 23)

Method: *public static void split(Queue<T> q, Queue<T> q1, Queue<T> q2)*