Assignment One

In this assignment, you extend the doubly linked list class Dlist given in the textbook Chapter 3.3.3. You can download the source code from the textbook website (http://ww0.java4.datastructures.net/). The subclass is named MyDlist.. You need to implement the following constructors and methods of MyDlist:

1. public MyDlist(). This constructor creates an empty doubly linked list.
2. public MyDlist(String f). This constructor creates a doubly linked list by reading all strings from a file named f. Assume that adjacent strings in the file f are separated by one or more white space characters. If f is "stdin", MyDlist("stdin") creates a doubly linked list by reading all strings from the standard input. Assume that each input line is a string and an empty line denotes end of input.
3. public void printList(). This instance method prints all elements of a list on the standard output, one element per line.
4. public static MyDlist cloneList(MyDlist u). This class method creates an identical copy of a doubly linked list u and returns a reference to the resulting doubly linked list.
5. public static MyDlist concatenateList(MyDlist u, MyDlist v). This class method concatenates two doubly linked lists u and v into a single doubly linked list and returns a reference to the resulting doubly linked list. In the resulting doubly linked list, the linked list u precedes the linked list v.
6. public void removeNode(String e). This instance method removes all the nodes whose elements are equal to e. If such a node does not exist, this method will print " no node contains e!" on the standard output.

How to submit your code?

Login to your CSE account and submit your MyDlist.java by using the **give** command as follows:

give cs9024 assn1 MyDlist.java

Marking

The full mark of this assignment is 6. Marking is based on the correctness and efficiency of your code. Your code must be well commented.

Deadline

The deadline is 11:59:59 pm, 31 August.