Homework 2: Twist List

Due: Jan 20, 11:55 PM

Important

There are a few guidelines you must follow in this homework. If you fail to follow any of the following guidelines you will receive a **0** for the entire assignment.

1. All submitted code must compile under **JDK 7**. This includes unused code, don't submit extra files that don't compile. (Java is backwards compatabile so if it compiles under JDK 6 it *should* compile under JDK 7)
2. Don't include any package declarations in your classes.
3. Don't change any *existing* class headers, constructors, or method signatures. (It is fine to add extra methods and classes)
4. Don't import anything that would trivialize the assignment. (e.g. don't import `java.util.LinkedList` for a Linked List assignment. Ask if you are unsure.)
5. You must submit your source code, the `.java` files, not the compiled `.class` files.

After you submit your files redownload them and run them to make sure they are what you intended to submit. We are not responsible if you submit the wrong files.

Linked List

You will be coding a circular, singly linked list. There will be two versions of the list, a regular version, and a twist list.

First complete the methods in LinkedList.java. A few things to remember:

1. If there is only 1 item in the list, it should point to itself.
2. Be careful how you update pointers, don't let java garbage collect your list.
3. Don't forget to update size correctly.

When coding the linked list you should follow Java's API. This means that you will need to throw exceptions in certain circumstances.

Twist List

The second part of this assignment is to code a twist list. This will be a circularly linked list that has several special methods. This methods do things like reverse parts of the list and move other parts of the list to the front. Exactly what these methods do is described in the java docs.

Deliverables

You must submit all of the following files.

1. `LinkedList.java`
2. `TwistList.java`

You may attach them each individually, or submit them in a zip archive.