## **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  $\mathbf{0}$  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. If you write extra constructors that are not the ones provided or specified in the assignment we will **not** use them. If your code requires your own personal constructors to be used rather than the provided ones you need to rethink your implementation.
- 5. 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.)
- 6. 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.

## 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.