

## **Project Seven**

Due: Thursday 11/14/2013 @ 11:55

### **Objective:**

1. Become familiar with the Linked List Data Structures.

### **Description:**

Create a Doubly Linked List class as discussed in class.

### **Requirements:**

Your DLLList should contain the following methods and characteristics:

- You should define a private inner class `DLLNode`. It should have 2 `DLLNode` members for 'next' and 'previous' nodes, as well as an `Object` member variable for data.
- `DLLList` Should contain a default (no-args) constructor `DLLList()`
- Should contain a `void add(Object o) method`
- Should contain a `void add(int index, Object o) method`
- Should contain an `Object remove(int index) method`
- Should contain `boolean contains(Object o) method`
- Should contain an `Object get(int index) method`
- Should contain an `int indexOf(Object o) method`
- Should contain an `boolean isEmpty() method`
- Should contain a `int size() method`
- Should override the `public String toString() method` inherited from the `java.util.AbstractCollection` class.
- Should override the `public boolean equals(Object o) method` inherited from the `java.util.List` class.

### **Notes:**

For a detailed description of each of the above methods, refer to the original Java documentation on `java.util.LinkedList`. You should refer to `SLList` example on the course homepage for additional guidance. Also, feel free to add any private helper methods you need to help you get the job done.

**I am not providing you with a main method. I will be providing the TA's with a .main method after the due date is passed. You should test your code appropriately to ensure proper operation. In other**

**words you need to come up with a "test driver" on your own. The primary reason for this is because you will need to do the same for your Final Project, so I want you to get practice. DO NOT INCLUDE A MAIN METHOD. Your submission should be a single class file (DLLiist.java) that contains a private nested class (DLLNode) as well. Do not put a main method in your file!**

**Grading guidelines:**

[Click here to view the Rubric](#)