Lab 11: Inheritance, Arrays, and Linked Lists

Instructions: Inheritance not only provides code reuse, but can facilitate future changes. In this exercise implement a List interface that has methods get(int index), add(Object obj), and size() all abstract. The function get(int index) returns the index-th element, add(Object obj) appends the object to the end of the list, and size() returns the number of elements in the list. Next, write an ArrayList and SLinkedList that implement the interface, using an array and a singly linked list respectively. To showcase the power of inheritance, have both ArrayList and SLinkedList be a list of class Object. Therefore we can use one list to hold any type of class.

Write some test cases:
Create some test cases that you believe would cover all aspects of your code. We will create some during class.

How to turn in:
Turn in via GitHub. Ensure the file(s) are in your lab10 directory and push via IntelliJ (VCS ↑) OR use the command line:

- $ git add <files>
- $ git commit
- $ git push

Due Date: October 29, 2015 2359

Teamwork: No teamwork, your work must be your own.