Lab 5

Objectives:

- Sign up for the lab
- Generics (basic)
- Submit three file: *Node.java, SLL.java* and *GeneralLis.java* at the end of the lab. Click the "Submit" button

In lab 3, we created an INode class and a IntegerSLL. Both classes deal with an integer. If we need to create a singly linked list of Student objects (e.g. lab 2), or other data types, we need to create different node classes and different interfaces (instead of IntegerList) and different SLL(singly linked list) classes to implement the interfaces. It is not efficient. Generics was introduced in Java 5. One of the advantages of using generics is that the type check can be enforced at compile time. In today's lab, we are going to cover the basics. You may find the relevant material on page 475-477, 481-483.

1. INode.java

Download INode.java, IntegerList.java and IntegerSLL.java. We have done those in lab 3.
Change the file names to Node.java, GeneralList.java and SLL.java.
Modify the code in those three files. For example, modify the Node.java, write main in Node.java, test your code. Learn how to create an object using generics. The lab instructor is going to explain it.

Use Connex to submit three files: *Node.java, SLL.java and GeneralLis..java* at the end of the lab. Make sure you click the "Submit" button.

Note:

The following material is NOT included in this lab:

- Section 9.4, 9.5
- Generic Wildcards on page 477
- Inheritance combined with generics