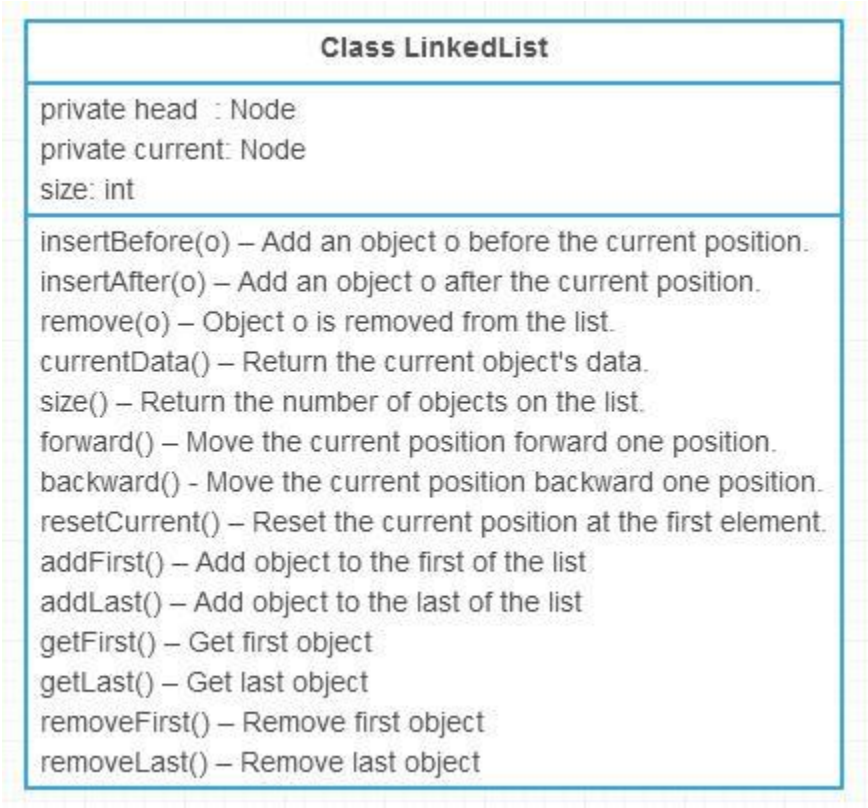
	Computer Science Department/College of Engineering and Computer Science **CSc 20: Programming Concepts and Methodology II** **Lab 6 – Linear Linked List**

Objective:

This lab will give you a practice with writing a linear linked list. To this work, you are building a list of any object. However, for testing, your list data element would be **CsusStudent** (from your previous lab). You will use your debugger to examine your list.

Overview:

This lab's objective is to develop methods (see attached diagram) for a linear linked list. The algorithms for these methods will be discussed in your lecture. You are given the following UML class diagram:



Activities:

1. Copy instructor's class (LinkedList.java) from SacCT into your working directory.

2. Provide the pre-condition(s) and post-condition(s) as comment block to each method.

3. Develop your program according the pseudo code given in your lecture.

4. Test your program by running the main method.

5. Run 2 sample of your instructor's unit tests (LinkedListTest.java and LinkedListTest2.java) to validate your work. Show your test results to your instructor before turning your lab to SacCT.

Deliverables:

Turn in your modified LinkedList.java and your programs's output file in MS Doc format to SacCT.

Note on installing Junit:

1. Add a **new folder** to your CSc 20 Jcrasp directory (where you stored your previous lab assignments). Named **junit.**
2. Download junit (from https://sourceforge.net/projects/junit/files/junit/4.10/) and save the **junit-4.10.jar Basic jar** file into this new **junit** folder
    - A jar file is a Java Archive file containing multiple Java files in one zipped file. You do **not** need to extract the individual files.
    2. Add the junit jar file to your jGRASP:
        1. In jGRASP, Click the Tools -> Junit -> Configure
    3. Browse to your **junit directory**, click OK

You only need to set up **jUnit** one time.