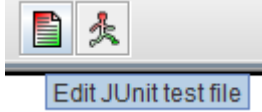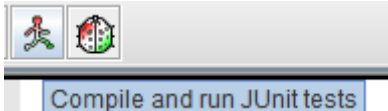# An introduction on how to use Junit and view Linked List ADT Graphically

Running Junit for Lab 5

Purpose: The intend of running this Junit test for Lab 5 (and Lab 6) are: (1) to help the instructor to validate students labs in ensuring that major functionalities addressed. (2) to give student an opportunity to debug and find one's problem based one a test case which failed.

Assumption: (1) Student finished the coding and testing of CsusStudent and Csc20Student classes (2) Student installed the Junit jar per lab instruction (3) The Junit test file for Lab 5 is downloaded and placed in the same directory as of CsusStudent and Csc20Student classes.

Running Junit for Lab 5

1. Open CsusStudent.java in Jgrasp.

2. Click the [Edit JUnit test file] button (next to the running person).

3. This launches the Junit test file, CsusStudentTest. Please be sure to see the name of the instructor appears at the top of the file.

4. Click the running person [Compile and run JUnit tests] to start the testing.

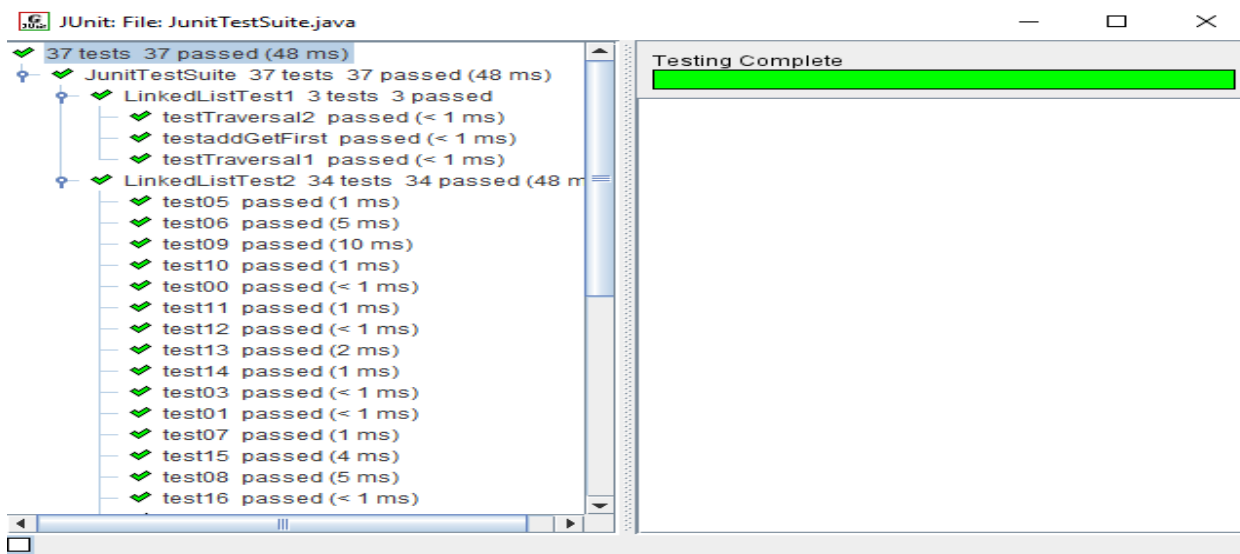5. If the result is passing, you will see the following screen:
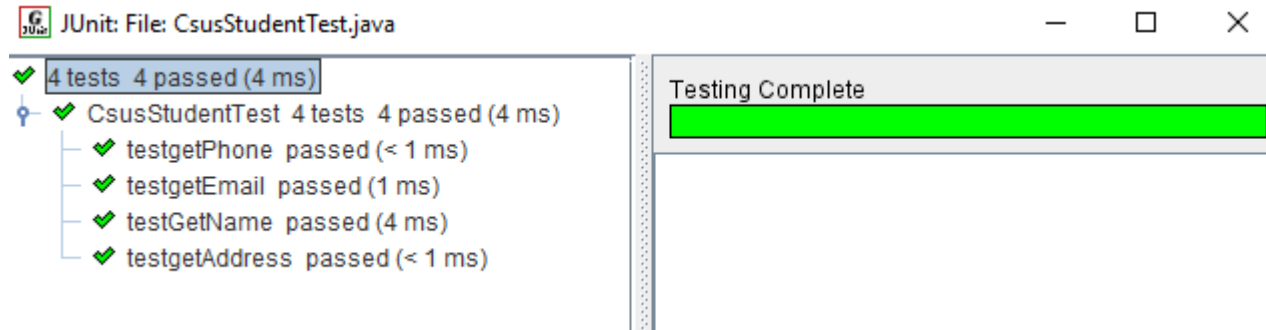
Notes: (1) the green check marks mean these specific test cases are passing. There are 4 of them. (2) Some student might not seen this UI but a text form of a result. This is fine. (3) A red mark means a test case is failed. Student must set a breakpoint in CsusStudentTest and step into the code to determine where the failure occurred.

Running Junit for Lab 6

Assumption: (1) Student finished the coding and testing of LinkedList.java (2) Student installed the Junit jar per lab instruction (3) The Junit test files: **LinkedListTest**, LinkedListTest1, and LinkedListTest2 classes for Lab 6 is downloaded and placed in the same directory as of LinkedList class.

Running Junit for Lab 6

1. Open LinkedList.java in Jgrasp.
2. Click the [Edit JUnit test file] button (next to the running person).
3. This launches the Junit test file, LinkedListTest. Please be sure to see the name of the instructor appears at the top of the file.
4. Click the running person [Compile and run JUnit tests] to start the testing.
5. If the result is passing, you will see the following screen:

Notes: (1) the green check marks mean these specific test cases are passing. There are 37 test cases. (2) Some student might not seen this UI but a text form of a result. This is fine. (3) A red mark means a test case is failed. Knowing the test case Id (i.e. test05, student must set a breakpoint in LinkedListTest1 or LinkedListTest2 to step into the LinkedList code to determine where the failure occurred. Student might view the list graphically to help determine the error. See slide 6.

Viewing Linked List Graphically for Lab 6

1. Open LinkedList.java in Jgrasp.

2. In the main method, set a breakpoint at 🔴   `lst.addLast(instance6);`

3. Click the debug button: 🐞
   Find and debug main method or applet

4. View the LinkedList by "view value" selection of the list variable , lst. Refer to:
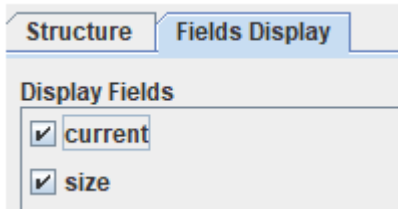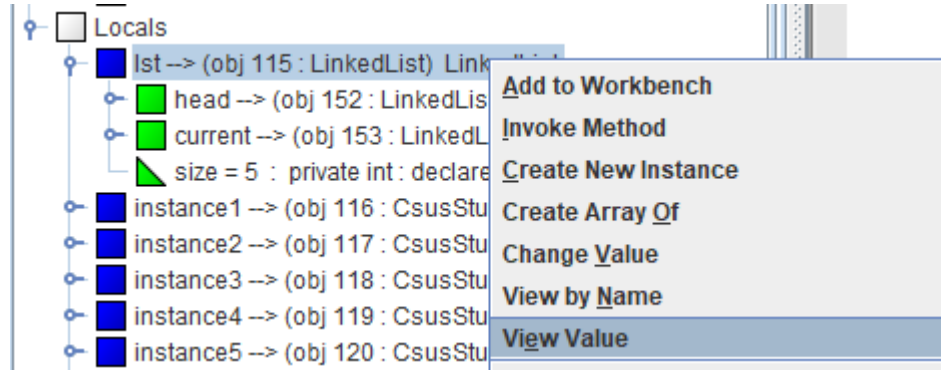

Note: Right click on lst and select View Value.

Showing Linked List Graphically for Lab 6

5. The following list will be displayed graphically:
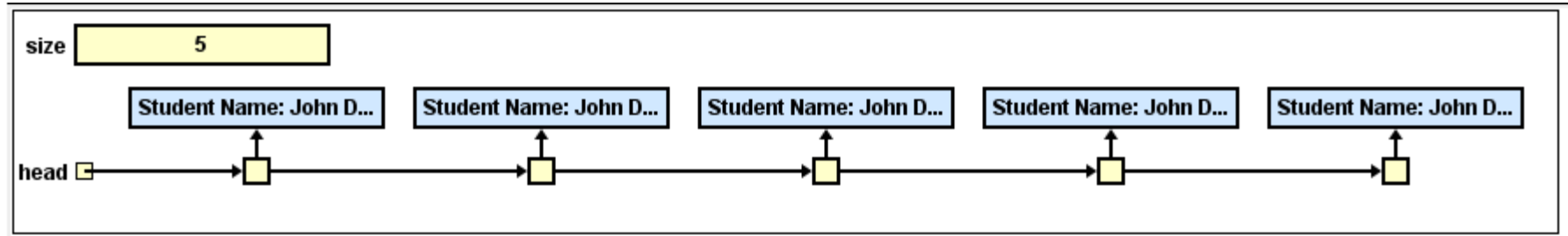
6. Student can see the current node pointer by clicking on the wrench symbol and, field display tab, select a field call current pointer. Refer to: . Select Apply button.

7. Here is the result of having the current pointer activated: