

## CSCI 211 Lab 5. Lists

### Objectives

- Be able to implement a Unit test for the List interface using an ArrayList as the underlying data structure

### Step 1:

For this lab you will revisit Lab 4. This week you will write JUnit tests to thoroughly check your code.

If you did lab 4, then open your IntelliJ project. If you did not, first create an IntelliJ Maven project - download lab 4's files from Blackboard and copy and paste into your main > java folder.

Now, from Blackboard download the unit test file and copy and paste into IntelliJ's test > java folder. You will get errors as IntelliJ needs to add the Junit 5 modules to the classpath. In the upper right corner of the unit test file, hover over the red line and add junit 5 to your classpath (if any other junit is listed then click more options to select junit 5).

Open the UnorderedListArrayTestA.java file. In it you will find several JUnit tests for the methods you implemented in last week's lab: addToFront, addToRear, addAfter, removeFirst, removeLast, remove, first, and last. I have completed two of the tests for you: testaddToFront and testaddAfter2. Notice that when there are two tests for a method, the second is expecting the ElementNotFoundException.

### Step 2:

Complete the JUnit tests for all methods with the statement  
*fail("Implement method");*

### Step 3: You must do ALL of the following to get credit for the lab

1. Use the queue system to let the TA know that you are ready for your work to be checked.
2. Demonstrate to the lab TA that your code works correctly.
3. Export the project (or zip it in Explorer or equivalent).
4. Upload the zip file to Lab 5 on Blackboard.