

Homework 1

Due date: Jan 16, 2020, 9am

Objective

- Implement and test a linear data structure

Instructions

1. Download and import the starter project.
2. In Eclipse, rename the project to `CS3151HW1FirstnameLastname` where *FirstnameLastname* is your first and last name, e.g. `CS3151HW1GraceHopper`.
3. In the model package, add a class called `DoublyLinkedList` that meets the following requirements:
 - a. The class implements a doubly-linked list with a header node and a sentinel.
 - b. The class implements the interface `LinkedListOperations`.
 - c. The Iterators returned by methods `getForwardIterator` and `getBackwardIterator` are implemented as inner classes of `DoublyLinkedList`.
4. Add unit tests to test all methods of the class `DoublyLinkedList`.

Submission

Export your Eclipse project as `CS3151HW1FirstnameLastname.zip` and upload your solution to the course website.

Grading

In a homework assignment, you can receive up to 50 points. Points for this homework are assigned as follows:

- 40 points: `DoublyLinkedList` implementation
- 10 points: unit test cases