Lab 4

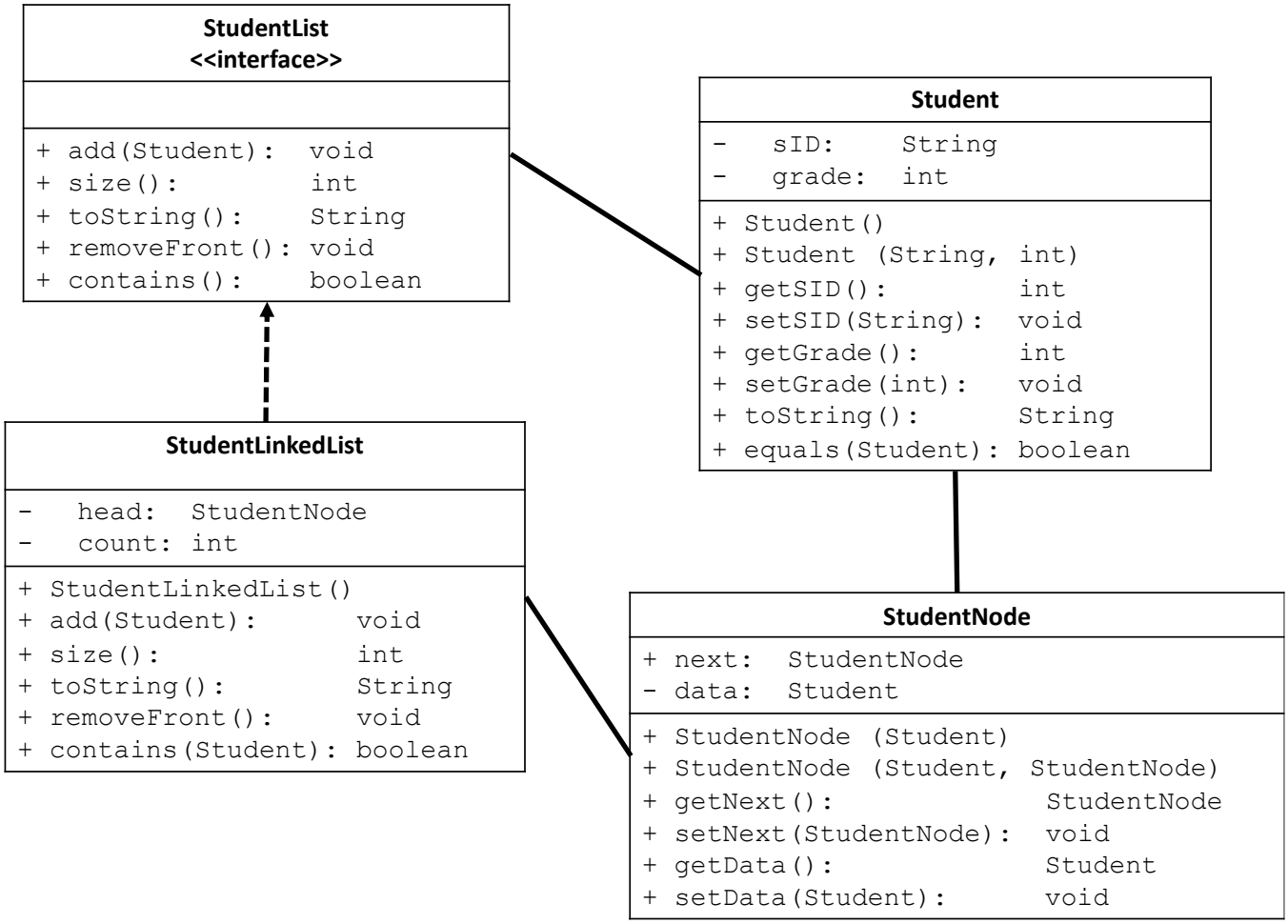
Objectives

- Practice with interfaces and abstract data types
- Introduction to linked data structures

Exercise - Interfaces

In this lab you will be implementing the `StudentLinkedList` class depicted in the following UML diagram.

Recall: the dashed arrow implies that one class implements the interface pointed to, the solid line means one class uses the other class.



Instructions

1. Download all the provided java files to your Lab4 folder.
2. Compile and run `Lab4Tester.java`. You should see a set of test results, mostly failing.
3. Complete the `add` and `size` methods in the `StudentLinkedList` class until all of the tests pass in the `testListAddSize` method.

CHECKPOINT 1 – Now might be a good time to check-in with the TA if you are unclear of how to proceed, or if you are unable to fix any errors in your program.

4. Implement the `removeFront` method in the `StudentLinkedList` class
5. Uncomment the call to the `testListAddRemove` in the `main` method, and then compile and run `Lab4Tester` until all the tests pass.

CHECKPOINT 2 – Now might be a good time to check-in with the TA if you are unclear of how to proceed, or if you are unable to fix any errors in your program.

6. Implement the `contains` method in the `StudentLinkedList` class
7. Uncomment the call to the `testListContains` in the `main` method, and then compile and run `Lab4Tester` until all the tests pass.

CHECKPOINT 3 – LAB COMPLETE