

In-class exercises (lecture 6)

Exercise 1: How to implement the insert method in a recursive linked list?

In breakout rooms, consider how you would implement the recursive linked list's insert method:

- What would it look like in EmptyNode?
- What would it look like in ElementNode?

The method specification can be found in the Javadoc provided in the ILinkedList interface.

You don't have to actually implement the method (although you're welcome to). One or two breakout room groups will be asked to share their conclusions / questions.

Exercise 2: Queue implementation

Implement a Queue ADT using a recursive linked list as the underlying data structure. The completed implementation of the linked list will be pushed to the lecture-code repo before you get started on this exercise.

A Queue interface and tests are provided in the lecture-code repo.

Exercise 3: Immutable stack implementation

Implement the ImmutableStack ADT using a recursive linked list as the underlying data structure. The ADT is specified in the IImmutableStack interface.