Recitation 3

Reminders

- First quiz today. You can make up at most two quizzes at the end of the semester.

Doubly Linked List Practice

R-3.8 Describe a method for finding the middle node of a doubly linked list with header and trailer sentinels by "link hopping," and without relying on explicit knowledge of the size of the list. In the case of an even number of nodes, report the node slightly left of center as the "middle." What is the running time of this method?

C-3.27 Describe in detail how to swap two nodes x and y (and not just their contents) in a singly linked list L given references only to x and y. Repeat this exercise for the case when L is a doubly linked list. Which algorithm takes more time?

Q: For DoublyLinkedList, implement the following functions:

1. Reverse the elements in the doubly linked list
2. a constructor `DoublyLinkedList(DoublyLinkedList list)` that takes in a doubly linked list as initialization
3. the method `DoublyLinkedList clone()` for DoublyLinkedList

The role of Position<E>