DATA STRUCTURES - CS 261 (SPRING 2015)

Assignment #3 – Part 2

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1. Which of the implementations uses more memory? Explain why.

The Linked List implementation uses more memory, because each link contains space for two addresses (next and previous), as well as the value. Whereas the Dynamic Array implementation simply contains a value.

2. Which of the implementations is the fastest? Explain why.

In theory the Linked List implementation should be faster, but in practice the Dynamic Array implementation is faster. This is because for some operations, there are more steps with the Linked List implementation.

3. Would you expect anything to change if the loop preformed remove() instead of contains()? If so, what?