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Project 2

Test Plan

**Test #1: Adding, removing, and iterating.**

So for this one, I kept the given tests in your driver class the same, they tested the ability to add, add at an index, remove at an index, remove a specific object, locate an object, and iterate through the list (uses the iterator created as a subclass in the SimpleLinkedList class).

My expected output was for the objects to read as “This Is Not A Test,” and that’s exactly what I got.

**Test #2: Negative indexes, clearing, adding collections.**

For this one, I retrieved, then removed the node at the index -1. This was to test that it was actually circular and that it would retrieve and remove the last index rather than throwing an exception. This worked exactly as expected, it retrieved and removed the last index.

Next I attempted to clear the list (this was also done in the first test) and that worked. I used the isEmpty method to check this as well. I had the program print to the console that it did in fact work if isEmpty returned true.

Next I added the words, “First” and “Second” to the list, then I created a new list containing the words “Third” and “Fourth”. Finally, I attempted to add the second list to the first list to combine them. Then I printed them out. I expected to see the words printed as First, Second, Third, then Fourth, and that’s exactly what I got out.

**Test #3: List Iterator, clone, set, remove (list iterator method)**

First I created a list iterator, then I traversed and printed the elements in reverse order (using the previous method) to ensure the list was in fact doubly linked. It worked as expected.

Next I attempted to clone the list, that worked as expected. But because it was shallow I recreated it and added the first list to it, then I cleared the first list to create a deep copy. Just for my own comparison.

Finally I used the iterators set method to set the final index’s element to “Last” and got expected results. Then I used the list iterators add method to add the word “Sike” to the list, which worked. Then I used the list iterators remove method to remove it.

**Test #4: toArray**

For this method I attempted to create an array out of the elements in the list, I created a string array, then I passed it to the toArray(T[] t) method and checked to see if it worked. I was worried about this one because I got stuck re-instantiating the passed array to the proper type and wasn’t sure if it would work, but after much trial and error, it worked!

**I believe I’ve tested every method I’ve had to implement, modify, or write either directly or indirectly. I may not have mentioned them if they were indirectly tested.**