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* Approach, Design & Algorithm:
  + This was straight up assignment for me. We had the linked list form the book we just had re do with previous node
  + The only annoying part was the iterator. It was frustrating to find where the error occurred in the iterator.
  + The sorting algorithms and was very straight forward. But the iterator was really frustrating to use. So, I tried to avoid using it internal much as it can. It works but is annoying to manage.
  + I had to go back and read on the Comparator class to see how to use it. It is unnecessary intimidating but was easy to use.
* Test Plan & Test Cases:

For this assignment I focused my test case on unique methods which relied on my logic. So I used the provided test cases for my attribute and iterator which all passed.

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| --- | --- | --- | --- |
| Input | Actual output | expected | passed |
| Used Integer and passed Integer comparator for a basic list.  Add bunch on interger and printed them  BasicDoubleLinkedList<Integer> linkedInt = new BasicDoubleLinkedList () ;  linkedInt. addToEnd (1);  linkedInt. addToEnd (12);  linkedInt. addToEnd (4);  linkedInt. addToEnd (3);  System.out.println(linkedInt.toArraylist); | [1,12,4,3] | 1,12,4,3 | yes |
| linkedInt.remove(1,compatorInt);  System.out.println(linkedInt.toArraylist); | [12,4,3] | [12,4,3] | yes |
| linkedInt. addToFront (55);  System.out.println(linkedInt.toArraylist); | [55,12,4,3] | [55,12,4,3] | yes |
| SortedDoubleLinkedList<Integer> SortLinkedInt=new SortedDoubleLinkedList (compatorInt);  SortLinkedInt.add(1);  SortLinkedInt.add(55);  SortLinkedInt.add(2);  SortLinkedInt.add(3);  SortLinkedInt.add(4);  .System.out.println(linkedInt.toArraylist); | [1,2,3,4,55] | [1,2,3,4,55] | yes |
| SortLinkedInt.remove(4, compatorInt); | [1,2,3,55] | [1,2,3,55] | yes |

Highlights and assumptions:

The assumptions I made for this program are:

* There are very few assumptions for this project. Only assumption or requirement in a Comparator/ compare to method for each data typed use for this assignment.

The highlights:

I learned how to use the iterator. In the past I had made a DLL before which used helper method and recursion to travers the list. So in this assignment the logic/pseudocode was already done. I just need to make sure the internal iterator worked correctly.