**ListPrac4**

**Directions:** There are many operations with arrays that you must be familiar with before continuing on to the study of Sorting Algorithms. The directions below will help you become familiar with many of these operations:

Part 1)

1. Instantiate a new array of integers initialized to the numbers: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1
2. Print the Array
3. Set element at index 8 to 0
4. Print the Array
5. Shift each element from indices (0-7) to right by 1 index (or increase the index of each element by 1). After an element has been shifted, its previous position should be set to 0.
6. Print the Array.
7. Swap elements at indices 0 and 9.
8. Print the Array.
9. Check each element in the array to see if the number 7 is contained within the Array.
10. Print the index of 7 if 7 is contained within the array or -1 if 7 is not contained within the Array.

Part 2)

1. Complete all of the instructions above again using a List rather than an Array.

\*The *contains(Object e)* method may NOT be used for #9

**Correct Printout)**

Part 1 - Completed with an Array

10 9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 0 1

0 10 9 8 7 6 5 4 3 1

1 10 9 8 7 6 5 4 3 0

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Part 2 - Completed with a List

[10, 9, 8, 7, 6, 5, 4, 3, 2, 1]

[10, 9, 8, 7, 6, 5, 4, 3, 0, 1]

[0, 10, 9, 8, 7, 6, 5, 4, 3, 1]

[1, 10, 9, 8, 7, 6, 5, 4, 3, 0]

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