PROGRAMMERS: MC NGUYEN, HOANG LE, PHUC DO

EFFICIENCY

Constructor or Method Name	Efficiency	Big O Notation
OrderedListNode(E element, OrderedListNode<E> olderNode, OrderedListNode<E> newerNode)	Constant	O(1)
getElement()	Constant	O(1)
setElement(E element)	Constant	O(1)
getOlderNode()	Constant	O(1)
setOlderNode(OrderedListNode<E> olderNode)	Constant	O(1)
getNewerNode()	Constant	O(1)
setNewerNode(OrderedListNode<E> newerNode)	Constant	O(1)
OrderedList()	Constant	O(1)
OrderedList(E[] elementArray)	Linear	O(n)
OrderedList(OrderedList<E> orderedList)	Best case: Constant Worst case: Linear Average case: Linear	Best case: O(1) Worst case: O(n) Average case: O(n)
getSize()	Constant	O(1)
isEmpty()	Constant	O(1)
getOldestValue()	Constant	O(1)
getNewestValue()	Constant	O(1)
contains(E element)	Best case: Constant Worst case: Linear Average case: Logarithmic	Best case: O(1) Worst case: O(n) Average case: O(log n)
containsAll(E[] elementArray)	Best case: Constant Worst case: Quadratic	Best case: O(1) Worst case: O(n^2)

	Average case: Linear Logarithmic	Average case: O(n log n)
containsAll(OrderedList<E> otherList)	Best case: Constant Worst case: Quadratic Average case: Linear Logarithmic	Best case: O(1) Worst case: O(n^2) Average case: O(n log n)
occurrences(E element)	Linear	O(n)
toArray()	Linear	O(n)
add(E element)	Constant	O(1)
addAll(E[] elementArray)	Linear	O(n)
addAll(OrderedList<E> otherList)	Linear	O(n)
removeOldestValue()	Constant	O(1)
removeNewestValue()	Constant	O(1)
remove(E element)	Best case: Constant Worst case: Linear Average case: Logarithmic	Best case: O(1) Worst case: O(n) Average case: O(log n)
removeAll(E[] elementArray)	Best case: Linear Worst case: Quadratic Average case: Logarithmic Linear	Best case: O(n) Worst case: O(n^2) Average case: O(n log n)
removeAll(OrderedList<E> otherList)	Best case: Linear Worst case: Quadratic Average case: Logarithmic Linear	Best case: O(n) Worst case: O(n^2) Average case: O(n log n)
replace(E originalValue, E newValue)	Best case: Constant Worst case: Linear Average case: Logarithmic	Best case: O(1) Worst case: O(n) Average case: O(log n)
clear()	Constant	O(1)
saveToFile(String filename)	Linear	O(n)