

Goal

The goal of this project was to implement methods for the Linked Binary Search Tree ADT that required us to implement methods in ArrayList, ArrayUnorderedList, LinkedBinaryTree and LinkedBinarySearchTree.

Testing

Unit Testing

This project focused mainly on unit testing my methods to ensure that everything was being added correctly. I tested all methods that I used for 100% code coverage. Almost every test would create a new instance of the object that I was working on and populate it with data that was easily identifiable. Other tests would start with an empty object and I would populate it and check the data as I went along. All exceptions were tested. All edge cases were tested for. Below is the code coverage results and the unit test results.

<default package>	8 m
ArrayListTest	1 m
removeFirst	1 m
removeLastEmpty	0 m
removeFirstEmpty	0 m
removeLast	0 m
ArrayUnorderedListTest	0 m
addToRear	0 m
addToFront	0 m
LinkedBinarySearchTreeTest	4 m
contains	3 ms
cantFind	0 ms
find	1 ms
LinkedBinaryTreeTest	3 ms
iteratorPreOrder	0 ms
contains	0 ms
getRootElementEmpty	0 ms
getLeft	0 ms
size	0 ms
getHeight	1 ms
toStringTest	2 ms
toStringPreOrderTest	0 ms
getRootElementTest	0 ms
getRightException	0 ms
getRootNode	0 ms
getRight	0 ms

ArrayList	100% (2/2)	72% (13/18)	60% (43/71)
ArrayUnord...	100% (1/1)	80% (4/5)	56% (18/32)
BinarySearc...			
BinaryTree...			
BinaryTree...	100% (1/1)	75% (6/8)	44% (12/27)
ElementNot...	100% (1/1)	100% (1/1)	100% (2/2)
EmptyColle...	100% (1/1)	100% (1/1)	100% (2/2)
LinkedBinar...	100% (1/1)	41% (7/17)	34% (44/127)
LinkedBinar...	100% (2/2)	82% (23/28)	81% (104/127)
ListADT			
Main	0% (0/1)	0% (0/1)	0% (0/1)
NonCompa...	0% (0/1)	0% (0/1)	0% (0/2)
UnorderedL...			