

1. Algorithmic asymptotic complexity:

- a. $O(n \log(n))$ In the worst case (the entire bottom row is filled except for the right child of the rightmost node in the level above it), the `addElement()` function will have to traverse through the whole tree in preorder.
- b. $O(n \log(n))$ In the worst case (the only node is the left child of the rightmost node of the level above it), the `deleteElement()` function will have to traverse through the entire tree in postorder.
- c. $O(n \log(n))$ Regardless of which traversal you use here, this function will have to traverse through the entire tree, adding all the values to a shared variable passed by reference.