

Binary Search Tree (Time Complexity)

time complexity for the get, search, insertion and deletion functions of the binary search tree (Reading time: under 1 minute)

T I M E			S P A C E
Type	Average	Worst	Worst
Get, Search, Insertion, Deletion	$O(\log(n))$	$O(n)$	$O(n)$

Average:

The number of items is split in half, as we decide whether to go for the left subtree, or right subtree.

Worst:

If the tree is very unbalanced, it resembles a linked list.

Worst space:

The more items, the bigger the data list.

Now, let's move on to another data structure, the hash table.