

Stacks (Time Complexity)

best, average and worst case time complexity of the various stack functions (Reading time: under 1 minute)

T I M E			S P A C E
Type	Average	Worst	Worst
Get, Search	$O(n)$	$O(n)$	$O(n)$
Insertion, Deletion	$O(1)$	$O(1)$	

Get and Search:

To get or search for a certain value, we'd have to walk over all the items in the stack. The amount of time needed is directly proportional to the number of items in the stack.

Insertion and Deletion:

When we insert new data onto the stack, we add it at the top of the stack. When we delete an item, we pop the top element off. No need to iterate through any data.

Worst space:

The more items, the bigger the **stack** array.

In the next lesson, let's talk about a data structure that has both ends open.