Assessment 7 Computer Science

Results for the extraLargeArray

insert 1.2029522 s

append 9.1524 ms

append function is faster than insert function

	doublerAppend	doublerInsert
tinyArray	111.9 µs	45.4 µs
smallArray	105.4 µs	57.1 μs
mediumArray	348.1 µs	382.4 µs
largeArray	536.6 µs	11.511 ms
extraLargeArray	4.5141 ms	1.2242508 s

During the process I noticed that doublerAppend function is faster when handling big arrays and doublerInsert function is faster when handling small arrays. Based on theses facts I can say that it is more important apply functions that scale better in big arrays in this case, because in real projects we want that our code scale faster when having a lot of data to process.

EXTRA CREDIT

The default Complexity of push() is O(1) and unshift() is O(n). Because unshift() has to increment all the elements that already present in the Array. But, push() has to insert an element at the end of the array, so none of the Array elements' index has to change.