

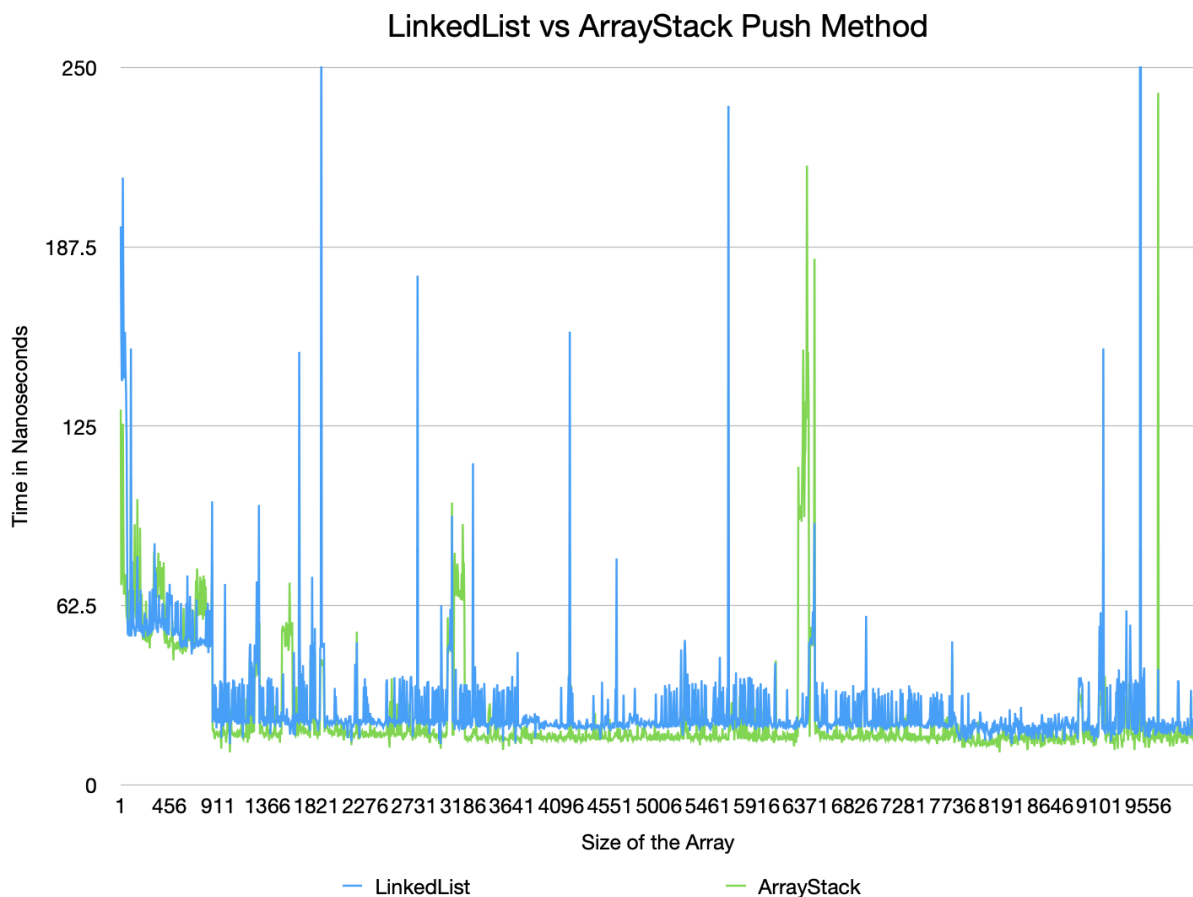
Assignment05 Analysis Document  
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The growth rate of each method's runtime is described in the graph description below each graph.

Based on these timing experiments, the two different classes (LinkedList vs ArrayStack) are negligible when it comes to efficiency for a web browser. The ArrayStack does appear to be slightly faster than the LinkedList for the Push method. Based on this, I would use the Array Stack.

**Push Method**

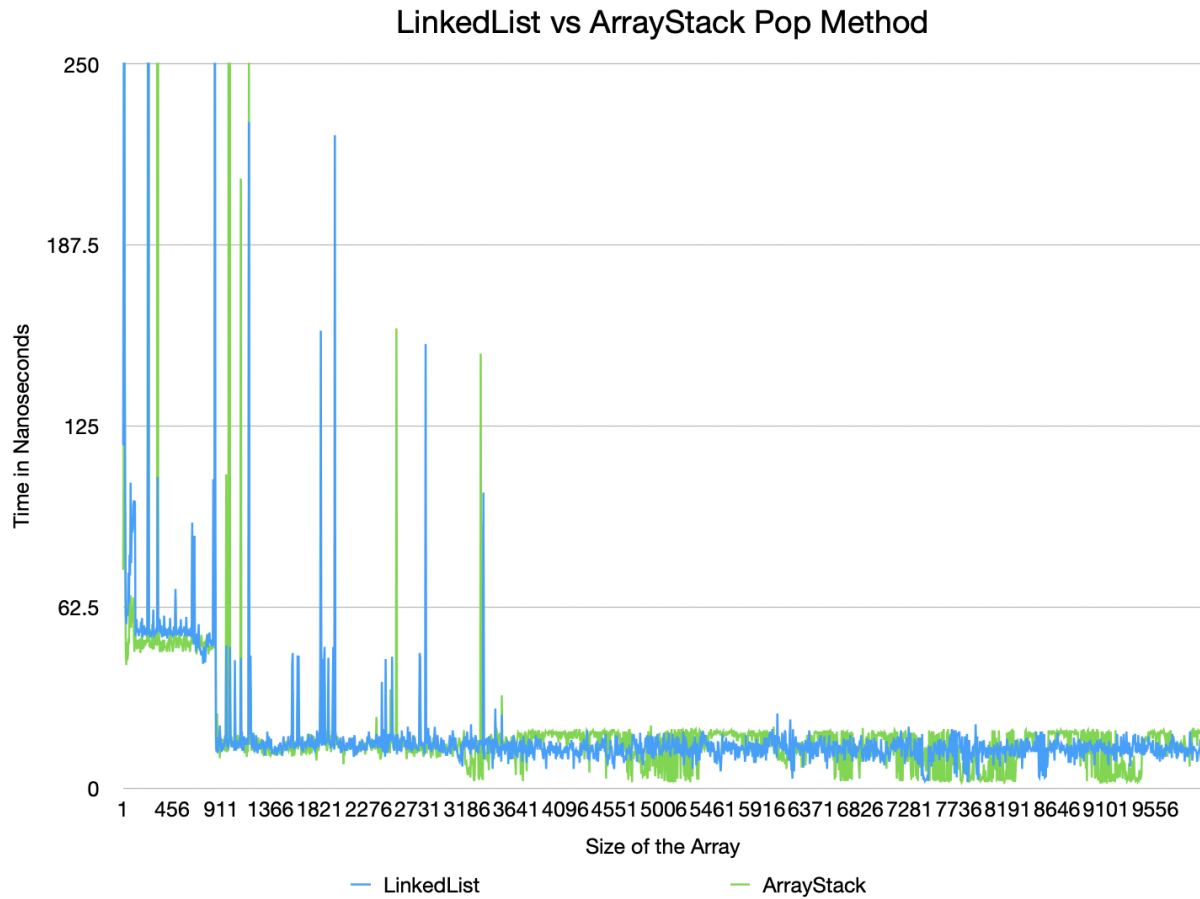
**Graph 1**



**Graph 1** Demonstrates pushing an element onto both a LinkedList and an ArrayStack, plotting the time in Nanoseconds vs the size of the stack being pushed onto. The growth rate of the method's running time stays straight with some noise, LinkedList being slightly slower than the ArrayStack.

## Pop Method

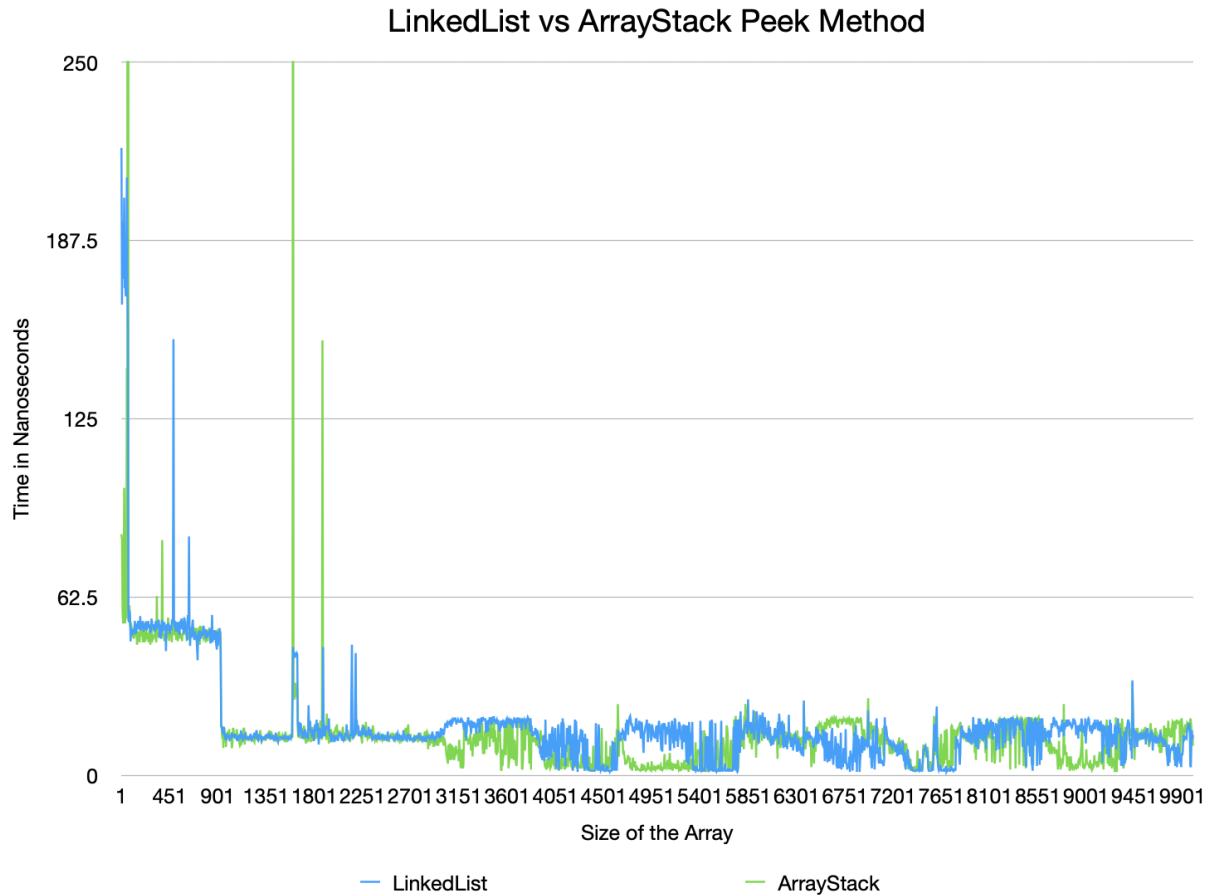
Graph 2



**Graph 2** Demonstrates popping (i.e., removing) an element off both a LinkedList and an ArrayStack, plotting the time in Nanoseconds vs the size of the stack of the back item being removed.

## Peek Method

**Graph 3**



**Graph 3** Demonstrates peeking (i.e., looking) at the last element placed on the stack in both a LinkedList and an ArrayStack, plotting the time in Nanoseconds vs the size of the stack of the back item being looked at.