

# CS150 Lab 2 Notes

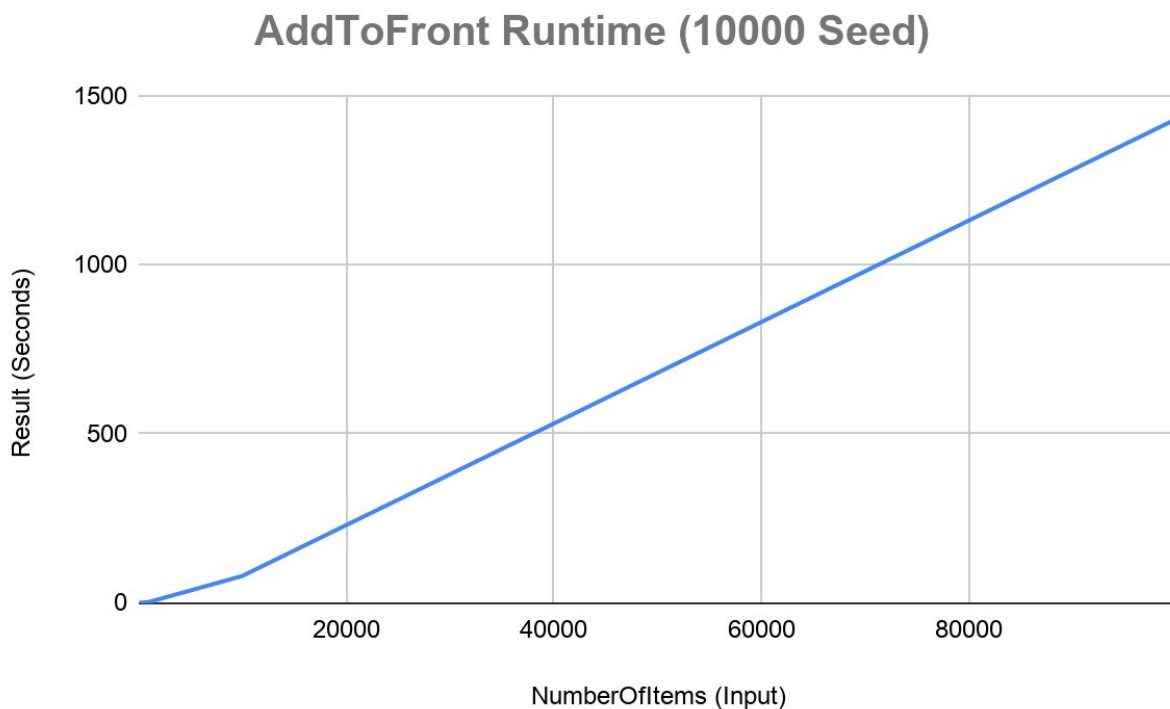
*Christian Hollar*

8/26/20

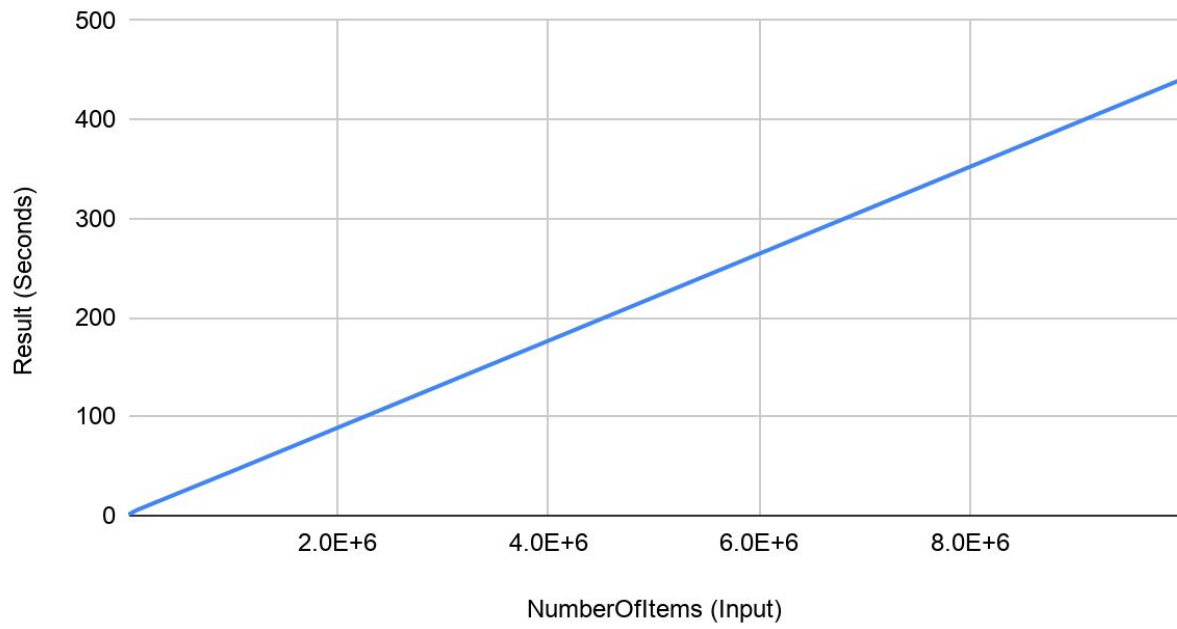
## Introduction

Lab 2 included working with randomness, measuring execution time of a piece of code, and the basics of unit testing. The initial class created, `RandomIntegerContainer`, included 5 methods that each added new values to the original array. The second class created, `ExperimentController`, utilized these methods with parameters generated through randomness. The runtime of each method was measured. The measurements were then put into a line graph to demonstrate their individual linearity.

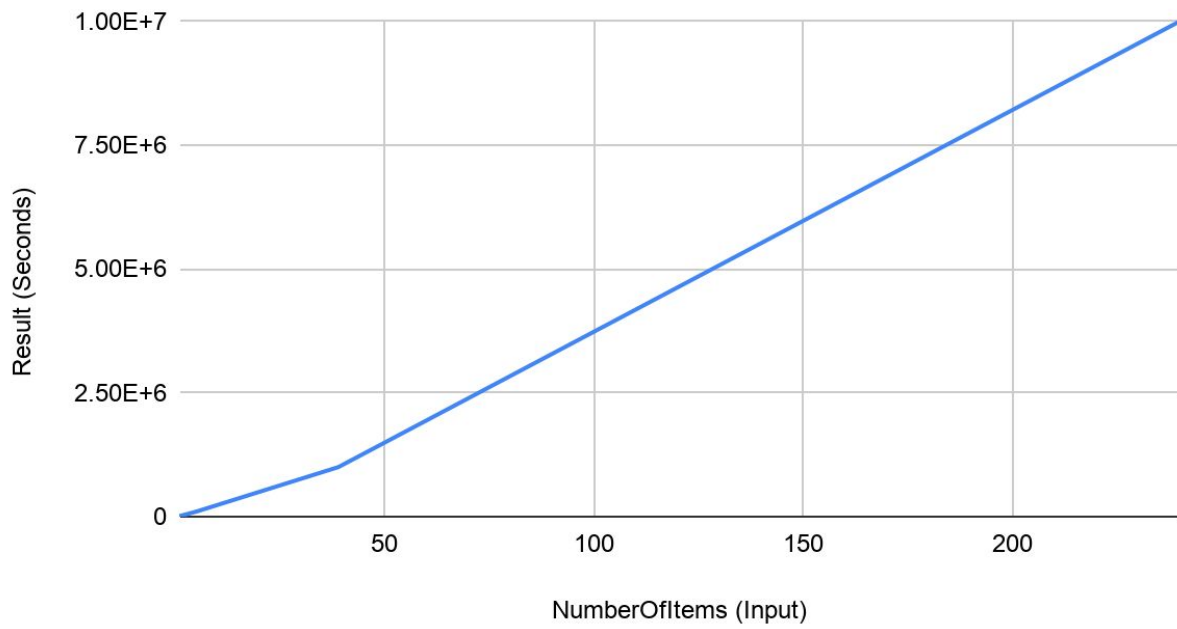
## Unit Tests



**AddAt Runtime (10000 Seed)**



**AddToBack Runtime (10000 Seed)**



AddAt	NumberOfItems	Result
1	10000000	440
2	1000000	45
3	100000	6
4	10000	1
AddToFront		
1	100	0
2	1000	2
3	10000	79
4	100000	1432
AddToBack		
1	10000	1
2	100000	5
3	1000000	39
4	10000000	240

The seed underwent tests with a constant NumberOfItems tested. The runtime did not change even when the seed was raised to a value beyond what long is capable of holding. This data has been left out of the lab.

### Required Output

There was not a required output for this lab.

### Trouble Report

Everything is working in this lab!

### References

No references were used outside of what was included within the lab document.