Tafita Rakotozandry
CS150 Lab
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Lab 8 Report

INTRODUCTION

In this lab, we created an implementation of queue and stack using a linked list. The goal of the lab was to deepen the understanding of stack and queue. The goal of this lab was also to analyze the performance of those two data structures.

Unit Tests

Every methods of queue and stack interface was unit tested in order to verify that they perform as the way they were designed for.

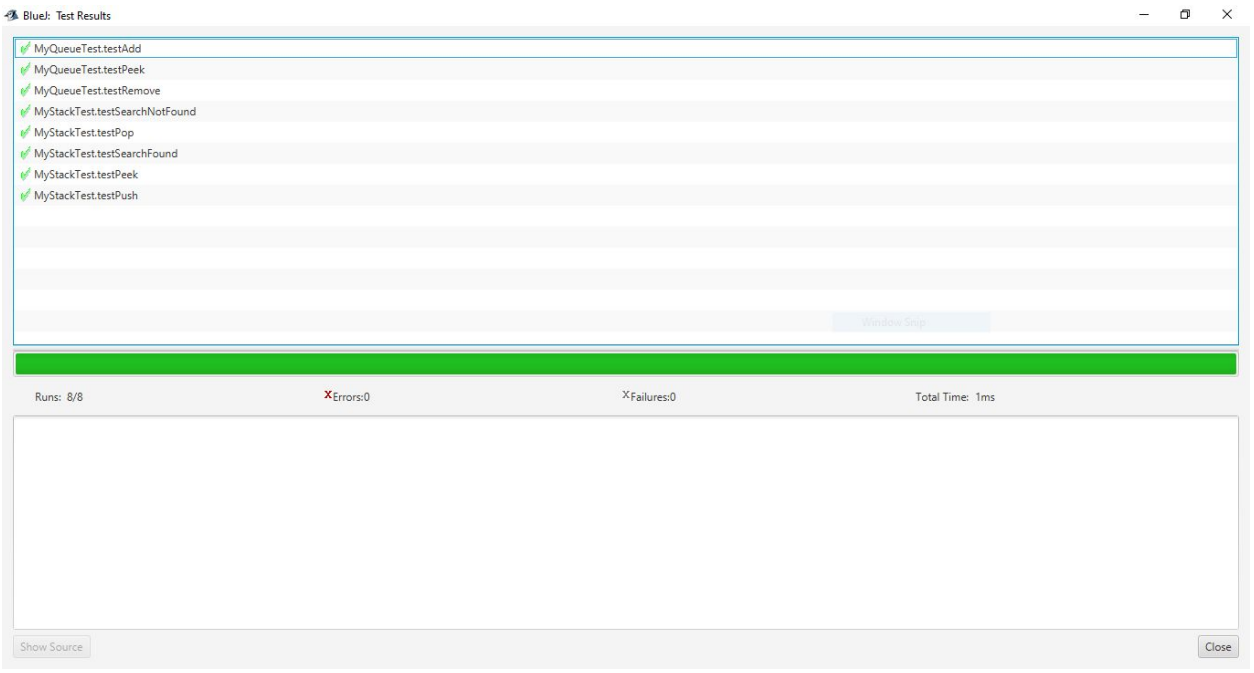

Figure 1: Screenshot Unit Testing Window

Required Output

As part of the lab assignment , we were asked to analyze the time performance of inserting an element from a stack to queue and vice versa. Based on the experiment, that I realized, they take almost the same time to perform as show in the graph below

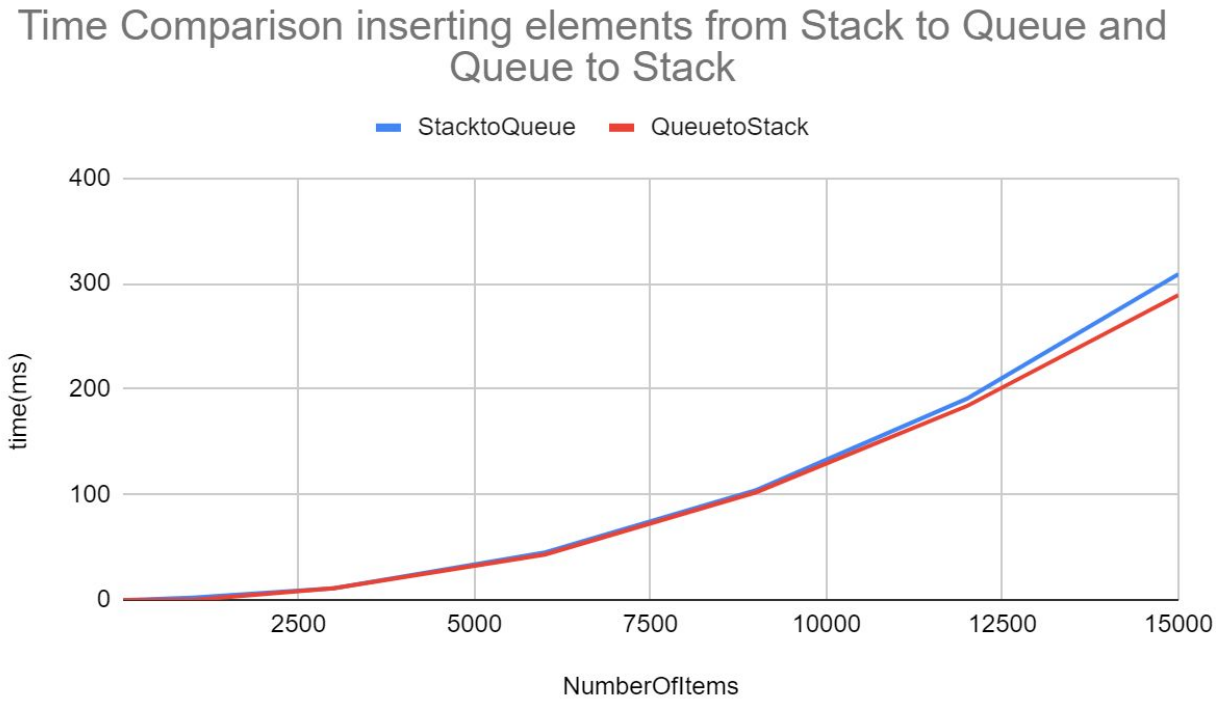

Figure 2: Output Graph

Trouble Report

I did not encounter any problem in this lab. Reusing code from the previous lab was necessary in order to not reinvent the wheel.

References

Michael Kölling (2015). Unit Testing in BlueJ https://www.bluej.org/tutorial/testing-tutorial.pdf

Weiss, M. A. (1998). Data structures and problem solving using Java. ACM SIGACT News, 29(2), 42-49.