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1. Have you worked with more than one partner yet? Remember, you are required to switch at least once this semester.

Yes, I did.

2. In the LinkedListStack class, the stack data structure is implemented using a doubly-linked list. Would it be better to use a singly-linked list instead? Defend your answer.

I think using Doubly-linked list or singly-linked list are same for stack. Because for both linkedlists, add an element to their head or remove are O(1), so that they both work for stack.

3. Would it be possible to replace the instance of DoublyLinkedList in the LinkedListStack class with an instance of Java's LinkedList? Why or why not?

Java's LinkedList is DoublyLinkedList, they are same so they both should work.

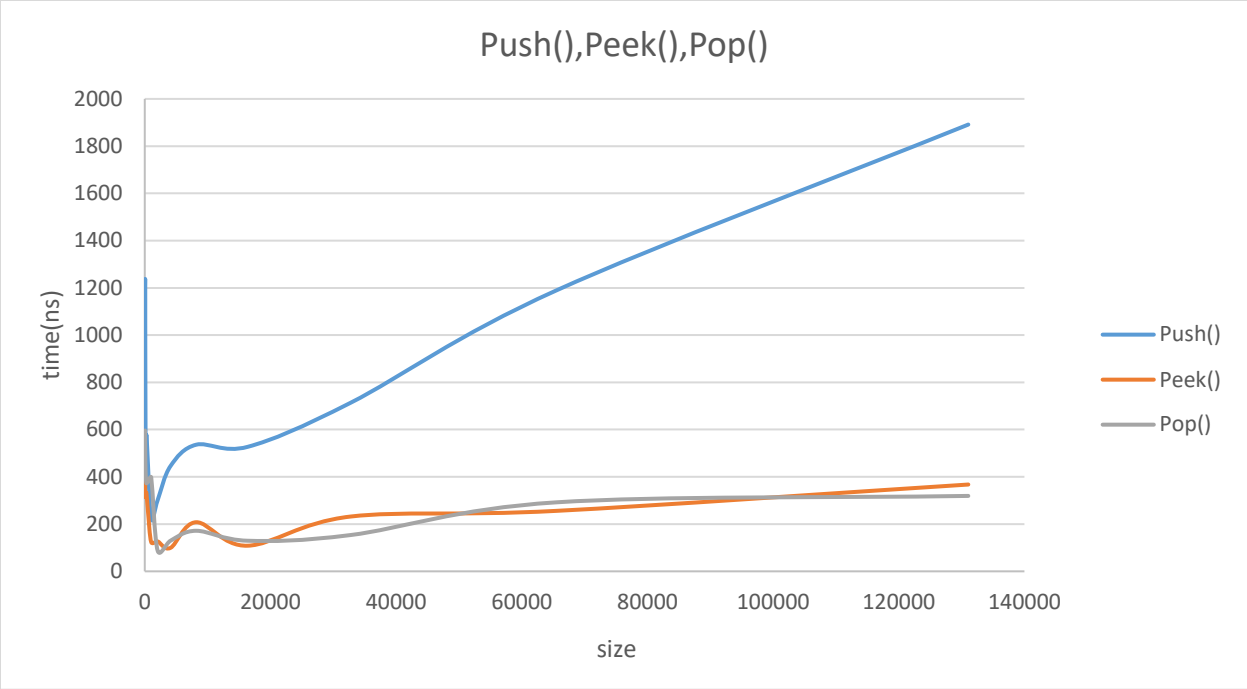
4. Comment on the efficiency of your time spent developing the LinkedListStack class.

It is very efficient to write the LinkedListStack because I can just call the method from DoublyLinkedList.

5. Note that the line and column number given by BalancedSymbolChecker indicate the location in a file where an unmatched symbol is detected (i.e., where the closing symbol is expected). Explain how you would also keep track of the line and column number of the unmatched opening symbol. For example, in Class1.java, the unmatched symbol is detected at line 6 and column 1, but the original '(' is located at line 2 and column 24.

I don't really need to track where is the original symbol because stack just push it and when I found its match symbol I pop the original symbol from stack. So that I just need to track the location of every character from the file and find the unmatched symbol and get it position then report error.

6. Collect and plot running times in order to determine if the running times of the LinkedListStack methods push, pop, and peek are O(1) as expected.



This plot show the complexity of these three method are O(1) as predicted. For push() method, it runs slower than other two methods but it is still O(1).

7. How many hours did you spend on this assignment?

7hours.