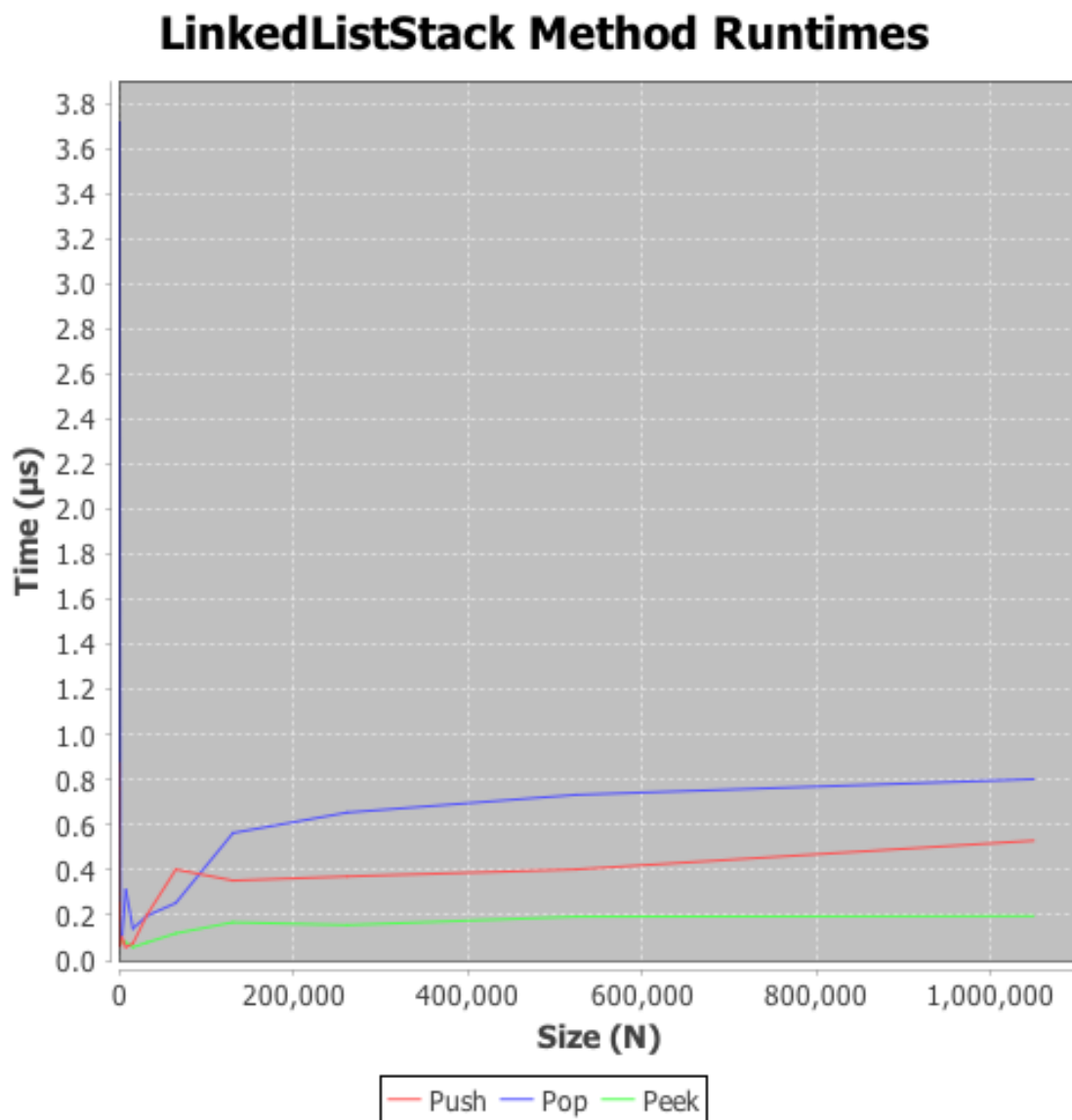


Assignment07 Analysis

1. Yes so far I have worked with two different partners this semester.
2. It would be better to use a SinglyLinkedList for the stack data structure. Only access to the first item in a list is needed for a stack structure, which can be done with either list, but a SinglyLinkedList takes less space since nodes only use one pointer for the next node instead of two pointers for the next and the previous node.
3. Yes, Java's LinkedList could replace our DoublyLinkedList. Since Java's LinkedList is a DoublyLinkedList, the performance and functionality of Java's LinkedList would be the same as our DoublyLinkedList.
4. Developing the LinkedListStack class was simple since all of the methods were just calls to methods of the DoublyLinkedList class. (It took about 3 minutes)
5. You can keep track of the line and column of the unmatched opening symbol by storing the line and column along with the symbol in the node that is pushed onto the stack. When the error message is printed you can just call the stored line, column, and symbol for the corresponding node.
6. The LinkedListStack push, pop, and peek methods are $O(1)$ as expected.



7. I spent about 4-5 hours on this assignment.