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cs2420
Assignment 3

1. My partner is Cole Wilkes. I submitted the program.

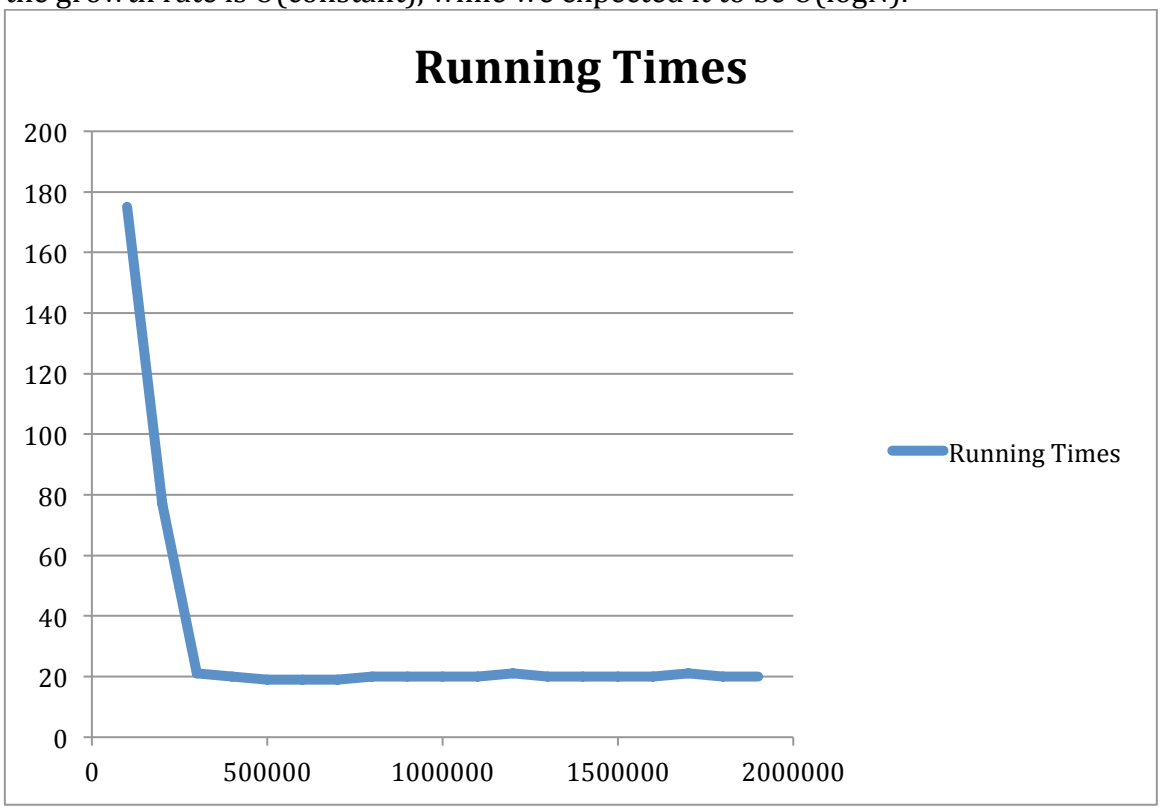
2. We switched off after every few methods, or as soon as one of us got stuck and needed to switch out. This seemed like a good amount. We always knew that we could switch in or out if we needed to.

3. I like working with Cole. He is a great programmer and made this project a priority. I will work with him in the future.

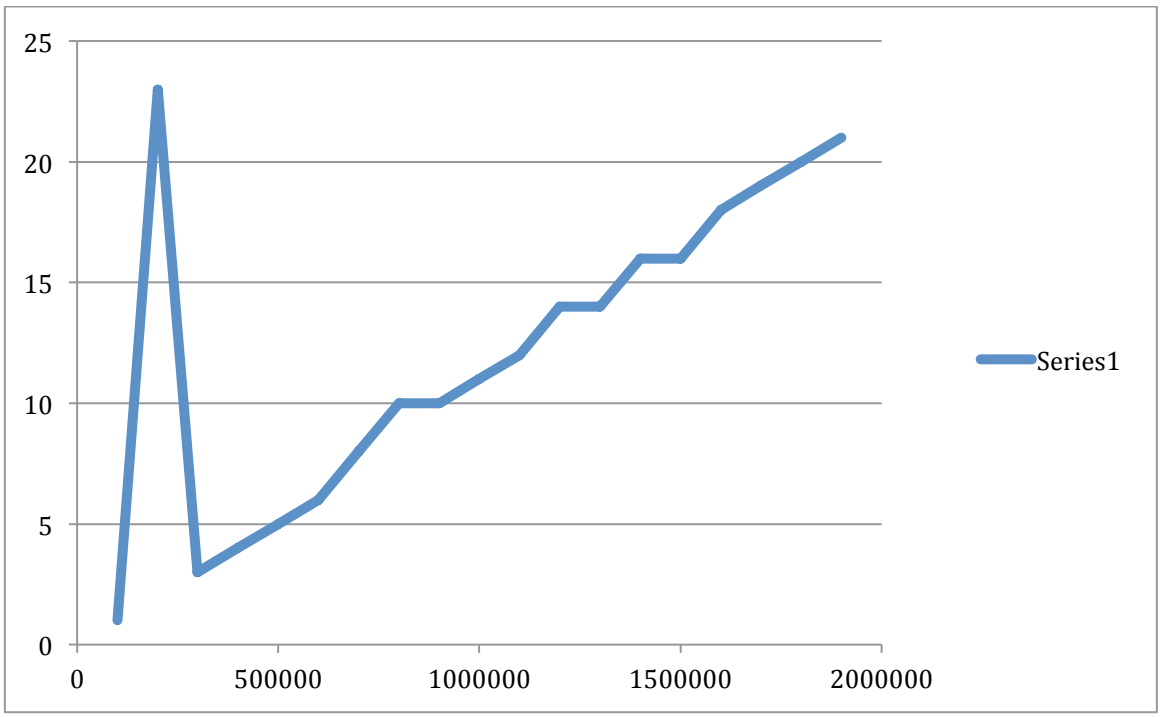
4. Program development would have been far more efficient with a Java List backing the sorted set. Many of the methods we were required to implement already exist in a Java List. However, the basic array is more efficient in running time, because we were able to program it to use binary search. A Java array assumes that its contents are not sorted, and therefore doesn't use binary search.

5. O(logN). For each object passed to the contains method, a binary search is conducted. This means a logN operation is conducted each time it is called.

6. The growth rate of our running times do not match my prediction. It appears that the growth rate is O(constant), while we expected it to be O(logN).



7. The worst case Big O notation for the add method is O(N).



8. We spent about 20 hours on this assignment.