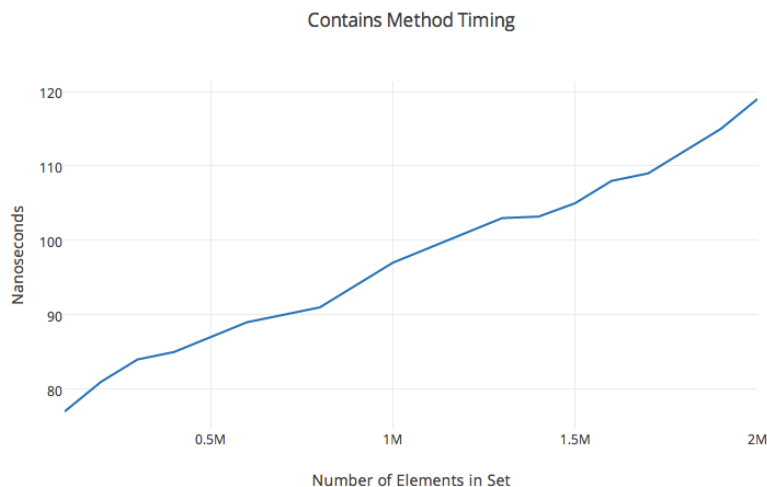Isabelle Chalhoub
Analysis Document 2
Assignment3
CS 2420
February 6, 2015

  For this assignment, my partner was Andrew Yavornitzky. Andrew was sick all week and he supposedly got us an extension on our assignment till February 6 at midnight. Due to his sickness, we were not able to start the assignment till Thursday afternoon. I worked on the assignment a lot on my own throughout the week and when we were finally able to get together; we got nowhere and if anything hindered each other's process. I stayed in the lab all night finishing the assignment. I'm not sure if he is going to submit any files but I am going to submit my code. When I tried sending him my zip file, he was never able to receive it. This makes me worried that my submission on canvas will not work so if it is empty I swear it is done! I think Andrew is fine at programming but we unfortunately do not work well together. Whenever we are together we seem to go backwards instead of forwards in progress. I do not plan on working with him again.

  I think that using a Java List would have been much more efficient and easier to implement. Java Lists allow you to index and insert items wherever you want and they also have their own iterator. Lists allow for duplicates so that would have cut the running time down while searching for copies. Programming wise it might have taken longer because I am more comfortable with arrays than lists.
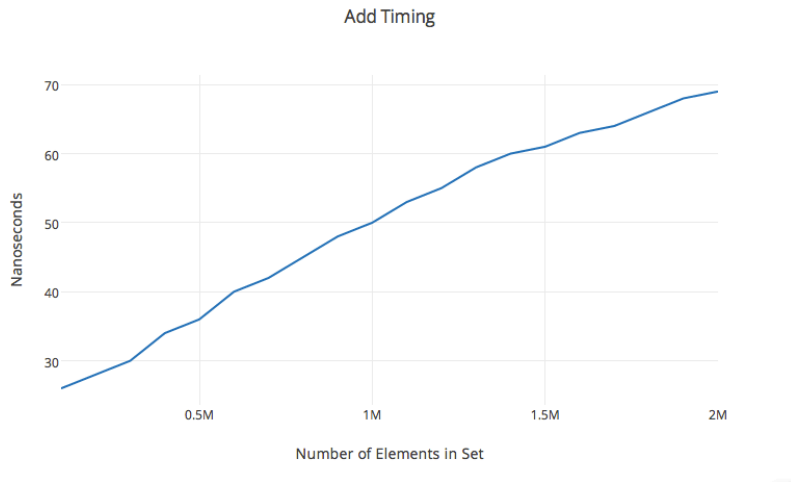
  I expect my contains method to be O(NlogN) because it is constant until it gets to the binary search which is complexity NlogN.

Timing for Contains: Slightly resembles NlogN.

For the add method, the Big O notation should be O(N) because the binary search is O(NlogN) and the shift and adding is N, N being the dominant term.

Timing for Add:

Add Timing

I probably spent about 3 hours working on the assignment with my partner and maybe 14 on my own.