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Assignment 3 Analysis

1. My programming partner is Kevin Griggs. Kevin submitted our assignment.
2. We switched roles every 30 minutes on average. I thought that was a comfortable pace for us. When one of us had an idea about how to proceed that person would be in charge and we would both try out the idea.
3. Kevin was a hard worker and he planned out his week so that we could both finish the assignment ahead of time. I will keep working with him until we have to switch partners.
4. I think we would notice a few slight changes in our implementation with a Java List. We would not have had to manually change the size of the array or keep an elementCount variable. There also would have been some Java methods already available to us, such as contains(). I believe a Java List would have made the program development time much faster but that may only be the case because I am much more familiar with them and I use the methods that are already available. I think they would be more efficient as well. I believe the arrayList capacity increases at a rate of 1.5 times which has proved to be most efficient. Our program increases at a rate of 2 times.
5. I would expect the contains method to run at a rate of O(logN). Each time the compare line returned false the amount of items to be searched was divided by 2.
6. We used the timing methods in Lab1 to compute the values in my plot. They show that the contains method has a slow logarithmic growth.
7. The add method uses the same binary search so the times show a similar plot. The worst case scenario would be logN comparisons.
8. Kevin and I spent 13 hours each on this assignment.