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Assignment 3

My programming partner was once again Ellen Brigance and I have submitted the code to through Canvas as a .zip file. We switched roles about once every hour or so. I feel like we should have switched more, but it was my fault that we did not. I can get into these modes sometimes that prevent me from wanting to change rolls once I get into the swing of things. Ellen is a good partner to have because she is always willing to contribute whatever she can and as much as she possibly can. I plan on working with her again in the future. Had we used a Java List instead of a basic array to back our sorted set, it would have been much easier for us to implement the different functions that we needed to complete. It would have also made it run differently time wise. As to how much more efficient it would have been than ours I couldn't be sure. The other thing that would have been easier is sorting our list, though this may have taken longer to do if it had taken in an unsorted list instead of sorting as it goes. I expect the java to be more efficient simply because one would thing that the developers would use the most efficient methods of sorting, adding, and finding as possible. I expect that the contains method would have a Big-O notation of log(N). I do not have tie to plot this but I expect that it is actually lager than this even thought there is only one for loop. I do not have time to plot the add function either but in my testing, the fastest that it took was about 900 nano seconds which is pretty darn fast if you ask me. In all we spent about 15 hours on this assignment, which is quite a bit.