**REPORT**

**My observations with respect to the time spent on running the Iterative and Bubble sort**

When I ran the program to sort the people of type ArrayList, with an Iterative bubble sort and a Recursive bubble sort algorithm. I noticed that the process time of the Recursive bubble sort was, 38.928 times faster in nanoseconds than the Iterative bubble sort.

**Comments based on observation regarding the runtime**

In the Iteration bubble implementation there is a Runtime of O(N2­), since there is a for loop (which contains the highest order function in the algorithm) with another for loop nested inside it. Whereas the Recursion Bubble sort implementation has only one for loop and thus has a runtime of O(N) (which is the highest order function in algorithm). Therefore the Recursive Bubble sort implementation has a lower Big-O than the Iteration implementation. And hence why, the Recursive sort implementation runs much faster.