

Did the results of your program confirm what you already knew or suspected about these sorting algorithms? How?

Yes, the results of the program did confirm some of what I already knew about these sorting algorithms. I had seen charts of the time complexities of each of these sorting algorithms, so I expected bubble sort, selection sort, and insertion sort to all be slower since they had on average $O(n^2)$ time complexities. The program did confirm to me that they were slower than other algorithms such as merge sort.

- What differences did you see between and among the slow (bubble, selection, insertion) and fast (quick, merge, merge-insertion) algorithms?

Among the slow sorting algorithms, a major difference I noticed was how much slower bubble sort was on average compared to the other sorting algorithms. Bubble sort consistently remained the slowest or one of the slowest sorting algorithms in almost all the runs. Insertion sort and selections seemed to be around the same time and were much faster than bubble sort.

Among the faster sorting algorithms, quick sort was consistently faster than both merge and merge-insertion sort. Merge sort and merge-insertion were usually very close in time but they seemed to go both and forth with which one was slower.