

Assignment 3

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In this assignment, I was given the task of implementing different sorting algorithms in C. These algorithms each individually have their own pros and cons and by collecting statistics on the comparisons and moves of each sort, Batch Sort, Heap Sort, Shell Sort, and Quick Sort. From the information provided by the graphs pictured below, I observed that Heap sort consistently has the most moves but not the most comparisons. Shell sort seems to have the most comparisons after elements are more than 10 and second most moves under the same conditions. Batch sort apparently has the least moves and comparisons regardless of elements, however I acknowledge this may be an issue with my algorithm, since I am under the idea that Quicksort should have the least. I learned that selecting a sorting algorithm is very dependent on the factors of what you're sorting, how big the array is and how many elements there are.

