

2.1.6

2022年10月26日 17:57

2.1.6 Which method runs faster for an array with all keys identical, selection sort or insertion sort?

Insertion sort, because the running time of the inner loop for an array that all items are identical is almost zero. Only one comparison will be made with the previous element and won't exchange any elements. Selection sort requires to traverse the whole array for each element, and exchange the current element with itself. Therefore, the running time is quadratic.