

Bubble & Quick Sort - time complexity

Bubble sort :-

1. If list is already sorted $O(n)$
2. average case time complexity $O(n^2)$
3. No extra space is needed in bubble sort.
4. A stable & adaptive algorithm

Quick sort :-

1. Quick sort worst case complexity $O(n^2)$
2. avg. case complexity $O(n \log n)$
3. no extra space is needed.
4. Quick sort is also known as partition exchange sort.

→ Both sorting are inplace sorting