**Merge Sort:**

1. It is Divide and conquer algorithm strategy.
2. It’s time complexity is O(nlogn) and space complexity is O(n).
3. It’s In-place algorithm that’s why TC is O(nlogn) and if will not use space

Then TC (n2) and SC (1).

1. It’s merging time complexity is O(n) because of moving data(shifting ) not comparison.

Click on link (with ctrl) [Merge Sort implementation](https://github.com/Deshraj5268/datastructure/blob/master/src/arrays/sortingsearching/MergeSort.java) :

Problems based on merge sort:

1. Merge K sorted arrays.

References:

<https://sortingalgorithms.quora.com/K-way-Merge-Algorithms>