

## # Quick Sort

- = Based on the principle of Divide and Conquer
- = An array is divided into subarrays by selecting a pivot element
- = Elements less than pivot are kept on left side and greater on the right side.
- = This process continues until each subarray contains a single element and finally the array is sorted.

## # Radix sort

sorts the elements by first grouping the individual digits of the same place. Then sorted according to their increasing/decreasing order.

# Bucketsort:- Divides unsorted array elements into small groups and each group is sorted by a suitable algorithm.

# Shell Sort: Sorts elements that are far apart from each other and successively reduces the interval between the elements.

## # Insertion Sort

Values from the unsorted array are picked and placed at the correct position in the sorted part.

## # Bubble Sort

It compares two adjacent elements and swaps them until they are not in index order.

## # Selection Sort

Selects the smallest element from an unsorted array in each iteration and places them in the beginning of unsorted list.

## # Merge Sort

Based on the principle Divide and Conquer. Divide the problem into subproblem. Solve the unsorted array recursively until solved. Combine the ~~find~~ solutions to get final solution.