SORTING IN LINEAR TIME

Counting Sort

Counting sort assumes that each of the n input elements is an integer in the range 0 to k, for some integer k.

Radix Sort

Radix sort can be used to sort data that have several fields e.g Date which has day, month and year. To use radix sort we can sort the input (a set of dates) three times first with the day, then month and finally with year.

Bucket Sort

Assumes that the input is drawn from a uniformly and independently distributed set of elements in the range [0,1). If we have an array A, let I be an index in the array, then the following is true $0 <= A[i] < 1$