

Day 5 Assignment 4 – Vivek's Class

1. Merge 2 Linked List (In Place)
2. Analyze running time for Merge Sort and Quick Sort on Linked List
3. A linked List is sorted on the basis of Absolute Values , sort it (Order N time and constant space)
4. Digits of a number are stored in a linked list, add one to it
5. Given an array with elements not in any particular order, arrange elements in the following ways ($n \log n$)
 - a. $a > b < c > d < e > f < g > h$
 - b. $a < b > c < d > e < f > g < h$
6. Even nodes of a linked list are in ascending order and odd nodes of a linked list are in descending order. Sort the linked list
7. Find the minimum difference in an array
8. Find the minimum positive difference in an array
9. Find the maximum sum of non adjacent subarrays of an array
10. Solve the above problem through recursion
11. Find the Maximum contagious sum subarray of size K each
12. Find the leader (Elements which have no greater element towards their right) in array
13. Find 2 elements whose sum is closest to zero
14. Given 2 arrays find 2 elements one in each array whose sum is k
15. Given an array, a key and k , give an $N \log N$ approach to find the first closest elements to the key
16. Union and Intersection of elements of 2 arrays with and without repetitions