Foundations & Data Structures With C++

Assignment 11(a) – Linked List

1. Implement iteratively –
    a. Bubble Sort
    b. Insertion Sort
    c. Selection Sort
2. Implement using recursion –
    a. Merge Sort
    b. Bubble Sort
    c. Insertion Sort
    d. Selection Sort
3. Arrange elements in a Linked List such that all even numbers are placed after odd numbers.
4. Delete alternate nodes in a Linked List.
5. Given a Linked List, which has nodes in alternating ascending and descending orders. Sort the list efficiently.

   For eg. Input : **10** → 40→ **53** → 30 → **67** → 12 → **89** → null
   Output : 10 → 12 → 30 → 43 → 53 → 67 → 89 → null
6. Append the last n elements of a linked list to the front.

   For e.g. Input : 1→ 2→ 3 → 4 → 5 → 6→ null and n = 2
   Output : 5→ 6→ 1→ 2→ 3 → 4 → null
7. Implement kReverse(int k) i.e. you reverse first K elements then reverse next K elements and join the linked list and so on.

   For eg. Input : 3 → 4 → 5 → 2 → 6 → 1 → 9 for kreverse(3)
   Output : 5 → 4 → 3 → 1 → 6 → 2 → 9